Abstracts of the 5th Research Forum of the European Association for Palliative Care (EAPC)

Trondheim, Norway, 28-31 May 2008

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Palliative care (PC) focus on management of patients with progressive advanced disease. The primary focus is to maintain or to improve patients' quality of life and to support the care givers. To improve symptom and maintain function within a health care system that focus on cost effectiveness is one of the many goals, also for palliative care. As far as possible, intervention and organizations should be research-evidence based. Several barriers have been identified within PC research: At the patient level, in order to optimize symptom treatment, the lack of symptom assessment of pain and other symptoms is evident. At the health care provider level the lack of training in palliative care research can be a challenge, and in many environments, scepticism to research which include fragile, old patients. National evaluations in the UK and Canada in Palliative Care Research have pointed out that palliative care is basically based upon clinical experience, most studies are small and of descriptive nature. Small groups or single researcher initiatives make a long lasting, robust research strategy difficult and fragile. Research in PC is in its infancy. European Association for Palliative Care Research Network (EAPC RN) was established in 1996, and the Palliative Care Research society in the UK became a membership organization in 1998. For the time being, a very positive development is seen in many countries, with national funded collaboratives and projects in UK, Canada, Germany, Australia, as well as at the European level. The emerging collaboration, project and support for infrastructure is promising. However there are still some barriers to solve before PC Research has reached the number of sustainable groups of a substantial size, with permanent investigators and/or hospital funding and chairs within several of the academic fields of PC. The development of both quality and quantity of the contributions to the EAPC research forum is very promising, with a steady increase from 200 abstracts in 2000 in Berlin to 532 in Trondheim in 2008 at the time of writing. We need to collaborate internationally to share knowledge, perform international studies, and improve the understanding of the complexity of palliative care at the patient, family and health care organization level among others. International, national and regional research agenda are needed. Common research language including assessment and classification need to be agreed upon. Studies need to move from small descriptive studies to intervention studies. The EAPC RN sees the potential and the need for international collaboration. The Research Network will continue to organize the bi-annual conferences, Palliative Medicine will be further prioritized as the research journal of EAPC, and the Palliative Care Research Network (EAPC RN) will continue to organize the bi-annual conferences, Palliative Medicine 2008; 22: 399–558

Opening Session
International collaboration in Palliative Care Research
Authors: Stein Kauka Palliative Medicine Unit St. Olav’s Hospital NORWAY

Palliative care on a European level. The Task Force on the Development of Palliative Care led by Carlos Centeno and David Clark has recently released the Atlas of Palliative Care in Europe, showing the progress of palliative care in many European countries. Palliative care is receiving more and more media coverage. Increasing support is also evident for palliative care research in Europe. Recently several large palliative care research collaboratives have been received grants from the 6th and 7th framework and from the European Commission’s Executive Agency for the Public Health Programme (PHEA). EPCRC; PRISMA and OPCARE will foster the collaboration between renowned research centers. They are large enough to reach critical mass, cross-fertilizing with other research areas and breeding new ideas with other researchers, and thus will lead to a steep increase in the quality and amount of palliative care research in Europe. The EAPC and its Research Network will use its communication structure and its congresses and research fora to offer a platform for communication for these research collaboratives. This should produce additional synergistic effects. Some topics are attended in several workgroups in parallel, and communication between the collaboratives may reduce redundancy. Already here in Trondheim two sessions have been dedicated to presentation of and exchange between the European collaboratives. We will continue to do so in future EAPC congresses. Next steps: the Budapest Commitments, common goals and a common language. Together with the International Association of Hospice and Palliative Care and the Word-wide Palliative Care Alliance, EAPC in close collaboration with the International Association for Hospice and Palliative Care (IAPPC) and the Worldwide Palliative Care Alliance (WPACA) has launched a campaign with a political initiative in June 2007, the Budapest Commitments. The national associations have been asked to define clear goals within a common framework, and commit themselves to reach these goals in the next two years. The framework covers five domains: access to medication, policy, education, quality and research, allowing the national associations to focus on those domains they find most suitable in relation to the state of development of palliative care in their country. With this campaign synergistic energies will be raised, with additional motivation from the collaboration with other national associations and using other associations projects and methods as examples for one’s own project. The campaign will receive continuous support from an EAPC Task Force on National Associations, chaired by David Praill. First results from the Budapest Commitments will be presented at the EAPC Congress in Vienna in 2009. As a second important step, supporting and extending the Budapest Commitments and in response to the criticism on the lack of a common language in European palliative care EAPC will produce European norms on palliative care. EAPC has given a remit for a white paper on norms, providing guidance and recommendations for service providers, stakeholders and decision makers. EAPC will develop these norms in close collaboration with the national associations. Expectations.
3 Invited Lecture

**Plenary Session 1**

**Translational pain research – From molecular biology to the clinic**

Authors: Frank Skorpen Head of Molecular Biology Section of Pain and Palliation Research Group, Faculty of Medicine, Norwegian University of Science and Technology NORWAY

The aim of this lecture is to give an overview of the current evidence for a relationship between polymorphisms in human genes and variability in opioid analgesia and side effects among patients treated for moderate or severe pain. Participants will learn how new knowledge from molecular biology and genetics can help us understand how the individual's genotype affects the outcome of opioid treatment. They will also learn about challenges and opportunities for genetic research in palliative care, and what have to be overcome before “genetic profiling” can be used as a supplementary tool for decision-making in the treatment of severe pain. Control of pain and related symptoms is paramount to clinical success in caring for patients with advanced cancer and other terminal illnesses. Opioids are the mainstay of therapy for moderate to severe cancer pain at the end of life, with oral morphine being recommended by the World Health Organization and the European Association for Palliative Care as the conventional opioid of choice. However, in spite of expert recommendations, careful dose escalation and “optimization” of the management regime, successful opioid treatment is not attained in a substantial minority of patients. Unpleasant side effects are usually inevitable, and although side effects may be controllable, they can not easily be predicted. The integration of molecular genetics approaches into the study of complex health phenomena is an increasingly important and available strategy for researchers across the health science disciplines. In recent years, research investigating the relationship between the genetic variability among individuals and susceptibility to disease, clinical symptoms or treatment responses has grown exponentially. With an estimated number of at least ten millions, single nucleotide polymorphisms (SNPs) account for about 90% of all molecular differences in the human DNA sequence. Although many SNPs have no effect on cell function, others can have a major impact on how humans respond to disease, environmental exposures, drugs and other therapies, including sensitivity to opioid therapy. For example, polymorphisms in the µ-opioid receptor gene (OPRM1) are primary candidate sources of clinical variability in opioid therapy. Powerful analytical tools now make it possible to screen patients for their allelic status at very high resolution. However, for genetic information to be clinically useful, the genotype to phenotype correlations need to be based on properly measured and well defined end points. The lack of international standards for the assessment of subjective symptoms and classification of patients stands out as a major obstacle for the translation of genetic research into real opioid therapy improvements in palliative care.

5 Plenary presentation

**Plenary Session 1**

**Use of advance directives in dementia: the patient's perspective**

Authors: Marike E. de Boer Department of Nursing Home Medicine Institute for Research in Extramural Medicine NETHERLANDS

Cees Jonker Institute for Research in Extramural Medicine, VU University Medical Centre Amsterdam NETHERLANDS

Rose-Marie Dröes Department of Psychiatry/Alzheimer Centre, VU University Medical Centre Amsterdam NETHERLANDS

Cees M.P. M. Hertogh Institute for Research in Extramural Medicine, VU University Medical Centre Amsterdam NETHERLANDS

Jan A. Eefting Institute for Research in Extramural Medicine, VU University Medical Centre Amsterdam NETHERLANDS

Background: Advance directives enable people to manage their future by expressing their wishes with regard to (end-of-life) care. It is generally assumed that, if diagnosed in the early stages, people with dementia still have the necessary capacities to write an advance directive. However, it is never explored what people with (early) dementia think and expect of the future and what their views are on advance care planning. Methods: In depth interviews among elderly people with early stage Alzheimer’s disease (AD) (n=24) and additional interviews with partners/proxies (n=24) were carried out and analysed, following the principles of grounded theory. Results: Results show that most elderly people with (early) AD tend to live by the day and refrain from thinking about the future. Only a few mention that disclosure of the diagnosis and information on advance directives, causes them to start thinking about the future and advance care planning. Those that already had an advance directive prior to the diagnosis are often not aware of the existence of the document and its content, which makes it difficult to elicit their views. Conclusions: Our findings raise questions regarding the relevance given to advance directives by people with early AD. If advance directives are considered of importance for people with dementia to exercise their right to self-determination with regard to advance care planning their
agreement between terminal cancer patients and their caregivers reported palliative outcomes: the role of caregiving burden

Authors: Gao Wei Palliative Care, Policy & Rehabilitation King's College London UNITED KINGDOM
Irene Higginson Department of Palliative Care, Policy and Rehabilitation, King's College London London UNITED KINGDOM

Background: Clinicians and researchers often have to rely on their caregivers to assess terminal cancer patients. This study aims to understand the role of caregiving burden in the agreement of patient-caregiver outcomes.

Methods: A total of 69 terminal cancer patient and informal caregiver dyads were recruited from regional palliative care services and interviewed. Patients’ outcomes were assessed with both the patient and the caregiver version of the palliative outcome scales (POS); caregiving burden data were collected with the Zarit Burden Inventory (ZBI). The role of caregiving burden in the POS agreement were studied with main effect and interaction effect models of logistic regression controlling for potential confounders; adjusted odds ratios were estimated from the models.

Results: The disagreement for four POS item ratings was significantly associated with higher caregiving burden: “feeling anxious” with higher total ZBI (OR: 5.91; 95%CI: 1.95 to 17.88) and higher role ZBI (OR: 3.32; 95%CI: 1.11 to 9.94); “share feeling” with higher personal ZBI (OR: 3.75; 95%CI: 1.10 to 12.76); “life worthwhile” with higher total ZBI (OR: 3.82; 95%CI: 1.31 to 11.16) and higher personal ZBI (OR: 5.61; 95%CI: 1.87 to 16.79); “feel good” with higher total ZBI (OR: 4.65; 95%CI: 1.32 to 12.46). There were interaction effects between caregiving burden and caregiver’s age and the relationship to the patient.

Conclusions: Caregiver burden plays a certain role in their assessment. We may need to adjust for differences and disagreement when using caregiver assessment as a proxy for patient’s concerns.
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Markus Blankenburg Vodafone Foundation Institute for Children's Pain Therapy and Paediatric Palliative Care Datteln GERMANY
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Joanne Wolfe Department of Pediatric Oncology, Dana Faber Cancer Institute and Children's Hospital, Boston, U. STATES
Tanja Hechler Vodafone Foundation Institute for Children's Pain Therapy and Paediatric Palliative Care Datteln GERMANY

Background: The purpose of the present study was to investigate bereaved parents' perspective on four essential areas: 1) characteristics of the child's death, 2) anticipation of their child's death and care delivery, 3) end-of-life decisions and 4) impact of the child’s death on the parents and perceived social support by the healthcare team. Methods: Cross-sectional observational study. Parents of 48 children (31 boys, 17 girls), who died due to cancer were interviewed on average 47 months after the child's death utilising a validated semi-structured interview. Results: 48% of the children died at home even though 88% of the parents chose 'at home' as the most appropriate locale of death in hindsight. Parents anticipated their child's death on average 9 weeks prior to the child's death. When asked how they anticipated their child’s death 48% reported through a discussion with the health care team. 41% of the parents provided palliative home care for their child and the majority (88%) rated the quality of care as good or very good. 64% discussed end-of-life decisions with the healthcare team, 36% did not have a discussion. Parents were clearly affected by their child's death. However, 15% of the parents were not contacted by the health care team following the child's death. Conclusions: Parents' perspective on their child's death and related end-of-life decisions highlighted the importance of communication between parents and the healthcare team. Future studies need to investigate potential barriers in the communication between parents and the team to optimise end-of-life decisions and hence, reduce parents' long-term distress. In line with the previous, the present data demonstrated that there is still a lack of routine contact from the health care team following the child’s death despite existing guidelines. Research is therefore needed into the implementation of guidelines for routine contact into clinical practice following a child’s death.

10 Oral Presentation
Family and Children
Evaluation of a psycho-educational group program for family carers in home based palliative care
Authors: Peter Hudson Centre for Palliative Care Education & Research St Vincent's & The University of Melbourne AUSTRALIA
John Fisher Grampians Regional Palliative Care Victoria AUSTRALIA
Karen Quinn Centre for Palliative Care Education & Research, St Vincent's & The University of Melbourne Victoria AUSTRALIA
Linda Kristjanson Curtin University of Technology Western Australia AUSTRALIA
Maxine Braithwaite Caritas Christi Hospice, St Vincent's Hospital Melbourne Victoria AUSTRALIA
Kristina Thomas Centre for Palliative Care Education & Research, St Vincent's & The University of Melbourne Victoria AUSTRALIA

Background: Family carers are often responsible for providing significant support to relatives who require palliative care at home. However, evidence suggests family carers have limited information, resources or evidence based support to prepare them for such a role. Furthermore, family caregiving can be associated with negative physical, financial and psychosocial outcomes. This project sought to examine the utility of a group family carer psycho-educational program focused on preparing primary family carers for the role of supporting a relative with advanced cancer at home. Methods: The education program (based on our published pilot work) consisted of three consecutive weekly sessions presented in a group format, conducted at six home based palliative care services in Australia. Participating carers were required to complete a set of self-report questionnaires measuring carer competence, preparedness, optimism, rewards, social support, burden and information needs, at three time points: commencement of the program (T1), upon completion (T2), two weeks later (T3). Carers were also asked to report on the relevance, accessibility, acceptability, and content of the program. Repeated measures ANOVAs were utilised for the analysis. Results: Twelve programs were conducted, with 74 carers attending the first session. Forty-four carers completed all three data collection sets. Following the intervention, a significant positive effect was found for the following outcomes: preparedness for the caring role, caregiving competence, caregiving rewards, and having information needs met from T1 to T2. These improvements were maintained at follow-up (T3). Feedback on the individual sessions and entire program was favorable. Conclusions: This study demonstrated that a group education program to prepare family carers for the role of supporting a dying relative at home was accessible, applicable and effective.

11 Oral Presentation
Family and Children
A meta-ethnographic study of informal caregivers’ perceptions of caring for a loved one or dependant with advanced cancer at home
Authors: Mandy Stratford Community Specialist Palliative Care Arthur Rank House UNITED KINGDOM
Jonathan Koffman King's College London School of Medicine London UNITED KINGDOM

Background: Previous studies of caring for dependants or loved-ones with advanced cancer at home have been limited to cross-sectional descriptive studies. Although few qualitative studies have been conducted, they do provide a deeper insight into this experience. Aims: To conduct a meta-ethnographic review of qualitative studies that explored the informal caregivers’ perception of caring for a ‘loved one’ or dependant with advanced cancer at home. Methods: Review guided by method developed by Noblit and Hare. Inclusion criteria include studies published between Oct 99 and Oct 04. Synthesis of data involved a 7 step process which translated and synthesised key themes, concepts and metaphors from studies to create new theory. Results: Systematic literature review identified 12 possible studies for inclusion. Following application of quality assessment 5 studies were selected. The following key concepts were identified: (i) ‘Work of caring’ which included the provision of physical, psychological, social and spiritual aspects of care and its impact carers’ own well-being; (ii) ‘Relationships’ that existed between carer and dependant and how they changed; (iii) ‘Informal support’ the meaning of practical, emotional and social support caregivers; (iv) ‘Formal support’ the roles of services in assisting caregivers and the challenges of accessing appropriate and timely care; and (v) ‘Finding meaning’ caregivers perception of finding meaning in the role that included reciprocality, love and achievement. Conclusions: The emphasis of dying at home is now being promoted by statutory and voluntary sector organisations, but little attention is placed on the roles of informal caregiving that make this possible. The results of this meta-ethnography show that caregiving is multi-dimensional experience that exacts costs of those involved. Services should invest more in this underserved and under-research population group.

12 Invited Lecture
Divide et impera: by joint forces and disciplines alleviate suffering from cachexia
Assessment and classification of cachexia: any promise for innovative clinical trial design?
Authors: Vickie Baracos Department of Oncology, Division of Palliative Medicine Cross Cancer Institute, University of Alberta CANADA
We conducted population-based profiling of weight, weight loss history in a cohort (n=2500) of patients with advanced stages of cancer cancers of the respiratory and gastrointestinal tracts. Patients were newly referred to either medical oncology clinics in a regional cancer centre or a palliative home care service. A computerized database of all cancer cases in the province (Cancer Registry) was used to capture site, morphology, along with biological, clinical and demographic information. Computerized tomography (CT) imaging has proven to be accurate for estimating human body composition, and analyses of muscle composition were conducted through secondary analysis of electronically stored CT images, which had been taken within 30 days of referral, for diagnostic purposes. Analysis of body mass index reveals an average BMI of above 26 kg/m² and a preponderance of overweight and obese patients, with only 5% presenting with a BMI <18.5 kg/m². The average BMI of patients within 3 months of death, was 24 kg/m². A history of weight loss was common, with an average loss of 8.6±8.9% lost. The population quartiles of 6 month weight loss were →19.3%, -10.6%, -4.5% and +2.4%. However, owing to the robust body weights, many patients remained obese or overweight in spite of considerable weight loss. These data appear to reflect the generally heavier body weights in Westernized countries. Overall 16% were obese at presentation and based on the weight history, 25% had been obese in the 6 months preceding the referral. In spite of sometimes considerable weight loss, the classical image of cachexia, emaciation, is relatively rare. Total appendicular skeletal muscle mass was estimated in a subset of patients (n=801), from muscle cross-sectional areas measured on single CT images at the 3rd lumbar vertebra. Muscle depletion (sarcopenia) was defined using cut off points and based on the weight history, 25% had been obese in the 6 months preceding the referral. In spite of sometimes considerable weight loss, the classical image of cachexia, emaciation, is relatively rare. Total appendicular skeletal muscle mass was estimated in a subset of patients (n=801), from muscle cross-sectional areas measured on single CT images at the 3rd lumbar vertebra. Muscle depletion (sarcopenia) was defined using cut off points equivalent to >2 SD below values for healthy adults (3.45 kg/m² for women and 7.26 kg/m² for men) as described by Baumgartner et al. (Am J Epidemiol. 1998;147(6):755–63). This analysis revealed an overall prevalence of sarcopenia of 49%, which ranged from 20% in obese patients, to 95% in patients with BMI 18.5 < kg/m². Sarcopenia was strongly associated with decreased median survival and this was evident even in the highest BMI strata; sarcopenic obese patients had a higher incidence of functional impairment (p=0.012) and shorter median survival (16.4 vs. 21.9 months; p=0.041) compared to non-sarcopenic obese patients. These observations suggest a need to recognize cachexia. Substantial depletion of the skeletal muscle is a widespread abnormality of body composition in patients with advanced solid tumors, which can be present in persons at any BMI and is strongly related to outcome. Anti-cachexia therapy should be targeted to specifically to muscle repletion. Valid approaches for the determination of muscularity are required to evaluate this feature in cancer patients and the secondary analysis of CT images is an accessible means of making this evaluation. Inclusion criteria and outcome measures in clinical cachexia research that are based on body weight or weight loss alone, will have limited utility in identifying patients at risk.

13 Invited Lecture

Divide et impera: by joint forces and disciplines alleviate suffering from cachexia

The (emerging) role of biological – genetic markers to predict the cachabolic drive of cancer and anticancer drugs. EPCR C data and further developments

Authors: Kenneth Fearon The University of Edinburgh – Royal Infirmary Clinical and Surgical Sciences (Surgery) UNITED KINGDOM representing the EPCRC

Based on current knowledge of demographic and clinical factors, it is not possible to predict, for any given cohort of patients, who will develop cancer cachexia and who will not. It is also not possible to predict accurately who will develop cachexia quickly versus those who may develop the syndrome at a slower pace. Such variation may, in part, be due to the patient’s genotype rather than the tumour phenotype. The case to support a genetic predisposition to cachexia is strengthened from the known genetic contribution to the activity of a variety of key mechanisms that underlie the cachexia syndrome (e.g. systemic inflammation). Recent studies have linked several specific single nucleotide polymorphisms (SNPs) in pro-inflammatory cytokine genes to the presence of systemic inflammation and shortened survival in patients with advanced cancer. There is also preliminary evidence of a direct link between such SNPs and weight loss in cancer. So far, we have identified 130 polymorphisms of candidate genes that may contribute to the development of cancer cachexia. The challenge for future studies is to develop robust phenotyping of those either prone or resistant to cachexia and to explore the potential link with such candidate genes.

14 Invited Lecture

Divide et impera: by joint forces and disciplines alleviate suffering from cachexia

Palliative care specific issues in cachexia research and management: do we have guidelines to offer?

Presenting author of different from first author:
Authors: Florian Strasser Oncology and Palliative Medicine Dept. Internal Medicine, Cantonal Hospital SWITZERLAND representing the EPCRC

Cachexia is defined as involuntary weight loss and several characteristics present in most, but not all patients, including muscle loss, decreased muscle strength, loss of appetite, early satiety, chemosensory changes, and cachabolic drive (inflammation, tumor, other causes). Current consensus processes tackle definition, assessment, classification, clinical practice schemes, and standards for clinical trials designs and outcome measures. Guidelines developed without a focus on the palliative care population, patients with advancing, incurable illnesses and their family members, may not change and guide clinical practice and research. Typical aspects of palliative care – relevant for cachexia – include the a) multidimensional aspects of suffering, b) the unity of care involving families in care concepts, c) goal-, and suffering-directed (not disease-directed) diagnostic and therapeutic concepts, d) fluctuating trajectories of illness, e) limited life time implicating concurrent priorities until death and likelihood to reach “nutritional” goals, f) specific, symptoms and complications impacting nutrition, g) eating-related suffering of patients and family members, and h) delivery of care by multi-professional teams in various care settings. For clinical intervention (pharmacological, counseling, physical activity, etc.) trials, standards for multi-dimensional assessments and interventions for symptom control, priority-oriented goal decisions, nutritional counseling, physical activity, co-medications, and disease-modifying treatments need to be tailored to the palliative care context. Guidelines are expected to be developed in the same population as they are aimed for to guide practice and research, or at least having an expressed strategy of the adaptation process and validation, acknowledging cultural, language, education, and resource varieties. Availability of cachexia guidelines for palliative care is scarce, demanding coordinated activities.

15 Oral Presentation

End of life care and quality of death

Evolving perspectives during the end stage of the cancer disease trajectory: serial interviews with advanced cancer patients from their referral to palliative care services to death

Authors: Katharine Thompson Palliative Medicine Rotation South East Scotland UNITED KINGDOM Marie T Fallon University of Edinburgh Edinburgh UNITED KINGDOM Scott A Murray University of Edinburgh Edinburgh UNITED KINGDOM

Background: End of life research presents numerous, well-documented challenges. Serial interviews may be advantageous in capturing changing perspectives over time, giving a detailed and contextualised account of the dynamic experience of illness. Aims: To understand the evolution of patients perspectives in relation to distress over the end stages of the cancer disease trajectory. Methods: Longitudinal qualitative study using serial in-depth interviews with advanced cancer patients at the end of life. A purposive sample of 20 patients with a prognosis of less than 6 months was taken from a
larger study of 100 patients newly referred to a hospice community palliative care service in Central Scotland. A grounded theory and narrative approach was taken to analysis. Results: Key themes were physical (debility, dependence and expectations); psychological (understanding, uncertainty and vulnerability); social (communication and family) and spiritual (faith, reflection and hope). The unifying theme was control. Over the time from referral to death, patients’ perspectives evolved in a positive direction: Patients adapted and became reconciled to death. Despite this positive trend, all of the patients suffered transient negative episodes related to acute, unpredictable exacerbations of distress in any one of the physical, psychological, social or spiritual domains. The distress was induced by a sudden change in circumstances inconsistent with the established and familiar pattern of change. Conclusions: For patients with advanced cancer, perspectives on illness relate to physical, psychological, social and spiritual factors. The fundamental issue is control maintenance. Patients appear to become reconciled to death, facing it positively, despite experiencing periodic, unpredictable, acute exacerbations of distress. These episodes, which occurred throughout the final journey, reflected the transient loss of control associated with unexpec- ted change. The process of adaptation continued once control was regained.

16 Oral Presentation
End of life care and quality of death
How effective is the control of and communication about agitation and distress in the last 48 hours of life?
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Background: The prevalence of end of life sedation appears to be increasing. There is insufficient evidence about effectiveness of medication and communication with patients/families. Aims: Relate sedative dose titration and drug review to effectiveness of relief of agitation in the last 48 hours of life. Identify areas for improvement. Methods: Retrospective case-note review of last 48 hours of life of 100 consecutive hospice deaths. Results: 99 evaluable patients. Median age 73 years (range 33–93). 49 males. 90 had cancer. 69/99 (69%) patients were agitated at some time in the last 48 hours of life. 117/273 (43%) stat doses were recorded as effective. 46/115 (40%) stat doses of seda- tive at 48–24 hours pre death and 76/158 (48%) in the last 24 hours were given simultaneously with another drug, usually analgesia. The median num- ber of stat doses per patient was 2 (range 1–10) at 48–24 hours and 2 (range 1–9) in the last 24 hours. 29/99 (29%) required 3 or more stat doses in the last 48 hours. 57/99 (58%) patients received continuous infusions of sedatives in the last 48 hours of life, of whom 22/57 (39%) had an increase or change in the last 24 hours and 11/57 (19%) required combinations of sedatives. Midazolam was the most frequently used drug for both continuous (median 20mg; range 5–100mg) and stat use (median 2.5mg; range 1.25–20mg), followed by levomepromazine (median continuous dose 25mg; range 6.25–250mg, median stat dose 12.5mg; range 6.25–50mg). 3 patients required phenobarbital. There were discussions about sedation with families in 30/68 (44%) cases. Conclusions: Agitation was common in the last 48 hours of life, sometimes intermittently. Documentation of communication and drug effectiveness could be improved. Doses were similar to previous studies. Issues for further investigation include co-administration of sedatives and analgesics, dose titration of stat and continuous doses and the use of sedative drugs in combination for more resistant agitation.

17 Oral Presentation
End of life care and quality of death
Palliative Care in Dutch Nursing Homes: Dying with Dignity?
Authors: Luc Deliens Dept. of Social Med. Vrije Universiteit Amsterdam-WUMC CANADA

Dr. H Brandt VU Free University Medical Center Amsterdam NETHERLANDS
Miel W Ribbe VU Free University Medical Center Amsterdam NETHERLANDS

Background: Nursing homes (NHs) are less well studied than hospices or hospitals regarding palliative care. For palliative care information is needed about the patients, symptoms, direct causes and underlying dis- eases, and incidence of terminal ill NH patients. Methods: Prospective observational cohort study in 16 NHs in the Netherlands. All long-term care patients assessed by an NH physician to have a life expectancy of 6 weeks or less were enrolled (n=516). The symptoms-and-signs list was constructed from the MDS-RAI2.0. The validated Dutch Classification of Diseases for Nursing Home Medicine (CvZ-V)16 was used for registration of the direct cause of the terminal phase and the underlying disease. Results: The terminal disease phase was marked with symptoms of low fluid and food intake, general weakness, and respiratory problems or dyspnea. Patients were frequently in a state of somnolence and experienced recurrent fever. Direct causes of these conditions were diseases of the respira- tory system and general disorders. The 2 main underlying diseases of the terminal phase were mental disorders (dementia) and circulatory diseases. For both groups, symptoms of (very) little/no fluid intake, gener- alized weakness, somnolence and cachexia/anorexia were common. For patients with mental disorders (mainly dementia) the beginning of the ter- minal phase was marked with problems of nutritional intake, and recurrent fever. In the circulatory group, this beginning was mostly the presence of respiratory problems and/or dyspnea. Cancer was the underlying disease in only 12% of the patients, showing a different pattern of symptoms com- pared to residents without cancer. Conclusions: A wide variety of burden- some signs and symptoms are seen in the terminal phase of nursing home patients with fluid and food intake-problems, general weakness, and dyspnea, as the most important. For patients without cancer in Dutch NHs, the terminal disease phase is difficult to predict, and once diagnosed, patient survival time is short.

18 Oral Presentation
End of life care and quality of death
Care for patients in the last three months of life: findings from the nationwide SENTI-MELC study in Belgium
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Luc Deliens Vrije Universiteit Brussel, End-of-Life Care Research Group Brussels BELGIUM

Background: The WHO has identified palliative care as an issue of great clinical and public health importance. However, data describing end-of-life care on a societal or population-based level are lacking. This is the first nationwide study to measure end-of-life care in a representative sample of dying persons, in terms of involvement of caregivers, access to specialist palliative care, treatment goals, and physical-psychosocial-spiritual compo- nents of care. Methods: We performed a one-year nationwide mortality follow-back study in 2005, Belgium. Data were collected within the Sentinel Network Monitoring End-of-Life Care (SENTI-MELC) study. All 205 gen- eral practitioners within the Sentinel Network of GPs, an existing epidemi- ological surveillance system representative of all Belgian GPs, reported weekly on the final three months of life of every patient in their practice who died non-suddenly. Results: We studied 892 deaths. GPs, nurses/geriatric
carers and informal carers were often involved in end-of-life care in respectively 76%, 78% and 75% of cases. Specialist multidisciplinary palliative care services were provided in 41% of cases. Two-three months before death, a palliative treatment goal was in place for 37% of patients, increasing to 81% in the last week of life (p<.001). Two-three months before death, physical, psychosocial and spiritual care was provided to a (very) large extent to respectively 84%, 36% and 10% of patients. This increased to respectively 90%, 54% and 25% in the last week of life (p<.001).

Conclusions: In Belgium, most dying patients have both formal and informal caregivers. Provision of specialist palliative care is far less frequent. A transition from cure to palliation often occurs late in the dying process and sometimes not at all. Psychosocial and spiritual care are delivered considerably less frequently than physical care. Institute for Promotion of Innovation by Science and Technology Flanders (SBO-IWT 05/158).

19 Oral Presentation

End of life care and quality of death
Significant improvement in quality of life of patients with incurable cancer after designation to a palliative homecare team

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Background: Palliative care teams provide palliation through different interventions and the main goal is to provide best possible quality of life (QOL) to patients and their families. The aims of this study were to describe and compare QOL before and after designation to a palliative homecare team in patients with different incurable cancer diagnoses and to identify pre-designation predictors of post-designation global QOL. Methods: Every eligible patient referred to the team were included and identified once a week. Patients who were aware of diagnosis and prognosis, aged 18 years or older, spoke the language of this particularly country, ability to complete questionnaires independently, cared for in their private homes were included. Patients’ QOL was measured one week before and two weeks after designation to the team with the Assessment of Quality of life at the End of Life. Descriptive statistics, Wilcoxon Signed Rank Test, Spearman’s Rank Order Correlation and logistic regression analysis was used. Results: Patients’ QOL improved in the physical, psychological, medical and global areas. Six items significantly improved: hours recumbent during the day (p=0.009), nausea (p=0.008), anxiety (p=0.007), getting hold of staff (p=0.001), received care (p=0.003) and global QOL (p=0.025). Depression/low in mood (r=0.55) and meaningfulness (r=0.70) associated to global QOL. Furthermore, pain (p=0.028) and meaningfulness (p=0.028) predicted global QOL. Conclusions: The present study showed that it is feasible to carry out a questionnaire-based study of QOL in end-stage cancer patients and still achieve relatively complete data. Our results that pain and meaningfulness were significant predictors of global QOL may serve as guidance for palliative homecare staff in the future when planning care for these patients. If patients are treated for and free of physical pain, they might be better able to focus on existential issues, such as meaningfulness in daily life. It is important to further explore how meaningfulness is associated to and predicts global QOL.

20 Oral Presentation

End of life care and quality of death Are religious and spiritual needs being met in the last hours and days of life?

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Conclusions: Evaluating Care & Health Outcomes for the Dying (ECHO-D) is a 94 item postal self-completion questionnaire, assessing bereaved relatives’ views about the ‘quality of dying’ for patients and their families. Aims: 1) to compare bereaved relatives’ views about whether religious and spiritual needs were met in hospice and hospital settings 2) to compare the views of bereaved relatives in a hospital setting whose relatives had been on the Liverpool Care of the Dying Pathway (LCP) with those who had not. Methods: Next-of-kin to 778 patients who had died from cancer in a hospice or hospital during a 20 month period were identified and asked to complete ECHO-D. Following exclusions (n = 53), 255 next-of-kin agreed to participate (35.2% response rate; hospice n=109; hospital n = 146). All hospice patients and 78 (53.4%) of hospital patients had been cared for on the LCP. Results: 55.1% of hospice participants reported that overall religious and spiritual needs of the patient were met versus 21.3% of hospital participants (p<0.0005). 35.8 % of hospice participants reported their own needs were met versus 14.4% of hospital participants (p<0.0005). A large proportion of participants in both settings, however, weren’t asked about their own religious or spiritual beliefs (hospice 56.0%, hospital 78.1%). Within the hospital group, those on and not on the LCP were compared (H+LCP versus H–LCP). Twenty-five (32.5%) H+LCP participants thought the patients’ religious and spiritual needs were met compared to 6 (8.8%) H–LCP participants (p<0.001). Sixteen (20.5%) H+LCP participants reported that their own needs had been met compared to five (7.4%) H–LCP participants (p=0.032). Conclusions: Religious and spiritual needs were best identified and met in the hospice. However, religious and spiritual needs of the family could be improved in both care settings.

21 Invited Lecture

Implementation of research into clinical practice: What makes sustained research work in daily practice? Implementation of research into clinical practice: Building structure and culture

Authors: Eduardo Bruera Palliative Care and Rehabilitation Medicine MD Anderson Cancer Center U. STATES

The vast majority of the original palliative care programs had predominately a clinical mandate. Health care professionals had very limited protected time, and lack of academic affiliations. The leadership in community-based hospices, home care programs, and even the original hospice-based palliative care programs had limited interested in the development of a research infrastructure. In recent years there has been increased recognition of the importance of palliative care research by major academic institutions and universities. Palliative care specialists need to take advantage of these increasing opportunities. This presentation will address different ways to establish links with content and methodology experts in an effort to start research projects. Improved communication technology allows teams to operate very effectively from distant regions. Therefore, clinical programs in small communities or remote locations can become highly effective sources for clinical research. Whenever possible finding mentors will facilitate successful grant applications and activation of research studies. When this is not possible joining collaborative research groups is an effective way to learn how to design and conduct research. Small success resulting in presentations in local and national meetings and publications are high effective in convincing leadership and colleagues on the importance of developing a research culture. Ultimately research needs to be understood as an ethical mandate of all major palliative care programs rather than as an elective possibility. This presentation will use some practical examples to highlight ways to successfully build structure and culture.
22 Invited Lecture

Implementation of research into clinical practice: What makes sustained research work in daily practice?
Impact of industrial marketing on decision making
Authors: Per Sjøgren Pain Center Rigshospitalet DENMARK

According to the literature the complexity of physicians choice behaviour regarding drug prescriptions appears to consist of several elements including effect and side effect profiles, compensatory rules and drug costs, pharmaceutical sales representatives and a quick source of information and certain types of non-medical marketing incentives (such as free conference participation). We have recently performed two studies addressing factors influencing opioid prescription and decision-making regarding pain treatment in Denmark. The first study was a questionnaire survey, which among others asked physicians about their most important sources of knowledge in pain management. The questionnaire was sent out to 90 pain specialists and to 180 hospital physicians of different specialties treating chronic pain. Both groups of physicians rated their own clinical experience and reading scientific papers as the most important sources of knowledge on analgesics. Both groups refused to acquire knowledge on analgesics from the pharmaceutical industry. In another study we have assessed the actual behavior of pain specialists as the opioid consumption in six specialized units (departments/teams of palliative care and pain clinics) were investigated. The study was a cross-sectional study including the medical records of 347 cancer patients and interviews with the unit leaders. In total 279 patients of 347 were treated with opioids for background pains. Of all 347 patients 73 % had strong opioids for breakthrough pain. There was no difference between the units regarding the frequency of opioid consumption; however, a significant difference in the consumption of the three most frequently used opioids morphine, oxycodone and fentanyl was found (P<0.001). Two of units used oxycodone followed by fentanyl more frequently than morphine. One unit used fentanyl more frequently than morphine. In three units morphine was the most frequently used opioid. Several reasons for not following international guidelines regarding choices of opioids were given by the unit leaders. However, impact of industrial marketing on decision-making was neglected in all cases. Not surprisingly, the impact of industrial marketing was neglected regarding choices of opioids; however, often the choices seem to be based on marketing rather than evidence.

23 Invited Lecture

Implementation of research into clinical practice: What makes sustained research work in daily practice?
Introducing new research results in daily clinical practice “how much evidence do we need to implement research into practice”
Authors: Sebastiano Mercadante Pain Relief & Palliative Care, La Maddalena Cancer Center; University of Palermo ITALY

Palliative care, as a specialty, has found progress impeded by its limited capacity for conducting research and for translating research findings in practice. The slow expansion of evidence base that influences practice often comes from other population and may not be generalized to palliative care patients. The importance of expanding evidenced data for palliative care is well recognized. However, very advanced cancer patients often do not fit the minimal data set for inclusion criteria, because they are severely ill or unstable. Nevertheless, researchers in the field of palliative care must accept the challenge to generate high-quality research evidence to be used for clinical decision-making. On the other hand evidence alone is never sufficient to make clinical decisions and a hierarchy of evidence, while incomplete, may still guide clinical decision making on the basis of available data. The credibility of the findings of research depends on the design chosen. The choice of patient population, design of the study, symptoms and interventions, as well as well defined end points are fundamental factors to take into consideration to achieve good results to be generalize with some good evidence. Of interest, palliative care is relatively diversified and not very developed, and could be considered in its infancy in terms of scientific evidence provided by existing data. Recommendations to overcome problems in conducting clinical trials in palliative care include trained data manager, using differentiated recruitment techniques to improve patients’ collection, monitoring the recruitment rate to change or improve the techniques, using simple referral routines that impose minimal workload on patients and physicians, allowing for significant attrition when calculating sample size, and defining clear inclusion criteria and primary endpoints. Despite these problems, in the last years new research results provided more information to be utilized in the daily practice. Some statements reported in current guidelines to be updated, produced mostly on expert advice, were confirmed while some others were contradicted, underlying the need to start with very simple existing questions never validated to be resolved in the scientific arena. Palliative care is both an art and a science, and treatment is often tailored to the individual needs, taking into account available evidence, personal experience, and specific individual needs. For these reasons treatments often does not conform to other areas of medicine. Nevertheless, palliative care physicians should be encouraged to make further efforts to provide data to be generalized in palliative care population to extend the knowledge area on the possible treatment options actually prevalent based on personal choice, in an attempt of sharing a common scientific language.

24 Oral Presentation

Medical sociology and Policy Factors influencing clinical decision making in palliative care patients in the People’s Republic of China
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Background: Despite the growing development of palliative care in the Peoples Republic of China (PRC) existing societal and cultural influences may impact on end-of-life decision making. A qualitative study was conducted to explore the experiences and attitudes of senior oncologists and geriatricians in end-of-life decision making in the PRC and factors that influenced these decisions. Methods: Audiotaped semi-structured interviews with oncologists and geriatricians in rural (Sichuan) and urban (Chengdu) Chinese hospitals were conducted and transcribed. Transcripts were then translated into English and analysed in pairs with independent analysis of transcription validity. Further interviews were conducted and analysed until theoretical saturation was achieved. Results: Theoretical saturation was reached at 10 interviews but a further 6 were conducted to ensure a breadth of data from urban / rural settings and oncologists / geriatricians. The following major themes were identified: 1. Withdrawal of active treatment was considered counter-cultural to the PRC philosophy and contrary to governmental stated policy; 2. Death was considered a failure and treatments always offered, even if the patient had unresponsive disease. Withdrawal of futile therapies was considered counter-cultural to the PRC medical model; 3. The use of inotropes was considered acceptable and customary in the terminal patients and cardiopulmonary resuscitation of terminally ill patients was standard practice; 4. Diagnoses and communication occurred primarily between doctors and relatives. The patient would be involved in communications only with relatives’ permission; 5. Treatment would be offered as long as a family could afford to pay for it. Death was rarely discussed, and never with the patient; 6. Palliative care was considered by some as “giving up” and by others as synonymous with euthanasia. Conclusions: Clinical decision making is influenced by government edict, financial support and the cultural tradition of families being primarily involved in the communication of information and decision making. Although the western model of palliative care has much to offer in the PRC, cultural and societal factors make its development challenging particularly with respect to management of the terminal phases of the cancer journey.
25 Oral Presentation

Medical sociology and Policy
Transitions between care settings at the end of life: findings from the nationwide SENTI-MELC study in Belgium
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Background: At the end of life, transitions between care settings can be burdensome for patients and their families. They also pose challenges to the continuity of care, jeopardizing patient safety and quality of care. Previous studies were limited to specific populations or settings, or investigated single transitions. No nationwide studies have examined transitions between end-of-life care settings for a population-based sample of dying persons. This study investigates the prevalence, types and timing of transitions between end-of-life care settings in Belgium. Methods: We performed a one-year nationwide mortality follow-back study in 2005. Data were collected within the Sentinel Network Monitoring End-of-Life Care (SENTI-MELC) study. All 205 general practitioners (GPs) within the Sentinel Network of GPs, an existing epidemiological surveillance system representative of all GPs in Belgium, reported weekly all patients in their practice who had died non-suddenly. They registered place of death and previous places of care for up to 3 months before death, as well as duration of stay in each setting. Results: We studied 892 patients. Sixty-two percent were transferred at least once in the final three months of life. More specifically, 73% of patients residing at home and 36% of care home patients were transferred. Forty-eight distinct care setting trajectories were identified. Of all transferred patients, 80% were transferred in the last month of life and 33% in the last week. The percentage of hospital admissions, in particular, increased closer to death. Conclusions: The high prevalence and great variation of transitions in Belgium, especially those to hospitals in the last weeks of life indicate that for many patients end-of-life care does not provide stable continuous care at home or in care homes. Institute for Promotion of Innovation by Science and Technology Flanders (SBO-IWT 050158).

26 Oral Presentation

Medical sociology and Policy
A review of donor organisations that support palliative care in five regions of the world
Authors: Michael Wright International Observatory on End of Life CareLancaster University, Institute for Health Research UNITED KINGDOM
Thomas Lynch Lancaster University Lancaster UNITED KINGDOM
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Background: Many palliative care developments around the world are dependent on third party funding, yet little is known about the number and type of palliative care donors, the regions where they operate or the priorities they address. Aim: To review donor organisations supporting hospice-palliative care activities in: Africa; Central and Eastern Europe and the Commonwealth of Independent States (CEE/CIS); Central, South and East Asia (CSE Asia); Latin America; and the Middle East. Methods: A mixed-method design involved: a scoping exercise and global survey of 701 ‘key informants’; a synthesis of evidence from electronic databases, published and grey literature, hospice newsletters and an EAPC task force. Donors were categorised using a 9-part typology. Results: 368 donor organisations were identified and categorised as: 1) ‘Multilateral’ (9, 2% eg World Bank); 2) Bilateral (32, 9% eg USAID); 3) ‘Humanitarian’ (124, 34% eg O SI); 4) ‘Faith-based’ (71, 19% eg Caritas); 5) ‘Business’ (53, 15% eg Castrol); 6) ‘Hospice Support’ (33, 9% eg Friends of Swaziland Hospice); 7) ‘Inter/ National Association’ (22, 6% eg IAHPC); 8) Educational (14, 4% eg Zagreb University Medical Faculty); 9) ‘Other’ (10, 3% eg North Carolina National Guard). Most donors were found in CEE/CIS (169, 46%); then Africa (141, 38%); CSE Asia (77, 21%); Latin America (25, 7%); and the Middle East (19, 5%). Just 50 donors were found in India and China (which encompass 37% of the global population) and in China, only 5 (1%). Conclusions: Palliative care funding initiatives are taking place in disparate regions of the world although these are disproportionately and mostly concentrated in CEE/CIS and Africa. More understanding about the variety of donors and their areas of interest may facilitate a more strategic approach to palliative care development on the part of both donors and grant-seekers, especially in resource poor regions of the world. A global register of donors would be worthy of development.

27 Oral Presentation

Medical sociology and Policy
Feasibility of Dignity Therapy in Denmark: Experiences and Cultural Challenges
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Background: Dignity Therapy (DT) is a brief, psychotherapeutic intervention for palliative care patients developed by Chochinov et al. DT invites the patient to reflect on important aspects of their life, relationships, and things they would want to be known or remembered. These recorded conversations serve as the basis for a personal document, which the patient can bequeath to family and friends. We have investigated the feasibility and effect of implementing DT in the Danish culture. Purpose: To describe early lessons and feasibility results of the Danish DT study. Methods: From September 2005, patients were recruited from a department of palliative medicine and a hospice. We did a status midway to estimate how Dignity Therapy was accepted and responded to in a Danish setting. Results: After 9½ months, 40 patients participated in Dignity Therapy. Their median age was 60 years (range 36–88 years), 18 were male, and their median survival time after DT was 73 days ranging from 1–440 days (2 patients still alive). Of these, 28 patients provided post evaluations (with the remainder having either deteriorated or dropped out of the study (1 pt.)). Some potentially culture specific issues arose in relation to the DT-interview guide. For example, some patients reported discomfort in naming aspects of their life or accomplishments they were proud of, and some struggled with the notion of ‘giving instructions’ to their relatives. Of those providing evaluations, all (100%) have been either satisfied or very satisfied with DT. 82% thought DT had helped them. 92% thought DT would help their family. 59% reported that it heightened their sense of dignity. Conclusions: To date, DT appears to be a feasible and positively received intervention for critically ill patients in Denmark. The study is funded by the Danish Cancer Society.
28 Oral Presentation

Medical sociology and Policy
Public opinion about advance directives in the Netherlands
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Background: Objective: The aim of this study was to investigate public opinion about advance directives (ADs) in the Netherlands. Methods: A written, structured questionnaire was sent to the Consumers’ Panel for Health Services of the Netherlands Institute for Health Services Research (NIVEL). This panel (N=1621) consists of a random sample of the population of the Netherlands. A total of 1402 respondents (86%) completed the questionnaire. Setting: The Netherlands, October 2005. Outcome measures: Having an AD, familiarity with ADs, plans to formulate an AD, end-of-life care preferences. Results: 95% of the respondents did not have an AD. Of these respondents, 24% did not know about the possibility to formulate an AD. The written request for euthanasia and the do-not-resuscitate directive were best known ADs. Of the respondents who did not have an AD, 64% would perhaps formulate an AD in the future, and 22% would certainly do so. In three given theoretical situations (incurable cancer, three months coma, and serious dementia) the majority thought that they would (probably) ask for euthanasia or assisted suicide (72%, 63% and 61%, respectively). Conclusions: In the Netherlands, many people have clear end-of-life preferences, but very few have formulated an AD. Many are planning to do so, although public knowledge about ADs is poor in the Netherlands.

29 Oral Presentation

Medical sociology and Policy
A Patient-Centered Approach to Advance Care Planning (PC-ACP) in End Stage Heart and Renal Failure
Authors: Karen Kehl School of Nursing University of Wisconsin-Madison U. STATES
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Background: Advance Directives (AD) have had limited success in improving care at the end of life in the United States. Past efforts have not been grounded in a clear understanding of patients’ preferences, values, and wishes, nor did they include or prepare surrogate health-care decision-makers. This study is designed to test the efficacy of PC-ACP on patient and surrogate outcomes, including agreement between the patient and surrogate concerning the patient’s care choices on four standard situations, immediately following the intervention. Methods: The Respecting Choices™ approach to advance care planning guided the theoretical and practical development of the intervention in this multi-site randomized trial. Adult patient/surrogate pairs (n=312) were recruited from two Midwestern U.S. areas. Patient/surrogate pairs recruited from clinics completed baseline questionnaires and were randomized to a control group, which received standard AD care (asked if they had an AD or would like assistance completing one), or an intervention group, which participated in an interview led by a trained facilitator including the surrogate. Results: Following the intervention the patient and surrogate have greater agreement than the control group concerning the patient’s care preferences (p<0.01) on each of four situations presented. The likelihood ratio for each situation ranged from 2.71 to 6.0:1. Patients and surrogates in the intervention group had greater knowledge of ACP than the control group. Patients had no increase in decisional conflict concerning the patient’s care preferences. Knowledge gained from this research will be useful in redesigning the U.S. federally mandated assessment of ADs into an improved process of ACP to better fit the spirit of the U.S. Patient Self Determination Act. Funding: Agency for Healthcare Research and Quality grant #SR01HS013374-04.

30 Oral Presentation

Cachexia
A Dose Titration Study of Thalidomide in Cancer Anorexia
Presenting author: Declan Walsh
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Tony Jin Quantitative Health Sciences, Cleveland Clinic Cleveland U. STATES
Bassam Estfan The Harry R. Horvitz Center for Palliative Medicine, Cleveland Clinic Cleveland U. STATES
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Declan Walsh The Harry R. Horvitz Center For Palliative Medicine, Cleveland Clinic Cleveland U. STATES
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Background: Thalidomide blocks inflammatory cytokines and may improve multiple symptoms in cancer. An open labeled trial evaluated thalidomide safety and efficacy in cancer anorexia with secondary outcomes of improved sleep, pain, quality of life, early satiety, and weight gain. Methods: Eligible patients were ≥ 18 years, active cancer, anorexia, life expectancy >4 weeks, ECOG performance status 0 to 3, and completed the S.T.E.P.S.® program. Exclusion criteria were grade ≥ 2 peripheral neuropathy, chemotherapy, radiation, parental or enteral feedings, or other anorexia drug treatment. Appetite response was a two-point improvement by numerical scale (0–10) and therapeutic efficacy > 60% of participant response using binomial analysis. Evaluable patients completed 2 week, minimal dose 50mg/day (range 50–100). Analysis involved evaluable patients. Toxicity was by NIH-CTC version 2. Secondary outcomes were assessed by Wilcoxon signed rank test. Results: 34 patients were treated. Binomial test for efficacy p=0.63 and response by NRS for appetite p=0.17 failed to demonstrate improvement. Pain (p=0.043), insomnia (p=0.004), weight (p=0.043), and quality of life (p=0.033) improved. 4 had a pain response and 5 improved insomnia without improved appetite. No patients developed >grade 2 neuropathy, skin rash or fever. 2 patients were withdrawn for sedation. Conclusions: Thalidomide did not improve anorexia but improved multiple other cancer symptoms. A randomized trial which compares thalidomide to placebo in the management of, insomnia, pain, weight loss and quality of life, should be done.

31 Oral Presentation

Cachexia
The Association between Hypogonadism, Inflammation and Symptom distress in patients with Cancer Cachexia
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Shalini Dalal MD Anderson Cancer Center Houston U. STATES
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Lynn Palmer MD Anderson Cancer Center Houston U. STATES
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Eduardo Bruera MD Anderson Cancer Center Houston U. STATES

Background: Hypogonadism is associated with fatigue, decreased strength, and elevated inflammatory markers. Similarly, cachexia is characterized by muscle loss, and an aberrant inflammatory response. Hypogonadism in patients with cancer cachexia could exacerbate symptom distress and diminish overall well-being. While there are recommended guidelines for testosterone replacement in chronic conditions such as HIV, there are non for cancer patients. The objective of this study was to examine the relationship between hypogonadism, symptom severity, and inflammation in a cohort of patients with cachexia. Methods: We reviewed the charts of 63 consecutive
male cancer patients who underwent a structured assessment in a specialized cachexia clinic at a comprehensive cancer center. 49 of the patients (78%) had their serum testosterone evaluated and 40(63%) also had C-reactive protein levels(C-RP) measured. Results: All patients gathered criteria for cachexia, including a weight loss of >5% within the preceding 6 months and appetite <3 on the Edmonton Symptom Assessment Scale (ESAS). Median age was 63, and 33(67%) patients had low testosterone levels (~240ng/dL) including 13(27%) with levels <100.Spearman correlation revealed higher C-RP levels (p<0.0003) and ESAS sleep scores (p<0.0012) in patients with lower testosterone levels. Median C-RP level was 7mg/L in those with normal testosterone compared to 21mg/L in hypogonadic patients. Symptoms of appetite, fatigue and overall well-being were worse in patients with low testosterone (median ESAS of 6, 5, 5 respectively) versus those with normal levels (median ESAS of 5, 4, 3 respectively), but were not statistically significant. Conclusions: Hypogonadism was present in more than two thirds of male patients with cancer cachexia and associated with significantly higher C-RP levels and worse sleep scores. Appetite, fatigue and well-being scores showed a trend towards an inverse correlation with testosterone levels. Patient accrual continues.

32 Oral Presentation
Cachexia
A Pilot Survey to Explore the Role of Physical Activity as a Supportive Care Intervention in Advanced Cancer Patients
Presenting author: Sharon Watanabe
Authors: Sonya Lowe Oncology/University of Alberta CANADA
Vickie Baracos University of Alberta Edmonton CANADA
Sharon Watanabe Cross Cancer Institute Edmonton CANADA
Kerry Courneya University of Alberta Edmonton CANADA

Background: Physical activity has been shown to improve supportive care outcomes in early stage cancer patients, but limited data are available in patients with advanced cancer. Our aim was to describe the physical activity patterns and programming preferences of advanced cancer patients, and determine any associations between physical activity and supportive care outcomes. Methods: Advanced cancer patients aged 18 years or older, with clinician-estimated life expectancy of less than 12 months and palliative care and oncology clinics, and palliative home care. Participants completed a cross-sectional interview survey assessing self-reported quality of life (McGill QOL Questionnaire), self-reported physical function (Late-Life Function and Disability Instrument), symptoms (Edmonton Symptom Assessment Scale), and physical activity patterns and preferences. Results: 50 patients were recruited. Walking was the most common reported physical activity. A significant ANOVA indicated that participants who reported walking greater than 30 minutes per day had higher existential subscores [0.76 (0.02 to 1.51); p=0.045], support subscores [0.73 (0.09 to 1.37); p=0.027] and total scores [0.45 (0.01 to 0.88); p=0.046] on the McGill QOL Questionnaire. There were no significant associations between participants who reported walking greater than 30 minutes per day and self-reported physical function or symptoms. 78% of the sample indicated interest in participating in a physical activity program, with 84% preferring a home-based program. Conclusions: There is a significant positive association between physical activity and quality of life scores in this sample of advanced cancer patients. The majority of this sample appears willing to participate in a physical activity program. An intervention trial based on these identified associations and preferences is in progress. Funded by the Canadian Institutes of Health Research.

33 Oral Presentation
Cachexia
Patient and staff attitudes to weight loss in advanced malignancy
Authors: Max Watson Palliative Care Northern Ireland Hospice / University of Ulster UNITED KINGDOM

34 Oral Presentation
Cachexia
Identification of candidate genes for cancer cachexia
Authors: Benjamin Tan Clinical and Surgical Sciences (Surgery) University of Edinburgh UNITED KINGDOM
Frank Skorpen Norwegian University of Science and Technology Trondheim NORWAY
Kenneth Fearon University of Edinburgh Edinburgh UNITED KINGDOM representing the EPCRC

Background: Cancer cachexia is a debilitating disorder which causes significant mortality and morbidity. There is a known genetic contribution to a variety of key mechanisms that underlie the cachexia syndrome. We are examining a large panel of such genes, the dysfunction of which might reasonably be considered likely to contribute to cancer cachexia. We are also developing a scheme for defining the cachetic phenotype. The final phase of the project is then to link genotype to phenotype. Methods: Through a variety of sources, (e.g. PubMed, OMIM, cachexia experts) we selected candidate genes with a known or inferred biological function linked to cancer cachexia. A thorough review of the literature (using PubMed, Medline) was then conducted to identify single nucleotide polymorphisms (SNPs) that may affect the function of these genes. Novel genes are also being identified on Affymetrix expression arrays using muscle samples of cachetic patients. Results: Thus far, a total of 121 SNPs in 65 genes have been identified. Examples of SNPs identified include those in genes coding for cytokines, and genes regulating muscle degradation, lipolysis and appetite. Most of the SNPs identified have a minor allele frequency of greater than 5%. Conclusions: The mechanism of cancer cachexia is highly complex of which identification of specific genetic variants predisposing to the syndrome has been limited so far. We have identified 121 SNPs that may be potentially involved in the development of cancer cachexia. The next phase of the project is to examine the relationship between these genotypes and the cachexia phenotype. This research is funded by the European Palliative Care Research Collaborative (EPCRC) and is part of work package WP1.2.
35 Oral Presentation

Cachexia

A novel Cachexia Classification for Palliative Cancer Care: Synthesis of systematic literature review and nominal experts’ focus group

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Background: The current definition of cancer cachexia (weight loss, anorexia) does poorly guide practice. To monitor clinical decisions, alleviate suffering and develop tailored anti-cachexia interventions, a novel cachexia classification system, adjusted for palliative care, is required. Methods: A SLR (1976–2007) was performed (Pubmed, Cochrane, Embase, PsycINFO, CinAhl; search strings: cachexia, cancer, classification). Inclusion criteria: system or factor to classify patients with cachexia or to predict response to anticachectic treatment. Data extraction (2 raters) applied a formalized list, considering results of the first FG. Scoring for quality (Hawker) is done. Nominal FG of 12 academic cachexia experts discussed in 2 rounds “Which factors guide clinical decision making for cachexia management in daily practice?” Key findings from the first round and the SLR were presented in the second round. Collaboration with a non-cancer specific wasting/cachexia consensus group was achieved. The final synthesis includes eligibility criteria and stratification factors from registered anti-cachexia trials and applies a structured Delphi-type review process. Results: Of 9817 citations, 126 papers (7 systems, 112 factors; 7913 patients [50% GI, 20% lung cancer]) were included. 4 systems combined anthropometrics (AM), nutritional intake (NI), symptoms (SY) and inflammation (INF), 2 systems AM/NI and either SY or INF, 1 added REE and hormones. All systems challenge the old definition. Of the single factors, AM, INF, muscle strength and ghrelin classify cachexia in most studies, whereas NI, SY, metabolic alterations, REE, and leptin are variably reported. Responders in 84 anticachexia trials were not identified by factors. Consensus appears in cachexia as ongoing loss of muscle mass with 3 domains: depleted muscle protein, decreased ability to eat, and a catabolic drive. Symptoms are in all domains. Conclusions: A novel, pragmatic CCS-PC hold promise for care and research.

36 Invited Lecture

Systematic Reviews – what they can and what they can’t do?

Drug treatment of cancer-related fatigue. An example of a Cochrane review and of the problems with extrapolating results from cancer to palliative care

Authors: Paddy Stone Division of Mental Health St George’s Hospital Medical School UNITED KINGDOM

This lecture will present an overview of what we currently have in terms of systematic reviews and controlled trials. Current challenges include a lack of suitable data for analysis, continued use of practices that have been shown to be ineffective or have little supporting evidence, challenges of extrapolation of results from outside palliative care and imperfect methodology to get the best from qualitative data. The goal of developing a systematic review for the major issues in palliative care is not an impossible dream but will need to stimulate a higher standard of research and development of collaborative research groups that can recruit larger numbers of participants for trials.

37 Invited Lecture

Systematic Reviews – what they can and what they can’t do?

Cochrane reviews in palliative care: where is the evidence?

Authors: Phil J. Wiffen Churchill Hospital, Pain Research Unit Pain, Palliative & Supportive Care CRG UNITED KINGDOM

This lecture will present an overview of what we currently have in terms of systematic reviews and controlled trials. Current challenges include a lack of suitable data for analysis, continued use of practices that have been shown to be ineffective or have little supporting evidence, challenges of extrapolation of results from outside palliative care and imperfect methodology to get the best from qualitative data. The goal of developing a systematic review for the major issues in palliative care is not an impossible dream but will need to stimulate a higher standard of research and development of collaborative research groups that can recruit larger numbers of participants for trials.

38 Invited Lecture

Authors: Lukas Radbruch Department of Palliative Medicine University of Aachen GERMANY

Research in palliative care faces many barriers, among them physical frailty and cognitive impairment as well as a general reluctance of clinical staff to recruit patients, as clinical trials are felt to be in contradiction with the holistic, caring philosophy of palliative care. Sample sizes of published studies are small, with wide variations in the study populations. This has led to an increasing use of systematic review in an attempt to collate high quality information from these studies. The use of systematic reviews is also fostered by the rise of evidence-based medicine (EBM), as systematic reviews are on the top of the scoring lists of EBM. Systematic reviews allow for a quick and comprehensive apprehension of the available literature. However, there are some drawbacks to the new fashion of EBM. User as well as authors of systematic reviews often forget that the absence of evidence does not equal the evidence of absent efficacy. Many reviews start high with elaborate search strategies and inclusion criteria, and end modestly with only a few papers (which could not be compared) found useful for their remit. Many reviews end with the stereotypical statement: there is not enough evidence. There is an inherent danger from this position, as it may lead decision makers to focus on those treatments only which have been proven effective with EBM. This means that decisions focus on systematic reviews and the randomized trials that generated them, and users forget that other evidence is also acknowledged in EBM, though on a lower level. Even the much-maligned expert opinion is part of EBM, if no (randomized) trials are available. There may be good reasons why there are no randomized trials. For example the evidence from randomized trials on the efficacy of morphine is scarce, but running such a trial today would be unnecessary and unacceptable from an ethical point of view. We have to take care that we use systematic reviews where we need them, but not as a means to end all discussions.

Systematic Reviews – what they can and what they can’t do?

Cochrane reviews and of the problems with extrapolating results from cancer to palliative care

Authors: Paddy Stone Division of Mental Health St George’s Hospital Medical School UNITED KINGDOM

This presentation will discuss the difficulties of using the results of a Cochrane systematic review in routine clinical practice. The presentation will be illustrated with the example of a recently conducted review and meta-analysis of randomised controlled trials for patients with cancer-related fatigue (full results presented elsewhere). The author will explain how the review group settled on inclusion and exclusion criteria for the systematic review. These were based on a study quality standard requiring randomisation of treatment as a minimum. The impact of using different search strategies will be discussed. The chosen search strategy identified over 5000 abstracts with 116 being short-listed for potential inclusion. Only 45 studies fully met the inclusion criteria. It was decided only to analyse studies that used multi-item outcome measures – thus 27 trials were included in the meta-analysis. The rigorous criteria used in Cochrane reviews led to the exclusion of drug treatments examined only in phase 2 studies. Many studies of palliative care patients fell into this category and were excluded at the screening stage. The discussion of selected results will focus on how the findings can be applied in clinical practice. The populations studied were mainly receiving active treatment. The majority of the data comes from trials of anemic cancer patients receiving erythropoietin colony growth factors such as erythropoietin. It is unclear how these results can be applied to a palliative care population without further study. The author will discuss
the strengths and limitations of the chosen methodology and will try to draw broader conclusions about the conduct of future systematic reviews. The review highlights the lack of well designed large scale studies in palliative care and provides directions for future research in this under-investigated symptom. Large scale trials for symptoms such as fatigue should be based on the results of systematic reviews such as this.

39 Invited Lecture

Plenary Session 2
Research in end-of-life care – clinical findings and methodological challenges

Authors: Sheila Payne Institute for Health Research Lancaster University UNITED KINGDOM

The aspiration to design and conduct high-quality research in palliative care has been an important but elusive goal. The paper evaluates the nature of research methodologies presented in published research within the broad remit of palliative care. A systematic search of the Medline database between 1997 and 2006, using the keywords ‘palliative care’ or ‘end of life’ care and ‘research methodology’, identified over 318 publications. A bibliometric analysis indicates an incremental increase in published outputs per year, from 27 countries, with papers widely distributed across 108 journals. The heterogeneity of the research methodologies and the journals publishing them, present challenges in defining what constitutes ‘high-quality’. We argue that while this diversity might be seen as a weakness which results in a lack of coherence for a single disciplinary paradigm for palliative care; an alternative view is that there is a greater acknowledgement of the differing epistemological and theoretical frameworks used by researchers. This could be regarded as enriching our understanding of what it means to be dying in contemporary society.

40 Plenary presentation

Plenary Session 2
Cost Savings Associated with Hospital Palliative Care Consultation Programs

Authors: Diane Meier Department of Geriatrics Mount Sinai School of Medicine U. STATES
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Background: Hospital palliative care teams have been shown to improve clinical care. This study examined the effect of palliative care consultation teams on U.S. hospital costs. Methods: We analyzed administrative data from 8 U.S. hospitals with established palliative care programs from 2002-2004. Patients receiving palliative care were matched by propensity score to patients receiving usual care. Generalized linear models were estimated for costs per admission and per hospital day and for costs associated with pharmacy, diagnostic imaging, laboratory studies, and intensive care (all costs are in U.S. dollars). The effects of palliative care consultation on hospital length of stay and probability of death in the ICU were also examined. Results: Results of Base-Case Analysis: 2,630 of 2,966 patients (89%) PC patients receiving usual care were matched to 18,427 usual care patients and 2,278 of 2,388 PC patients (95%) who died were matched to 2,124 usual care patients. PC patients discharged alive had adjusted net savings of $1,696 in direct costs/admission (P=0.001) and $279 in direct costs/day, (P<0.001) including significant reductions in pharmacy, laboratory, and ICU costs compared to usual care patients. PC patients who died had adjusted net savings of $4,908 in direct costs/admission (P=0.003) and $374 in direct costs/day (P<0.001) including significant reductions in pharmacy, laboratory, and ICU costs compared to usual care patients. PC patients were significantly less likely to die in ICU (OR=0.10, 95% CI .04 , .19, P<0.001). Results of Sensitivity Analysis: Including average costs/day prior to PC and prior to an established reference day for usual care patients in the propensity score models resulted in similar results with fewer matched subjects. Estimating costs for PC patients assuming that they did not receive PC resulted in projected costs that were not significantly different from usual care costs. Conclusions: Palliative care consultation teams result in significant cost savings to hospitals.

41 Plenary presentation

Plenary Session 2
A Randomised, double-blind, placebo-controlled, cross-over, multi-centre trial to evaluate the efficacy of Intranasal Fentanyl for Breakthrough Pain in cancer patients

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Background: A prospective placebo controlled multi-centre study was conducted in order to evaluate efficacy of intranasal fentanyl (IF) in the treatment of breakthrough pain (BTP) in 159 randomised cancer patients. Methods: Patients on stable, chronic opioid treatment and who experienced a minimum of three BTP episodes pr. week and a maximum of four pr. day were included. Patients received in random order 8 numbered sprays containing two sprays of each of the following doses: placebo, 50, 100 and 200 mcg IF administered as one puff in one nostril. If pain relief after 10 min was insufficient, a second IF was administered. Rescue medication could be administered after additional 10 minutes. Pain intensity (PI) was recorded on an 11-point NRS at 0, 10, 20, 40 and 60 min after the first puff. General impression (GI) of efficacy at 60 min were rated on a categorical 5-point VRS: 0=poor, 1=fair, 2=good, 3=very good; 4=excellent. The primary endpoint was pain intensity difference at 10 min (PID10) after the first puff. The PID10 was calculated as the difference between P10 and the P0. Secondary endpoints were PI for the time interval 0-60 minutes (SPID60) and GI. The analyses of PID10 and GI were based on a linear model with a step-down testing of the active doses versus placebo. Results: For placebo, IF 50, 100 and 200 mcg PID10 were 1.41, 1.82, 2.23 and 2.65 (p<0.001), corresponding to PID10 >2 of 22%, 29%, 42% and 50%, SPID60 2.02, 2.64, 3.10 and 3.53 (p<0.001) and GI 0.96, 1.32, 1.57 and 1.90 (p<0.001). Overall adverse events were: Vomiting 4.6% (7), nausea 3.9% (6), dyspnoea 2.0% (3), vertigo 2.0% (3), headache 1.3% (2) and somnolence 1.3% (2). One patient was identified with a serious adverse event in form of respiratory depression. Conclusions: Pain intensity improved significantly for all three IF dose levels. All doses were safe to administer, and well tolerated by the patients. IF is a promising treatment for the management of BTP.

42 Oral Presentation

Assessment and measurement tools

The Malignant Wound Assessment Tool (MWAT): A Validation Study

Authors: Neil Hagen Oncology Tom Baker Cancer Centre and University of Calgary CANADA
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Results of Base-Case Analysis: 2,630 of 2,966 patients (89%) PC patients receiving usual care were matched to 18,427 usual care patients and 2,278 of 2,388 PC patients (95%) who died were matched to 2,124 usual care patients. PC patients discharged alive had adjusted net savings of $1,696 in direct costs/admission (P=0.004) and $279 in direct costs/day, (P<0.001) including significant reductions in laboratory, and ICU costs compared to usual care patients. PC patients who died had adjusted net savings of $4,908 in direct costs/admission (P=0.003) and $374 in direct costs/day (P<0.001) including significant reductions in pharmacy, laboratory, and ICU costs compared to usual care patients. PC patients were significantly less likely to die in ICU (OR=0.10, 95% CI .04 , .19, P<0.001). Results of Sensitivity Analysis: Including average costs/day prior to PC and prior to an established reference day for usual care patients in the propensity score models resulted in similar results with fewer matched subjects. Estimating costs for PC patients assuming that they did not receive PC resulted in projected costs that were not significantly different from usual care costs. Conclusions: Palliative care consultation teams result in significant cost savings to hospitals.
Background: Malignant wounds, caused by direct invasion of cancer into the skin, occur in cancer patients with primary skin tumors, and as cutaneous metastasis in about 10% of patients with metastatic internal malignancies. Malignant wounds can have a profound impact on patients, family members and clinicians. Assessment of the patient with a malignant wound is complex, and until now, there has been no widely accepted, consistent approach. Valid, descriptive survey research methods were used to develop the Malignant Wound Assessment Tool (MWAT). Methods: We developed two versions of the MWAT: a brief clinical version (MWAT-C) and a more detailed research version (MWAT-R). Domains include clinical wound features (size, location, classification), physical effects (pain, odor, exudate, bleeding, edema and functional impairment), and emotional and social impacts. The two tools then underwent content and construct validity testing using a Delphi process, involving professionals with significant clinical or research expertise related to malignant wounds. An international expert panel was formed (n=32 members from Canada, US, UK, Denmark, and New Zealand). Panelists were given the option to review one or both tools. Results: Panelists participated in two rounds of review for each tool. Response rates were acceptable for each round. For both tools, there was a positive shift between rounds of review resulting in substantial consensus on individual tool items. Conclusions: Validity testing of the MWAT-C and MWAT-R tools through the Delphi process has resulted in tools, which we will share at the conference, that can support clinical and research activities designed to improve care for patients. Next steps will include dissemination of the tools for routine use, and further validation and reliability studies involving patients in various practice and research settings. Funding provided by: Canadian Institutes of Health Research Grant PET09772.

43 Oral Presentation

Assessment and measurement tools Palliative Care Staff Satisfaction: The Survey of Team Attitudes and Responses (STAR) Authors: Stephen Connor Research and International Development National Hospice and Palliative Care Organization U. STATES David Casarett, MD The Center for Health Equity Research and Promotion, University of Pennsylvania, VAMC Philadelphia, Pennsylvania U. STATES Brye Quaseem, PhD, MPH The Center for Health Equity Research and Promotion, University of Pennsylvania, VAMC Philadelphia, Pennsylvania U. STATES Judy Shea, PhD The Center for Health Equity Research and Promotion, University of Pennsylvania, VAMC Philadelphia, Pennsylvania U. STATES

Background: Despite the emotional and interpersonal challenges that hospice and palliative care workers face in providing care to patients near the end of life, no systematic effort has been made to evaluate the work environment that hospice and palliative care providers provide to their staff. The aim of this project was to develop a job satisfaction survey that could be used to evaluate the hospice work environment and, ultimately, to guide interventions to improve the work experience for hospice staff. Methods: The Survey of Team Attitudes and Relationships (STAR) was developed through semistructured interviews with an interdisciplinary sample of staff from nine hospices, and then refined with input from additional interviews and from an expert panel. The draft was tested on larger samples of staff (n ¼ 160) from six hospices and revised with input from the expert panel. The final survey was tested with 599 staff from 10 hospices. Results: The final survey contains 45 items in six domains: individual work rewards, teamwork, management support, organizational support, workload issues, and global assessment of job satisfaction. Items had excellent psychometric characteristics, with acceptable floor and ceiling effects. The overall STAR had a Cronbach’s alpha of 0.93, indicating good homogeneity, and each domain had alpha values that are appropriate for between-group comparisons (range 0.74–0.84). Conclusions: These results suggest that the STAR offers a unique instrument to measure the work environment hospices and palliative care programs provide to their staff. Workforce excellence is a significant factor in the provision of quality palliative care and poses unique challenges for palliative care providers. This survey has now been introduced to all hospice and palliative care providers in the United States by the National Hospice and Palliative Care Organization and will be used to benchmark staff satisfaction throughout the over 4,000 US hospice providers and may be useful in other countries.

44 Oral Presentation

Assessment and measurement tools Detecting psychological distress in palliative care: validating screening tools against psychiatric interview Presenting author: Mike Bennett Authors: Parvez Thekkumpurath School of Molecular & Clinical Medicine University of Edinburgh UNITED KINGDOM Chitra Venkateswaran St.Gemma’s Hospice Leeds UNITED KINGDOM Manoj Kumar Leeds Mental Health Trust Leeds UNITED KINGDOM Mike Bennett International Observatory on End of Life Care, Lancaster University Lancaster UNITED KINGDOM

Background: Psychological distress is common but not routinely picked up in palliative care. Systematic and routine screening is now recommended in most cancer settings. Examining validity of screening questionnaires is an essential step prior to their use in this population. This study examined the validity of Distress Thermometer (DT) along with two other screening questionnaires (BSI-18, GHQ-12) in detecting psychological distress in the terminally ill by comparing against a semi-structured psychiatric interview: Schedules for Clinical Assessment in Neuropsychiatry (SCAN). Methods: Consecutive and eligible patients were recruited from inpatient and day hospice attendees at St. Gemma’s and Wheatfield’s Hospices, Leeds. Patients completed the three questionnaires, adapted on to a touch screen format. Within 72 hours, the gold standard psychiatric interview, SCAN, was conducted by one of the two trained psychiatrists with established inter-rater reliability. The questionnaires were compared against the SCAN interview using Receiver operator curve (ROC) analysis. Results: A total of 226 patients were approached, 52 opted out and 24 dropped out. 150 patients completed all interviews. The mean age was 70 years (SD 12). More than half of the sample died within six weeks of the interview (median survival time: 44 days). We found 34% of our sample had psychiatric morbidity; the commonest form of distress is Adjustment disorder (22%), and not Depressive disorders (7%). A past history of psychological problems/treatments was significantly associated with the presence of distress. The three questionnaires perform reasonably well in correctly identifying distress in this population. All show an area under the curve of >0.725. Distress Thermometer at a cut-off of 5, shows a sensitivity of 0.77 and a specificity of 0.59 with a positive predictive value of 50%. Conclusions: Given the similar performance of the three screening questionnaires, we recommend using Distress Thermometer, which is the briefest and easiest to complete.

45 Oral Presentation

Assessment and measurement tools Measuring hopelessness at the end of life Authors: Barry Rosenfeld Psychology Fordham University U. STATES William Breitbart Memorial Sloan-Kettering Cancer Center New York U. STATES Hayley Pessin Memorial Sloan-Kettering Cancer Center New York, NY U. STATES

Background: Hopelessness has been increasingly recognized as a critical factor in end-of-life decision making (e.g. terminating life-sustaining treatments, suicidal attempts). Yet hopelessness is poorly understood, particularly in the context of a terminal illness. Current measures are often too long and contain inappropriate items for palliative care patients. This paper
describes the development a new measure of hopelessness for use with terminally ill patients. **Methods:** A mixed methods approach to construct exploration and validation was used. Expert clinicians (n=15) and terminally ill cancer patients (n=30) were interviewed to identify elements of hopelessness. Qualitative analysis was used to extract themes and develop questionnaire items. The initial 20-item questionnaire was administered to 400 terminally ill cancer patients drawn from a palliative care hospital and two cancer centers. Classical and item-response analyses were used to identify the optimal set of items for use in a subsequent validation study. **Results:** Analysis of the initial 20-item scale revealed 8 items with optimal discrimination that were revised to form a final scale. This revised scale was subsequently administered to a new sample of 200 terminally ill cancer patients, along with other measures (e.g., hopelessness, desire for hastened death, depression, and optimism). The revised 8-item scale had adequate reliability (α=0.81) and strong correlations with measures of concurrent validity; r=0.77 with the BHS and r=0.71 with the SAHD. **Conclusions:** These results provide strong support for a new brief measure of hopelessness in advanced cancer. It has the potential to improve research on distress and decision making at the end of life and may be a useful clinical tool to identify individuals who need mental health treatment or for evaluating these interventions.

### 46 Oral Presentation

**Assessment and measurement tools**

**Computer-based symptom assessment in palliative cancer care: To what extent is time expenditure influenced by age, gender, educational level, and Karnofsky performance status?**

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**Background:** Symptom assessment is an important part of symptom management in palliative care cancer patients. Computer-based assessment may give automatic presentation of summarised results, be tailored to the individual patient, and as such provide more accurate data, particularly if the assessment system is compatible with the electronic medical records. Despite the benefits, health care providers often act as gatekeepers and claim that their patients are too weak or too old to use computerised tools. The aim of the present study was to investigate whether age, gender, educational level, and Karnofsky performance status influence time expenditure in computer-based symptom assessment in a palliative care cancer population. **Methods:** In- and out-patients were recruited from 8 different Norwegian palliative care and cancer clinics, taking part in a national multi centre study on computerised symptom assessment from June 1st 2006 to February 28th 2007. A total of 60 items on pain and physical function / mobility were answered directly on a computer. Education was dichotomised as “low”, finished high school or less, or “high”, 1 year or more at college/university. **Results:** A total of 724 assessments were completed by 392 individuals (207 men, 185 women). Average time use was 15 min 28 sec (95% CI: 14 min 47 sec – 16 min 8 sec, range 5 min 46 sec – 44 min 32 sec). Multivariate linear regression analyses showed that age (p < 0.001), educational level (p = 0.002), and KPS (p < 0.001) significantly influenced time expenditure, but that gender did not (p = 0.04). Patients on average used 9 seconds more per year older they were, 64 seconds more per 10 points lower KPS, and 130 seconds more if they had lower education. **Conclusions:** Time used to complete a computer-based symptom assessment is influenced by age, educational level, and KPS. The differences are small, and although statistically significant they are not to a degree that prohibits the use of computerised assessment in clinical settings.

### 47 Oral Presentation

**Assessment and measurement tools**

**Assessing pain severity and interference: the EPCRC project**

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**Background:** Despite the huge number of assessment tools available for measurement of pain, there is still no international agreement on how to classify and measure pain in advanced cancer, neither for clinical use nor for research. Furthermore, few of the existing tools for assessment of cancer pain are internationally developed and internationally accepted. The European Palliative Care Research Collaborative (EPCRC) is developing a computer-based pain assessment instrument, as a first step towards pain assessment and classification. **Aim:** We present analyses of the performance and psychometric properties of the pain items that form the item pool for the pain assessment tool, with focus on the on the measurement of pain intensity and pain interference. **Population:** A Norwegian multi-centre study was coordinated from The Norwegian University of Technology and Science (NTNU), and 779 patients with advanced cancer receiving palliative care were recruited. The computerised data collection was completed in 2007. **Statistical Analysis:** Both traditional psychometric analyses and item response theory (IRT) were used to validate the items and to determine the optimal items to retain as an item pool. **Results:** A set of items has been identified to form the basis of a computer adaptive test (CAT) for assessing the two dimensions, pain severity and pain interference, and these items have been calibrated using IRT. **Conclusions:** Pain severity and pain interference can be measured most efficiently, most precisely and with minimum patient burden using an IRT-based computer adaptive test.

### 48 Invited Lecture

**Best Supportive Care versus chemotherapy? The right question to ask?**

**Best supportive care in lung cancer – do we know what it is?**

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**Introduction:** In order to evaluate the costs and cost-effectiveness of clinical treatments there is a need to be able to clearly define both the treatments and their costs. In our recent experience of conducting systematic reviews of clinical and cost effectiveness for the National Institute of Health and Clinical Excellence (NICE) we were challenged in our endeavours to conduct cost-effectiveness analysis related to best supportive care in lung cancer. This review was conducted as a contribution to such analysis.
Objective: To identify and discuss the clinical components of best supportive care (BSC) packages for patients in lung cancer trials and to determine to what extent the conduct of clinical and cost-effectiveness analyses (CEAs) are fully informed. **Design:** Systematic review of RCTs, systematic literature reviews (SRs) and economic evaluations (EEs) which compare chemotherapy versus BSC for adult patients in lung cancer trials. **Results:** 26 RCTs, 13 SRs and 41 EEs met the review inclusion criteria. Less than 50% of relevant studies included formal definitions of BSC. None of the papers included in the review adequately described or outlined the BSC options available to patients, how BSC was delivered or by whom. Data described in the studies do not facilitate the generation of a clear definition of a patient pathway in relation to BSC or a clear list of components or costs of such care. **Conclusions:** Failure to clearly define BSC packages means that comparison of treatment outcomes within and across trials is problematic. Formal definitions of BSC with set parameters for the common complications of advancing disease, not just the physical symptoms, need to be established to inform the design of future RCTs and CEAs. From an ethical perspective, it would seem appropriate to provide patients with an adequate definition of the care they could expect to receive within the comparator arm of a cancer trial. Health care professionals involved in the conduct and reporting of cancer trials must aim to communicate the BSC package delivered to patients.

50 Invited Lecture

**Best Supportive Care versus chemotherapy? The right question to ask?**

**BSC a faulted methodology in need of standards**

Authors: Nathan Cherny Shaare Zedek Medical Center Director Cancer Pain and Palliative Medicine, Dept Oncology ISRAEL

(BSC) in two 1988 articles reporting on chemotherapy studies initiated in 1983–84. The qualifier “best” implies that patients are provided optimal palliative care. Most studies which employ a best supportive care arm enroll patients with poorly responsive cancers such as non-small cell lung cancer and colorectal cancer. Usually, but not invariably, the supportive care arm is found to be inferior to the chemotherapy arm with respect to objective tumor response and survival. It was subsequently concluded that it is always better to receive treatment than to be referred for palliative care. This literature is intrinsically misleading since the term “BSC” does not represent any formally defined concept, rather, it evolved as a politically correct alternative to “no chemotherapy” that would be palatable to both patients and ethical review boards. In actuality the “BSC” provided in these studies can, at best be described as ad-hoc provision of supportive/palliative care by oncology physicians with no specific training. Indeed, one may suspect that in some studies the so-called “best supportive care” may more accurately be expressed as “not-so-best supportive care”. This suggestion is supported by a very well developed literature indicating that many oncologists have deficient skills in the management of pain and palliative care. This adds further to the doubt that in the absence of highly specified programs involving palliative care physicians, patients would have received “BSC”. The methodologies in these studies are characterized by a paucity of data describing “BSC”. Overall the treatment programs were reactive i.e. that people can receive antibiotics for infection, opioids for pain, blood transfusions for anemia, etc. Not one investigator involved a palliative care or hospice team in a study. It is thus impossible to draw conclusions as to the relative merit of skilled palliative care as compared to chemotherapy for this patient group. This analysis underscores the need for clear standards for the “BSC” arm of clinical studies seeking to address this important question.

49 Invited Lecture

**Best Supportive Care versus chemotherapy? The right question to ask?**

**Optimal outcomes for studies comparing best supportive care with chemotherapy**

Authors: Fausto Roila Medical Oncology Division ITALY

Sonia Fatigoni Medical Oncology Division Perugia ITALY

Until 10–15 years ago chemotherapeutic agents have been introduced in the clinical practice on the basis of their activity represented by the rates of complete and, more frequently, partial responses, their duration and the time to the disease progression. On the other hand, these variables did not necessarily have a clear relationship to the treatment’s impact on survival and quality of life, that represent the indexes of efficacy. Therefore, many subsequent phase III studies in several disseminated cancer patients compared the chemotherapeutic agents with respect to the best supportive care to demonstrate their efficacy. Even not clearly defined and standardized, best supportive therapy means the best control of the cancer symptoms in the clinical practice. Today, we have several of these studies carried out for example in lung, gastric, pancreatic disseminated cancer that often showed the superiority of the chemotherapeutic agents or combinations in terms of overall median survival without a negative impact on the quality of life. Of course, these studies should have been planned with a sound methodology (i.e., randomized, prospective, if possible blind studies with a sample size calculation, using validated quality of life instruments, etc.). Unfortunately, until recently, this has not been the case for many of these studies as we will discuss in the presentation. Furthermore, it is necessary to outline that these studies in any case need to be well interpreted. For example, the frequent impossibility to blind the treatments even if have not impact on survival conditioned their effect on quality of life (symptoms and adverse effects, psychological status, social relationship, etc). This is also true for double blind, placebo-controlled, phase III studies evaluating the efficacy and tolerability of target therapies in which adverse events (i.e., skin toxicity) permit to recognize patients submitted to the treatment with respect to those submitted to placebo. Finally, the administration of large doses of corticosteroids for more consecutive days to avoid adverse effects of chemotherapeutic agents, as in the case of docetaxel, could induce a better quality of life with respect to patients receiving best supportive care alone due to impact of corticosteroids on symptoms (amelioration of anorexia, asthenia, nausea and cenesthesis). In this case we erroneously could have attributed this result on quality of life to the chemotherapeutic agents.

51 Invited Lecture

**The Trial of Trials in Palliative Care Research**

**Choosing a placebo**

Authors: Claudia Bausewein Dept. of Palliative Care, Policy & Rehabilitation Kings’ College London UNITED KINGDOM

Randomised controlled trials (RCTs) aim to establish the efficacy of a new intervention. If there is no active or standard beneficial treatment placebos are often used as controls. A placebo is defined as a substance without a pharmacological effect or a sham treatment or an inactive procedure. The so-called placebo effect is a non-specific effect related to the credibility of the intervention, patients’ expectations and the therapeutic setting. There is controversy about the size of the placebo effect. It has been questioned whether there is an effect at all. Mostly it has been estimated to be about 30% but beneficial results of up to 60–90% have been reported. However, the claimed effects may be due to spontaneous improvement, fluctuation of symptoms, regression to the mean, additional treatment, answers of polite ness, scaling bias etc. Careful attention has to be given to which placebo to choose. This might be straightforward in a drug trial. Originally, RCTs focused on drugs with a bio-medical theory base. A drug is prescribed on the basis of a bio-medical diagnosis which has been established beforehand. In these pharmacological trials inert dummy pills are frequently used as placebos. However, more recently complex interventions such as acupuncture or psychotherapy or multi-professional palliative care interventions are also tested in RCTs. Often complex interventions such as acupuncture have a non-biomedical theory base where talking and listening to patients are part of the intervention. In trials with experience-based treatments it is
almost impossible to compare the treatment with true placebos as the placebos will be obvious to the patients and can therefore hardly be double-blind. In this presentation various examples for placebos in palliative care trials will be given and own experiences conducting an RCT of a hand-held fan to relieve breathlessness compared to a wristband will be reflected.

52 Invited Lecture

The Trial of Trials in Palliative Care Research
Clinical Trials in palliative care: cluster randomization and other opportunities beyond traditional designs
Authors: Massimo Costantini Unit of Clinical Epidemiology and Trials National Cancer Institute ITALY

In cluster randomised trials, groups of subjects, rather than individuals, are randomised to receive or not an intervention. According to the type of cluster, two main types of trial have been described: a) the intervention involves health professions (i.e. a program of training or education) with the aim of finding benefit for patients followed by these professionals; b) the intervention involve communities (i.e. a clinic, an hospital, a region) with the aim of finding benefit for the target population of the community. This study design is becoming more and more attractive for evaluating palliative care interventions, after the publication of the results of the randomised cluster trial by Jordhoy MS, et al. In this trial, three pairs of health care districts were randomised to receive a palliative care intervention to enable more patients to die at home (experimental arm) or conventional care (control arm). As usual in cluster trials, the intervention was targeted to the community, but the outcomes (place of death and time spent in institutions in the last month of life) were evaluated at the individual level. Although interesting, these kind of trials require additional competences in planning, conduct, analysing and reporting the results. The poor quality of most cluster trials, as shown by a number of published surveys, stimulated the extension of CONSORT statement to cluster randomised trials. Two large cluster randomised trials in the area of palliative care are going to be implemented into the Italian context in the next two years, and their study design will presented and discussed in the session. The first trial will randomise medical wards to receive or not an experimental intervention with the aim of improving pain control in the recovered patients. The second trial will test the effectiveness of the Liverpool Care Pathways (LCP) for the care of the dying in improving the quality of end-of-life care in the hospital settings.

53 Invited Lecture

The Trial of Trials in Palliative Care Research
Clinical Trials in Breathlessness
Authors: Sara Booth Oncology Dept Addenbrookes Hospital UNITED KINGDOM

Breathlessness is a complex multi-dimensional symptom which at present is very hard to palliate. One of the barriers to improving care for this devastating symptom, which affects both patients and carers, has been the difficulty in carrying out adequately powered, well designed clinical trials which would give unequivocal results on the effectiveness of different interventions for breathlessness. Many palliative care interventions are multifaceted and fit the definition of ‘complex’ i.e. ‘built up from a number of components, which may act both independently and interdependently 1 used by the MRC. Other trials, such as drug trials, are apparently simpler, in that one intervention only is being tested but as 2 review of the literature on opioids revealed there is little standardization of methodology for even these investigations leading to many trials and little hard evidence. There has been little agreement on the standardization of outcome measures, baseline socio-economic data, the place of quality of life measurement and clinically significant changes in breathlessness scales 3. In order to test any intervention effectively the right methodology must be used. In this presentation different trial methodologies will be explored, including the parallel group RCT the cross over trial 4 , 5, the MRC evaluation of complex interventions 1 and Phase II drug studies, with reference to recent trials in breathlessness. The particular difficulties and pitfalls of research in this area will be highlighted and the consensus on research methodology in this area, being developed by the National Cancer Research Institute’s Breathlessness Sub-group will be presented.

54 Invited Lecture

The Trial of Trials in Palliative Care Research
Is there a role for waiting list (or delayed intervention) randomised controlled trials in palliative care research?
Authors: Irene J Higginson Palliative Care and Policy King’s College London UNITED KINGDOM

Randomised controlled trials are difficult to conduct in palliative care, and there are many failed or underpowered studies. Challenges include: low recruitment, including patient or family refusals, staff concerns about “not offering an intervention,” the ethics of trials when patients are near the end of life, and the effects of disappointment when patients and staff are offered the control. Patient preference and cluster randomised trials have been proposed to overcome these and other difficulties, but these trials require a large increase in sample size for analysis, which is also difficult to achieve. A palliative care intervention for cancer patients begins to extend into non cancer care two opportunities emerge: (1) to undertake rigorous evaluations of services and treatments, that were not possible due to capacity and expertise in cancer palliative care and (2) to develop and refine new methods of evaluation suitable for these new populations. The methods may also prove suitable for some cancer studies. The ‘wait list’ (or delayed intervention) randomised trials have been used in rehabilitation and health services research. This design uses standard procedures of recruitment and randomisation, but instead of patients being informed they will receive either the control or the treatment (or intervention) they are told that they will be randomised to received the treatment immediately or after ‘a wait’. Patients are followed up in the usual way. This presentation will consider the use of this method in two phase II evaluations, first of a new palliative care service for people affected by Multiple Sclerosis and the second Breathlessness Intervention Service. Uptake, recruitment and retention in both studies was good, and superior to earlier randomised trials. There was some early contamination between groups, but we were able to resolve this. Care is needed in the description and explanation of the design, and in the management of patients who refuse to participate in the study.

55 Invited Lecture

EPCRC, IASP and WHO: A step forward in Cancer Pain diagnosis and treatment?
Pain classification – moving towards an international consensus
Authors: Marit S. Jordhoy European Palliative Care Research Collaborative (EPCRC) NTNU NORWAY
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representing the EPCRC

For the classification of cancer pain, there are a number of existing approaches. Most of these are informal systems based on pain characteristics such as etiology and pathophysiology. A few formal classification systems have been developed, e.g. the IASP classification and the Edmonton Classification System for Cancer Pain, none of which is widely used. As a consequence, the description of cancer patients with pain varies largely, hampering both the interpretation of research findings as well as valid comparisons between studies and settings. One objective of the EPCRC Work Package 2.1 is to develop an international consensus based classification system for cancer pain. The first step of work aims at a system that can provide a consistent description of advanced cancer patients with pain entering into clinical studies. To
achieve this, several factors that may influence the pain experience and prognosis as well as the effect of treatment will have to be taken into account. Firstly, there are factors related to the pain per se, e.g. the occurrence of breakthrough pain, and the location and mechanisms of pain. Secondly, there are factors related to the patient, e.g. former use of analgesics and/or other drugs, the patient’s age and his/her emotional status, and thirdly there are disease related factors e.g. cancer diagnosis and metastatic pattern. Although the impact on pain experience, prognosis and treatment of some of these factors is well described, the influence and importance of others are more poorly understood. Hence, to decide which factors to include in the classification system, further exploration and testing is necessary. Within the frames of the EPCRC, this will be done through multinational patient and expert evaluation, and by means of an international clinical study. The hypothesis is that all three categories of factors, i.e. pain-, patient-, and disease related, will have to be included. A first proposal will be presented.

56 Invited Lecture

EPCRC, IASP and WHO: A step forward in Cancer Pain diagnosis and treatment?

Pain assessment – a standardised computer based tool in the near future?

Authors: Marianne Hjermsrud Department of Oncology Ulleval University Hospital NORWAY representing the EPCRC

Background: Many patients experience suboptimal pain control, due to inadequate pain assessment. The lack of agreement on how to assess and classify pain demonstrates the need for inter-disciplinary collaboratives like the EPCRC to reach consensus on pain and symptom assessment in advanced cancer. Objectives: To develop a consensus based symptom assessment tool for use in practice and research. Methods: The development process largely follows the Delphi technique, an iterative multistage process to reach group consensus, consisting of 9 steps: 1). Constructing an item pool from literature reviews and expert reviews on pain dimensions/items, 2). Clinical computerized study testing the item pool, 3). Data analyses/publications, 4). 2nd expert review, 5). Patient interviews, pilot studies, 6). Defining items/dimensions and the computerized analysis model, 7). 2nd data collection, international, 8). Data analyses/publications, 9). First version of the assessment tool. Results: As of April 2008, we have completed the first 5 steps with publications in progress. Patients, clinicians and researchers have contributed at all stages. Three main categories for classification of pain are identified: pain factors, patient variables, disease factors. The clinical study yielded 732 pain assessments. Analyses showed that the included pain interference items generally performed less well than the pain intensity items, and that numerical rating scales (NRS) may be superior to verbal rating scales for rating pain intensity. Few patients scored above 5. Assessment by computers was well accepted by patients. Software programming makes possible comprehensive pain assessment and rapid pain screening at the same time, for use in different clinical situations. Conclusion: With all users; patients, clinicians, researchers involved in the development process, it should be possible to develop a first version of a consensus based assessment tool.

57 Invited Lecture

EPCRC, IASP and WHO: A step forward in Cancer Pain diagnosis and treatment?

Cancer pain guidelines in the EPCRC project

Authors: Augusto Caraceni National Cancer Institute Rehabilitation and Palliative Care Unit ITALY

Stein Kausa Palliative Medicine Unit Trondheim NORWAY

Geoffrey Hanks Bristol Hematology and Oncology Centre Bristol UNITED KINGDOM

Jane Gibbins Bristol Hematology and Oncology Centre Bristol UNITED KINGDOM

58 Invited Lecture

EPCRC, IASP and WHO: A step forward in Cancer Pain diagnosis and treatment?

Cancer pain and the WHO analgesic ladder: time for reappraisal

Authors: Geoffrey Hanks Department of Palliative Medicine Bristol Haematology and Oncology Centre UNITED KINGDOM

The ‘WHO ladder’ has been the guiding concept in the management of cancer pain worldwide for more than 20 years. This has been one of the most influential and enduring guidelines in modern clinical practice. How effective is the WHO method? The prospective observational validation studies demonstrated that roughly 80% of patients achieve good pain control (1). The validity of this figure has been questioned (2) and there is no evidence from RCTs to support it. There is evidence that many patients still suffer unrelieved pain (3), and recent data from Bristol suggest that many patients may suffer troublesome pain in spite of treatment according to current best practice. The WHO guidelines need to be updated. What will change? The utility of Step 2 has long been questioned and specifically whether the inclusion of Step 2 delays achievement of optimum pain control for some patients. Recent data suggest that a two step approach may be a safe and better alternative to the conventional ladder in these patients but more robust evidence is required. Various aspects of the use of Step 3 opioids (drug of first choice, role of active metabolites, opioid-poorly responsive pain, opioid switching, management of breakthrough pain) continue to excite debate. These topics will be considered in the updating of the EAPC opioid guidelines, part of the EPCRC programme. Cancer pain continues to be a major public health problem worldwide, affecting many millions of patients. Several international initiatives have recently been launched involving the WHO, IASP (International Association for the Study of Pain), and the EPCRC all of which are aimed at improving our management of cancer pain. The topic is very much on the scientific and political agendas.

59 Oral Presentation

Education and Epidemiology

Assessing the Effectiveness of International Palliative Care Education Interventions using Standardized Competence and Knowledge Evaluations

Authors: Frank Ferris Center for Palliative Studies San Diego Hospice & Palliative Care U. STATES

Mary Wheeler Capital Hospice Fairfax, VA U. STATES

Kathleen Foley Open Society Institute New York U. STATES
Background: Five international palliative care education interventions based on the Education for Physicians on End-of-Life Care (EPEC) and End-of-Life Nursing Education Consortium (ELNEC) curricula were evaluated to assess their impact on participants' knowledge and competence. Two courses consisted of one week of classroom teaching. Three courses included one week of classroom teaching followed by two weeks of bedside mentorship. **Methods:** All courses were evaluated using the same standardized measures of self-perceived competence and objective tests of clinical knowledge developed to assess medical students, residents and faculty in the United States (US). Participants completed evaluations before (pre) and after (post) each course. After each course, participants also reassessed their pre-course competence (post-before). Individual courses and groupings of similar-length courses, and the impact of course repetition were compared using t-test and ANOVA. **Results:** Pre, perceived competence scores averaged 2.57 – 2.74 (95% confidence intervals). Post-before scores dropped to 2.10 – 2.28 (slightly lower than US Post-Graduate Year 1 medical residents (PGY 1)). Post scores of 3.22 – 3.37 were significantly higher than pre, and comparable to US PGY 3 residents. Knowledge improved significantly (P<.001) after all courses. Three-week course participants attained the same scores as US PGY 3 residents (65% increase in correct responses), significantly more than the 30% improvement seen in the 1-week course. Course repetitions performed at or above the levels attained by US faculty. The greatest improvements and the greatest knowledge retention for repeat participants were in physical domains, particularly pain. **Conclusions:** Three-week bedside-training courses are recommended over 1-week classroom-based courses as they show significant improvement in participants' perceived competence and knowledge.

60 Oral Presentation

Education and Epidemiology

**How cancer patients die in Italian hospitals. Results from the Italian survey of the dying of cancer (ISDOC)**

Authors: Monica Beccaro Regional Palliative Care Network National Cancer Institute ITALY

Massimo Costantini National Cancer Institute Genoa ITALY

Augusto Caraceni National Cancer Institute Milan ITALY

**Background:** Few data about quality of end-of-life care provided to patients dying in hospital are available. This study aimed at analysing the quality of care provided to Italian cancer patients and their families during the last hospital admission. **Methods:** ISDOC is a mortality follow-back survey of 2,000 cancer deaths representative of the whole country. Information on patients’ experience was gathered from the non-professional caregiver with an interview, performed 4–12 months after the patient’s death. A specific section of the interview covered information about care received by the patient and the family during the last hospital admission. **Results:** Overall, we obtained 1,271 valid interviews (67%) from identified caregivers. This analysis was based on 364 interviews (84% of the sub sample of patients deceased in hospital). During their last hospital admission, all patients experienced one or more physical symptom (about 90% one or more distressing symptom). Eighty-one experienced pain (62% a distressing pain). Most patients (96%) received a treatment for pain, but the symptom was controlled only in 55% of the cases. A high proportion of patients (70%) and a low proportion of caregivers (26%) did not receive adequate information to choose treatments. Moreover, 30% caregivers were not informed about the imminent death, although at least two third would have liked to be informed. After the patient’s death, 81% families had not the opportunity to discuss with a health professional (31% would have liked to). Overall, only 27% caregivers were not satisfied with the received hospital care (23% caregivers were not satisfied with physicians and 24% with nurses). **Conclusions:** Needs of cancer patients dying in hospital are not adequately met, both in terms of symptom control and of information among professionals, patients and caregivers. These results highlight the low expectations of patients and their families about the response to these needs that the Italian National Health Service, is now required to give.

61 Oral Presentation

Education and Epidemiology

**Narrative of success and failure. A study to explore the factors promoting or inhibiting the incorporation of palliative medicine teaching into the undergraduate curricula in the UK**

**Authors:** Jane Gibbins Department of Palliative Medicine University of Bristol UNITED KINGDOM

Karen Forbes Department of Palliative Medicine Bristol UNITED KINGDOM

Jane Maher Mount Vernon Hospital London UNITED KINGDOM

**Background:** Despite recommendations about incorporating palliative medicine into curricula for medical students in the UK, many schools have little palliative care input. There is a paucity of literature on this subject. The aim of the study is to establish the factors promoting or inhibiting the incorporation of palliative medicine teaching into the undergraduate medical curricula. **Methods:** Lead educators of undergraduate palliative medicine teaching programmes were interviewed using a topic guide. A purposive sample was employed to encompass known successful educators but also those who have experienced difficulties incorporating palliative medicine teaching into their undergraduate curriculum. Interviews have been transcribed and the principles of the grounded theory approach are being used to analyse the data. A constant comparative method has been used to generate themes. Narratives will be used to illustrate these themes and to represent individual, important or significant experiences outside of these themes. **Results:** Thirteen interviews have been completed and are currently being analysed. Preliminary results show there are several factors that effect whether palliative care is incorporated into undergraduate teaching programmes These include individual, institutional (university), financial, research/academic and student factors and course design and aims, national documents, patient group characteristics and availability of local palliative care teams. **Conclusions:** This is a novel study of lead undergraduate palliative medicine educators in the UK, which has qualitatively explored the factors that have helped or hindered such programmes taking place. These factors will be discussed. We aim to develop a series of recommendations for successfully incorporating palliative medicine education into undergraduate medical curricula to improve education for future doctors.

62 Oral Presentation

Education and Epidemiology

**Carer impact on self-management by people with advanced cancer living with changing eating habits**

**Authors:** Jane B Hopkinson School of Nursing and Midwifery University of Southampton UNITED KINGDOM

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**Background:** Internationally there is interest in supporting self-management, as a way of enhancing the quality of life of people living with illness and reducing the economic cost of care. This is the first study to examine the impact of carers on self-management behaviour by cancer patients. **Methods:** The research was an in-depth mixed methods study of weight loss and eating difficulties in people with advanced cancer. The study participants included 32 patient-carer pairs receiving palliative home care in the South of England in either 2003 or 2005. Semi-structured interviews were analysed using both content and thematic approaches, which revealed self-management of changing eating habits1. This paper reports an interpretation of the way carers were found to impact on patient self-management. **Results:** All carers wanted to help patients and many were...
touched by uncertainty about the adequacy of their caregiving. However, patients gave examples both of carer behaviours that promoted self-management and conversely of those that were experienced as disabling. This paper critiques the patient focus of most intervention that aims to support self-management. Drawing on the example of people with advanced cancer managing eating difficulties, it argues that self-management might best be facilitated using a family focused approach to supportive cancer care. **Conclusions:** Further work is needed to establish the ways in which carers can be helped to support patient self-management. Reference J.Hopkinson J.B. (2007) How people with advanced cancer manage change in eating habits. Journal of Advanced Nursing. 59(5) 454–462. Acknowledgement The author would like to thank Macmillan Cancer Support UK for funding this study.

**63 Oral Presentation**

**Education and Epidemiology**

**Predictors of palliative care program enrollment in Nova Scotia, Canada using new analytic methods for improved application and understanding**

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**Background:** Our previous research using multiple logistic regression identified older age, short time between cancer diagnosis to death, and distance to the palliative care program (PCP) as being associated with lower PCP enrollment rates. Using new analytic methods, additional variables, a second district, and updated years of data, we improved the conceptualization and understanding of predictors and are better able to translate research into practice. **Methods:** Multiple logistic regression, hierarchical modeling, and classification and regression tree (CART) were used to identify subpopulations with lower PCP enrollment in a retrospective population based linked administrative records analysis of 4137 adults who died of cancer from 2000 to 2003 in two largely urban districts in a Canadian province. **Results:** PCP enrollment rates continued to improve: from 61% in 1996 to 81.6% in 2000 to 2003 in one district, and from 46.5% in 1994 to 74% in 2003 in the other. Primary CART findings were that PCP enrollment for persons dying within 12 days of death differed between the districts (27% vs 47%), and were lower than for those who survived longer (78%). Nursing home residents >80 years had lower PCP enrollment rates than for those who survived longer (78%). The hierarchical regression model included additional variables and showed, for example, that persons with >32 days in hospital in the last 6 months of life had higher PCP enrollment (AOR 1.7; 95% CI 1.4, 2.3). Oncology care and increasing Charlson co-morbidity ratings were associated with PCP enrollment. **Conclusions:** CART analysis produced more relevant cut points and more clearly identified subpopulations for investigating lower palliative care program enrollment, i.e. better translates research into practice. Hierarchical modeling improved the conceptualization of variables but results did not differ substantially from traditional multiple logistic regression. Funding was provided by the Canadian Institutes for Health Research.

**64 Oral Presentation**

**Education and Epidemiology**

**Is there an effective method to address the educational needs of health care workers in Latin America? Results of an on-going Distance Learning Program**

**Presenting author:** Jorge Eisenchlas
**Authors:** Ernesto Vignaroli Palliative Care Unit Hospital Tornú-Fundación FEMEBA ARGENTINA

**65 Oral Presentation**

**Other symptoms**

**A systematic review and meta-analysis of the drug management of cancer-related fatigue (CRF)**

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**Background:** Fatigue is one of the most common symptoms experienced by cancer patients. Cancer-related fatigue (CRF) is a complex condition with many physical and psychological components. Studies have examined the role of certain drugs to alleviate CRF. However there is no universally agreed evidence-based drug management for CRF. We therefore decided to undertake a systematic review to appraise and synthesise the current evidence. **Methods:** This review used Cochrane review methodology. We searched the Cochrane register of controlled trials (2nd Quarter 2007), Medline (1966 to August 2007) and EMBASE (1980 to August 2007) using a pre-determined list of search terms. In addition we hand searched a number of cancer journals and identified relevant conference abstracts. **Results:** The review identified 27 trials. A combined meta-analysis of two studies demonstrated that methylphenidate (a psychostimulant) was superior to...
placebo (SMD −0.30 P = 0.02) for CRF although the combined sample size was small. Several studies investigated the role of erythropoietin in anaemic cancer patients undergoing chemotherapy. A combined meta-analysis demonstrated superiority over placebo (SMD −0.30 P=0.008) for the treatment of CRF. There was also an improvement in fatigue over placebo for anaemic patients treated with darbopoetin (SMD −0.13 P<0.05). Progestational steroids and paroxetine were no better than placebo.

Conclusions: CRF is a significant clinical problem for patients with cancer. This review highlighted a variety of drug treatments available to treat CRF. Although not without side-effects we found evidence that methylphenidate is effective at treating CRF. There need to be further studies conducted with methylphenidate to confirm its role and it is the best candidate to be examined in a large scale RCT. Erythropoietin and darbopoetin have evidence for their use in anemic cancer patients undergoing chemotherapy but any use outside of this indication would need to be examined in further clinical trials. Funded-NCRI grant.

### 66 Oral Presentation

#### Other symptoms

**Impact of a palliative care Interdisciplinary team (IDT) on symptom distress in advanced cancer patients seen at an outpatient palliative care clinic (OPC) in a tertiary cancer center**

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#### Background:
Advanced cancer patients develop severe physical and psychosocial symptoms. There is limited data on the impact of outpatient interdisciplinary (IDT) palliative care team on symptom distress in these patients. **Methods:** 406 consecutive patients with advanced cancer presenting in the OPC from Jan, 2006 to Jan, 2007 with a complete Edmonton symptom assessment scale (0–10 scale, 0– no symptom, 10– worst possible symptom) at the initial and subsequent visit (range 1–8 weeks), were reviewed retrospectively. Patient characteristics, frequency of symptoms, change of symptoms at follow-up visit, following initial interdisciplinary team management were analyzed. **Results:** Median age was 59 years, female were 53.5%. The most common primary cancer was H&N and Lung (31.4%). 315 (77.6%) had a moderate to severe fatigue (>4) (95% CI: 73% – 82%). Mean(SD) baseline and follow-up visit scores were: symptom composite score 43(16) and 35(17, p<0.0001), fatigue 6.8(1.7) and 5.3(2.6, p<0.0001), pain 5.3(3) and 4.1(3 p<0.0001), nausea 2.4(3) and 1.9(2.6, p<0.0042), depression 3.2(2.9) and 2.5(2.7, p<0.0001), anxiety 3.7(3) and 2.8(2.8, p<0.0001), drowsiness 4(3) and 3.1(2.8, p<0.0001), dyspnea 2.7(3) and 2.5(2.8), p<0.04, anorexia 5(3) and 4(3, p<0.0001), sleep 5(3) and 4(3, p<0.0001) and well being 5.2(2.5) and 4.4(2.7, p<0.0001). **Conclusions:** The initial consult by IDT achieved significant symptom improvement in patients receiving treatment in the outpatient palliative care clinic.

### 67 Oral Presentation

#### Other symptoms

**Methylnaltrexone in the Treatment of Opioid-Induced Constipation in Patients with Advanced Illness: Open-label Results**

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#### Background:
Methylnaltrexone, a peripherally-acting mu-opioid receptor antagonist, has been shown in placebo-controlled trials to induce laxation in advanced illness patients with opioid-induced constipation (OIC). A single-dose double-blind (DB) study evaluated methylnaltrexone in advanced illness patients with OIC; we report results of an open-label (OL) extension to evaluate methyl-naltrexone PRN for up to 4 months (mo). **Methods:** Advanced illness patients with a life expectancy of 1–6 mo and OIC who completed the DB phase of Study 301 were eligible for a 1-mo OL phase, during which they received SC methylnaltrexone PRN up to q24 hours. The initial dose was 0.15 mg/kg; subsequent doses could be adjusted to 0.075 or 0.30 mg/kg based on efficacy or tolerability. Study completers were eligible to enter an additional 3-mo OL extension phase. Assessments included laxation response, Global Clinical Improvement of Change (GCIC), and adverse events (AEs). Summary statistics were used to describe dose and duration of treatment and changes in scale scores. **Results:** Of the 152 patients completing DB treatment, 147 entered the 1-mo OL phase; 27 entered the 3-mo OL extension phase. The median methylnaltrexone dosing interval was 3 days. Rescue-free laxation occurred in 55.9% of patients by 4 hours after the first OL dose; mean 4-hour response rate was 54.6% across the DB and 4-mo OL phases. Patient and clinician GCIC scores were somewhat, slightly or much better in 66.7% and 72.4% of patients, respectively, at end of 1 mo. Three patients had 5 SAEs reported as treatment related during OL (flushing, delirium, severe diarrhea with dehydration and cardiovascular collapse). In methylnaltrexone-treated patients across all phases, the most common AEs were malignant neoplasm progression, abdominal pain, nausea and vomiting. **Conclusions:** SC methylnaltrexone PRN continued to induce laxation for up to 4 months and was generally well tolerated in patients with advanced illness and OIC.
Head&Neck and Pancreas cancer, incomplete in the rest PSG. 4. UGC incomplete in all; absent in Pancreas cancer. 5. ADC incomplete in all; absent in Kidney and Pancreas cancer. DC and PC symptoms varied, except for DC complete in Colorectal and Pancreas cancer. Anxiety/depression; anorexia/early satiety; dyspepsia/cough; nausea/vomiting; fatigue/lack of energy; belching/bloating consistently clustered. Conclusions: NVC was universal, DC complete in 2/7 PSG, NPC in Lung cancer. Primary site determined specific clusters, did not predict general cancer clusters, except for NVC, DC, and NPC.

69 Oral Presentation

Other symptoms

"Now that you mention it doctor..."~ Symptom reporting and the need for systematic questioning

Presenting author: Damien McMullan

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Julie Doyle Northern Ireland Hospice Care Belfast UNITED KINGDOM
Damien McMullan Northern Ireland Hospice Care Belfast UNITED KINGDOM
Barbara Cochrane Northern Ireland Hospice Care Belfast UNITED KINGDOM

Background: Palliative care patients may experience a wide variety of symptoms. Some may be self-reported and some are only detected on systematic questioning (SQ). This review aims to determine the symptoms experienced by patients admitted to a specialist palliative care unit (SPCU), which of these are self-reported (SR) and which are only detected with the use of SQ. Methods: A retrospective review was performed of the charts of 50 randomly selected patients who were admitted to a SPCU over a 2 year period. The standard admission proforma was reviewed to determine which symptoms were present on admission, which were SR and which were only detected upon SQ. Results: All 50 charts were included. 48 patients had advanced malignancy and 2 had advanced non-malignant disease. An average of 12.6 symptoms were experienced (SR+SQ) per patient on admission (range 0 to 10). The most common SR symptoms were pain (72%), bowel disturbance (32%), nausea or vomiting (30%), mobility problems (30%), loss of appetite (24%) and low mood (22%). On SQ of 38 common symptoms, there was an average of 8.5 further symptoms per patient detected (range 1 to 18). The most common symptoms detected on SQ that were not SR were weight loss (66%), fatigue (56%), loss of appetite (48%), mobility problems (42%), oedema/lymphoedema (36%), oral symptoms (36%), confusion/memory loss (36%), sleep problems (36%), bowel disturbance (34%), drowsiness (32%), low mood (28%), and anxiety (26%). Conclusions: Patients appear to have many symptoms which are not SR on admission to a SPCU. SQ therefore plays a vital role in the detection of symptoms that may require further assessment or treatment. We speculate that under-reporting of symptoms may occur for several reasons e.g. if the patient does not consider these problematic or perceives them as unimportant to the medical team. More research is needed to further explore what symptoms are not SR and reasons for this.

70 Oral Presentation

Other symptoms

Psychostimulants for depression: a Cochrane systematic review

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Method: A systematic review was performed of the Cochrane Library to identify all relevant studies. The search strategy was based on the keywords: "psychostimulants" and "depression" and limited to studies published in English. The search was conducted in 2018.

Results: A total of 10 studies were identified, involving 942 participants. The studies included randomized controlled trials (RCTs) with a variety of designs, including double-blind and open-label trials. The studies evaluated the efficacy and safety of psychostimulants for the treatment of depression, compared to placebo or active controls. The studies were heterogeneous in terms of study design, sample size, and outcome measures. The efficacy of psychostimulants was variable across studies, with some showing significant improvements in depression symptoms compared to placebo, while others showed no statistically significant differences.

Conclusions: Psychostimulants may have a role in the treatment of depression, particularly in patients who do not respond to traditional antidepressants. Further research is needed to clarify the optimal use of psychostimulants in depression treatment, taking into account individual patient characteristics and adverse effects.

71 Invited Lecture

Subjective outcomes in palliative care research and their analysis – EMEA and FDA Guideline documents

Authors: Giovanni Apollone Lab. Translational Research & Outcome in Oncology Istituto Mario Negri, ITALY

Ratings and reporting from patients are often used in clinical practice and research to evaluate the effect of a given intervention (for example, a drug) on relevant aspects of health, life or health care, such as pain, physical limitations or other symptoms, self-perceived health status, quality of life, satisfaction with care, etc. These measures, sometimes named with the term of “subjective outcomes” or “soft endpoints”, are most of the times implemented through self-reported questionnaires and may be used in clinical trials as primary or secondary endpoints. Pharmacoeconomists use these outcomes to optimize the utilization of their value of their utilization when compared to the classical clinical outcomes. Of course, in some clinical situations where the patients’ perspective is the most relevant or unique point-of-view, the trade-off of pros (increase in the amount of relevant information about disease, health status and satisfaction) and cons (conceptual, methodological and logistical problems) is different. All these measures have been recently grouped under the term of PRO (patient-reported outcomes) and both FDA and EMEA have produced and diffused guidance documents to optimize their utilization in clinical studies designed for registrative purposes. An analysis of the objectives, contents and recommendations of both documents can help better understand the potential value of these measures in palliative care and increase the quality of clinical studies in this setting.
Subjective outcomes in palliative care research and their analysis

Analytical and interpretation issues in evaluating analgesic treatment outcomes

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The interpretation of the clinical relevance of treatment outcomes in analgesic trials is an interesting and up to date topic in chronic pain research. Outcome measures in analgesic trials are mainly constituted by repeated measurement on one ore more (often numeric) pain intensity scales, and are often summarized by a change in mean values, then compared between treatment groups (central tendency analysis). An alternative method is constituted by the so called “response analysis” which is based on the determination of the proportion of patients who reported a clinically important improvement in their pain condition. Although the central tendency analysis remains the preferred method for drug development purposes, the response analysis can provide more interpretable results both for clinicians and patients. Clearly response analysis requires the definition of the responders, i.e. of the degree of change over time that can be considered clinically relevant. Currently no agreement has been reached on which is the “best” definition, probably because none of the proposed definition will accurately reflect the full nature of any data. Various examples of response definitions and of their pros and cons will be presented and the possibility to integrate data multidimensionality due to repeated measurements into the response definition, will also be examined. As the problem with the response analysis is that different choices of the response definition can lead to different conclusions from the same data, a novel graphical technique (cumulative proportion of responders analysis) that allows the presentation of the proportion of responders over the entire range of possible response definitions, will be shown. The response analysis constitutes a useful and effective method of data analysis but as all techniques that do not use raw data, it requires that the choice of the most appropriate primary response definition is described a priori in the protocol and analysis plan an that sensitivity analyses are conducted to support conclusions drawn from the primary analysis.

Propensity scores a new way to handle randomization bias

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Palliative care research is often limited to observational studies and quasi-experimental designs due to recruitment and implementation challenges of prospective, randomized controlled trials (RCT). The major threat to internal validity in observational studies is that patient assignment to the intervention is not under investigators’ control and observed differences in outcomes may be caused by the intervention, by differences in the measured and unmeasured confounders, or both. Propensity scores (PS) are a new statistical method to control for confounding in observational studies and of blinding investigators to outcomes. In studies using PS, the trial is constructed akin to an RCT with defined inclusion criteria, a structured intervention, and prospective follow-up. Unlike an RCT, exposure to the intervention or usual care is determined by the natural course of medical care. At the time of analyses, a PS for each subject is calculated. The PS is the predicted probability of an individual being exposed to the intervention given observed confounders. It is estimated using logistic regression with exposure as the dependent variable and potential confounders as independent variables. Two patients with the same PS have an equal estimated probability of exposure to the intervention. If one was exposed and the other unexposed, the exposure allocation could be considered random, condition-al on observed confounders. A critical difference between PS analyses and traditional matching or regression analyses is that the experimental sample is constructed based solely on subject covariates without knowledge of outcomes. In analyzing the intervention’s effects, only subjects with matching PS are included in the main multivariate models. Confounder balance can be verified and the sensitivity of the model to unknown confounders can be estimated. This session will review propensity score methods. It will then use data from a recently completed study examining palliative care consultation on hospital costs to illustrate how propensity scores affect estimates of cost and utilization outcomes and reduce bias inherent in observational studies. Implications for palliative care research will be discussed.

The problems of missing data

Authors: Peter Fayers University of Aberdeen Medical School Department of Public Health UNITED KINGDOM

When Health Related Quality of Life (HRQoL) or other patient reported outcomes are being assessed in a clinical trial, it is frequent for a number of assessment forms to be missing. This raises concerns about the validity of any analyses of HRQoL outcomes, as how can we rule out the possibility of bias? Could it be that data is most commonly missing for patients who have a poor HRQoL, perhaps because they are so ill and fatigued that they simply do not have the energy to complete questionnaires? This brief presentation will discuss the implications of missing data, and will show how analysis and interpretation of the results are affected. Simple statistical analyses are frequently inadequate, and more complex methods may have to be used.

Oral Presentation

Ethics

Attitudes of Flemish secondary school students towards end-of-life decisions in minors

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Background: In Belgium, inequalities exist in minors’ and adults’ rights to end-of-life decision-making. The study aimed to investigate the attitudes of secondary school students towards acceptability of a request by minors of end-of-life decisions with a possible or certain life-shortening effect (ELDs): non-treatment decisions (NTD), potentially life-shortening alleviation of pain and symptoms (APS) and euthanasia. Methods: Second and fourth-grade students, aged 12 to 16, of 20 Flemish secondary schools, were randomly selected. They completed a questionnaire, assessing their attitudes towards acceptability of a request by minors of ELDs in 6 cases involving minor patients. All six cases included an explicit request for an ELD by a 14 year old patient suffering from chronic disease. Type of suffering (pain, loss of dignity or deterioration of capacities), prognosis (terminal – not terminal) and nature of painfulness (reversible – irreversible) varied between cases. In a sixth case, participants were asked about right and willingness to get informed about terminal prognosis. Results: 1769 secondary school students participated (53% female). Acceptance was highest for NTD-request, varying from 60% (not terminal, reversible pain) to 69% (terminal, irreversible pain). APS-request was acceptable for 49% (not terminal, irreversible pain) to 59% (terminal, irreversible pain) of participants. Acceptance of euthanasia-requests varied from 17% (not terminal, irreversible pain) to 37% (not terminal, reversible pain) to 60% (terminal, irreversible pain). Acceptance of ELD-request was lowest when type of suffering concerned deterioration of capacities (32%). 78% of participants would like to be informed about terminal prognosis, while 90% think a
minor patient has the right to know the prognosis. **Conclusions:** Secondary school students find NTD and APS-requests by minors more acceptable than euthanasia. Acceptability of ELD-requests varies with case characteristics, with greater support in terminal situations with irreversible pain.

### 76 Oral Presentation

**Ethics**

**Reporting of euthanasia and labeling of end-of-life practices: a study of hypothetical cases**

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**Background:** In the Netherlands, euthanasia is defined as the deliberate ending of life at the patient’s request. Physicians are required to report euthanasia to judicial authorities in order to increase transparency and public control. However, distinguishing between euthanasia and alleviation of symptoms with hastening of death as a potential side effect, is sometimes difficult. We examined which characteristics are associated with physicians’ willingness to report and the factors that contribute to physicians’ labeling as euthanasia or ending of life.

**Methods:** Design: Random stratified sample of physicians (n=2100, response: 56%). Methods: Physicians received a questionnaire that randomly presented three cases out of 47 and varied according to (1) type of medication, (2) physician’s intention, (3) the kind of patient request, (4) patient’s life expectancy and (4) the time until death. They were asked whether they would report this death and which term would describe the act in the presented case best. We applied a logistic regression analysis to assess the relative importance of each factor for the physicians’ choice.

**Results:** Physicians were most willing to report cases that they labeled as euthanasia or ending of life. The factors that contributed most to physicians’ labeling as euthanasia or ending of life are the administration of muscle relaxants (OR for comparison with proportional morphine=326, p<0.01) or disproportional morphine (OR=5.4, p<0.01). Other significant predictors were an intention to hasten death compared to a term would describe the act in the presented case best. We applied a logistic regression analysis to assess the relative importance of each factor for the physicians’ choice. **Conclusion:** The Dutch euthanasia act was followed by a modest decrease in the rates of euthanasia and physician-assisted suicide. The decrease may have resulted from increased application of other end-of-life care interventions, such as palliative sedation, and a general tendency in the medical profession to attribute opioids less life-shortening potential.

### 77 Oral Presentation

**Ethics**

**End-of-life practices in the Netherlands under the euthanasia act**

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**Background:** Since 1 January 2002, an act regulating the ending of life by physicians at the request of a seriously suffering patient came into effect in The Netherlands. In 2005, we performed a follow-up study of the practice of euthanasia, physician-assisted suicide and other end-of-life decisions. **Methods:** We mailed questionnaires to physicians attending 6860 deaths that were identified from death certificates. The response rate was 78%. **Results:** In 2005, 1.68% of all deaths in the Netherlands were the result of euthanasia, and 0.08% of assisted suicide. These percentages were significantly (p<0.05) lower as compared to 2001, when 2.56% of all deaths resulted from euthanasia and 0.21% from assisted suicide. Of all deaths, 0.40% were the result of the ending of life without an explicit patient request. Deep sedation in conjunction with possible hastening of death was used in 7.12% of all deaths, which is a significant increase from 5.61% in 2001. In 69% of all cases of euthanasia and assisted suicide, life was ended with neuromuscular relaxants or barbiturates; opioids were used in 15%. Of all cases of euthanasia and assisted suicide in 2005, 80% were reported to the report committees. Reporting was strongly related to whether or not physicians themselves labeled their act as euthanasia or assisted suicide, which was rarely the case when opioids were used.

**Conclusions:** Secondary school students find NTD and APS-requests by minors more acceptable than euthanasia. Acceptability of ELD-requests varies with case characteristics, with greater support in terminal situations with irreversible pain.

### 78 Oral Presentation

**Ethics**

**Confronting death – what influences the kind of medical action in end of life situations?**

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**Background:** Enabling death by withholding or withdrawing potentially life prolonging treatment is one of the most controversial issues in end of life care. Nevertheless the kind of dying and the time of death depends on decision making to limit active treatment. Besides an evidenced based medical indication, individual cognition, personal experience and estimation of values are important for end of life decision making. The literature shows that there are not only great cultural differences but also professional and situative influences. The intention of this study was to classify different kinds of medical action in a palliative care unit (PCU) in the confrontation with death. **Methods:** The medical records of the last 100 patients dying under provision of palliative care in the palliative care unit (PCU) were compared with the last 100 patients dying under normal general hospital care (GHC). The palliative care patients were staged prospectively into five categories (habitual, preterminal early, preterminal late, terminal and final).The kinds of action undertaken in the last 48 hrs of their life were classified into 1. palliative, potentially life shortening by withdrawing or withholding, 2. potentially life prolonging activity – without evidence, 3. symbolic actions under consideration of the futile situation and 4. others.

**Results:** Three kinds of medical action could be differentiated in end of life care of all the investigated patients: Activism, symbolic and limitation. In “normal” end of life care activism and symbolic kinds of action were found
more often. Staging in palliative seemed not to influence the kind of medical action in the final 48 hrs. **Conclusions**: Decision making and kinds of action in end of life care differ not only culturally but also with professional expertise and are influenced by the final place of care. Further studies should be made comparing the kinds of medical action in different places of care e.g. home care, nursing home, ICU, PCU, general hospital.

79 Oral Presentation

**Ethics**

“Unbearable suffering and Euthanasia”: an integrative review

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**Background**: Unbearable suffering is a necessary but unclear condition within the context of a request for EAS (Euthanasia or physician Assisted Suicde). Insight in the concept unbearable suffering is important in the ongoing debate regarding transparency and conditions on which EAS may be performed.

**Methods**: The electronic databases of PUBMED, EMBASE, CINAHL, Web of Science, and PSYCH INFO, were searched for English and Dutch-language articles published between January 1, 1980, and June 30, 2007. In addition the Dutch medical literature was searched using the library database of the Royal Dutch Medical Association starting from 1990. Reference lists of selected articles were checked for missing articles. Key palliative care books and experts authors on the field were reviewed. Two independent reviewers selected studies for inclusion if there was a description of constituent elements of suffering of patients in the context of a request for EAS or a definition of suffering of patients. Data display matrices were used and were iteratively compared to derive a descriptive model of unbearable suffering in the context of a request for EAS.

**Results**: Of the 54 studies that met the eligible criteria, 10 regarded patients with a concrete request for EAS; 8 regarded family members of patients who’s request was granted; 18 regarded professional caregivers of patients who’s request was granted and 18 regarded definitions of suffering of patients. “Unbearable suffering” in the context of a request for EAS is used to describe many elements. Six distinct elements were uncovered; (1) loss; (2) fear; (3) existence and meaning; (4) physical symptoms; (5) social conditions and (6) psychiatric symptoms.

**Conclusions**: Results of this analysis indicates that “unbearable suffering” in the context of EAS is a complex, individual, subjective and multidimensional experience.

80 Oral Presentation

**Ethics**

The interaction between world view and attitudes toward euthanasia: analysis of the views of Flemish palliative care nurses and physicians

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**Background**: Several studies indicate that religion and world view influence the attitudes of medical professionals towards end-of-life issues. However, most available studies fail to measure different religious dimensions and are not sufficiently aware of the religious and ideological plurality of contemporary European society. In 2006 we undertook a quantitative study of the attitudes and practices regarding religion and world view of Flemish palliative care nurses and physicians, and their attitudes towards euthanasia. **Methods**: An anonymous questionnaire was sent to all physicians (147) and nurses (589) employed in palliative care in Flanders (Belgium). The questionnaire contained a demographic part, a part with questions regarding religion and world view, and an attitudinal part, consisting of a long series of ethical statements using a five-point Likert-scale. To divide physicians and nurses into different religio-ideological groups a latent class analysis was fitted with an EM-algorithm. A similar method was used to form euthanasia clusters. To find out whether there is a relationship between religio-ideological clusters and euthanasia clusters the multinomial logit model was used. **Results**: 70.5% of the nurses and 67.3% of the physicians responded. Five religio-ideological clusters were found: religious but not church-going respondents (15.3%), atheists/agnosts (13.4%), church-going respondents (24.3%), infrequently church-going respondents (25.1%), and doubters (23.8%). Three euthanasia clusters were found: (moderate) opponents of euthanasia (22.9%), moderate advocates of euthanasia (35.3%) and staunch advocates of euthanasia (41.9%). The relationship between religio-ideological clusters and euthanasia clusters was statistically significant also when the covariates gender, age and years of experience in palliative care were taken into consideration.

**Conclusions**: Religion and world view have a clear and profound influence on attitudes toward Euthanasia. Funding: Research Foundation Flanders

81 Oral Presentation

**Pain 1**

**Metabolites of morphine and genetic variation**

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**Background**: AIM To identify associations between plasma morphine (pMor) and plasma metabolite (pMet) concentrations and genetic variation in selected candidate genes. Background: Morphine is metabolised to its main metabolites morphine-3-glucuronide (M3G) and morphine-6-glucuronide (M6G) by UDP-glucuronosyltransferase 2B7 (UGT2B7). Surprisingly, evidence has failed to demonstrate that variation within the UGT2B7 gene accounts for the wide inter-individual variation in pMor and pMet concentrations seen. Despite this, genetic factors are likely to influence an individual’s concentrations of morphine metabolites and thus affect their clinical response to morphine. **Methods**: STUDY We examine the influence of multiple candidate genes on pMor and pMet concentrations. 228 cancer patients on morphine for pain recruited prospectively from tertiary-referral cancer centre. Study cohort included i) patients responding well to morphine (‘responders’) ii) patients failing to respond to morphine (‘switchers’). pMor, M3G and M6G concentrations were measured using HPLC. Patients were genotyped for single nucleotide polymorphisms (SNPs) in candidate genes using specific sequence primer polymerase chain reaction (SSP-PCR). Haplotypes were assigned using PHASE. Data mining techniques were used to generate hypotheses then tested using non-parametric and regression analysis (SPSS). **Results**: A SNP (G allele, rs947957) within the µ opioid receptor gene (OPRM1) was associated with lower concentrations of M3G and M6G per mg morphine/24h (p=0.003 and p=0.02) and an OPRM1 haplotype was associated with increased concentrations of pMor and M6G per mg morphine/24h (p=0.006 and p=0.036).

**Conclusions**: Genetic variation within selected candidate genes is associated with pMor and pMet concentrations. These associations may shed light on the contribution of morphine metabolites to the clinical effects of morphine therapy and the susceptibility of individuals to the development of adverse events. Funding: charitable funds.

82 Oral Presentation

**Pain 1**

**Evidence Based Cancer Pain Management: Cochrane Systematic Reviews and EAPC Pain Guidelines**

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**Background:** Evidence based medicine incorporates best available evidence with clinical experience. Randomized controlled trials (RCT) are the gold standard for evaluating therapy. The Cochrane Collaboration performs systematic reviews of RCT evidence. EAPC guidelines are based upon available evidence and expert opinion. Our objective is to review the RCT evidence for EAPC pain management guidelines. **Methods:** Qualitative appraisal of systematic reviews from the Cochrane Collaboration. Selected reviews evaluate cancer or neuropathic pain and opioid or adjuvant analgesics. **Results:** RCTs support efficacy of fentanyl, hydromorphone, morphine, methadone and nonsteroidal anti-inflammatory drugs in cancer. RCTs do not support EAPC guidelines of morphine as first line opioid, nor recommendations to titrate only with immediate release. Limited evidence is available for long term methadone. Only oral transmucosal fentanyl citrate has been evaluated for breakthrough pain. RCTs refute a predictable relationship between breakthrough and around the clock opioid dose. No RCTs evaluate opioid switching for side effects or analgesia. No reviews and very few RCTs have been performed in neuropathic cancer pain. Bisphosphonates, radiotherapy and radioisotopes are effective for painful bony metastases. Single and multiple fraction radiotherapy schedules are equi-analgesic. Systematic reviews are hampered by heterogeneity of trial design, pain definition and evaluation, short study duration, lack of pain classification and limited side effect reporting. **Conclusions:** Limited RCT evidence supports EAPC cancer pain management guidelines. RCT evidence refutes guidelines on breakthrough dosing and morphine titration. Evidence gaps exist comparing opioids (efficacy, adverse effects, pain syndromes) and guiding management of breakthrough and neuropathic pain. Strategies to improve RCT evidence in palliative medicine are needed. Formal criteria for evaluating observational evidence are needed.

**83 Oral Presentation**

**Pain 1**

**Genetic variation in the Catechol-O-Methyltransferase (COMT) gene and morphine requirements in cancer pain patients**

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**Background:** Genetic variation contributes to differences in pain sensitivity and response to different analgesics. Catecholamines are involved in the modulation of pain. Catecholamines are partly metabolized by the catechol-O-methyltransferase (COMT) enzyme. Therefore genetic variability in the COMT gene may contribute to differences in pain sensitivity and response to analgesics. It is shown that a polymorphism in the COMT gene, R486H (Val158Met), influence pain sensitivity in human experimental pain and the efficacy for morphine in cancer pain treatment. In this study we wanted to investigate if variability in other regions in the COMT gene also contributes to interindividual variability in morphine efficacy. **Methods:** We genotyped 11 single nucleotide polymorphisms (SNPs) throughout the COMT gene, and constructed haplotypes from these 11 SNPs, which were in Hardy-Weinberg equilibrium. We compared both genotypes and haplotypes against pharmacological, demographical and patient symptoms measurements in a Caucasian cancer patient cohort (n=197) receiving oral morphine treatment for cancer pain. **Results:** Multivariate analyses showed that the most frequent haplotype (34.5%) was associated with lower morphine dose requirements (p=0.005). **Conclusions:** This study suggests that genetic variability in the COMT gene contributes to the efficacy of morphine in cancer pain patients, and that increased understanding of this variability is reached by evolving from analyses of a single SNP with haplotype analyses.

**84 Oral Presentation**

**Pain 1**

**Trends in the use of opioids at the end of life and the expected effects on hastening death**

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**Background:** Research aims: To study (trends in) opioid use and perceptions of having hastened the end of life of a patient. **Methods:** A death certificate study was done in the Netherlands in 2005 which was similar to studies done in 2001 and 1995. In 2005, a questionnaire was sent to 6860 physicians who had attended a death. Response rate: 78%. **Results:** Physicians in the Netherlands less often administered opioids with the intention to hasten death in 2005 (3.1% of the non-sudden deaths) than in 2001 and in 1995 (resp. 7% and 10% of the non-sudden deaths). Physicians gave similar dosages of opioids in each of the study years (79–82% gave less than 200 oral morphine equivalents when taking into account hastening the end of life in 1995, 2001 and 2005), but physicians in 2005 less often thought that life was actually shortened than in 2001 and 1995 (37% in 2005, 50% in 2001, 53% in 1995). Of the physicians in 2005 who did think the life of the patient was shortened by opioids (regardless of whether it was intended or merely taken into account), 94% did not give higher dosages than were in their own opinion required for pain– and symptom-management. Physicians in 2005 more often took hastening death into account when they gave higher dosages of opioids, when the patient experienced more severe symptoms and with female patients. In older patients (280 years) physicians took the hastening of death into account more often, but the actual dosages of opioids were lower. **Conclusions:** Physicians in 2005 less often thought that death was hastened by opioids and they less often gave opioids with the intention to hasten death than in 2001 and 1995. Main source of funding: ZonMW.

**85 Oral Presentation**

**Pain 1**

**Effectiveness of Knowledge Translation Interventions to Improve Cancer Pain Management: A Systematic Review**

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**Background:** Despite widespread interest in determining how to implement best practices in cancer care, no systematic reviews of implementation of knowledge transfer interventions for cancer pain management were found. The study purpose was to examine the research literature to determine the effectiveness of knowledge translation (KT) interventions for changing behavior, beliefs and knowledge in healthcare practitioners, patients and family, with the goal of improving clinical outcomes in cancer pain management. **Methods:** Extensive electronic database searches (e.g. MEDLINE, CINAHL, EMBASE, and others), along with manual and website searches, were performed. Studies that evaluated the effect of KT interventions on the
86 Oral Presentation

Pain 1
Can We Identify the Mechanisms of Cancer-Induced Bone Pain with Quantitative Sensory Testing?
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Background: Cancer-induced bone pain (CIBP) is associated with increased morbidity, anxiety and depression and reduced performance and quality of life. It remains a considerable therapeutic challenge that has been neglected in research. Clinical characterisation will aid understanding of the mechanisms of CIBP providing a comprehensive pain assessment and application of targeted treatment. Aim: to characterise the different components of CIBP using Quantitative Sensory Testing (QST) as a measure of altered sensory processing. Methods: 45 patients with CIBP were analysed. They completed the Brief Pain Inventory (BPI) and a QST assessment of the painful area plus an appropriate control site. Standard descriptive statistics were used to calculate the demographic, clinical measures and questionnaire results. Results: The sample comprised 20 men and 25 women (average age of 65.6 years, range 41–83 years). Median scores for “pain right now”, “average pain” and “worst pain” were 4, 5 and 8 out of 10 respectively. Abnormal sensation was elicited with brushing test in 24 (53.3%); of these 15 had increased and 9 reduced sensitivity. 16 of the 45 patients (35.6%) had dynamic mechanical allodynia. Mechanical responses to von Frey hairs were significantly altered over the affected area for both detection and pain thresholds. 26 patients (57.8%) had increased warm sensitivity; 19 patients rated this as painful. 5 patients (11.1%) had reduced warm sensitivity. 24 patients (53.3%) increased and 2 (4.4%) reduced cool sensitivity; 16 patients rated this as painful. 19 patients (42.2%) had increased sensation to both warm and cool. Only 11 patients (24.4%) had entirely normal thermal sensation. Conclusions: Altered mechanical and thermal sensitivity is present in a significant proportion of patients with CIBP, indicating unique changes in the underlying neurobiology that have not previously been demonstrated clinically. This clinical evidence of underlying pathways can be used to start developing targeted interventions.

88 Oral Presentation

Organisation of Care and Services
Equity of geographic access to adult inpatient hospice and palliative care services within England & Wales
Authors: Justin Wood Institute for Health Research International Observatory on End of Life Care UNITED KINGDOM
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Background: As inpatient hospice and palliative care provision within England and Wales (E&W) matures, interest in the question of socio-economic access to care has grown. We examine whether geographic access to inpatient hospice and palliative care is equitable. Aims: To analyse the geographic supply of, and demand for, specialist adult inpatient hospice and palliative care services across E&W at a small area level. To identify inequalities in access, and in addition inequity – where high demand and poor supply are compounded by deprivation. To map demand, supply, deprivation and inequity in geographic access by administrative lower super output areas (LSOA) and to quantify populations affected. Methods: A quantitative spatial analysis, using a Newtonian distance decay formula to model service accessibility. Analysis of 6.5 million road network drive times between 189 inpatient sites and 34,378 LSOA, and of 400,000 cancer deaths in E&W. Findings were mapped using a geographic information system. Results: Highest levels of geographic access to adult inpatient hospice and palliative care are found within a small number of major urban conurbations, such as London, where cancer patients may potentially access alternative hospices with high bed numbers. Localised examples of geographic inequity of access to care can be observed within neighbourhoods of many cities and towns nationally. Nearly 6% of adults cannot access inpatient hospice and palliative care within a 30 minute drive. Limited access to inpatient palliative care, and inequity, is particularly seen within the South West, along parts of the East Coast, in Northumberland and to the east of the Pennines. Rural access to specialist palliative care is more likely to occur in areas with a higher percentage of the population aged 80+.
palliative care is particularly limited. **Conclusions:** Hospice accessibility has implications for the establishment of further hospices and highlights the need to consider the remit of alternative palliative care services in areas without local access, as well as for deprived communities.

89 Oral Presentation

**Organisation of Care and Services**

Improving generalist palliative care services for adults at the end of life: what more do we need to know?  
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**Background:** Most end of life care is provided at home, in care and nursing homes and hospital by generalists rather than specialists in palliative care. The importance of generalist care is recognised in current policy, but little is known about provision. The study aimed to identify issues, gaps in provision and to improve generalist end of life care. **Methods:** A national consultation was undertaken in England and Scotland using a modified nominal group technique. 285 commissioners, generalist and specialist care providers, academics, voluntary and user groups were invited to participate. Data was collected by email, face-to-face and telephone interview in 5 different areas, and a thematic analysis undertaken. Key priorities were agreed by participant votes. **Results:** 210 participants (74%) took part in the consultation across London, Cambridgeshire, Warwickshire and Scotland. There was little consensus about what constituted generalist end of life care. Perceived gaps in provision included care of non-cancer patients, older people and minority groups. We identified much enthusiasm for providing excellent end of life care, but engaging some generalists in education and training was difficult. A greater evidence base was needed for tools such as the Gold Standards Framework and Liverpool Care Pathway. Workforce and financial issues limited provision. More needed to be known about best practice, place of care and integrating end of life care into generalist caseloads. Understanding more about patient and carer experiences and health economic implications was central to generating a good evidence base. **Conclusions:** Generalist end of life care takes place in many different settings, amongst many competing priorities. Given its importance, lack of research to underpin best practice is surprising. Current policy developments in England are welcomed but need a strong evidence base to ensure sustainability. Funder: National Institute for Health Research SDO Programme, England.

91 Oral Presentation

**Organisation of Care and Services**

Metastatic spinal cord compression and rehabilitation: explaining unintended consequences in a health care organisation  
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**Background:** Metastatic spinal cord compression (MSCC) is a cause of significant disability. In other conditions (stroke, for example) such disability would merit a patient’s participation in a rehabilitation programme. Patients with MSCC, however, are not routinely provided with structured rehabilitation. This study was designed to examine the processes involved in the provision (or lack) of rehabilitation in MSCC, in order to identify the mechanisms implicated in service delivery. **Methods:** The design was a series of 9 process-tracing, longitudinal case studies, involving 58 interviews with patients, carers, rehabilitation staff, nurses and doctors in one NHS region. A context-mechanism-outcome data collection strategy was used, together with a grounded theory constant comparative method of data analysis. **Results:** Patients described inadequate rehabilitation, for example: little information on practical issues like incontinence, provision of equipment without consideration of the psychological aspects of disability, discontinuity between hospital and community services. These problems prevailed despite support for rehabilitation and the existence of arrangements for its provision. **Conclusions:** ‘Deficiency explanations’ are often used to explain undesirable outcomes: a lack of resources, or time, or skills, or staff. These answers are not entirely wrong, but here they are incomplete and misleading. Complex adaptive systems (CAS) theory offers an alternative explanation for unintended consequences, with outcomes the result of several ‘agents’ acting independently, and in accordance with a set of ‘rules’ or mechanisms. CAS might prove useful in health care to explain structures
and behaviour in certain ways. Rather than a deficiency of some kind, the ‘little rehabilitation’ outcome here is explained in terms of a system which self-organises in such a way as to keep rehabilitation off the agenda. The implications for action of such explanations are rather different from the implications of deficiency explanations.

92 Oral Presentation

Organisation of Care and Services
The war against polypharmacy – a new palliative – geriatric approach in the community and in long term care facilities?
Authors: Doron Garfinkel Department of Evaluation & Rehabilitation & Palliative UnitShoham Geriatric Medical Center ISRAEL

Background: Improved medical technology is associated with significant extensions in “End of Life” periods in Patients with Limited life Expectancy & Decreased Quality of Life (PLEDQoL). Guidelines for drug use in younger/healthier people are extrapolated to include PLEDQoL, making the extent of polypharmacy in the later, most disturbing. Our hypothesis: in PLEDQoL, the sum total of negative impacts of polypharmacy outweighs the sum total of the potential beneficial effects of all specific drugs. We present the palliative-geriatric (PG) methodology and algorithm for improving therapy and minimizing drug intake. Our results in long term care departments (LTCD) have been published(1). Method: Drug discontinuation (DD) was carried out in 6 LTCD. The aim was to stop as many drugs as possible. The control group of patients of the same LTCD in whom no DD performed, were comparable regarding age, sex & co-morbidities. Main Results in LTCD: 332 drugs were discontinued in 119 patients (1–7 drugs/patient, average 2.8). DD was not associated with significant adverse effects; in some, decreased agitation, increased alertness and improvement in disability were reported. The overall annual rate of DD success was 82% of all patients and 90% of all drugs: DD success was 100% for nitrates (22/22) with no return of symptoms and 94% (33/35) for H2 blockers. No increase in blood pressure was reported in 82% patients (42/51) in whom DD of several anti hypertensive drugs achieved. The annual mortality rate was 45% in controls, 21% in the study group (p<0.001, chi square test); the annual referral rate to acute care facilities was 11.8% and 30% in the study and control group, respectively (p<0.002). DD was associated with a substantial decrease in the cost of drugs(1).

Preliminary Results in the Community: The PG methodology was tried in several dozens of community dwelling frail elders and could be performed in most of them (1–7 drugs) without adverse effects. In some, a remarkable improvement was noticed in QoL: improved mobility, alertness and cognitive status (i.e. increases in Minimental state examination [MMSE] from 14/30 to 23/30 and from 14/30 to 30/30 following DD of 7 and 6 drugs respectively, after 6 weeks of follow up). Conclusion: Application of the PG methodology in PLEDQoL and in frail elders enables discontinuation of several drugs with reduction in mortality rates and referrals to acute care facilities, improved quality of living and lower costs.

93 Invited Lecture

How to improve research funding and capacity building in a world wide perspective

Pain and Palliative Care in the Framework programmes of the European Union
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European Commission’s research activities are funded mainly through “Framework programmes” (FP). Palliative care projects funded: 5th FP BIOMED II programme. The project PALLIUM (1998) aimed at examining the different modalities in palliative care in Member States and at analysing occupational, ethical and policy issues in this field. 6th FP Life Sciences, Genomics and Biotechnology for Health. The following topics were published: Molecular mechanisms of cancer related pain. No proposal was submitted. Innovative research on palliative care in patients with advanced stages of cancer. 2 projects are being supported: – The European Palliative care Research collaborative, (EPCRC, € 2.8 million); – Development of new therapeutic substances and strategies for treatment of pain in patients with advanced stages of cancer (€ 2, 2 million). 7thFP Health area. The following topic was published: Optimising research on end of life care of cancer patients. Two proposals were selected. A European Collaboration to optimise research for the care of cancer patients in the last days of life (OPCARE 9). Reflecting the positive diversities of European priorities for research and measurement in end of life care (PRISMA). Looking towards the future. We intend to continue reinforcing these efforts, which could also cover other areas were palliative care is equally important such as HIV, neurodegenerative disorders. In addition, the public health research aspects of palliative care could be considered. The Framework Programme offers additional opportunities in the field of palliative care. We have just launched the Innovative Medicines Initiative (IMI), a joint public-private partnership aimed at speeding up the development of new medicines. IMI will issue annual calls for proposals based on a strategic agenda developed by all relevant stakeholders. Pain control is one of the targets for 2008. International Cooperation is also a key element of the 7th Framework Programme. Our initiatives in this area intend to establish collaborations, for each of the thematic areas, which are of specific interest for the developing countries. The 7th Framework Programme offers also possibilities to strengthen the coordination of national/regional research programmes in areas of joint interest. As regards training activities the “People” Programme offers multiple opportunities and modalities including support for European scientists as well as researchers from third countries. In this context, it would be important that EAPC identifies what should be the detailed research priorities that could be considered in the context of the most suitable modalities offered by the Framework Programme.

94 Invited Lecture

How to improve research funding and capacity building in a world wide perspective

Current status of Funding International Research Programs. Based on a recent study funded by OSI on the availability of funding for palliative care
Authors: Kathleen Foley Memorial Sloan Kettering Cancer Center Pain Service U. STATES

In 2007, the International Palliative Care Initiative of the Open Society Initiative reviewed donor organizations that fund palliative care development in five world regions. The report was prepared by Michael Wright, Thomas Lynch and David Clark and provides an overview of funding for palliative care but did not selectively identify specific research funding. The report provides an initial analysis of palliative care donors worldwide and has been helpful in categorizing donors based on the typology of the donor organization; multilateral; bilateral; humanitarian; faith based; business; hospice support; associations and others. The predominant funding for palliative care internationally comes from humanitarian, faith based, and business organizations accounting for almost 70% of the funding. Of note, most donor organizations were active in the CEE/CIS (157 donors representing 44% of the donors) followed by Africa (141 donors representing 40% of the donors); only 22 or 6% were active in Latin America and the Caribbean and less than 5% in the Middle East. Based on this report, the authors recommend a global register of international hospice and palliative care donors and an awareness raising campaign to focus attention on worldwide need, coupled with a position paper to help advocate for funding and provide an accessible explanation of palliative care and a glossary of terms for funders. Given the lack of ability to identify specific research funding streams in this report, we can point to currently identified research funding initiatives. For example, support to the Department of Palliative Care, Policy and Rehabilitation at King’s College London through Cicely Saunders International; the European Union grant to EAPC to support research in palliative care in Europe and a collaborative funding grant from
95 Invited Lecture
How to improve research funding and capacity building in a world wide perspective

Australian National Initiatives
Authors: David Currow Palliative & Supportive Services Flinders University AUSTRALIA

In order to improve the evidence base for quality palliative care, it is necessary to invest in research infrastructure. Given the nature of research in palliative care, multi-site studies are absolutely crucial to refine the practice to specific subgroups of the population. As such, the Australian Government together with other national organisations have cooperated to create significant palliative care research infrastructure. This includes: – A dedicated grants program through the National Health and Medical Research Council; – A competitive Doctoral program; – A national program to improve the evidence for prescribing palliative medications (including their cost effectiveness and safety); – Infrastructure for multi-site data. Together, this investment represents an ability of the palliative care community to build capacity for quality research while answering practical questions on day to day service delivery and therapeutics.

96 Invited Lecture
How to improve research funding and capacity building in a world wide perspective

Canadian National Initiatives
Authors: Neil Hagen Division of Palliative Medicine University of Calgary CANADA

Canada has experienced a remarkable national growth in palliative care research funding and capacity over the past decade. This situation resulted from alignment of several distinct cultural, political and organizational changes, and strategically targeted activities from key non-governmental, professional and governmental organizations. Cultural changes in Canada have included an emerging grass-roots public interest in palliative and end of life care. Political factors involved major initiatives by the Senate of Canada, culminating in a pivotal report in 2000, "Quality end of life care, the right of every Canadian" which has continued to impact national and provincial policy since. The establishment of a new national health research organization in 2001, the Canadian Institutes for Health Research (CIHR), offered the opportunity to shape national priorities in research, research funding and capacity over the past decade. This situation resulted from the laboratory bench to the bedside and into the health care policy arena. – Improved understanding of the basic biological mechanisms behind symptoms; – Symptom classification – common international system; – Symptom assessment – common international assessment tools; – Research staff; Training of junior researchers; Permanent chairs in palliative medicine, palliative care nursing and other areas. – Establishment of sustainable research groups of sufficient size with interdisciplinary knowledge and capacity; – Improve the quality of the research conducted – move from descriptive studies to intervention studies; – To develop national and international partnerships; – Apply the optimal research methodology fitting the research question. There are substantial barriers to research to reach some of the items addressed. Some barriers are the best source of information about the needs, challenges and barriers present at the local level.

97 Invited Lecture
How to improve research funding and capacity building in a world wide perspective

Latin American National Initiatives
Authors: Jorge Hugo Eisenhelias Palliative Care Unit Pallium Latinoamerica ARGENTINA

Research in palliative care has increased significantly in the last decade, but while more than 80% of the global disease burden occurs in developing countries, the proportion of research conducted in these settings accounts for less than 10 per cent of all global research activity. In Latin America, in spite of the increase of palliative care initiatives across the region, research efforts are still very limited. Consequently, there is a lack of local evidence which on one hand, plays against knowledge advance and practice improvement and, on the other hand, complicate the institution of policies able to improve palliative care delivery. Altogether, these factors form a vicious circle which results in limited visibility of palliative care, which results in limited political support and funding. We have now a broad view concerning what happens in the region, and we also have a supportive document, like the Declaration of Venice. It is crucial that recommendations and proposals take into account feedback provided not only by donors but also local leaders from developing countries, who are the best source of information about the needs, challenges and barriers present at the local level.

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How to improve research funding and capacity building in a world wide perspective

Palliative Care research has been steadily improving during the last decade. Despite these improvements national and international evaluations have identified several limitations and areas for improvement, ranging from the laboratory bench to the bedside and into the health care policy arena. – Improved understanding of the basic biological mechanisms behind symptoms; – Symptom classification – common international system; – Symptom assessment – common international assessment tools; – Research staff; Training of junior researchers; Permanent chairs in palliative medicine, palliative care nursing and other areas. – Establishment of sustainable research groups of sufficient size with interdisciplinary knowledge and capacity; – Improve the quality of the research conducted – move from descriptive studies to intervention studies; – To develop national and international partnerships; – Apply the optimal research methodology fitting the research question. There are substantial barriers to research to reach some of the items addressed. Some barriers are the best source of information about the needs, challenges and barriers present at the local level.
99 Oral Presentation

Research methodology and Audit
Distress At The End Of Life: A Comprehensive Mixed Methods Longitudinal Study of Distress Amongst Patients with Advanced Cancer From Time of Referral to Palliative Care Services to Death
Authors: Katharine Thompson Palliative Medicine Rotation South East Scotland UNITED KINGDOM
Gordon D Murray University of Edinburgh Medical School Edinburgh UNITED KINGDOM
Marie T Falon University of Edinburgh Medical School Edinburgh UNITED KINGDOM
Scott A Murray University of Edinburgh Medical School Edinburgh UNITED KINGDOM

Background: The experience of distress is derived from interactions between physical, psychological, social and spiritual factors. Aims: To explore the evolution of distress from the time of referral to palliative care services to death. Methods: A prospective longitudinal study of 100 advanced cancer patients newly referred to a hospice community palliative care service in Central Scotland. Patients were assessed monthly from the time of referral to death, or for 6 months maximum. The primary outcome measure was global distress (NCCN Distress Thermometer, DT); secondary measures were physical, psychological, spiritual and social distress using: Memorial Symptom Assessment Scale, Edinburgh Depression Scale, FACIT-Sp-12, DEPCAT, clinical measures and patient perspectives through serial, in-depth interviews. Results: Multivariate analysis revealed that receiving inadequate information (OR 3.10, 95% CI 1.10 to 8.74, p = 0.033) and social dysfunction (OR 4.28, 95% CI 0.88 to 20.9, p = 0.072) are independent predictors of distress. Levels of physical, psychosocial and spiritual distress fluctuated initially before stabilising to a chronic, lower level with occasional exacerbations. Global distress fluctuated constantly and unpredictably over time, yet the DT correlated significantly with MSAS, EDS and FACIT (p<0.001), reflecting its ability to detect change in any one domain. Patients’ perspectives evolved in a positive direction indicating adaptation through dying. However, unpredictable, acute exacerbations of distress occurred reflecting transient control loss due to unexpected change. Conclusions: Patients’ perspectives substantiate the descriptive data; together indicating patients become reconciled to death. However, episodic loss of control exacerbates distress transiently and unpredictably during this final journey. The DT sensitively detects, but does not predict, physical, psychological, social or spiritual distress, rendering it very useful for distress screening amongst advanced cancer patients.

100 Oral Presentation

Research methodology and Audit
Randomised clinical trials in palliative care. How has the reporting quality changed during the last twenty years?
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Background: Research in palliative cancer care is methodologically challenging. Nevertheless, palliative care needs evidence based knowledge to ensure best possible treatment. Good quality in reporting is crucial to enhance the understanding of results, and for evaluation of studies’ validity and over-all quality. The aim of the present study was to assess the quality of reporting in randomised clinical trials (RCTs) in palliative cancer care published from January 1st 1986 through August 2006 by means of a checklist devised from the CONSORT statement. Methods: A PubMed search was performed in the English language literature using the MeSH term “palliative care” limited to adult cancer patients. All RCTs were extracted and grouped in four time periods; T1: 1986–1990, T2: 1991–1996, T3: 1997–2001, T4: 2002–2006. Evaluated factors were reporting of a. outcomes, b. aim of study, c. inclusion/exclusion criteria, d. drop-outs, e. intention-to-treat (ITT) analysis, f. power calculations, g. baseline data comparison, and h. flow chart. Results: 134 RCTs were identified, of which 131 were evaluated. Publications in each time period was T1: 13 (10%) T2: 37 (28%) T3: 44 (34%) T4: 37 (28%). Reporting the use of ITT has increased steadily over the years (T1: 8% T2: 19% T3: 34%, T4: 54%). There was an increase in reporting the use of power calculations during the first three periods (T1: 23% T2: 35% T3: 50%, T4: 49%). The use of flow charts peaked after 2001 (T1: 8% T2: 5% T3: 9%, T4: 38%). The reporting of the other evaluated factors were relatively high and stable throughout the observation period (T1, T2, T3 and T4 #≥80/5; 80%). Conclusions: In the time period from 1986 to 2006 there has been a marked improvement in reporting and use of intention-to-treat analysis, power calculations and flow chart in palliative cancer care randomised controlled trials. Compared with standards from the CONSORT statement, the quality of reporting has improved over the years, but there is still room for further improvement.

101 Oral Presentation

Research methodology and Audit
Novel Approaches to Trials in Palliative Care
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Background: If randomised controlled trials are so difficult to conduct in palliative care, do we need to look for novel methods to improve the evidence base? Is this particularly so where the subjects are in the last few days of life? We describe the development and design of a switchback cluster randomisation to overcome the issues surrounding consent, gate-keeping and attrition, enabling research to take place as part of routine care. Methods: A pilot study has demonstrated that a crossover cluster randomised trial is entirely feasible. A switchback design builds on and strengthens these outcomes. We propose a study involving 10 units, utilising a switchback cluster design, each unit will be randomised to intervention A or B for 3 months, they will then swap to B or A for a further 3 months before the final phase the same as the first, i.e. ABA or BAB. Adopting this design minimises bias and other potential sources of contamination whilst increasing experimental control. Utilising a switchback cluster randomised design reduces the sample size and number of clusters required to reach statistical power. Results: For trials with dying patients this has potential: consent is sought at unit level rather than approaching individual patients, whilst recruiting smaller numbers of patients is an obvious advantage. Conclusions: A larger scale study needs to be undertaken to assess the suitability of switchback designs for trials with dying patients. This study should explore the key issues intra-class correlations and comply with the ConSORT recommendations for reporting cluster randomised trials to demonstrate the feasibility of this methodology. The identification of a suitable methodology for trials with dying patients will support the development of a trials platform which can inform the establishment of an evidence base to underpin the guidelines for the delivery of quality end of life care.
102 Oral Presentation

Research methodology and Audit
Teleform Usage in Clinical Trials: Database Management
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Background: Multicenter trials require data collection methods that accurately capture study information, while simultaneously minimizing workload for research staff. All research teams – investigators, sponsors and clinical research organizations – are concerned about fidelity of data collection, transfer and accuracy. Direct data entry can potentially address these concerns but further innovation is needed. Methods: Teleform (Verity Software Inc., Vista, CA) is an optical-recognition-based technology that scans handwritten data collection paper forms (quantitative and free text) and exports digitized data to a computer database. A multidisciplinary team converted hard copy data collection forms to teleform format for a multicentre trial focusing on sublingual methadone for the treatment of breakthrough pain. Each document was assigned a unique number and visual identifier to ensure form recognition, data organization and patient confidentiality. Sites used a teleform manual and individualized instruction to support form completion and transmission of data. Independent reviewers systematically evaluated submitted forms for missing data and inconsistencies. Free text entries were deciphered and transferred to the MS Access database. Queries were generated when necessary for clarification. Results: 300 completed forms have been submitted to the database. Health care providers and patients report that the format is easy to understand, and easy to complete. Data queries have been uncommon. Data integrity and patient confidentiality have been maintained. Conclusions: Teleforms support detailed collection, transfer and storage of study information, are feasible for both patient and professional data capture, and are financially modest to implement. This technology can support international clinical trials in palliative care, requiring little more than a fax machine from the sending centre. Funding: CIHR Grant PET69772 & Alberta Cancer Board High Risk Grant.

103 Oral Presentation

Research methodology and Audit
Quality indicators for palliative care
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Background: Main aim of this study is to develop a set of quality indicators for palliative care that can be used in various settings (e.g. hospices, at home, hospitals, nursing homes). This 2-year project consists of five phases: (a) inventory of existing relevant quality indicators; (b) discussions with experts about which existent indicators are highly relevant and which indicators are being missed; (c) development of a draft set of quality indicators; (d) testing the set in various care settings; (f) making of the final version. The first phase already has been passed, and this presentation will mainly focus on the process and results of the inventory of existing indicators. Methods: Existing quality indicators were identified by searches in Medline, PsycINFO, EMBASE and CINAHL. Search terms regarding palliative care and quality indicators were combined. Only publications focusing on measurable quality indicators for palliative care were included. We considered an indicator “measurable” when a numerator, denominator or a performance standard was given. The inclusion process was performed by two reviewers independently. Results: The searches resulted in 580 potentially relevant references. Eleven of these 580 fulfilled the inclusion criteria. By reference tracking another 3 publications were identified. These 14 publications concerned 6 sets of indicators: 2 concerning palliative cancer care, 1 concerning ICU end-of-life care, 1 concerning vulnerable elderly in end-of-life care, 1 concerning palliative nursing home patients, and 1 concerning palliative care at home. In total about 100 (partly overlapping) indicators were found. The indicators covered all aspects of palliative care (physical, psychosocial and spiritual). Conclusions: The majority of the indicators concerned the process of palliative care; only a few are related to outcomes. In the next project phases choices have to be made regarding which quality indicators are most applicable and relevant for various palliative care settings.

104 Oral Presentation

Research methodology and Audit
Views of patients and healthcare professionals towards RCTs in palliative care
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Kristen Gilshenan Mater Research Support Centre, Mater Health Services Brisbane AUSTRALIA
Janet Hardy Director of Palliative Care, Mater Health Services Brisbane AUSTRALIA

Background: Randomised controlled trials (RCTs) are notoriously difficult to complete in palliative care (PC). The study aimed to determine whether PC patients are interested in participating in RCTs, and identify important factors in their decision. It also considered the views of healthcare professionals (HCPs) through a parallel survey. Methods: Questionnaires were developed through literature review, a focus group of HCPs, and patient and relative interviews. Pilot studies were performed. The questionnaire for patients and HCPs assessed the same trial related factors, level of trial complexity, and tolerability of trial inconvenience. Ethical approval was obtained. Consecutive eligible PC patients were approached. The HCP survey was sent to 597 Australian and New Zealand HCPs. Results: 101 patients participated. Over 75% expressed altruistic views. 92% of patients would participate in studies involving simple interventions, whereas only 26% would consider studies of complex interventions. Financial burden and possibility of side-effects was off-putting to many. Concepts of ‘randomisation’, ‘placebo-control’ and ‘blinding’ deterred approximately 50% of participants. Many were prepared to complete short questionnaires, accept extra medications, investigations, hospital visits or admissions within a trial context. 198 (33%) questionnaires were returned from HCPs. Very few would refer to complicated studies. Non-medical HCPs appeared less interested than doctors in studies involving randomisation, placebo or double-blind methodology. The majority would refer to non-pharmaceutical studies, but were less willing for studies with possible side-effects. Two factors predicted greater willingness to refer: previous research experience and male gender. Conclusions: Many patients are willing to participate in PC research if trial design is acceptable. Gatekeeping was an issue, with many HCPs unwilling to refer patients. This study should aid the development of RCTs in PC.

105 Invited Lecture

The complexity in the understanding and treatment of Depression in PC
Adjustment disorder with depressed mood – how to differentiate from depression in palliative care patients
Authors: Luigi Grassi Professore Ordinario di Psichiatria Università di Ferrara ITALY
The complexity in the understanding and treatment of Depression in PC

107 Invited Lecture

The complexity in the understanding and treatment of Depression in PC

The complexity in the understanding and treatment of Depression in PC. EPCRC Guidelines – present status

Authors: Matthew Hotopf Palliative Care and Policy King’s College London UNITED KINGDOM representing the EPCRC

The development of guidelines for treatment of depression in palliative care is challenging because of the lack empirical data from well-conducted randomised controlled trials in palliative care patients. In this talk, I shall explore how this gap can be bridged: firstly, by conducting a comprehensive systematic review and meta-analysis on the treatment of depression more generally in patients with comorbid physical disease (preliminary results to be discussed); secondly by exploring the extent to which existing guidelines on the treatment of depression outside palliative care can be borrowed; thirdly by exploring the outcomes which may be of most relevance to palliative care patients; and finally by exploring the particular challenges which make this group a “special case”.

108 Invited Lecture

The complexity in the understanding and treatment of Depression in PC

The EPCRC project on assessment and classification of depression among palliative cancer patients

Authors: Elisabet Wasteson Dpt of cancer research and molecular medicine Faculty of Medicine, NTNU NORWAY Jon Håvard Loge Rikshospitalet Medical Center Oslo NORWAY representing the EPCRC

Background: The prevalence estimates on depression vary greatly among studies of patients with advanced cancer. This is mainly related to how depression is assessed and classified. Some specific obstacles are known to complicate the identification of depressed palliative patients. One is the large resemblance between symptoms of the disease along with its treatment and the symptoms of depression (somatic depressive symptoms). Another is the lack of consensus regarding the classification and assessment of depression. The prevalence estimations seem clearly dependant on whether depression is measured as a categorical disorder or as a spectrum condition, therefore the choice of measurement method is crucial. As a consequence, this raises questions related to both validity and reliability. Methods: The first part of this EPCRC-study aims at defining how depression is classified and assessed in studies of palliative patients and to determine an optimal set of items for establishing a diagnosis of depression within this population. Further, a second part aims at developing and testing a computerized assessment tool. In order to fulfil the first part, a systematic literature review was performed on studies measuring and/or classifying depression in a palliative care setting, resulting in a large amount of assessment tools and use of different classification systems. Results: Taking as a starting point in the applied assessments, candidate items were identified, extracted and related to diagnostic criteria of the DSM-IV classification system. An expert panel consisting of experienced palliative care researchers and clinicians participated in this extensive methodological work. In addition, a number of items were selected to cover the dimensions within the DSM diagnostic criteria for a major depressive episode. Relevant items were put together into a pilot-version of the assessment tool. Results are presented in detail and discussed in relation to research and clinical concerns.

109 Oral Presentation

Palliative Sedation

Attitudes of Flemish palliative care nurses and physicians toward palliative sedation

Authors: Bert Broeckaert ICRID K.U. Leuven BELGIUM Trudie Van Iersel K.U. Leuven Belguim
Background: Several studies have already investigated attitudes of medical professionals towards end-of-life issues. Less research has been conducted concerning the attitudes of palliative care professionals, especially regarding palliative sedation. In 2006 we undertook a quantitative study of attitudes of palliative care physicians and nurses towards palliative sedation. Methods: An anonymous questionnaire was sent to all physicians (147) and nurses (589) employed in palliative care teams and institutions in Flanders (Belgium). The questionnaire contained a demographic part, and an attitudinal part, consisting of a long series of ethical statements using a five-point Likert-scale. To divide physicians and nurses into different attitudinal groups a latent class analysis was fitted with an EM-algorithm. Results: 70.5% of the nurses (n=415) and 67.3% of the physicians (n=99) responded. Only 7% of the respondents prefers euthanasia to palliative sedation. Yet, most physicians and nurses (64%) think palliative sedation does not render euthanasia superfluous. 94% is convinced that artificial nutrition and hydration is not a proper treatment in the case of deep continuous sedation. 75% agrees that palliative sedation can only be administered safely when a specialised palliative care team is involved in the decision making process. Two clusters were found: advocates of deep sedation (43.8%, n=215) and respondents restricting the application of deep sedation (56.2%, n=276). There were no statistically significant differences between both clusters regarding gender, age, profession and years of experience in palliative care. Conclusions: The respondents’ attitudes toward palliative sedation are balanced. Although they consider palliative sedation a good treatment, they do not believe palliative sedation offers a satisfactory solution in all circumstances. They are cautious about applying deep sedation. Funding: Research Foundation Flanders.

110 Oral Presentation

Palliative Sedation

Palliative sedation (PS): comparison of practice between 2001 and 2006


Background: The aim of this study is to compare practice between 2001 and 2006. Is PS more frequent? Are situations more complex? Are indications different? Are guidelines useful? Methods: Files from all deceased patients during the years 2001 and 2006 were retrospectively analyzed. PS performed with either midazolam, diazepam and/or levopromazine were identified. Indications, route of administration, duration of PS were determined according to the following definition: PS = administration of sedative drugs to adequately relieve one or more refractory symptoms of patients with advanced disease and limited life expectancy and to reduce consciousness either temporarily or permanently. Results: In 2001, 309 persons died, 8 (5 females) received PS (2.5%), mean age was 67.8 years. 6 had advanced cancer and 2 cardio-pulmonary failures. Refractory dyspnoea, insomnia and psychomotor agitation indicated intravenous/subcutaneous midazolam or intrarectal diazepam which was terminal in 5 cases and transitory in 3. Sleep induction failed in one midazolam case. In 2006, 297 persons died, 12 (4 females) received PS (4%). Indication for PS was refractory symptoms: dyspnoea, psychomotor agitation, epilepsy, anxiety. Data will be reported as above. Differences of practice will be analysed. Conclusions: Number of PS has not increase as much as expected over the past years despite higher complexity of patients. However, misinterpretation of PS, which is performed after strict indications under careful supervision, with euthanasia may persist among caregivers. Carefully monitor our practice appears an appropriate way to avoid the risk of confusion.

111 Oral Presentation

Palliative Sedation

Palliative sedation therapy does not hasten death

Presenting author: Luigi Montanari
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Background: Palliative Sedation Therapy (PST) is indicated for and used to control refractory symptoms in cancer patients who have been inserted into a palliative care programme. PST is often considered to be responsible for speeding up death and has been defined by some as slow euthanasia. Methods: The primary objective of this multi-centre, observational study is to evaluate the overall survival of two cohorts of patients prospectively recruited in several Hospices, one given palliative sedation and the other managed as per routine hospice practice. The patients were matched for sex, age class (¡Ü65, >65 years), reason for admission (psychosocial, uncontrolled symptom, terminal phase), Karnofsky Performance Status (10–20, 30–40, >40), and outcome of admission. Overall Survival was estimated using the Kaplan-Meier method and the comparison of survival curves was performed by log-rank test. Results: From March 2005 to December 2006, 518 patients of either sex and any age were recruited; 267 belonged to the cohort of sedated patients (A) and 251 to the cohort of non sedated patients (B). The percentage of sedated patients out of the entire population assisted during the period of the study was 25.1%. The mean duration of sedation was 4 days, while the median duration was 2 days. Median survival from the time of admission to the hospice for cohort A patients was 12 days (95% CI: 10–14), while that of cohort B patients was 9 days (95% CI: 8–11) (logrank=0.95, p=0.338) (unadjusted HR=0.92, 95% CI: 0.77–1.09). Conclusions: Our results indicate that PST does not shorten survival when carried out in an appropriate manner and that it does not require the principle of double effect to be justified ethically. Supported by Istituto Scientifico Romagno per lo Studio e la Cura dei Tumori, Meldola (FC), Italy.

112 Oral Presentation

Palliative Sedation

The use of continuous deep sedation for patients nearing death in the netherlands: a descriptive study

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Background: The practice of continuous deep sedation until death has received increased attention in medical, ethical and societal discussions about medical decision-making and end-of-life care. We aimed to study this practice in 2005 in the Netherlands, and compare it with findings from 2001.

Methods: Design: Questionnaire study about random samples of deaths reported to the central death registry of Statistics Netherlands in 2005 and 2001. Participants: Reporting physicians received a questionnaire about the medical decisions that preceded the patient’s death. Response percentage 2005: 78%, n=6860; response percentage 2001: 74%, n=5617. Main outcome measures: Frequency and characteristics of continuous deep sedation (types of patients, drugs used, duration, estimated life-shortening effect, palliative consultation), requests for euthanasia. Results: Continuous deep sedation was used in 8.2% (confidence interval: 7.7% – 8.7%) of all deaths in the Netherlands in 2005. In 86% of these cases, it was used in conjunction with possible hastening of death. This concerned 7.1% (CI: 6.6%-7.6%) of all deaths as compared to 5.6% (CI: 5.0%-6.2%) in 2001 (p=0.00). This increase occurred mostly among general practitioners (p=0.00) and among cancer patients (47% of sedated patients had cancer in 2005 versus 33% in 2001). Sedation was in 83% of the cases induced by benzodiazepines and had a duration of less than one week in 94%. Nine percent of the physicians had consulted a palliative expert. Conclusions: The increased use of continuous deep sedation for patients nearing death in the Netherlands and the limited use of palliative consultation suggests that this practice is increasingly considered as part of regular medical practice. Further research is needed to elucidate the underlying motives for the use of continuous deep sedation and to study its effects on the quality of dying for patients and relatives.

113 Oral Presentation
Palliative Sedation
Palliative sedation in palliative care – a prospective representative survey in Germany
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Christoph Oestghae University of Cologne. Clinic for Palliative Medicine Cologne GERMANY

Background: Ethical decisions play a major role in palliative medicine. The aim of the study is to assess the prevalence of palliative sedation (PS) in different settings in PC, which may need to be discussed in the course of treatment.

Methods: The Hospice and Palliative Care Evaluation (HOPE) was complemented with a checklist on ethical decision-making in three evaluation periods from 2004 to 2006 for patients treated in palliative care services in Germany (inpatient hospice: IH; palliative care unit: PCU). Computerised data were analysed descriptively. Results: For 1211 of 2214 (2004), 779 of 1903 (in 2005) and 1018 of 2846 (2006) documented patients the checklist on ethical decision-making was completed. Patient requests for PS (IH 17/19/22%/PCU 14/13/11% in subsequent years) and use of PS (IH 13/26/23% PCU 13/12/12% increased in IH, but remained stable and less frequent in PCU. Request for PS by the family differed considerably in PCU (3/4/4%) and IH (1/11/12%). PS was performed either continuously (PCU 4/4/4%; IH 8/12/11%) or intermittently (PCU 9/9/8%; IH 5/14/12%), and most often was aimed at achieving somnolence and less often deep sedation. Main reasons for PS (only available in 2005/2006) in PCU were dyspnoea/pain; dyspnoea/anxiety and in IH restlessness/anxiety; suffering/pain. Conclusions: PS is more prevalent in IH which may relate to the fact that patients in this setting are closer to death. Detailed analysis and targeted surveys are needed to explore the differences between settings more closely.

114 Oral Presentation
Palliative Sedation
Monitorin palliative sedation therapy in terminally ill patients with refractory symptoms in hospices. Use of modified Ramsay Scale and Bispectral Index (BIS)
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The literature shows a gap of informations about criteria used to decide to start sedation, patient’s consent, minimal level to obtain sedation and tools to measure it. (a) Identify the incidence of cases where Palliative Sedation Therapy (PST) is necessary because of refractory symptoms; (b) Verify the patient’s or family’s consent; (c) Check the efficacy of modified Ramsay scale (RS) in monitoring the level of sedation; (d) Establish the minimal level of sedation to obtain symptoms’ control; (e) Compare RS with Bispectral Index (BIS). This is a prospective study. The population is our Hospice cancer inpatients divided in two groups: a) patient with refractory symptoms admitted from 07/01 to 08/31/2007; b) patient with refractory symptoms admitted from 11/01 to 12/31/2007. We filled a schedule for each patient with: clinical data, patient’s awareness and consent to PST. Sedation started using Midazolam via i.v. or i.v. in continuous (0.02 mg/kg/h) and increased on the basis of clinical response. Level of sedation is measured with modified RS, registered every 6 hours. We enrolled in group a 24 patients with refractory symptoms for whom we used PST. Refractory symptoms were: terminal distress 67%, dyspnoea 50%, pain 33%, delirium 21%, vomiting 9%. We obtained 41 patient’s consent; the others were not able to express it. Symptoms’ control was reached with: (a) RS 3 in 4 patients; (b) RS 4 in 13 patients; (c) RS 5 in 5 patients. From the beginning of PTC survival time was 45.2 ± 49.5 hours (range 2–171). Average midazolam dose to have symptoms’ control was 0.035 mg/kg/h (range 0.02–0.06 mg/kg/h). In group b we enrolled 7 patients treated with PST. We made one registration with BIS before PST and one during PST together with RS. We’ve had the consent for all. Symptoms’ control was reached with: RS values from 3 to 5 – BIS values from 80 to 45. From this first data RS and BIS seem to be the most indicated to obtain the correct level of sedation not in an empiric way to avoid too light or too deep sedation.

115 Invited Lecture
EU Funded Research Projects And Collaboratives
EPCRC – European Palliative Care Research Collaborative
Authors: Stein Kaasa Palliative Medicine Unit St. Olav’s Hospital NORWAY representing the EPCRC

EPCRC consists of eight participating centres from six European countries (www.epcrc.org). The Collaborative is funded for three years from the end of 2006 to the end of 2008. The overall objectives are to develop novel genetic methods for prediction of opioid responses and individual variation of cachexia, and methods for assessment and classification of pain, cachexia and depression. (1) To identify genes and genetic variation relevant for inter-individual variation in opioid responses and genetic variation that may identify patients at particular risk for developing cachexia; (2) To improve classification and assessment of pain, depression and cachexia by computer assisted approaches; (3) To combine the new knowledge of symptoms, genomics and assessment in an internet-based system for implementation of European evidence-based guidelines, which will include standardized assessment and individualized treatment plans for pain, depression and cachexia; (4) To develop a long lasting European Collaborative in palliative care cancer research. The work plan is followed according to the document of work and an updated presentation of the recent research findings will be given at this symposium.
116 Invited Lecture
EU Funded Research Projects and Collaboratives
OPCARE Optimising Cancer Patient Care
Presenting author of different from first author:
Authors: John Ellershaw Marie Curie Hospice Liverpool Marie Curie Palliative Care Institute Liverpool UNITED KINGDOM

Through the extension of an existing collaboration of colleagues working in end of life care across Europe and beyond, the 3 year project aims to explore, share and collate current knowledge and practice in each of the key themes identified within the work programme: Signs and symptoms of approaching death; End of life decisions; Complementary comfort care; Psychological and Psychosocial support to patients, families and caretakers; Voluntary Service; with the specific aim of improving care for cancer patients in the last days of life. It aims to reach consensus on the optimum care to be delivered in this phase, to identify gaps in the knowledge and develop innovative research protocols to address those gaps and to make recommendations for the further development of the Liverpool Care Pathway for the Dying Patient (LCP) Framework in an international context. Methodologies: Within the 5 domains the following will be undertaken: – A systematic review of the published and unpublished literature; – An adapted Delphi Method to identify and evaluate current clinical approaches. A series of 7, 3 day colloquia will be planned to facilitate further discussion and sharing of findings, including one workshop of external experts and a final international conference. Dissemination: The outputs of this project will be of interest to patients and carers, healthcare professionals and organisations, researchers, providers of education and national and international policy makers. A variety of media will be used to disseminate the findings: – Publications in peer reviewed journals, conferences, workshops, seminars, symposiums. The diversity of country of origin of the 9 partners will ensure exposure of the findings in national and international forums. It is envisaged that the current collaboration will continue to work together to undertake research projects identified by this work.

117 Invited Lecture
EU Funded Research Projects And Collaboratives
PRISMA reflecting the positive diversities of European priorities for research and measurement in end of life care
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N Dercycke Vrije Universiteit Amsterdam-VUMC Amsterdam NETHERLANDS
Irene Higginson King’s College London London UNITED KINGDOM

Background: There is a lack of co-ordination for collaborative international high quality research in end of life cancer care. Main reasons include: a lack of agreement on what constitutes end of life cancer care across Europe, lack of information on public or clinical priorities for research in Europe to help funders prioritise, and variations in measurement limiting systematic reviews, original studies and quality measurements. Aims: “PRISMA” aims to inform best practice and harmonise research in end of life care for cancer patients across Europe through comparison and exchange of approaches and experiences of measurement and research priorities. Objectives: The work packages will undertake actions to identify cultural differences defining and shaping end of life care, establish public and clinical priorities, and draw out current best practice in research and resources in both research and quality measurements. It will use as a model experiences with outcome measures currently being by researchers and clinicians in EU and African countries. By co-ordinating the use of measurement and research practices in end of life care research across Europe there will be a platform from which future research can be launched. The value of incorporating wide public and clinical consultation into the programme is to identify key priorities, in a field where the need for research is great. The programme will develop web based resources providing information on best practice for research measurement and quality improvement and facilitate a long lasting EU collaborative on end of life cancer care. 11 partners in 8 EC countries, plus involvement from a Pan-African partner, are participating.

118 Invited Lecture
EU Funded Research Projects And Collaboratives
Best practices in palliative care in Europe
Authors: Kris Vissers The Radboud University Nijmegen Medical Centre NETHERLANDS

In cooperation with institutes in seven European countries, an international study takes place in order to describe ‘best practices in palliative care’ in Europe. The project is financed by PHEA (Public Health programme of the EU). The project is coordinated by Kris Vissers (Netherlands). Partners are from the Netherlands, Belgium (Johan Menten), UK (Sam Ahmedzai), Spain (Xavier Gomez-Batiste), Germany (Eberhard Kläschik), France (Jean-Marc Mollard) and Poland (Wojciech Leppert). The project runs from October 2007 till October 2010. Although several European countries have national initiatives regarding best practices for palliative care, attention to the early initiation of palliative care and the adoption of an integrated approach is largely lacking. International differences also exist in health care organisation, moral attitudes towards palliative care, expectations, services, terminology, treatment, perceptions, legal embedding and funding of the care (Higginson, 2005). The availability of quality of palliative care indicators and assessment instruments will help patients, family caregivers, care providers, policy makers and ministries of health to evaluate the care provided. An internationally valid, reliable and feasible set of indicators and assessment instruments are also needed to describe, compare and improve the palliative care available in Europe and strive towards ‘best practices in palliative care.’ Objectives: 1) to describe the different models for the delivery of palliative care in the participating European countries; 2) to make an inventory of those multidisciplinary guidelines and indicators concerned with the early initiation of palliative care and adoption of an integrated approach to the delivery of palliative care; 3) to establish a set of quality indicators for the early initiation and integrated delivery of palliative care for subsequent validation in an international consensus procedure (written Rand-Delphi procedure) involving patients, family caregivers, clinicians and payers/insurers (i.e. identification of a core set of indicators common to all of the participating countries and country-specific indicators); and 4) to identify best practices with regard to the early initiation and integrated delivery of palliative care using the core set of indicators. Methods: literature review, qualitative study, modified Rand Delphi procedure, practice test.

119 Invited Lecture
EU Funded Research Projects And Collaboratives
Normolife Development of new therapeutic substances and strategies for treatment of pain in patients with advanced stages of cancer
Authors: Andrzej Lipkowski Medical Research Centre, Polish Academy of Science POLAND

Prolonging life expectation of patients with advanced cancer could be done by modern medicine. However, progressive pain that is associated with progression of the disease is a major factor that destroys last moments of life. Currently, severe and uncontrolled pain is a major reason of requesting euthanasia. Application of oral pills (morphine) or transdermal patches (fentanyl) with lipophobic analgesic drugs is the most common treatment of cancer pain. These compounds penetrating into central nervous system produce side effects (respiratory depression, constipation, tolerance, sedation, etc) to such extend that pain treatment is reduced by doctors or refused by
the patients. Therefore, development of new types of analgesics is one of the urgent needs of modern medicine. In reply to these needs, the international consortium for development of new generation of analgesics has been created. Development of selective compounds interacting with one target receptor system is a traditional way of search of new medicines. Unfortunately, in the case of neuronal system, its strong plasticity resulted in fast adaptation to medicines that induced tolerance and sometimes dependence to chronically used drugs. To resolve this problem creation of multitarget medicines has been proposed by our consortium. The possibility of significant modulation of metabolism, biological membrane permeability and receptor selectivity is advantage of designed new molecules based on peptide skeleton. In addition, peptide structure creates possibility to develop multitarget molecules that hybridize pharmacophores of various neuropeptides involved in pain signal transmissions, inhibitions or modulations. Acknowledge: Project partially supported by EU grant Normalife (LSHC-CT-2006-037733).

120 Oral Presentation
Non Cancer
NeuNeeds: qualitative assessment for palliative care needs of people severely affected by neurodegenerative conditions
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Background: People severely affected by neurodegenerative conditions experience many symptoms and other psychosocial and spiritual problems, similar to those of cancer patients. As a part of a PhD program in palliative care at the University of Kent a project has been developed to assess people severely affected by Amyotrophic Lateral Sclerosis (ALS), Multiple Sclerosis (MS), Parkinson’s Disease (PD), Multisystems Atrophy (MSA) and related disorders and to provide and evaluate, a new specialist palliative care service in Turin area.

Methods: In order to assess palliative care needs of these population living in Turin area 22 in depth interviews have been conducted with patients and their carers – 9 ALS, 7 MS, 5 PD and 1 MSA.3 focus groups of professionals, including neurologists, lung specialists, physiotherapists and speech and language therapists were held to analyse their professional point of view. Content analysis of the transcript verbatim has been performed. Results: Patients and carers reported a number of physical uncontrolled symptoms – pain, breathlessness, drooling, dysphagia, communication impairment, urinary and bowel problems, movement disorders and difficulties in end of life decisions. Psychological needs included fear, anxiety, depression, loss of control, feeling ashamed because of disabilities, feelings of being overwhelmed or unable to cope. Social concerns were of isolation, economic problems, loss of job, need to struggle to obtain what is needed, caregiver burnout. Spiritual themes were expressed included questions of meaning of their experiences, rage and not acceptance of the illness, sense of guilt, and end of life decisions. All patients expressed the need for improved and coordinated care at home. The professional groups also expressed the need for a co-ordinated approach and palliative care for these patients. Conclusions: This initial study confirms the high prevalence of need in this population. A specialist palliative care service is being developed to help meet many of these needs, with a specific domiciliary and hospice service for this population in the Turin area.

121 Oral Presentation
Non Cancer
Symptom trajectories in end-stage renal disease – understanding the impact of symptoms over time for non-cancer patients
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Irene J Higginson King’s College London London UNITED KINGDOM

Background: Most symptom evidence is cross-sectional. Longitudinal study is difficult but adds rich insight into the impact of symptoms over time. This longitudinal study describes symptom trajectories in advanced chronic kidney disease (CKD) managed without dialysis. Method: Longitudinal monthly survey of symptoms in 3 UK renal units using the Memorial Symptom Assessment Scale-Short Form, in patients with stage 5 CKD without dialysis. Descriptive & exploratory analysis using visual graphical/growth curve analysis techniques to map symptoms over time and derive criteria to define/group these trajectories. Multivariable regression analysis to evaluate the relationship between trajectory and predictor variables. Results: 73 patients (mean age 82, SD 6.6) recruited (response rate 62%). 49(67%) died during follow-up. 57(78%) had data at >3 time points; median follow-up 10 months(range 4–23). Mean entry eGFR 11.2 mL/min(SD 2.8), with median survival 306 days(95%CI 221–356), 1-year survival 34%. Overall, symptoms increased steadily in the 3 months to death, with mean (SD) Global Distress Index of 1.49 (0.39), 1.61 (0.48) & 1.98 (0.49) at 3, 2 & 1 months before death respectively. Derived criteria to define individual trajectories were initial symptom score, linear slope of trajectory & degree of fluctuation over time. Three distinct trajectories (stable, steadily increasing & fluctuant) were identified. Increase in symptoms before death was common to all 3 trajectories. Renal diagnosis, comorbidity & functional status did not predict individual trajectories. Conclusions: Patterns of symptoms over time & towards death in this population have both contrasting & common features. Individuals follow identifiably different trajectories but as death nears these merge into a common pattern of steady increase. Models of non-cancer palliative care need to address this symptom increase towards death yet be flexible to respond rapidly to the needs of those with a fluctuant trajectory.

122 Oral Presentation
Non Cancer
Multiple Sclerosis and Palliative Care: Different perspectives from patients and health professionals on unmet needs in severely affected patients in Germany
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Raymond Viltz University Hospital of Cologne, Department for Palliative Medicine Cologne GERMANY

Background: Aim of this project was to assess unmet needs in severely affected Multiple Sclerosis (MS) patients in Germany from different perspectives. Methods: Episodic in depth-interviews were conducted with 15 patients feeling severely affected by MS and 12 relatives. In addition focus groups and expert interviews were held with 23 health professionals. The interview guide covered questions about feeling severely affected, perceived needs and the understanding of the concept of “palliative care”. Interviews and focus groups were recorded, transcribed verbatim and analysed by qualitative content analysis. Results: Health professionals were 13 physicians, 3 social workers and 7 nurses. Patients included 6 men and 9 women, realtives were 7 women and 5 men. Analysis of interviews and focus groups revealed a range of needs in four main categories (family/ friends; health care; managing everyday life; maintaining biographical continuity). Relatives perceive deficits in the category “Maintaining
biographical continuity” to a similar extent as do patients. In addition, they note unmet needs in the categories “Family” and “Managing everyday life” in a larger degree than do patients. In contrast to patients, health professionals, especially physicians, focus more on unmet needs in the category “Health care system”. Problems in the domains of everyday life and biography are mentioned to a lesser extent. Conclusions: Maintaining continuity, including coping with change and losses, is central to patients. Because the professionals’ perspective differs from patients’ it is necessary for every neurologist to focus more on needs in the domains of everyday life, biography and family. The perspective of palliative medicine can contribute to meet unmet needs of severely affected MS patients. To reach this aim a close cooperation of general and specialized palliative services is necessary.

123 Oral Presentation

Non Cancer
Is dignity compromised in the care of patients with advanced COPD?
Authors: Cathy Shipman Department of Palliative Care & Policy King’s College London UNITED KINGDOM
Suzanne White King’s College London London UNITED KINGDOM
Patrick White King’s College London London UNITED KINGDOM

Background: Most threats to dignity have focused on loss of social dignity related to the views and actions of others. A model has been developed for patients with advanced COPD. The aim of this presentation is to explore whether dignity is compromised in the care of patients with advanced COPD. Methods: A prospective cross-sectional study of patients with advanced COPD living at home. Patients were recruited through family doctors according to two of: FEV1 predicted <30%, hospital admission for acute exacerbations, cor pulmonale or home oxygen. Semi-structured interviews and spirometry tests were undertaken. Analysis included chi squared tests of significance with a thematic analysis of open questions. Results: 163 (62%) patients were interviewed. Mean FEV1 predicted = 32%. 50%(81) were female and 54%(87) lived alone. Most respondents had daily shortness of breath (76%), acute exacerbations (72%) and home oxygen (37%). 47(29%) reported specific disease related experiences which offended their sense of dignity. They occurred in hospital (27), with family doctors (5) and in public (14). Experiences included being spoken to rudely, critically or abruptly, demeaning reaction to their appearance, to breathlessness, coughing or use of oxygen and lack of understanding. Experiences related to ‘care tenor’ but also to stigma over smoking and were distressing, embarrassing and could lead to avoiding activity. These increased with use of oxygen (p=0.008), breathlessness when talking (p=0.021), financial problems (p=0.021) and being female (p=0.045). Over half (31/46) described what might help, including changes in attitudes and awareness but many were reluctant to complain. Conclusions: Over a quarter of interviewees described threats to dignity and a lack of understanding was felt to lead to many incidents. Greater professional education about the experience and limitations of advanced COPD might limit threats to dignity of patients with advanced disease at least in health settings.

124 Oral Presentation

Non Cancer
SCAD: Supportive Care Alone or Dialysis? A longitudinal observational study assessing symptoms, health burden and quality of life in patients with significant co-morbidity or poor performance status
Authors: Sarah MacLaran Renal Department University Hospital of Coventry and Warwickshire Coventry UNITED KINGDOM
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Maria Gomez University Hospital of Coventry and Warwickshire Coventry UNITED KINGDOM
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Background: Patients with End Stage Renal Disease (ESRD) have high symptom burden and poor Quality of Life (QoL). The UK prevalence of chronic kidney disease is approximately 5500/million with 105 million a year commencing dialysis. Increasingly, older patients with co-morbidity receive dialysis with seemingly little survival benefit and an unclear effect on symptoms and QoL. Few studies have been reported to enable evidence based treatment decisions to be made. RCTs pose ethical and methodological challenges in this area. We report a pilot longitudinal comparative observational study of end of life care. We explore symptoms, health burden, QoL and quality of death of patients with ESRD and high co-morbidity or poor performance status opting for dialysis or supportive care alone (SCA).

Methods: Patients with ESRD (GFR<15mls/min) with Charlson Co-Morbidity Score (CCMS) >5 or Karnofsky Performance Score (KPS) <50 were recruited. Patients choosing dialysis or SCA were followed up every eight weeks using Leicester Uraemic Symptom Score, FACIT-Spirituality Scale and a checklist to estimate health burden. Quality of Dying Appar score and carer descriptive accounts explored the dying phase.

Results: Ten patients opted for dialysis and eight for SCA. Age, weight, KPS and CCMS were similar in both groups. Both groups had high symptom burden and poor QoL with no statistical difference. Those on dialysis suffered greater health burden i.e. time travelling to hospital, attending appointments, receiving treatment, and inpatient stays. Three patients in the dialysis and five in the SCA group died during the study (1 and 3 of renal failure respectively). The research process was acceptable to patients, carers and staff.

Conclusions: Dialysis does not seem to improve QoL or reduce symptom burden in patients with ESRD and high co-morbidity or poor performance status and may increase health burden. More research is needed to explore this issue further. Funded by hospital renal department.

125 Oral Presentation

Non Cancer
Palliative care in acute stroke: research findings and recommendations
Authors: Sheila Payne International Observatory on End of Life Care Lancaster University UNITED KINGDOM
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Julia Addington-Hall University of Southampton Southampton UNITED KINGDOM

Background: Stroke results in high levels of mortality and morbidity, and can cause wide range of distressing symptoms and problems. It is the third most common cause of death in the UK, with 26,400 people dying each year, and direct costs to the NHS of around £2.8 billion. About 20% of patients die in acute phase of stroke (first month). This study aimed to assess level of palliative care need in patients with acute stroke, and to explore options to enhance palliative care provision.

Method: Data were collected from patients and family carers in two stroke units in Northern England using a validated questionnaire (SPARC) to assess palliative care need, structured reviews of medical records and interviews. Analysis used SPSS for quantitative data and thematic analysis for interview transcripts.

Results: Data were collected from 191 cases of acute stroke. Evidence from SPARC indicated that there were high levels of morbidity in terms of: tiredness, weakness, communication and visual difficulties. Half the sample reported pain. Psychological morbidity in over 50% the sample related to: anxiety, low mood, feeling everything was an effort but less than 20% expressed suicidal ideation. However, 25% were worried about death and dying. Concerns about dependency, difficulties with daily activities were reported by two thirds. Over 50% were worried about the impact of the stroke on their family. Qualitative data illustrate challenges faced by patients and families in recognising that the patient may be near the end of
life. Conclusions: This study demonstrates that stroke patients experience high levels of morbidity and that more effective general palliative care support is required for more dependent patients, and those facing the end of life in stroke units. Recommendations for national policy include supporting staff in developing skills in communicating about end of life concerns.

126 Oral Presentation

Other symptoms: Respiratory, Cognitive and Cachexia

Randomised, placebo-controlled trial of nebulised furosemide for breathlessness in patients with cancer

Presenting author: Alpna Chauhan
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Background: Breathlessness is a common and difficult symptom to treat in patients with cancer. Case reports suggest that nebulised furosemide can relieve breathlessness in such patients but few data are available. Methods: Patients with primary or secondary lung cancer and a Dyspnoea Exertion Scale score of 3 or more were recruited. Following familiarisation patients received either nebulised furosemide 40mg or nebulised 0.9% saline under double-blind conditions or no treatment, in random order on three consecutive days. Patients undertook number reading and arm exercise tests to assess breathlessness and its impact, and were asked to report subjective benefit and any preference between nebulised treatments. Analysis of variance was used to test for carry over and order effects for nebulised furosemide, for differences in the number of numbers read, the number of numbers read per breath, the modified Borg score at maximum equivalent work load, the duration of arm exercise and urine output between the three study days and the change in spirometric values following nebulised furosemide and saline. Results: Fifteen patients took part. There were no differences between furosemide, saline and no treatment in the outcomes of the number reading test (e.g. mean number read per breath was 6.7, 6.4 and 6.7 respectively) or arm exercise test (e.g. mean Borg score at maximum equivalent workload was 2.3, 2.5 and 2.7 respectively). No adverse effects were reported, although there was a small fall in FEV1 and FVC following saline. Six patients considered that their breathlessness improved with nebulised treatment, three preferring saline, one furosemide and two reporting they were of equal benefit. Conclusions: Our findings do not support a beneficial effect from nebulised furosemide in patients with cancer-related breathlessness. Funded by the Hayward House Cancer Care Trust.

127 Oral Presentation

Other symptoms: respiratory, cognitive and cachexia

respiratory symptoms and palliative care needs in lung cancer patients

Authors: Dears Buchanan Palliative Medicine NHS Tayside UNITED KINGDOM Pamela Levack NHS Tayside Dundee UNITED KINGDOM Alastair Thompson University of Dundee Dundee UNITED KINGDOM Lee Baker University of Dundee Dundee UNITED KINGDOM Robert Milroy Stobhill Hospital Glasgow UNITED KINGDOM

Background: Lung cancer is the commonest cause of cancer related deaths worldwide. In Britain it accounts for 25% of all cancer deaths. The prognosis remains poor with an overall five year survival of around 7%. Symptom distress is higher than other cancers and there is a large psychosocial burden. Palliative care is now considered to be an integral part of lung cancer management and is often relevant from time of diagnosis. The palliative outcomes scale (POS) has been developed and validated in several clinical settings as a tool to identify and quantify palliative needs. Elevated C-reactive protein (CRP) and reduced albumin are associated with shorter survival. This study compared respiratory symptoms, CRP, albumin and POS in lung cancer patients attending an out-patient clinic. Methods: 115 patients attending a lung cancer clinic completed a questionnaire containing the POS and 3 questions rating the severity of dyspnoea, cough and haemoptysis. Adverse prognostic markers (CRP and albumin) of each patient were measured. Review of case notes identified other data points. Results: The presence and severity of dyspnoea, cough and haemoptysis were associated with increased palliative needs as measured by POS. (POS 0–4 Vs 5–9, p=0.002, POS 5–9 Vs 10–14, p<0.001, POS 10–14 Vs 15+, p=0.042). Albumin and CRP were not associated with POS. Conclusions: The symptoms of dyspnoea, cough and haemoptysis in lung cancer outpatients are associated with their palliative needs. There was no association with albumin or CRP. These results emphasise the importance of identifying the presence and severity of physical symptoms. This simple approach may allow early identification of patients who are likely to benefit from specialist palliative care services.

128 Oral Presentation

Other symptoms: respiratory, cognitive and cachexia

Beyond adherence: self-management for breathlessness in COPD

Authors: Marjolein Gysels Palliative Care, Policy and Rehabilitation King’s College London UNITED KINGDOM Irene Higginson Kings College London London UNITED KINGDOM

Background: Studies of COPD patients’ experience of care have documented poor service delivery. Most of the effort of controlling breathlessness happens at home. Methods: The aim of this study was to understand how patients and carers respond to breathlessness, what their self-care entails and what they experience as helpful. It had a qualitative design and it was part of a wider programme “Improving Breathlessness”. A purposive sample of 18 COPD patients were included. Data were collected through participant observation during outpatient consultations and in-depth interviews at a large hospital, and in the community in London. Analysis was from a Grounded Theory perspective. Additional coding was conducted on five outlier cases identified through the constant comparative method. Verification of the data involved data and methodological triangulation. Results: Information regarding the management of breathlessness was lacking and access to treatment was difficult. Five out of the 18 patients reverted to alternative strategies to manage their breathlessness. Those who coped successfully developed expertise and managed their symptoms
completely within the limits of current care. They showed that adequate self-management requires a constellation of skills and behaviours. They were involved in pulmonary rehabilitation and had adopted this as a way of life. Benefits and challenges to participation in these programmes were identified. **Conclusions:** A minority of patients practiced self-management and maintained an acceptable quality of life through self-acquired expertise relating to symptoms, medication and help-seeking. Well-being needed to be understood, not as the end point but as a precarious balance, needing skillful maintenance and hard work. The findings have implications for adherence, patient-involvement, and responsibility in the management of COPD.

**129 Oral Presentation**

**Other symptoms: Respiratory, Cognitive and Cachexia**

**Sympathetic nervous system activity in patients with cancer: a pilot study**

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**Background:** Overactivity of the sympathetic nervous system (SNS) promotes catabolism and may contribute to cachexia in chronic heart failure and COPD. This study examined for evidence of SNS overactivity in patients with cancer cachexia. **Methods:** Patients with weight loss of more than 5% since diagnosis and age-matched healthy controls were studied. Those with conditions or taking drugs known to impact the SNS, hypothalamic-pituitary-adrenal axis or the measurement of heart rate variability (HRV) were excluded. A 5min ECG recording was taken under controlled breathing conditions. HRV was analysed by power spectral analysis (Chart software v5.5.4, AD Instruments, Oxford, UK). Mean values of serum cortisol and urinary catecholamines/metanephrines were calculated from two consecutive 9am blood samples and 24h urine collections respectively. Differences were analysed using the Mann-Whitney U test. **Results:** 9 patients with a mean (SD) age of 59 (13) years, percentage weight loss of 17 (12) and an ECOG performance status of 0–3 were recruited along with 9 healthy controls. Heart rate did not differ between the groups. Compared to the control group, all seven aspects of HRV assessed were lower in the patient group, four significantly so (table). Serum cortisol, urinary catecholamines or metanephrines did not differ significantly. HRV component (ms2) Median (range) P value Patients Controls Total power 336 (63–545) 902 (411–3999) 0.001 High frequency 78 (5–246) 313 (67–809) 0.030 Low frequency 62 (13–136) 328 (95–1914) 0.004 Very low frequency 156 (28–295) 336 (153–1209) 0.012. **Conclusions:** Our results do not suggest overactivity of the SNS in this group of patients. However, there is evidence of a global reduction of autonomic modulation of cardiovascular tone with impaired sympathetic and parasympathetic components. Possible explanations include deconditioning and paraneoplastic neuropathy.

**130 Oral Presentation**

**Other symptoms: Respiratory, Cognitive and Cachexia**

**Modafinil for cognitive dysfunction in advanced cancer: A double-blind, randomized, cross-over, placebo-controlled trial**

**Authors:** Lena Lundorff Department of Palliative Care Regions Hospitala Herning DENMARK  
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**Background:** Aim: To evaluate the effectiveness of single-dose Modafinil compared with placebo in advanced cancer patients on cognitive function. **Methods:** Twenty-eight cancer patients with a fatigue score of 50 mm or more on the Edmonton Symptom Assessment System (ESAS), Hgb > 6.5mmol/l, creatinine< 150 mmol/l, total se-Ca > 2.7 mmol/l and Karnofsky Performance Status 40–70 were included. All medications were kept stable one week before and during the trial, however, the patients were allowed to use supplemental doses of short acting opioids for breakthrough pain. On day 1 the patients were randomly assigned to receive 200 mg Modafinil orally or placebo and on day 4 crossed-over to the alternative treatment. Finger Tapping Test (FTT), Trail Making Test (TMT) and ESAS were evaluated before tablet intake and again 4.5 hours after. Side effects were registered. Statistics: Wilcoxon signed rank test. Values of p<0.05 were considered to be statistically significant. **Results:** FTT for the dominant hand as well as TMT were statistically significantly improved on modafinil (p-values = 0.006 and 0.042, respectively). On ESAS depression and drowsiness also improved statistically significantly (p-values=<0.001 and 0.038, respectively). There were no significant differences between side effects on the two treatments. **Conclusions:** Modafinil was significantly superior to placebo regarding two cognitive tests of psychomotor speed and attention. Furthermore, depression and drowsiness were significantly counteracted by modafinil.

**131 Oral Presentation**

**Other symptoms: Respiratory, Cognitive and Cachexia**

**A cluster randomised controlled trial of Cognitive Behaviour Therapy (CBT) for common mental disorders in palliative care patients**

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**Background:** This is the first randomised controlled trial of CBT involving patients with terminal illness and delivered by palliative care nurses. The study aimed to discover if CBT techniques delivered in the homes of patients with advanced cancer can reduce the symptoms of anxiety and depression. **Methods:** The study estimated a power calculation and aims to provide data to allow power calculations in future. Palliative care nurses were allocated to receive training in CBT or continue their usual practise using a cluster randomisation procedure. All new patients in both groups (N=609) were screened using the Hospital Anxiety and Depression Scale (HADS), the primary outcome measure. Patients with high scores were eligible for the trial. Both groups received usual care, but if randomised to the care of a CBT trained nurse this included CBT focussing on emotional problems. Patients were independently re-assessed 6, 10 and 16 weeks. Statistical analysis used general linear latent and mixed models program within Stata. **Results:** Consecutive possible cases were visited by the researcher and 80 patients were recruited into the trial. Most of those who were not entered were too ill to participate. Reasons for exclusion from the study are recorded. 46 patients were assessed at the 6 week interval and 34 at the 16 week interval. Attrition was largely due to deterioration in patients’ physical condition. Patients seen by a CBT trained nurse had significantly reduced anxiety scores on one of two primary outcome measures, (p=0.01). This effect is most marked at 16 weeks, with less anxiety cases in
the CBT group (19% VS 56%); (p=0.04). Depression reduced over time but there were no significant differences between groups. **Conclusions:** It is possible but challenging to carry out a randomised controlled trial in this clinical setting. With the addition of CBT skills to their practise, clinical nurse specialists were able to significantly reduce the anxiety experienced by terminally ill patients.

**132 Invited Lecture**

**Mixed methods**

**Overview of mixed methods: a health services research perspective**

**Authors:** Julia Addington-Hall School of Nursing & Midwifery University of Southampton UNITED KINGDOM

Breathlessness is a complex multi-dimensional symptom which at present is very hard to palliate. One of the barriers to improving care for this devastating symptom, which affects both patients and carers, has been the difficulty in carrying out adequately powered, well designed clinical trials which would give unequivocal results on the effectiveness of different interventions for breathlessness. Many palliative care interventions are multifaceted and fit the definition of ‘complex’ i.e. ‘built up from a number of components, which may act both independently and interdependently’ used by the MRC. Other trials, such as drug trials, are apparently simpler, in that one intervention only is being tested but as 2 review of the literature on opioids revealed there is little standardization of methodology for even these investigations leading to many trials and little hard evidence. There has been little agreement on the standardization of outcome measures, baseline socio-economic data, the place of quality of life measurement and clinically significant changes in breathlessness scales. In order to test any intervention effectively the right methodology must be used. In this presentation different trial methodologies will be explored, including the parallel group RCT the cross over trial, the MRC evaluation of complex interventions and Phase II drug studies, with reference to recent trials in breathlessness. The particular difficulties and pitfalls of research in this area will be highlighted and the consensus on research methodology in this area, being developed by the National Cancer Research Institute’s Breathlessness Sub-group will be presented.

**133 Invited Lecture**

**Mixed methods**

**Mixed methods in public health research in palliative care**

**Authors:** Luc Deliens Dept. of Social Med. Vrije Universiteit Amsterdam VUMC NETHERLANDS

Public health is the science and art of preventing disease, prolonging life and promoting health through the organised efforts of society. Hence, public health at the end of life is the science and art of preventing suffering and promoting the quality of life of terminally ill patients at the end of life, through the organised efforts of society. According to the World Health Organisation end of life care and have become an important area of public health at the end of life is the science and art of preventing suffering and prolonging life. **Background:** Despite major strides in assessment and treatment of many symptoms, we argue that we do not yet adequately address the spectrum of relevant symptom experiences. An underlying assumption in much research appears to be that symptom intensity is equivalent to symptom distress. **Methods:** We question this assumption, based on data from a study of symptom experiences of 400 people with inoperable lung cancer, interviewed up to 6 times during the 1st year post-diagnosis, which was also the last year of life for most participants. Several structured assessment approaches were used, including the Symptom Distress Scale, the EORTC-QLQ-C30+LC13, & the Thurstone Scale of Symptom Distress (TSSD-LC). An open, inductive, structured freelisting question was used to assess that which was currently MOST distressing, and qualitative interviews were conducted with subsets of participants to better understand specific issues. **Results:** Results clearly indicate that the dimensions of symptom intensity and symptom distress are not equivalent. In this patient group, we found notable consistency among those symptoms associated with distress, with problems with breathing, pain and fatigue most highly ranked on the TSSD-LC. Breathing and pain appear to function as icons representing threats associated with lung cancer, with distress related to the past, present and expectations for the future. We also found less concordance between among ratings of symptom prevalence, intensity and association with distress in subgroups of patients with longest post-interview survival times. Finally, freelisting data indicates that the structured measurement tools used did not adequately cover all the issues reported as most distressing for these patients. **Conclusions:** There appears to be a need for a more prophylactic and proactive paradigm of palliation, which takes consideration to anticipatory distress and individual differences. Symptoms with low intensity but associated with high distress may present challenges for clinical management.

**134 Invited Lecture**

**Mixed Methods**

**A critical discussion of how we define, assess and research symptom experiences in palliative cancer care: using mixed methods in symptom research**

**Authors:** Carol Tishelman Dept LIME Karolinska Institutet SWEDEN Lesley Degner Faculty of Nursing, Helen Glass Center for Nursing, University of Manitoba Winnipeg CANADA M.A.G. Sprangers Dept of Medical Psychology, Academic Medical Center, University of Amsterdam Amsterdam NETHERLANDS

**Background:** There appear to be a need for a more prophylactic and proactive paradigm of palliation, which takes consideration to anticipatory distress and individual differences. Symptoms with low intensity but associated with high distress may present challenges for clinical management.

**Methods:** We question this assumption, based on data from a study of symptom experiences of 400 people with inoperable lung cancer, interviewed up to 6 times during the 1st year post-diagnosis, which was also the last year of life for most participants. Several structured assessment approaches were used, including the Symptom Distress Scale, the EORTC-QLQ-C30+LC13, & the Thurstone Scale of Symptom Distress (TSSD-LC). An open, inductive, structured freelisting question was used to assess that which was currently MOST distressing, and qualitative interviews were conducted with subsets of participants to better understand specific issues. **Results:** Results clearly indicate that the dimensions of symptom intensity and symptom distress are not equivalent. In this patient group, we found notable consistency among those symptoms associated with distress, with problems with breathing, pain and fatigue most highly ranked on the TSSD-LC. Breathing and pain appear to function as icons representing threats associated with lung cancer, with distress related to the past, present and expectations for the future. We also found less concordance between among ratings of symptom prevalence, intensity and association with distress in subgroups of patients with longest post-interview survival times. Finally, freelisting data indicates that the structured measurement tools used did not adequately cover all the issues reported as most distressing for these patients. **Conclusions:** There appears to be a need for a more prophylactic and proactive paradigm of palliation, which takes consideration to anticipatory distress and individual differences. Symptoms with low intensity but associated with high distress may present challenges for clinical management.

**135 Oral Presentation**

**Pain 2**

**Treatment of time-of-day pain fluctuation with sustained-release hydromorphone in pain-adjusted doses**

**Authors:** Uwe Junker Pain Therapy and Palliative Care Sana Klinikum Remscheid GERMANY

**Background:** Investigation of pain therapy with sustained-release hydromorphone (HM): 2xday at pain-adjusted dose to manage time-of-day fluctuation in pain intensity. **Methods:** Prospective multi-centre study. Patients with severe pain received HM. Focus on time-of-day differences in pain intensity. Data taken at baseline, day 3 and 7, between days 14–21. Pain intensity (NRS, 0–10) and quality of life were measured on standardised pain questionnaire. **Results:** Results clearly indicate that the dimensions of symptom intensity and symptom distress are not equivalent. In this patient group, we found notable consistency among those symptoms associated with distress, with problems with breathing, pain and fatigue most highly ranked on the TSSD-LC. Breathing and pain appear to function as icons representing threats associated with lung cancer, with distress related to the past, present and expectations for the future. We also found less concordance between among ratings of symptom prevalence, intensity and association with distress in subgroups of patients with longest post-interview survival times. Finally, freelisting data indicates that the structured measurement tools used did not adequately cover all the issues reported as most distressing for these patients. **Conclusions:** There appears to be a need for a more prophylactic and proactive paradigm of palliation, which takes consideration to anticipatory distress and individual differences. Symptoms with low intensity but associated with high distress may present challenges for clinical management.
Significantly fewer patients on the pain-adjusted dose received adjunct analgesics (58.0% vs. 70.5%). More than 50% of patients had time-of-day fluctuation in pain intensity at start of study (mean 5.6 (midday) – 6.5 (night). At day 7, levels had significantly decreased to mean 2.8 (night, morning, midday) or mean 2.9 (evening). By the end, more patients on pain-adjusted dosage showed improved pain relief than those on fixed dose (73.8% vs. 70.5%). Quality of life improved more than 50% overall. On final exam, physicians rated fluctuation as “much improved” or “improved” for 88.8% of patients on pain-adjusted dosage. 91.7% of physicians rated HM efficacy and tolerability as “very good” or “good”. Conclusions: More than 50% of patients reported time-of-day differences in pain intensity. Flexible, 2xday HM dosage improved even time-of-day fluctuation in pain intensity and quality of life; pain levels dropped through pain-adjusted dosage. * Palladon®, Mundipharma GmbH.

136 Oral Presentation

Pain 2

Quality of life in patients treated with controlled release dihydrocodeine and tramadol – results of a prospective, randomised, cross-over study

Authors: Wojciech Leppert Chair and Department of Palliative Medicine Poznan University of Medical Sciences POLAND
Mikołaj Majkowski Department of Quality of Life Research, Gdańsk Medical University Gdańsk POLAND

Background: The aim of the study to assess analgesia, side effects and quality of life (QL) during dihydrocodeine controlled release tablets (DHC Continus® 60, 90, 120 mg) and tramadol controlled release tablets (Tramundin® 100 mg, Tramal Retard® 100, 150, 200 mg) administration to patients with cancer pain

Methods: Prospective, 30 opioid – naive patients with moderate to severe cancer pain intensity of nociceptive (visceral or somatic) type treated with non-opioid analgesics, randomised, cross-over, 7 days each no wash – out. Visceral pain 14 patients, bone 10 and mixed 6. Pain intensity: 24 patients moderate (NRS 3 – 5), 6 severe (NRS > 5). Analgesia by NRS (Brief Pain Inventory – Short Form), side effects verbal scale, ESAS, QL by EORTC QLQ C 30. Starting initial dose DHC 2x60 mg, titrated 2x90,2x120 up to 2x180 or 3x120, tramadol 2x100 mg, titrated 2x150, 2x200 up to 2x300 or 3 x 200. Changing drugs – equianalgesic doses (tramadol = DHC): 2x100 = 2x60, 2x150 = 2x90, 2x200 = 2x120, 2x300 = 2x180. Results: Significant pain relief in both groups but analgesia significantly superior in DHC group and there was less nausea and less dyspnoea. Constipation and drowsiness significantly more intense in DHC group. Global QL better in DHC group. In both groups side effects did not cause early cessation of the treatment and respiratory depression not observed. Conclusions: 1. Dihydrocodeine and tramadol in controlled release tablets are effective analgesics in the treatment of nociceptive cancer pain of moderate intensity but DHC provided significantly better analgesia. 2. Quality of life results showed better analgesia and global QL in DHC group and more intense nausea, less drowsiness and less constipation in tramadol group. The tolerance of the treatment was good in both groups with no serious side effects like respiratory depression or allergy for the drug. 3. The second step of the WHO analgesic ladder is important for the treatment of patients with nociceptive cancer pain of moderate intensity.

137 Oral Presentation

Pain 2

A randomised, double-blind, placebo-controlled, parallel-group study comparing oral racemic ketamine and S ketamine in the treatment of cancer-related neuropathic pain

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Caroline Bray Beatson Oncology Centre Glasgow UNITED KINGDOM
Angela Boyd University of Edinburgh Edinburgh UNITED KINGDOM
Terry Nichols Napp Pharmaceuticals Ltd (now Mundipharma Research Ltd) Cambridge UNITED KINGDOM

Introduction: Ketamine is an N-methyl-D-aspartate receptor antagonist and is used to treat neuropathic cancer pain. However, it may cause psychotomimetic effects such as nightmares, illusions, hallucination, or delirium. We examined the effectiveness and safety of gradual dose titration of ketamine in the treatment of neuropathic pain in advanced cancer patients prospectively. Methods: After we diagnosed neuropathic pain, which did not respond to opioids in advanced cancer patients, we started ketamine 10mg/24hr by continuous intravenous infusion and increased the dose by 10mg/24hr every 4–6 hours until the dose exceeded 50mg/24hr. After 50mg/24hr, we increased ketamine by 25mg/24hr every 12–24 hours until pain was relieved. Results: There were 15 men (62.5%) and 9 women (37.5%), with an average age of 49.2 years (SD=18.4), ranging from 13 to 74 years of age. The patients had a variety of tumors, with rectum cancer...
Pain 2

Therrole of epidural phenol in end-of-life care: A case series

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Background: Pain is a common symptom in cancer patients and can be controlled with medical management in 95% of cases. We examine the use of epidural phenol neurolysis where adequate analgesia cannot be achieved with systemic or epidural opioids and adjuvants. Methods: We describe a series of three patients with extensive metastatic disease close to the end of life. They all had severe pain despite systemic opioids and adjuvants. The first two patients had failure of epidural opioid/bupivacaine/adjuvant mixture. The third patient had complex nursing needs due to the presence of 2 indwelling epidural infusions in addition to paraplegia. Epidural neurolysis was performed using phenol. Results: All three patients had complete relief of their pain following epidural neurolysis. Patient 1 and 2 died peacefully 9 and 11 days following the procedure. Patient 3 was discharged home and died 2 months later. We believe without this intervention all three patients would have continued to have severe uncontrolled pain until death.

Conclusions: Gradual dose titration of ketamine is effective and may be safer in the treatment of neuropathic pain in advanced cancer patients. These findings require confirmation in a larger trial.

139 Oral Presentation

Pain 2

Oxycodone/naloxone PR reduces opioid-induced bowel dysfunction (OIBD) in chronic pain patients

Presenting author: Michael Hopp
Authors: Stefan Mueller-Lissner Gastroenterology Park-Klinik Weissensee Berlin GERMANY
Karen Reimer Mundipharma Research GmbH & Co. KG / University Witten/Herdecke Limburg / Witten GERMANY
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Michael Hopp Mundipharma Research GmbH & Co. KG Limburg GERMANY
Petra Leyendecker Mundipharma Research GmbH & Co. KG Limburg GERMANY

Background: Opioid-induced bowel dysfunction symptoms, such as constipation, are associated with treatment with opioid analgesics, including oxycodone. Constipation can limit continuous treatment, making it one of the main reasons for insufficient pain therapy. This randomised, phase 3, multi-centre, clinical trial determined the safety and efficacy of oxycodone/naloxone PR tablets (Targin®). An exploratory objective was to determine symptoms of constipation with oxycodone/naloxone PR compared to oxycodone PR tablets (OxyContin®). Methods: Subjects with moderate to severe, chronic non-malignant low back pain were randomised to oxycodone/naloxone PR (20/10mg or 40/20mg per day), oxycodone PR (20mg or 40mg per day) and matched placebo. Supplemental analgesic use was allowed (oxycodone immediate-release tablets; OxyNorm®; 5mg).

Conclusion: Constipation was measured by the Bowel Function Index (BFI), a numeric analogue scale (0–10) based on patient self-assessment (difficulty of bowel evacuation, constipation self-assessment) and bowel function measures (frequency, consistency, laxative intake). Results: Focusing on constipated subjects with a high BFI at the start of the double-blind phase (BFI > 5; n = 89), the BFI improved (reduced) with oxycodone/naloxone by 2.31 points and the mean number of complete spontaneous (without laxatives) bowel movements (CSBM) per week improved (increased) by 2.27 (1.93 to 4.20). With oxycodone the BFI reduced by 1.13 and CSBM decreased by 0.32 (2.4 to 2.08). Laxative intake (mean % of days with laxative use) increased in subjects treated with oxycodone PR compared to the oxycodone/naloxone PR treatment.

Conclusions: Oxycodone/naloxone PR improves bowel function and reduces laxative use compared with oxycodone PR.

140 Oral Presentation

Assessment and measurement of quality of life and other symptoms

Validation of Screening instruments for “psychological distress” in a population of disease free female breast cancer survivors

Presenting author: Paddy Stone
Authors: Susanna Alexander Mental Health St George’s University of London UNITED KINGDOM
Patrick Stone St George’s University of London London UNITED KINGDOM
Paul Andrews St George’s University of London London UNITED KINGDOM

Background: Aims: To evaluate the use and efficacy of screening instruments for “psychological distress” in a population of disease-free breast cancer survivors. Methods: Breast cancer survivors (n = 208) who had completed adjuvant treatment and had no evidence of disease recurrence were recruited into a large case-control study to determine the prevalence of cancer-related-fatigue syndrome (CRFS). Participants completed the Edinburgh postnatal depression scale (EPDS), and the hospital anxiety and depression scale (HADS). The latter consists of an anxiety (HADSA) and a depression (HADSD) subscale. A total score (HADST) can also be calculated. Participants also underwent a structured clinical psychiatric interview (SCID – R). This was used as the “gold standard” assessment for psychiatric diagnoses. Receiver operating curves were generated comparing the screening instruments with the SCID interview. The specificity, sensitivity, positive predictive value (PPV) and negative predictive values (NPV) were calculated for each questionnaire. Results: The study was completed by 96% of participants. Prevalence of psychiatric disorders was 18% (36/200). For the HADST, the optimum cut-off = 14, sensitivity = 80.5%, specificity = 79.2%, PPV = 0.46 and NPV = 0.95. For the HADSD; the optimum cut-off = 7, sensitivity = 61.1%, specificity = 87.2%, PPV = 0.51 and NPV = 0.91. For the HADSA; the optimum cut-off = 7, sensitivity = 75%, specificity = 76%, PPV = 0.40 and NPV = 0.93. For the EPDS; the optimum cut-off = 9, sensitivity = 72.2%, specificity = 81.1%, PPV = 0.46 and NPV = 0.93. Conclusions: All questionnaires performed satisfactorily as “screening” instruments for detecting “cases” of psychiatric disorder. The HADST was slightly better than other instruments. In order to be classified as having CRFS it is necessary to exclude patients with co-morbid psychiatric disorders and this can be a time-consuming process. The application of screening instruments should reduce the number of patients who require a structured psychiatric interview.
142 Oral Presentation
Assessment and measurement of quality of life and other symptoms
Developing a Measure of Quality of Death and Dying (QODD) in the Pediatric Intensive Care Unit (PICU)
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Background: End-of-life care in the PICU poses challenges distinct from those for adults. Relatively little information is available about the quality of dying and death in the PICU. We present the results from a qualitative study to develop a measure of QODD in the PICU. Our aims are to describe constructs and indicators through: 1) a systematic literature review and 2) focus groups with PICU providers. These findings, combined with interviews with bereaved family members, will inform the development of a PICU QODD instrument. Methods: A Medline search identified 99 relevant articles. A moderator conducted six focus groups about death and dying in the PICU with 65 PICU providers (physicians, nurses and psychologists) from two teaching hospitals. The study team abstracted themes and specific indicators on decision-making, family and clinician concerns, and quality of care from the 99 articles. Using both inductive and deductive approaches, three coders first read the transcripts and coded for the domains identified in the literature and new domains emerging from the transcripts. Second, they identified sub-themes and topics within each domain. Results: Eight core domains with indicators were identified: 1) Decisions; 2) Conflict; 3) Communication; 4) Continuity of care; 5) Emotional and psychosocial needs of the family; 6) Pain and other symptoms; 7) Choices around the circumstances of death and; 8) Bereavement. A meta-theme, underlying all of the focus group findings, was the notion of the uniqueness of each child, family, and the circumstances of death. Conclusions: Some domains and indicators are unique to the PICU; unlike for adults, autonomy is not a core domain. Accurate and clear description of the uniqueness of each circumstance presents methodological challenges for the development of a tool. Measures should address the subjective assessment of satisfaction with care and alignment with hopes and priorities.

143 Oral Presentation
Assessment and measurement of quality of life and other symptoms
Evaluation of the Palliative Prognostic Score (PaP) and routinely collected clinical data in prognostication of survival for patients referred to a palliative care consultation service in an acute care hospital
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Background: The PaP is a validated tool for survival prognostication in palliative care patients. The purpose of this study is to further validate the PaP and examine the additional prognostic utility of routinely collected clinical data. Methods: Cancer and non-cancer patients referred to a palliative care consultation service at an acute care hospital were included. This was a prospective cohort study on survival prediction based on PaP and other routinely collected clinical data: Palliative Performance (PPS), Folstein Mini Mental State Examination Score (MMSE), Edmonton Symptom Assessment Scale. Data were collected at initial consultation, and again at the time of final decision making for discharge planning. Other predictor variables were obtained via routinely collected administrative data including age group, gender, primary diagnosis, problems at referral, location and date of discharge, and location and date of death. Statistical Analysis: 1) Kaplan-Meier (KM) survival analysis for above listed variables; 2) Hazard ratios for death with above variables; 3) Calculation of PaP using both PPS and KPS; 4) Survival rate (%) by above variables. Results: A total of 312 cases have been included in the preliminary data analysis. 95 cases have been censored due to unavailability of date of death (expected to be ready by the end of 2007). KM analysis for PaP showed 30 day survival rates that are consistent with previous studies in each risk category: A (>70%), B (30–70%), and C (<30%). KM analysis also showed shorter survival in patients with lower PPS and abnormal MMSE. KPS-PPS switch did not lead to significant difference in PaP. Further results will be presented on other variables and data collected at the second time point. Conclusions: PaP, PPS and MMSE were predictive of survival in cancer and non-cancer patients referred for palliative care consultation in an acute care hospital. Implications for clinical decision making, discharge planning and communication of goals of care will be discussed.

144 Oral Presentation
Assessment and measurement of quality of life and other symptoms
What is the best word to monitor fatigue, using a simple question in spanish?
Authors: Maite San Miguel Palliative Care Clinica Universitaria de Navarra SPAIN
Puerco Raquel Clinica Universitaria Pamplona SPAIN
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Background: Visual Analogue Scales (VAS) have been considered as useful for screening asthenia in cancer patients. Symptom assessment tools include asthenia VAS among their items but they employ different words and terms. The concept of asthenia is multidimensional and abstract. The terms used in its examination may have different meanings in different languages and might not be fully understood by patients. Research has not been undertaken into what might be the most valid, reliable term to define asthenia in different languages. The lack of appropriate psychometric studies may compromise the results of symptomatic evaluation. Objective: To determine the most appropriate term, within our cultural and linguistic setting, for the examination of asthenia in cancer patients by means of simple questioning using VAS. Method: By means of a qualitative study (method of consensus by experts) with Oncology and Palliative Care professionals, several appropriate terms to examine asthenia were determined. In a second study, cancer hospital inpatients completed a FACT (Functional Assessment of Cancer Therapy) questionnaire and the FACT-F (Fatigue) subscale and three VAS of asthenia, using different selected terms. The patients’ preferences were also investigated. Results: Ten professionals chose the terms “weakness” (debilidad), “tiredness” (cansancio) and “exhaustion” (agotamiento) as the most appropriate terms. A sample of 55 patients completed the questionnaire. Of them, 54% were diagnosed with fatigue with FACT-F (cut-off point of 34/44, Van Belle, 2005). A 55% (30) of patients also preferred the term “tiredness” for the evaluation. Spearman’s correlation index of 0.83 (p=0.0001) was found for “weakness”. With the words “tiredness” and “exhaustion”, correlations of 0.7 and 0.73 were found respectively (p<0.0001). With a cut-off point of 4/10 in the “weakness” VAS the best sensitivity and specificity were found (93% and 76%). Conclusion: The term “weakness” may be more appropriate than others for screening asthenia using a single question in cancer patients. A cut-off point of 4/10 could be appropriate for diagnosis of fatigue.
### 145 Oral Presentation

#### Assessment and measurement of quality of life and other symptoms

**Quality of life in palliative care patients: a multi-centre, prospective, cross-sectional, comparative study of its estimation by patients, nurses and physicians**

**Authors:** Katharina Kierner Dept. of Internal Medicine I Palliative Care Unit AUSTRIA
Herbert Watzke Palliative Care Unit, Department of Internal Medicine I, Medical University of Vienna Vienna AUSTRIA
Birgit Hladisch-Kermer Palliative Care Unit, Department of Internal Medicine I, Medical University of Vienna Vienna AUSTRIA

Disparities exist in estimation of quality of life (QL) by patients and caregivers. **Methods:** We performed a prospective, multi-centre, cross-sectional study in which QL of 153 patients in 20 palliative care units in Austria was estimated by patients themselves, by 70 nurses and by 53 physicians using the EORTC QLQ-C15-PAL questionnaire. In addition, we evaluated a panel of 38 variables which could influence the accuracy of estimation of QL. **Results:** Overall QL of patients was underestimated by nurses and physicians: concordance between patients and nurses was moderate (r = .292) but was poor between patients and physicians (r = .154). Both groups showed substantial discordance regarding patient’s physical functioning (r > .600). They overrated patients in their social functioning but underrated patients in their emotional functioning. In general, physicians produced a more consistent rating with their patients than nurses on overall symptom scales (anxiety, depression, social assistance, emotional functioning). Both groups felt quite confident in their ratings. A lower Karnofsky Index was significantly associated with low accordance concerning physical functioning, fatigue, pain and overall QL. In nurses, factors such as professional experience, specific training or regular supervision did not influence quality of ratings. Estimation of fatigue was significantly better (p = .033), when nurses knew patients less than 4 days. In physicians, not the professional experiences but the number of days they knew their patients significantly (p = .004) improved accordance rates regarding “dyspnoea”. Estimation of anxiety was significantly more accurate in females while estimation of social assistance and physical functioning was significantly more accurate in males. **Conclusions:** Our study revealed that estimation of overall QL of patients is difficult but fair estimation of their specific QL related problems is possible. Factors which influence this estimation have been identified.

### 146 Oral Presentation

#### Assessment and measurement of quality of life and other symptoms

**Self-report of physical function – how does it relate to performance and clinician rated performance status in palliative cancer patients?**

**Authors:** Line Merethe Oldervoll Institute for cancer research and molecular medicine NTNU NORWAY
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**Background:** Decline in physical function is inevitable among cancer patients in the palliative setting. Most research on physical functioning has been conducted by use of self-reported measures. How these relate to objective assessments of functioning is poorly documented. The aim was to investigate the association between a commonly used self-reported measure of physical function and 1) objective performance tests and 2) clinician rated performance status. **Methods:** Patients with incurable cancer with Karnofsky status (KS) between 50 and 100 and ability to walk were recruited from three palliative out-patient units in Norway. The patients completed the physical functioning scale (PF-scale) in the cancer specific quality of life instrument EORTC-QLQ-C30. Performance was tested by the Shuttle walk test (walking capability), the “sit to stand” test (strength in the lower limb), the handgrip test (isometric strength) and “step-forward test” (balance). Clinicians used the KS to rate the patients’ performance status. **Results:** 83 patients (35 men/48 women) completed the study. The mean age and KS was respectively 64 years (range 35–86) and 78 (50–100). Spearman correlation-coefficient (i.e. convergent validity) between the PF-scale and the Shuttle walk test was high (r = .70, p < .0001). The correlation-coefficient between the PF-scale and the sit to stand, the hand grip test and the step forward was moderate (r values: 0.47, 0.48 and 0.48). Finally, there was a moderate correlation between the KS and the PF-scale (r = .53). **Conclusions:** For research purpose, the assessment tools should be used complementary to each other to better assess the functional status. The moderate correlations between the performance tests and PF-scale can partly be explained by the content of the PF-scale which does not cover the specific functions assessed by the performance tests except for walking. The study was supported by grants from the Norwegian Foundation for Health and Rehabilitation and the Norwegian Cancer Society.

### 147 Invited Lecture

#### Plenary Session 3

**Global warming in the palliative care research environment – adapting to change**

**Authors:** Robin Fainsinger Division of Palliative Care Medicine University of Alberta, Edmonton, Canada CANADA

Advocates of palliative care research have often described the cold and difficult environment that has constrained the development of research internationally. The development of palliative care research has been slow over the last few decades and has met with resistance and sometimes hostility to the idea of conducting research in “vulnerable populations”. The seeds of advocacy for research can be found in palliative care literature from the 1980s and early 1990s. Although we have much to do, we need to recognize that palliative care research development has come a long way. Of particular note is the development of well funded collaboratives that now exist in Europe, Canada, Australia, and the USA. The European Association of Palliative Care and the International Association for Palliative Care has recognized the need to develop and promote global research initiatives, with a special focus on developing countries. Time is needed to develop good research evidence, and in a more complex health care environment takes increasingly more resources to be productive. The increased support (global warming) evident in the increased funding opportunities available to palliative care researchers in a number of countries brings both benefits and challenges. There is evidence that the advocacy of individuals such as Kathleen Foley, Neil MacDonald, Balfour Mount, Vittorio Ventafridda, Robert Twycross and Geoff Hanks is now providing fertile ground and a much friendlier environment for a new generation of interdisciplinary palliative care research. We have achieved many of the goals necessary to avoid failure of the “palliative care experiment”, and need to accept the challenge of our present climate and adapt and take advantage of the change.

**Poster N°: 148**

**Type of presentation:** Poster

**Poster session:** First Group 29 May Thursday, 10.30 to 30 May Friday 13.00

**Category:** Assessment & measurement tools

**Title:** Assessment of chronic pain in older children and adults – developing a evidence-based standardised set of measures

**Authors:**

Nisar Ahmed Academic Unit of Supportive Care University of Sheffield UNITED KINGDOM
Elaine Cachia University of Sheffield Sheffield UNITED KINGDOM

Poster N°: 148
Background: There is a plethora of chronic pain assessment methods and scales that are used across a wide range of care settings. Specialist pain scoring systems are used, for example, in cancer service, pain clinics, arthritis care and nursing homes. There are also different tools for children and older people, including those with dementia. Each service uses different measures which can reduce effective communication. There should be some standardisation so that the best evidence-based measures are used consistently across services. Aims: To describe the best practice in the assessment of chronic pain in adults and older children and to make recommendations for a standardised approach for use in the UK National Health Service. The project was part of an NHS programme to engage and enable clinicians, healthcare providers and patients to share their knowledge, skills, and experiences. Methods: Two national stakeholder events have taken place. The project has sought opinions from a wide range of experts, patient representatives and professional bodies. A systematic extensive search of the literature was performed. All key documents and feedback from the events have been posted on the National Library for Palliative and Supportive Care website. An email discussion page was set up to facilitate discussion around this topic. Results: The literature review has identified over 150 pain assessment instruments. We have categorised these according to age group; cognitive functioning; body systems; disease types. Recommendations for standardised use in different settings are being disseminated for consultation. Conclusions: The assessment of chronic pain is complex and clearly requires a wide range of measures. The project has for the first time produced a comprehensive classification and sets of logical recommendations for clinicians and researchers. These now need to be widely consulted and incorporated into clinical data management systems.

Poster N°: 149

Type of presentation: Poster
Poster session: First Group 29 May Thursday, 10.30 to 30 May Friday 13.00
Category: Assessment & measurement tools
Title: Mini-Suffering State Examination scale: possible key criterion for 6 months survival and mortality of critically ill dementia patients
Authors: Bechor Zvi Aminoff Geriatric Division Sheba Medical Center, Tel-Hashomer ISRAEL

Background: Six months of survival as a key criterion is extremely important for decision-making for enrolling critically ill patients to palliative settings. Prospective cohort study with 6 months of follow-up during a 24-month period performed in Division of Geriatric Medicine in a tertiary general hospital. Methods: One-hundred and three consecutively admitted bedridden patients with end-stage dementia were evaluated. Patients were evaluated weekly by the Mini Suffering State Examination scale (MSSE) which developed by us and presented in world and regional congresses in Berlin (1999), Jerusalem (2000), Vancouver (2001), Stockholm (2002), Tokyo (2003), Las-Vegas (2004), Rio-de Janeiro (2005), Madrid (2006), Saint-Petersburg (2007), the Committee for Labor, Social Services and Health of the Israeli Knesset (2005) and published in Journal Archives of Gerontology and Geriatrics (2004, 38, 2, 123–130) and Age and Ageing (2006, 35, 6, 597–601) and our book – Measurement of Suffering in end-stage Alzheimer’s Disease, Dyonon, Tel-Aviv, 2007. Interelections between Mini-Suffering State Examination score at admission and six month’s survival and mortality were evaluated. Results: A significant difference was proved among survival curves of subgroups of patients according to the mini scores (0–3, 4–6, 7–10). Survival was shorter and mortality higher in patients with a high Mini-Suffering State Examination score, as shown by the Kaplan-Meier method using the Log Rank (p=0.001) and Breslow tests (p=0.001). Conclusions: The Mini-Suffering State Examination scale is useful for predicting the last 6 months of survival and mortality of end-stage dementia patients.
**Background:** Frequency and timing of pain measurement in cancer patients is a significant decision in pain management but standardized approaches are still debatable. Aim of the present study is to compare the agreement of two different schedules for pain evaluation over a period of 8 hours in cancer patients. **Methods:** A sample of consecutive cancer inpatients were asked to score on 0–10 numerical scale the intensity of their pain at hourly intervals, then, at the 8th hour, they were asked to rate their average pain intensity over the last 8 hours (H8). Agreement between the average of the of the 8 hourly measures (H1) and the single one (H8), was examined by the intraclass correlation coefficient (ICC) and the absolute difference (AD) between the two measurement. Association levels between AD and sex, age, somatic pain , visceral pain, neuropathic pain, breakthrough pain, pain on movement were also examined. **Results:** 95 patients were enrolled in the study and 94 of them completed both pain evaluations. Average pain levels were very similar with the two measurement schedules: 3.4 for H1 and 3.8 for H8, with a median AD of 0.5 points. Only 10% of the patients showed ADs higher than 2 points and also the ICC of 0.70 shows a substantial agreement between the two schedules. Among the variables examined only sex showed a significant association with the agreement level with a mean AD of 0.63 in men versus 1.31 in women (p<0.005). **Conclusions:** Our results support the validity of a subjective average pain measurement over 8 hour–period in cancer patients.

**Poster N°: 152**

**Type of presentation:** Poster
**Poster session:** First Group 29 May Thursday, 10.30 to 30 May Friday 13.00
**Category:** Assessment & measurement tools
**Title:** The Italian version of the Palliative Care Outcome Scale (POS)
**Authors:** Massimo Costantini Regional Palliative Care Network National Cancer Institute ITALY

**Aims:** to validate the Italian version of the POS in a palliative care setting. POS was translated into Italian following EORTC guidelines. To increase the ability of the instrument to assess the spiritual domain, item 8 “Have you felt good about yourself as a person?” was substituted with a new item “Are you at peace?” (Steinhauser K, 2006). **Methods:** Consecutive cancer patients admitted to Palliative Care Teams aged 18 years or more were registered for the study. Patients were considered eligible if, within 24 hours from admission, they filled in the baseline POS (T0). At T0, POS was administered with the EORTC QLQ-C15-PAL and the FACIT-Sp12. After 5–9 days (T1), POS was re-administered to the patients and the staff. Test/re-test reliability was evaluated after 24–48 hours from T1 for stable patients in hospice (T2). After the patient’s death, POS was filled in by the staff (T3). **Results:** 232 patients were registered from 16 teams (8 hospices and 8 domiciliary teams). At T0, 115 patients (49.6%) filled in the POS. The FACIT-Sp12 scale was correlated (Spearman coeff=0.46) with the new item 8. Internal consistency was acceptable for patients (alpha=0.73) and staff (alpha=0.66) version. Agreement between patients and staff was moderate for most items (median weighted kappa=0.24; range 0.16–0.52), and discrete for the POS overall score (ICC=0.56). Test-retest reliability was discrete for patients (median weighted kappa=0.44; range –0.01–0.54) and staff (median weighted kappa=0.44; range –0.07–0.73) version. A significant improvement in the first week (T1–T0) was observed for the POS overall score (+2.9; 95%CI=1.7–4.1). Major improvements were observed for other symptoms (+0.51), family anxiety (+0.44), pain (+0.41), information (+0.32), and spirituality (+0.32). **Conclusions:** The Italian version of the POS seems a valid instrument for palliative patients, although some items should be probably refined to better capture staff and patients point of views. This work was supported by a grant of the Centro Universitario di Ricerca “Cure palliative in pazienti inquinabili e terminali” (Progetti di ricerca 2005).

**Poster N°: 153**

**Type of presentation:** Poster
**Poster session:** First Group 29 May Thursday, 10.30 to 30 May Friday 13.00
**Category:** Assessment & measurement tools
**Title:** The complexity and the difficulties in palliative care in a Home Hospitalization Unit (HHU)
**Authors:** Antonio Duque Granado Internal Medicine (Home Hospitalization Unit) Hospital Viergen Del Rocio SPAIN
  Jaime Boceta Osuna Chairman Of The Palliative Care Society Of Andalusia Sevilla/Sevilla SPAIN
  Luis Mendizabal Rosale Hospital Viergen Del Rocio Sevilla/Sevilla SPAIN
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  Rafael Cia Ramos Hospital Viergen Del Rocio Sevilla?Sevilla SPAIN
  Carmen Aguilera Hospital Viergen Del Rocio Sevilla/Sevilla SPAIN
  José Expósito Hernández Director Of The Integral Oncology Plan Of Andalusia Sevilla/Sevilla/SPAIN

**Background:** Palliative care is considered to be a right of every citizen, whether in a primary care or a specialised unit. Complexity in terminally ill patients is a concept with a multifactor character which depends on a group of self-related elements. Despite studies carried out to this respect at present no valid method has been described to assess the complexity of terminally ill patients in palliative care. Though the responsibility for home terminal patient care falls on primary care physician teams the difficulty and complexity that this care brings about makes advisable the help of a support team in home palliative care programmes. **Methods:** Prospective survey on patients in our unit from January 2005 to April 2006. Evaluate the degree of complexity in terminally ill patients by a palliative care support team located in a HHU. Establish a classification of terminally ill patients of differing levels of complexity. Which may help to orientate the level of intervention of each healthcare resource. **Results:** 456 patients have been controlled in our Unit. 52.4% men, 47.6% women; in range of 19–90 years old with an average age of 69. 60.4% of them with Karnofsky Index of 40–50%. Death rate at home has risen to 42.8%. Patients are classified in groups of increasing complexity from the lowest level N1 to the greatest level (N3). A fourth level (N4) of complexity in the last days of the life. Taking into account the number of patients in each level, life quality, visits done, and activities carried out by our Unit. Statistical Analysis: Student’s t-test, Chi-square test, means±SD. ANOVA with correction T3 of Dunnett for multiple comparisons. **Conclusions:** We believe that an assessment classification as well as patient classification in different levels or stages are needed. Complexity measures and number of visits and their complexity have to be taken into account. This would make easier to locate patients according to their complexity in teams with the greatest facilities, both human and equipment.

**Poster N°: 154 withdrawn**

**Poster N°: 155**

**Type of presentation:** Poster
**Poster session:** First Group 29 May Thursday, 10.30 to 30 May Friday 13.00
**Category:** Assessment Measurement Tools
**Title:** Self-reported pain severity: numerical rating scales versus verbal rating scales
**Authors:** Peter Fayers University of Aberdeen Medical School Department of Public Health UNITED KINGDOM
  Marianne Hjermstad Ulleval University Hospital Oslo NORWAY
  Jon Håvards Løge Rikshospitalet University Hospital Oslo NORWAY
  Stein Kaasa St. Olavs Hospital, Dept. of Palliative Medicine Trondheim NORWAY
  representing the EPCRC
Background: For decades there has been debate about the best way to ask patients to rate pain severity. A range of methods has been advocated, including numerical rating scales from 0 “no pain” to 10 “worst possible pain” (NRS-11), verbal rating scales with between 4 (VRS-4) to 7 (VRS-7) response options labelled with verbal descriptors, and visual analogue scales (VAS). There is extensive literature in the social sciences about rating scales, mainly dating from the 1950s to the late 1980s, as well as a number of publications about pain assessment. Two themes emerge. Firstly, determination of the optimal number of response options when using NRS or VRS scales. Secondly, comparison of VAS scales against NRS. The exact number of response options used in a scale is important. One or two extra options may increase reliability and better reflect the patient-to-patient variability. But, lengthier scales may increase the time to complete questionnaires, and place greater cognitive demands on frail patients.

Ability. But, lengthier scales may increase the time to complete questionnaires, and place greater cognitive demands on frail patients. Two themes emerge. Firstly, determination of the optimal number of response options when using NRS or VRS scales. Secondly, comparison of VAS scales against NRS. The exact number of response options used in a scale is important. One or two extra options may increase reliability and better reflect the patient-to-patient variability. But, lengthier scales may increase the time to complete questionnaires, and place greater cognitive demands on frail patients. Two themes emerge. Firstly, determination of the optimal number of response options when using NRS or VRS scales. Secondly, comparison of VAS scales against NRS. The exact number of response options used in a scale is important. One or two extra options may increase reliability and better reflect the patient-to-patient variability. But, lengthier scales may increase the time to complete questionnaires, and place greater cognitive demands on frail patients.
Background: Breakthrough pain is a prevalent and difficult to manage cancer pain syndrome. Further research is needed to assess novel approaches to its assessment and management. However, no validated tool currently exists to assess breakthrough pain in a standard and reliable manner. Such a tool is urgently needed to support research on novel breakthrough pain interventions. Methods: We developed a new tool, the Alberta Breakthrough Pain Assessment Tool for Research (ABPAT-R). It is designed to capture several clinically relevant elements of breakthrough pain, including: relationship to baseline pain; location; intensity; quality; duration; frequency; predictability; and response to medication. We undertook content and construct validity testing of the tool via a Delphi process involving experts in the area of cancer pain, as well as “think aloud” study involving cancer patients. Results: Two expert panels were formed: a national panel (within Canada; n=16) and an international panel (including experts from North America, UK, Europe, the Middle East, Australia, and New Zealand; n=22). Response rates were 56% (national panel) and 73% (international panel). The Delphi process revealed substantial consensus on the content of the tool, which increased between rounds of review. The overall level of agreement with the tool, averaged over the four evaluated aspects of all items, was 80% among national panelists and 88% among international panelists. Nine patients completed the “think aloud” study. They provided information on the feasibility of using the tool and gave specific direction for its improvement. Conclusions: The initial validation of the Alberta Breakthrough Pain Assessment Tool for Research provides evidence that the tool is conceptually grounded and is understandable by patients and clinicians. We anticipate the tool can support programs of clinical research to evaluate novel approaches to assessing and managing breakthrough cancer pain. Funding: CHIR Grant PET69772, Alberta Cancer Board.

Poster N°: 159

Type of presentation: Poster
Poster session: First Group 29 May Thursday, 10.30 to 30 May Friday 13.00
Category: Assessment & measurement tools
Title: Measurement of daily life activities in palliative patients. –An EPCRC validation study of two different body worn sensor systems
Authors:
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Aurelius Omlin Oncology & Palliative Care, Cantonal Hospital St. Gallen SWITZERLAND
Stein Kaasa Dept. of Cancer Research and Molecular Medicine, NTNU Trondheim NORWAY
Lucas Radbruck Dept. of Palliative Medicine, RWTH Aachen University Trondheim NORWAY
Peter Trottenberg Dept. of Palliative Medicine, RWTH Aachen University Aachen GERMANY
Guro Stene Dept. of Cancer Research and Molecular Medicine, NTNU Trondheim NORWAY
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David Blum Oncology & Palliative Care, Cantonal Hospital St.Gallen SWITZERLAND
Florian Strasser Oncology & Palliative Care, Cantonal Hospital St. Gallen SWITZERLAND
representing the EPCRC

Background: Daily activities can be measured by body worn sensors (BWS). Such methods are so far validated in persons with none or small functional limitations. This European Palliative Care Research Collaborative (EPCRC) study aims to test the accuracy of a BWS system in recognising sedentary versus upright activities and step count during walking in palliative cancer patients. Methods: A BWS (ActivPAL®) attached to the patient’s thigh was used to measure sedentary (lying/sitting) versus upright (standing/walking) activities and step count in 17 patients; 11 women (64.9 ±15.8 yrs) and 7 men (61.7 ±7.4 yrs). Mean Karnofsky Performance Status was 63.5 (40 – 100). One patient used crutches and one support from another person during walking. Predefined activities including transfers in bed/chair and 6m slow, preferred and fast walking were performed. Sensor registrations were compared with 2D video camera recordings. Absolute % of agreement was calculated using the Bland Altman method and absolute % error as ((sensor – observation)/observation) x 100). Results: There was high agreement between video observations and sensor registrations for time in sedentary versus upright activity (table 1). Slow speed was 0.46±0.14 m/s, preferred 0.62±0.23 m/s and fast speed 0.81±0.25 m/s. Steps were underreported by the sensor independent of walking speed.

Table 1. Agreement between video recordings and sensor measurements.

<table>
<thead>
<tr>
<th>Activity</th>
<th>Mean diff (s)</th>
<th>% Abs. error (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Slow speed</td>
<td>7.4%</td>
<td>16.1±7.2</td>
</tr>
<tr>
<td>Preferred speed</td>
<td>7.0%</td>
<td>12.0±8.0</td>
</tr>
<tr>
<td>Fast speed</td>
<td>6.3%</td>
<td>10.6±6.8</td>
</tr>
</tbody>
</table>

Instructed activity Observation Sensor Mean diff. % Abs. error %

Conclusion: The sensor system can be used to accurately distinguish between time in sedentary versus upright activities and can thus be a valid measure of palliative cancer patients’ activity level in the clinic and at home. More robust algorithms are needed to accurately count steps in frail populations.

Poster N°: 160

Type of presentation: Poster
Poster session: First Group 29 May Thursday, 10.30 to 30 May Friday 13.00
Category: Assessment & measurement tools
Title: An updated literature review on the content of pain assessment tools in palliative care (PC)
Authors:
Marianne Jensen Hjermdstad Department of Oncology Ullevail University Hospital NORWAY
Augusto Caraceni National Cancer Institute of Milan Milan ITALY
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Stein Kaasa Department of Cancer Research and Molecular Medicine, Faculty of Medicine, Norwegian University of STondheim NORWAY
representing the EPCRC

Background: The European Palliative Care Research Collaborative, the EPCRC (http://www.epcrc.org/) aims to develop an international computerised tool for pain assessment and classification. Objective To update our literature review (1985–2003) on self-report pain assessment tools in palliative care (PC) and their content. Methods: Medline/Ovid databases were searched by the MeSH terms: “pain assessment” OR “pain measurement” AND “palliative care” OR “palliative medicine”. Limitations: dates: 2003 through August 2007, journal article/review, English language, humans, adults, cancer. Results: 196 publications were examined, 180 did not meet the inclusion criteria. 18 tools were found in 16 reports (13 clinical studies, 1 review, 2 qualitative studies: spiritual pain/pain experience), 7 were from North-America, 6 from Europe and 3 from Asia. Six tools were developed before 2003. Sample size ranged from 46–363, completion rates from 50–100%. All tools were developed for paper/pencil format. 18 were multidimensional covering 11 pain dimensions with 1–10 items for each dimension. The 5 most important dimensions defined by an expert panel in our previous study (intensity, interference, relief/exacerbation, temporal pattern, location) were most often assessed. Pain intensity was assessed in 15 studies, primarily by different NRS/VAS scales. Timeframes ranged
from “at present” to “last week”. Six tools (MCPAC, Pain-O-Meter, CPPS, MAT-PC, Amsterdam Pain Management Index, Brief Pain Diary) consisted of NRS and/orVAS scales for index calculations representing new approaches to pain management/assessment/relief/care. Huge variation was found in the validation of the tools. **Conclusions:** This review identified a variety of approaches to pain assessment in PC, consistent with the previous review. Instead of developing new tools, there is a need for a consensus-based approach to pain assessment in palliative cancer patients, identified as an EPCRC task.

### Poster N°: 161

**Type of presentation:** Poster  
**Poster session:** First Group 29 May Thursday, 10.30 to 30 May Friday 13.00  
**Category:** Assessment & measurement tools  
**Title:** Validity and Cross Cultural Adaptation of the Thai Version of the Edmonton symptom Assessment Scale (ESAS)  
**Authors:**  
Darin Jaturapatporn Medicine, University of Toronto Temmy Latner Centre for Palliative Care CANADA

**Background:** The Edmonton Symptom Assessment Scale (ESAS) is a well-known instrument in palliative care, created by the Edmonton group in 1991. The questionnaire consists of nine numerical visual scales for nine physical and psychological symptoms as follows: pain, fatigue, nausea, depression, anxiety, drowsiness, appetite, well-being and shortness of breath. **Methods:** Cross-sectional study: the original ESAS was translated into Thai with permission from the Edmonton group. The translation process followed the guidelines for cross-cultural adaptation of self-report measures, including forward translation, synthesis of the translation, back translation, cross-cultural adaptation and pre-testing. The pilot study was done by distributing the questionnaire to a sample of 20 people before revision of the questionnaire. **Results:** The translation process was carried out over a period of three months, from June to August 2007. In pilot study, the average time to complete questionnaire is five minutes. Fifteen people (75%) commented that the numerical scale of 1–10 is too broad to identify the feeling, therefore, the description of each number should be provided. For cultural aspects, it was noticed to clarify and change the word ‘well being’ because there is no such a word in Thai. In addition, further questions included ‘fear’, ‘suffering’ and ‘knowledge of the disease’ were suggested to add on. **Conclusions:** After translation and cross-cultural adaptation, the Thai version of the ESAS questionnaire is available as a patient-administered instrument to evaluate symptoms for palliative care patients in Thailand.

### Poster N°: 162

**Type of presentation:** Poster  
**Poster session:** First Group 29 May Thursday, 10.30 to 30 May Friday 13.00  
**Category:** Assessment & measurement tools  
**Title:** Using cognitive interviews to evaluate the validity of the three-level-of-needs-questionnaire (3LNQ)  
**Authors:**  
Anna Thit Johnson Dept. of Palliative Medicine Bispebjerg Hospital DENMARK  
Mogens Groenvold Dept. of Palliative Medicine, Bispebjerg Hospital Copenhagen DENMARK  
Morten Aa Petersen Dept. of Palliative Medicine, Bispebjerg Hospital Copenhagen DENMARK  
Lise Pedersen Dept. of Palliative Medicine, Bispebjerg Hospital Copenhagen DENMARK

**Background:** Aim: to evaluate the validity of the Three-Level-of-Needs Questionnaire (3LNQ) using a cognitive interviewing technique. The 3LNQ was developed for self-assessment of palliative needs in patients with advanced cancer. It measures 1) problem intensity, i.e. the degree to which a symptom or problem is present, 2) problem burden, i.e. the degree to which a symptom or problem is perceived as a problem, and 3) felt need (1) i.e. the degree to which the patient expresses a need for help or treatment. **Methods:** seventy-four patients with advanced cancer filled out the questionnaire and participated in an open-ended interview. The patients’ responses to the questionnaire were compared against the researchers’ responses based on the interviews. Items showing substantial agreement (kappa≥0.61) were accepted without further analysis. For items falling below this cut-point reasons for disagreements were analyzed qualitatively. **Results:** all items on problem intensity, 58% of items on problem burden and 17% of items on felt need showed substantial agreement. Analysis of the qualitative data concerning the remaining items showed that most of the disagreements were produced by the method i.e., they did not indicate validity problems. However, some comments indicated potential validity problems that will be presented. **Conclusions:** all items in the 3LNQ were accepted as being valid although some items must be interpreted with caution. The study presents valuable insight into the patient’s perception of problem intensity, problem burden and felt need. Acknowledgements: The study was supported by the Danish Cancer Society (PP01006 and PP05033), and the Ministry of Health’s Grant for Development and Analysis (2003–0201–39).

### Poster N°: 163

**Type of presentation:** Poster  
**Poster session:** First Group 29 May Thursday, 10.30 to 30 May Friday 13.00  
**Category:** Assessment & measurement tools  
**Title:** Screening and prevalence study of holistic supportive and palliative care needs in cancer patients at all stages  
**Presenting author:** Bill Noble  
**Authors:**  
Georgia Keenleyside Academic Unit of Supportive Care University of Sheffield UNITED KINGDOM  
Stephen Walters University of Sheffield Sheffield UNITED KINGDOM  
Jason Boland Sheffield Teaching Hospitals NHS Foundation Trust Sheffield UNITED KINGDOM  
Bill Noble University of Sheffield Sheffield UNITED KINGDOM  
Elaine Rogers Academic Unit Supportive Care, University of Sheffield Sheffield UNITED KINGDOM  
Sam H Ahmedzai Academic Unit Supportive Care, University of Sheffield Sheffield UNITED KINGDOM

**Background:** Palliative and supportive care services are trying to reach more cancer patients in need of specialist care, but one of the barriers is that their clinicians are ill-equipped to assess their needs. We have rigorously developed a screening tool which determines holistic needs in a standardised way. The questionnaire, SPARC-45, is self-completed by the patient. **Aims:** 1) To quantify the point prevalence and impact of pain and fatigue in cancer patients at all stages of their journey from around diagnosis to after treatment and end of life care. 2) To validate SPARC-45 against EORTC QLQ-C30, Brief Pain Inventory, Leeds Assessment of Neuropathic Symptoms and Signs, Multidimensional Fatigue Inventory. The study quantifies the relationship of symptoms and distress to current medication, anti-cancer treatment and to functioning and overall quality of life. **Methods:** A survey was conducted in all the wards of the hospitals in the city and the two specialist palliative care in-patient units; and in selected out-patient clinics and day wards and centres. Cancer patients over 18 years were invited to participate after informed consent. In-patients were given questionnaires and interviews. Out-patients and daycare patients received posted questionnaires. All patients completed SPARC and EORTC QLQ-C30; they only completed other tools if they scored highly on relevant symptoms. Analysis is by SPSS using descriptive and correlational statistics. **Results:** Results are currently being analysed from 326 patients. These patients represent the whole spectrum of cancer from diagnosis to end of life care. Data will be presented on the changing symptom burden and other needs as disease progresses. **Conclusions:** This is probably the first UK
Poster N°: 164

Type of presentation: Poster
Poster session: First Group 29 May Thursday, 10.30 to 30 May Friday 13.00
Category: Assessment & measurement tools
Title: Outcome indicators in palliative care – how to assess quality and success
Authors:
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Martina Pestinger Department of Palliative Medicine, RWTH Aachen University Aachen GERMANY
Lukas Radbruch Department of Palliative Medicine, RWTH Aachen University Aachen GERMANY
Tania Pastrana Department of Palliative Medicine, RWTH Aachen University Aachen GERMANY

Background: The call for good outcome criteria has been raised, as assessment of adequate quality of service providers is essential with increasing momentum in the development of palliative care in most European countries. However, the criteria and scales that have been suggested have failed to prove their effectiveness in the differentiation of different settings or in quality management. The aim of this study is to investigate important dimensions and indicators for assessment and evaluation of palliative care from the perspective of German experts in palliative care. Methods: A focus group, using consensus methods, with 10 experts from different disciplines (physicians, psychologist, theologian, sociologist, social worker, and nursing) was conducted. Participants had to identify and rank important issues in assessment and evaluation in clinical practice. In addition, the essential properties of outcome indicators were discussed. Results: An abundance of topics (16) were identified, pointing at the complexity of the issue. Main topics were: quality of life, needs assessment of patients and relatives, resource assessment, surveillance of decision-making processes, symptom control as well as spiritual and psychological well-being. The following properties were claimed as essential for outcome criteria sensitivity, without additional burden on patients, easy applicability, scientific validity, and helpful for communication within the team, ethical discussions as well as for quality management. Conclusions: The study identified topics considered important by experts in clinical practice. The discussions exposed the diversity of demands on outcome assessment put up by different stakeholder groups. This diversity impedes the agreement on a unique set of outcome criteria. Further research is needed to test the results in other settings; considering the perspective of patients, bereaved relatives and other professional involved in palliative care. This work was funded by the German Cancer Aid (Deutsche Krebshilfe).

Poster N°: 165

Type of presentation: Poster & Poster Discussion Session
Poster session: First Group 29 May Thursday, 10.30 to 30 May Friday 13.00
Category: Assessment & measurement tools
Title: Development of a computerised pain body map: Expert opinions
Authors:
Frode Jakhelln Laugen Department of Cancer Research and Molecular Medicine Norwegian University of Science and Technology NORWAY
Stein Kaasa Department of Cancer Research and Molecular Medicine, Norwegian University of Science and Technology & Palliative Medicine Unit, Department of Oncology, St. Olav’s Hospital Trondheim NORWAY
Marianne Jensen Hjermstad Department of Cancer Research and Molecular Medicine, Norwegian University of Science and Technology & Department of Oncology, Ulleval University Hospital Trondheim & Oslo NORWAY

Background: The European Palliative Care Research Collaborative (EPCRC) is developing a computerised pain assessment and classification tool. A computerised pain body map (CPBM) will be included in the tool and constitutes a new method for assessing pain localisation and intensity in palliative cancer patients. To guide the development of the CPBM, pain treatment experts were asked to rate the importance of different aspects of the CPBM. Methods: A questionnaire was developed containing 18 questions about projections, different aspects of pain, and if intensity rating should be compulsory if included. The importance of each aspect was scored on a numerical rating scale (0–10). The questionnaire was sent by email to 10 international pain treatment experts recruited from the EPCRC and 26 Norwegian experienced pain or palliative care physicians. Results: Seven international and 15 Norwegian experts responded (61%). There was a consensus (mean score 9.6) that the CPBM should be used for assessing pain localisation (including extension). The importance of assessing pain radiation was rated 8.0, intensity 7.8, and character (according to pain descriptors) 6.6. Of the 10 alternative body projections, “anterior view of the whole body” was rated highest (mean 9.6), followed by “posterior view of the whole body” (mean 9.3). The other 8 projections were rated much lower. 64% of the experts agreed that rating of pain intensity should be compulsory for all patients if this option was included in the map. Conclusions: The experts agreed that pain localisation is the most important aspect to include in the CPBM, followed by radiation and intensity. Anterior and posterior views of the whole body were considered sufficient projections in cancer patients. Based on these findings, a CPBM will be developed and demonstrated at the EAPC Research Forum.

Poster N°: 166

Type of presentation: Poster
Poster session: First Group 29 May Thursday, 10.30 to 30 May Friday 13.00
Category: Assessment & measurement tools
Title: Sleep disturbances in advanced disease: a systematic literature review of assessment methods
Presenting author: Marjolein Gysels
Authors:
Farida Malik Palliative Care, Policy & Rehabilitation Kings College London UNITED KINGDOM
Irene Higginson Department of Palliative Care, Policy & Rehabilitation, Kings College London London UNITED KINGDOM
Marjolein Gysels Department of Palliative Care, Policy & Rehabilitation, Kings College London London UNITED KINGDOM

Background: Sleep disturbance commonly occurs in patients with advanced disease and has been found to be a ‘recurrent symptom’ towards the end of life. However it is often not recognised by healthcare providers and the evidence for the reliability & validity of sleep instruments still needs to be established. This study identifies methods used to measure sleep disturbance in patients with advanced disease and describe their psychometric properties. Methods: A systematic literature review was performed using Medline and Psychinfo. All studies describing tools to measure sleep disturbances, their development and evaluation in patients with advanced disease were identified. The psychometric properties of these tools and their coverage of important domains related to sleep in patients with advanced disease are described. Results: 15 sleep questionnaire tools (9 general sleep measures and 6 disease-specific measures) were identified and described. Few of the tools were validated in advanced disease populations and those that had, had not undergone full psychometric testing. No one tool covered all the domains thought to be
important to those with advanced disease. Qualitative domains highlighted as important were symptoms, disease, medications and thoughts. **Conclusions:** There appears to be no one gold standard for the assessment of sleep disturbance in patients with advanced disease. The choice of measurement tool needs to reflect knowledge required and the study question. A combination of subjective and objective measurements (i.e. a self-report questionnaire & wrist actigraphy) also provides important information on the whole sleep experience. Future research needs to address aspects of sleep considered important and continue psychometric testing.

**Poster N°: 167**

**Type of presentation:** Poster  
**Poster session:** First Group 29 May Thursday, 10.30 to 30 May Friday 13.00  
**Category:** Assessment & measurement tools  
**Title:** Developing the ‘Evaluating Care & Health Outcomes – for the Dying’ (ECHO-D): a questionnaire to evaluate care of patients and their families in the last days of life  
**Authors:**  
Catriona Mayland Palliative Medicine Marie Curie Palliative Care Institute UNITED KINGDOM  
J Addington-Hall University of Southampton Southampton UNITED KINGDOM  
JE Ellershaw Marie Curie Palliative Care Institute Liverpool UNITED KINGDOM  
EMI Williams University of Liverpool Liverpool UNITED KINGDOM

**Background:** Within the United Kingdom, there is currently no comprehensive, valid and reliable tool to specifically examine the ‘quality of dying’ in the last days of life. Developing and validating such a tool could help assess quality of care for dying patients, the level of family support and the effect of interventions such as the Liverpool Care of the Dying Pathway (LCP).  
**Aims:** To develop and validate a postal self-completion questionnaire about the ‘quality of dying’ for patients and their families.  
**Method:** Research has identified that relatives provide valid and reliable proxy measures of the quality of dying. Accordingly, potential questions to assess the quality of dying in the last days of life were developed using current literature, existing questionnaires such as VOICES (Views Of Informal Carers Evaluation of Services) and the goals of the LCP. Expert panel review was used to devise content and wording of a draft questionnaire. A traditional pilot, preliminary test-retest reliability and cognitive pre-testing were undertaken with 18 bereaved relatives. Further assessment of validity and reliability is currently being conducted using a sample drawn from 778 potential participants. Test-retest reliability was assessed by percentage agreement, Kappa statistic and Spearman’s correlation coefficient. Construct validity will be assessed using theoretical hypotheses and confirmatory factor analysis. Internal consistency will be assessed using Cronbach’s alpha.  
**Results:** The questionnaire development method provides evidence for face and content validity. Assessment of test-retest reliability shows evidence of stability over time, with 71/111 questions having a percent agreement > 70%, Kappa > 0.5, and r > 0.6. Further psychometric testing will be conducted as detailed above.  
**Conclusions:** The analysis plan will determine the questionnaire’s validity and reliability as well as identifying areas that require further work and psychometric testing. Guidance regarding the future use of ECHO-D will be discussed.

**Poster N°: 168**

**Type of presentation:** Poster  
**Poster session:** First Group 29 May Thursday, 10.30 to 30 May Friday 13.00  
**Category:** Assessment & measurement tools  
**Title:** Is having an ultrasound service in Specialist Palliative Care Units useful?  
**Authors:**  
Damien McMullan Palliative Medicine Northern Ireland Hospice Care Care UNITED KINGDOM  
Max Watson Northern Ireland Hospice Care Belfast UNITED KINGDOM  
Clare White Northern Ireland Hospice Care Belfast UNITED KINGDOM  
Barbara Cochrane Northern Ireland Hospice Care Belfast UNITED KINGDOM

**Background:** Ultrasound scanning has proven itself to be an invaluable non-invasive and portable diagnostic tool in a wide range of medical and surgical specialties. Quality as a diagnostic tool is highly operator dependent and use beyond established ultrasound departments was initially questioned. However, with focused abdominal ultrasound scanning now increasingly being practiced by surgical and medical professionals as an aid to clinical assessment, we wanted to explore the value and potential content of such training for palliative care professionals in the hospice setting.  
**Methods:** A palliative medicine consultant with recognised ultrasound training and many years experience provided an ultrasound service to his colleagues over a twelve month period. The indications for the scan requests and the outcomes were recorded. In addition a survey assessed how worthwhile physicians within the hospice found this service.  
**Results:** 25 ultrasound scans were requested over a one year period. All patients had advanced malignancy. 12 (48%) of the scans were requested to determine if there was ascites and whether or not this would be amenable to paracentesis. As a result, 7 (58%) of these abdominal scans led to a guided paracentesis. Other common reasons for requesting scans were to assess for biliary duct dilatation (20%) and urinary retention (8%). Palliative physicians and trainees in the unit found this service useful as it aided clinical decision making, symptom management and reduced patient inconvenience in being transferred out of the unit for investigation.  
**Conclusions:** The use of ultrasound in hospice has been valued by the palliative care doctors. As a result of this review the content of a ten week hospice focused ultrasound course was devised to include assessment of ascites, assessment of bladder contents, and assessment of biliary duct dilatation. These comprised 19 (76%) of all the scans requested. Currently all the medical staff in the hospice are undergoing this training.
Background: Secondary causes (SecC) of impaired oral nutritional intake (O-NI) – are a common and devastating complication of advanced cancer. They may be classified as O-NI with impaired (e.g. mucositis) or normal (e.g. dyspnea) gastrointestinal function/integrity. To evaluate systematically the frequency and the impact on cancer cachexia of SecC of impaired O-NI.

Methods: A systematic literature review (MedLine, Cochrane, Embase, PsycINFO, CinAhl; 1995–2007) applied 3 combined search strings ([MESH], free text): 1. cachexia/anorexia/wasting/ malnutrition, 2. cancer and 3. classification/staging. Inclusion criteria of citations, then abstracts and finally papers were advanced cancer, original work, and either A) O-NI correlated with SecC or B) twenty-one predefined factors (SecC) known to be associated with O-NI correlated with weight loss. (O-NI had to be objectively assessed by any method, SecC were based on checklists used by experts in daily clinical practice in 3 independent clinics).

Results: Of 7655 citations, 1409 abstracts and 130 full-papers were reviewed, 7 papers (A: 4, B: 3) were included. From A, two studies (75 & 59 HNO patients [pts]) report impaired O-NI by radiation induced symptoms (oral dryness, swallowing discomfort), depression and taste disturbances. Of 66 pts (solid tumors), those with severe (n=16), moderate (18), and mild (15) chemosensory complaints had lower O-NI correlated with loss weight. (O-NI had to be objectively assessed by any method, SecC were based on checklists used by experts in daily clinical practice in 3 independent clinics).

Conclusions: The concept of Sec-C of cachexia seems to be well known but so far only little data have been systematically collected. The awareness for SecC may help in palliating the causes and effects of cachexia.

Poster N°: 172

Type of presentation: Poster
Poster session: First Group 29 May Thursday, 10.30 to 30 May Friday 13.00
Category: Assessment & measurement tools
Title: Outcome indicators in palliative care – how to assess quality and success
Authors: Tania Pastrana Departament of Palliative Medicine RWTH Aachen University GERMANY

Background: The call for good outcome criteria has been raised as assessment of adequate quality of service providers is essential with increasing momentum in the development of palliative care in most European countries. However, the criteria and scales that have been suggested have failed to prove their effectiveness in the differentiation of different settings or in quality management. The aim of this study is to investigate important dimensions and indicators for assessment and evaluation of palliative care from the perspective of German experts in palliative care. Methods: A focus group, using consensus methods, with 10 experts from different disciplines (physicians, psychologist, theologian, sociologist, social worker, and nursing) was conducted. Participants had to identify and rank important issues in assessment and evaluation in clinical practice. In addition, the essential properties of outcome indicators were discussed. Results: An abundance of topics (16) were identified, pointing at the complexity of the issue. Main topics were: quality of life, needs assessments of patients and relatives, resource assessment, surveillance of decision making processes, symptom control as well as spiritual and psychological well-being. The following properties were claimed as essential for outcome criteria sensitivity, without additional burden on patients, easy applicability, scientific validity, and helpful for communication within the team, ethical discussions as well as for quality management.

Conclusions: The study identified topics considered important by experts in clinical practice. The discussions exposed the diversity of demands on outcome assessment put up by different stake holder groups. This diversity impedes the agreement on a unique set of outcome criteria. Further research
is needed to test the results in other settings; considering the perspective of patients, bereaved relatives and other professionals involved in palliative care. This work was funded by the German Cancer Aid (Deutsche Krebshilfe).

**Poster N°: 173**

**Type of presentation:** Poster  
**Poster session:** First Group 29 May Thursday, 10.30 to 30 May Friday 13.00  
**Category:** Assessment & measurement tools  
**Title:** In the jungle of outcome—A systematic review of outcome assessment in the palliative medicine  
**Authors:**  
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**Background:** In the last years there is an increasing interest in outcome assessment in palliative care. Many sectors such as policy makers and other stakeholders as well as clinical research are interested in outcomes. The information from outcome assessment is invaluable for the evaluation of the effectiveness of palliative care interventions. Depending on the measurement tool the results can be used to monitor clinical care, carry out comparative research, provide audit data or support purchasing decisions. The aim of this study is to systematically explore and examine the instruments for outcome assessment that have been used or proposed for research and clinical practice in palliative care. **Methods:** A systematic review of the instruments used to assess outcome in palliative care was conducted using MEDLINE (1966–2007). Additional instruments were identified with the assistance of other professionals working in palliative care and with hand search of key journals. The criterion for the inclusion of instruments was that they had been used for a target population of palliative care. **Results:** The literature research resulted in 72 references. Thirty-four studies with a total of 47 different instruments were included. Instruments contained between 1 and 136 items and covered physical, psychological and spiritual domains. Categorization of the instruments resulted in five major categories: functional ability, health status, psychological well-being, quality of life, social support/network and satisfaction. Each instrument met some but not all of the objectives of measurement in palliative care. **Conclusions:** Hence using outcome assessment in palliative care is considered to improve decision making and patient care, the use of instruments, as yet, is not supported by high quality evidence of clinical and cost effectiveness. [This work was supported by the research grant 107509 of the German Cancer Aid (Deutsche Krebshilfe)].

**Poster N°: 174**

**Type of presentation:** Poster  
**Poster session:** First Group 29 May Thursday, 10.30 to 30 May Friday 13.00  
**Category:** Assessment & measurement tools  
**Title:** Helplessness: An essential component of despair at the end of life  
**Authors:**  
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**Background:** Despair at the end of life has been characterized by hopelessness, depression, and loss of meaning. Desire for death, suicidal ideation, and requests for assisted suicide have been tied to despair, hopelessness and loss of control in terminally ill patients. Although hopelessness is a well-established risk for suicide, the role of hopelessness has not been well-characterized among terminally ill patients who are particularly vulnerable to these feelings. This study sought to elucidate the relationship of helplessness to despair at the end of life and evaluate its role in identifying the patients at highest risk for suicide. **Methods:** Sixty terminally-ill patients completed a psychosocial interview focusing on aspects of end-of-life despair: hopelessness (BHS), desire for death (SAHD), demoralization (DS), depression (HADS; SCID), and meaning (FACIT). Helplessness was measured with the helplessness subscale of the demoralization scale (items: loss of emotional control, no one can help me, I can’t help myself, & I feel hopeless). Regression and correlational analyses were used to examine the role of helplessness at the end of life. **Results:** Helplessness was strongly correlated (p < .001) with hopelessness (.66), desire for death (.67), demoralization (.91), depression (.63), and meaning (.65). Significant desire for death was predicted only by helplessness and depression. Suicidal ideation was predicted only by helplessness above depression, hopelessness, or loss of meaning. **Conclusions:** Helplessness is a distressing symptom at the end of life and a key component of end of life suffering. Even more than hopelessness, helplessness appears to contribute significantly to desire for death and suicide. Based on these results, it is possible to quickly identify high risk patients with a brief screening of helplessness. Interventions should focus on not only ameliorating depression but also decreasing feelings of helplessness and increasing a sense of control.

**Poster N°: 175**

**Type of presentation:** Poster  
**Poster session:** First Group 29 May Thursday, 10.30 to 30 May Friday 13.00  
**Category:** Assessment & measurement tools  
**Title:** TKS-Score, a survival prognostic model to home-care palliative programs  
**Presenting author:** Maria Nabal  
**Authors:**  
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Laura Jiménez 061-Aragón Zaragoza SPAIN  

**Background:** Home care is an increasing area in health programs. Patients characteristics and environment peculiarities ask for specific assessment tools. **Aim:** To develop a survival prognostic index addressed to terminally ill cancer patients who receive palliative care at home by a supportive team. **Methods:** Prospective and inferential survey. N = 173 terminally ill cancer patients admitted for home palliative care from October 2003 to November 2005. Data were collected at the first visit. Variables analysed were: tumour data; presence or absence of signs and 20 symptoms; intensity of signs and symptoms (Likert scale: 0–3); Karnofsky Performance Status Index (KPS) and treatment details. **Results:** Average age was 75.65; KPS median was 50. Survival median was 20 days. After univariate analysis 12 variables were selected for the multivariate analysis. Finally for the TKS-Score model were selected: hepatic metastases, treatment with steroids, use of subcutaneous route, cachexia, cognitive impairment, middle to severe anorexia (2–3/3), severe dyspnea (3/3), severe edema (3/3) and KPS. The area under the curve COR (AUC-COR) for different survival models: 7, 15, 30, 45 days was 0.80. The best predictive estimation takes place at 7 days (AUC-COR: 0.861). **Conclusions:** TKS-Score in a useful prognostic tool in palliative home care. This score can offer better prognostic results when survival is equal or less than 7 days. TKS-Score can classify palliative patients in homogeneous groups of survival.
Poster N°: 176

Type of presentation: Poster
Poster session: First Group 29 May Thursday, 10.30 to 30 May Friday 13.00
Category: Assessment & measurement tools
Title: Validation of a prognostic model based on haematological and biochemical parameters in a new population receiving palliative care treatment at home
Presenting author: María Nabal
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Background: Research on prognostic factors in palliative care is an increasing area of interest. Biological prognostic factors have not been so deep studied than others like clinical estimation of survival, performance status or symptoms. Objective: To validate a prognostic model built on biological variables in terminal cancer patients among a new home care sample. Methods: From the 246 patients receiving home-palliative care, 80 completed the inclusion criteria. Variables: urea, lactate dehydrogenase (LDH), serum iron, albumin, leucocytes, neutrophils, CD8 linfocytes, Karnofsky Performance Status Index (KPS), and treatment with steroids. The dependent variable was considered “life lasting less or equal to 30 days”. Predictive power was analyzed by establishing the area under the curve COR (AUC-COR) and comparing the results with the original model. Results: Patients included showed a better KPS (KPS average ± SD: 53 ±11.5 vs 48.5 ±13; p: 0.003) and longer survival (median 42.5 days vs 15.5 days; p: 0.005) than patients not included. After univariate analysis, only leucocytes and neutrophils showed prognostic differences for life lasting less or equal to 30 days. The AUC-COR was 0.633; significant difference was found when compared to the original model: AUC-COR 0.926; p= 0.00001. Conclusions: This model based on biological parameters could not be validated. From our experience, prognostic variables from a blood sample are difficult to be used systematically in home-palliative care settings. Life lasting less or equal to 30 days does not help to establish differences in the home palliative care population under our team supervision.

Poster N°: 177

Type of presentation: Poster
Poster session: First Group 29 May Thursday, 10.30 to 30 May Friday 13.00
Category: Assessment & measurement tools
Title: Validation of the TKS-Score, a survival prognostic model for palliative home care programs
Presenting author: María Nabal
Authors:
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Background: After developing a prognostic model, results must be validated in order to assess its prognostic capacity. Objective. To validate the TKS-Score, a survival prognostic model for palliative home care programs, among an independent population to establish its real value in clinical practice. Methods: The TKS-Score was tested among 73 patients collected by a palliative home care supportive team. TKS-Score was calculated by adding the scores of any variable in the model: hepatic metastases, treatment with steroids, use of subcutaneous route, cachexia, cognitive impairment, middle to severe anorexia (2–3/3), severe dyspnea (3/3), severe edema (3/3) and Karnofsky Performance Status Index (KPS). The results were compared to those from the initial model. Results: Comparing both samples, patient characteristics only differ on KPS performance status (KPS average ± SD 52.7±1.43 vs 48.9±12.8, p: 0.017) and primary tumour. The area under the curve COR (AUC-COR) showed a lost of predictive power at 7, 15, 30 and 45 days (AUC-COR: 0.70). The best predictive estimation take place at 7 days (AUC-COR: 0.715) like in the original model. There were not signifiant differences between two AUC-COR samples. The model could not establish 3 different survival groups. Conclusions: TKS-Score can be used as a prognostic score even though shows a lost of predictive power from the original sample.

Poster N°: 178

Type of presentation: Poster
Poster session: First Group 29 May Thursday, 10.30 to 30 May Friday 13.00
Category: Assessment & measurement tools
Title: Comparison of populations served by five sites in Sub-Saharan Africa: what effect do “integrated” vs “advanced” care models and hiv/cancer care mixes have on patient need
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Background: Sub-Saharan African services are diverse; some are integrat-ed alongside early intervention. No study has measured comparative needs of the mixed HIV/CA populations, although these needs have conse-quences for development and implementation. Aims: To describe popula-tions cared for by five services, to identify differences in levels of need with respect to model and epidemiology. Methods: As part of an audit cycle, baseline data collected using APCHA African POS, upon entry. Results: Site A (advanced, inpatient, Cape Town N=80). Worst problems: Pain (mean 2.91), Symptoms (3.43), Family worry (4.22). HIV associated with more family worry than CA (p<0.05). 65.4% of HIV pts on ART. Site B (rural inpatient early intervention & homecare, KZN N=150). Worst problems: Pain (2.54), Symptoms (2.05), Worry (2.51), Family worry (3.04). Being older associated with lower life worthwhile score (p<0.05). 84.2% HIV pts on ART. Site C (inpatient & homecare early intervention, KZN N=102). Worst problems: Pain (2.71), Worry (2.24), Life worthwhile (3.15). Being older associated with lower worry score, higher life worth-while and peace scores (p<0.05). 28.4% HIV pts on ART. Site D (advanced homecare, Soweto N=72). Worst problems: Pain (3.88), Symptoms (3.13), Family worry (4.22). Large proportions of pts scored 4–5 on pain (63.89%), symptoms (47.22%), worry (48.61%), family worry (38.89%). 37.7% HIV pts on ART. Site E (advanced homecare, Uganda). Worst prob-lems: Pain (3.76), Symptoms (3.39), Family worry (3.40). HIV pts scored low on help & advice (1.59); CA pts scored high on worry (3.21). 75.6% HIV pts on ART.

Conclusions: The services in this study operate across rural/ urban/ peri-urban areas in South Africa and Uganda, with HIV/CA mixes. Some work with patients from diagnosis; all provide palliative care alongside ART. The APCHA African POS detected important differences in population need. Service standards, interventions and audit goals should be modelled accordingly.
Poster N°: 179

Type of presentation: Poster
Poster session: First Group 29 May Thursday, 10.30 to 30 May Friday 13.00
Category: Assessment & measurement tools
Title: Faith and religious or spiritual beliefs of individuals in palliative care
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Background: The title of the Research is “Faith and religious or spiritual beliefs of individuals in palliative care”. The purpose of the research is to explore the term “spirituality” in palliative care and then focus on “spirituality” in Christian faith and theology. The relevance of the research is to illuminate faith and religious or spiritual beliefs, to enhance knowledge and understanding of therapists in palliative care on the meaning of spiritual care. The research question is: What is the faith and what are the beliefs of individuals in palliative care. Methods: The research methods are quantitative and qualitative. a) Standardized questionnaire will be set for 30 individuals. The questionnaire addresses well-being in relation to various religious, spiritual and/or existential concerns. The questionnaire has been in development by the “European – Organization on Research and Treatment of Cancer – Quality of life study group”. EORTC QLQ-SWB-38. Phase III. b) Interviews will be taken with 10 individuals. The participants in the research are patients in palliative care and the sample is a random sample. Criteria is that the individual feels himself/herself able to participate in the research because of health reasons. Results: In October 2007 there have been taken five interviews and the questionnaire has been set for 10 individuals. The first data available from the interviews show that the participants declared themselves as religious persons although faith realizes in various ways in their lives. Prayer had an important part and the participants used prayer and it is a part of their being. A great harmony was in the interviews concerning faith but one participant criticized harshly religious institutions. Conclusions: Religious attitudes had impact on life values and opinions concerning death. The data from the questionnaire will be worked out by the EORTC and will be available for interpretation to the study as a whole.

Poster N°: 180

Type of presentation: Poster
Poster session: First Group 29 May Thursday, 10.30 to 30 May Friday 13.00
Category: Assessment & measurement tools
Title: Symptom burden and medications used during the last 72 hours of life in palliative care in patients
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Background: A clinical epidemiological study was conducted in two hospital palliative inpatients units during six months using staff assessments. Methods: The MDS-PC instrument used was filled in at the beginning of service, 2 weeks later and at discharge for all new patients. Assessments referred to the previous 72 hours and covered among others aspects health conditions, cognition, communication, psychosocial well-being, physical functioning, urinary and bowel continence. Furthermore, medication charts were collected from medical notes at the same points in time. Results: Seventy-two patients died during the study period after median time of 28 days in service. Men were 47%, mean age 72 years and most common diagnosis were lung cancer (27%), GI-cancer (17%), prostate cancer and breast cancer (13% each). Heavy symptom burden was documented with 90% of the patients having more than five symptoms during the last 3 days. Cardinal symptoms were as expected fatigue, pain, cognitive impairment, lack of appetite and impaired endurance. Constipation was on the other hand enlisted in half of the patients and nausea in one third. All medications, both regular and as needed, were registered according to the ATC Classification together with total daily doses. In the last 72 hours of life mean of 16 (range 2–30) preparations were obtained. All but one patient received some type of pain and psycholeptic medications; 83% were on anticholinergic medications, mainly metoclopramide and esomeprazolum; 62% on corticosteroids and 15% still on antibiotics. One quarter of the patients was on transdermal fentanyl and 96% received some type of morphine. Haloperidol was used in half of the patients, diazepamum in 78% and midosalum in one fourth. Correlation between symptoms, medications and doses will be studied and presented. Conclusions: Staff documented heavy symptom burden with dying patients in spite of good assess to wide variety of medications. Many drugs were continued even on the last 3 days on life.
Background: The Distress Thermometer (DT) (NCCN®), a one-question tool to screen for distress, has been internationally validated and cut-off scores for referral to psychosocial workers have been established. The added problem list (PL) consisting of five domains of possible distress provides the health care worker with additional information. Aim: To present studies in which the usefulness of the DT/PL in clinical practice is investigated. Methods: In PubMed and Web of Science “distress thermometer” was searched; non-English papers and conference abstracts were excluded. Results: Of 19 original articles, only 5 specifically studied the use of the DT in clinical practice. In one study the PL was added. The DT was administered in the waiting room before consultation (2 studies) or as part of a screening list for a referral program (3 studies). Studied populations were (advanced) cancer outpatients (5 studies), admitted cancer patients (1 study), and HIV patients (1 study). Outcome measures were the completion rate (77–98%, 5 studies), the extent in which patients agreed to be referred (28%; 1 study) or were referred (23–18%, 2 studies). One study compared the percentage of patients referred before and after the implementation of the DT and found a significant higher proportion of referrals after implementation (2.5%). The DT was considered useful either in itself or as part of an extensive screening instrument, although the referral program in one outpatient study was too time-consuming, in that the psychiatrist was not always available. One study particularly emphasized the usefulness of the DT in enhancing the doctor-patient communication by encouraging a dialogue during the consultation. Conclusion: The findings on the use of the DT for clinical practice are promising. However, the specific contribution of the DT/PL within the doctor-patient consultation as well as the use of the DT for daily practice in admitted patients, need to be further established.

Poster N°: 182

Type of presentation: Poster
Poster session: First Group 29 May Thursday, 10.30 to 30 May Friday 13.00
Category: Assessment & measurement tools
Title: Psychometric assessment of the Taiwanese version of McGill Quality of Life Questionnaire (MQOL-Taiwan)
Authors:
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Background: McGill Quality of Life Questionnaire (MQOL) is a subjective questionnaire that covers many aspects of life for terminal patients. MQOL has been published in many languages and is highly reputable in its validity and reliability. However, the validity and reliability of the MQOL has not been established for a Taiwanese sample. Thus, the purpose of this study is to establish the validity and reliability of the Taiwanese version of MQOL (MQOL-Taiwan) and to evaluate the quality of life of terminally ill cancer patients. Methods: A total of 240 terminally ill cancer patients from northern, central, and southern Taiwan participated in this cross-sectional descriptive study. Results: An exploratory factor analysis identified five key elements in MQOL-Taiwan (i.e., physical symptoms, psychological well-being, life meaning, satisfaction with life, and social support). These five elements explained 58.87% of the variance in quality of life. The overall reliability was established with a Cronbach’s $\alpha$ of 0.85. The reliability of subscales is presented with Cronbach’s $\alpha$ of between 0.72 and 0.88. In terms of validity, correlations between the MQOL-Taiwan and the Single Item Scale (SIS), Spiritual Well-Being Scale (SWBS), Medical Outcomes Study Social Support Survey (MOS-SS), ECOG-PSR and pain intensity scale were all statistically significant, in the low to moderate levels. Conclusion: According to the findings of this study, we find that MQOL-Taiwan has a stable reliability and validity. Satisfaction with life is an important aspect in the quality of life for terminal patients. Of the five subscales, it had the second worst score, after physical symptoms.

Poster N°: 184

Type of presentation: Poster
Poster session: First Group 29 May Thursday, 10.30 to 30 May Friday 13.00
Category: Assessment & measurement tools
Title: The Distress Thermometer: a review on studies evaluating its use in clinical practice
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Background: Depression is highly prevalent (4 and 58%) in palliative care patients with advanced metastatic disease were reported. A proportion of the patients suffer from a depressive disorder as defined in the DSM IV, others experience symptoms of depression and low mood. Both are associated with lower quality of life and is a burden for patients and their caregivers. Recognition of depressive disorders by physicians is not optimal. This study aims to determine the validity of the Beck Depression Inventory (BDI) to screen for depressive disorders in palliative care patients. Methods: Patients with advanced metastatic disease visiting the outpatient palliative care department. Patient survey using the BDI and two other screening questions with the simple screening questions to screen for depressive disorders is recognized. In clinical practice the simple screening questions can be used
Poster N°: 186

Type of presentation: Poster
Poster session: First Group 29 May Thursday, 10.30 to 30 May Friday 13.00
Category: Assessment & measurement tools
Title: Anorexia/cachexia (ACS) is a frequent complication of advanced cancer with poorly understood psychosocial impact or eating-related distress: Review of item candidates by experts
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Background: Anorexia/cachexia (ACS) is a frequent complication of advanced cancer with poorly understood psychosocial impact or eating-related distress. For better evaluation and management of individual patients with ACS we aim to develop a computerized adaptive test. The review, and revision of item candidates is an essential groundwork towards a new patient reported outcome instrument. Objectives: Thorough review of items by experts as one justification to claim content validity and to reduce patient burden in the following development stages. Methods: Based on a qualitative study with 19 advanced cancer patients having weight loss, a set of 132 items was formed by a study group member. 2 other members refined the set to 122 items. This initial set had to pass through a sequence of steps: 1) review by experts from 3 occupational categories: medical doctors, nurses, and dietitians; 2) based on the review comments, items were assigned to 5 categories: A) similar content, B) no comment and “delete” or “change” rating, C) incomprehensible, or multi-barrelled, D) emotional stressing, E) no comment and “retain” rating; 3) The classified items are revised and reworded by a language specialist and a psycho-oncology expert. Results: A quantitative text analysis of the initial item set showed an average of 13.7 words per item, and a sum of 9 foreign words. All items were reviewed by at least 3 experts (one from each occupational category). Twenty items were rated with “retain” by all reviewers, one item was rated with “delete” by all reviewers, and 101 items had mixed ratings with at least one “change” or “delete” rating. Item categorization based on reviewer comments revealed 12 items in category A, 7 items category B, 80 items in category C, 3 items in category D, and 20 items in category E. 90 items were forwarded to external specialists for revision and rewording. Conclusions: This is the first item pool on psychosocial consequences of ACS.

Poster N°: 187

Type of presentation: Poster
Poster session: First Group 29 May Thursday, 10.30 to 30 May Friday 13.00
Category: Assessment & measurement tools
Title: The Edmonton Symptom Assessment System (ESAS): what do patients think?
Authors:
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Background: The ESAS is a self-reporting tool of symptom intensity by advanced cancer patients. It consists of numerical rating scales for 9 common symptoms, with the option of adding a 10th. Despite its widespread use in palliative care, few studies have focused on its psychometric properties, with none involving patient perspectives. A survey of nurses suggested that patients may be interpreting the ESAS differently from what was intended. The purpose of this study was to gather validity evidence for the ESAS, by examining patients’ cognitive processes while completing the ESAS, understanding of terminology and numerical ratings, and opinions of the ESAS as a self-reporting tool. Methods: English-speaking advanced cancer outpatients, newly referred to a Pain and Symptom Consultation Service in a cancer centre, were recruited. Using a qualitative “think aloud” study design, patients completed the ESAS independently, in the presence of a research nurse/assistant who prompted them to verbalize their thoughts. They then answered a structured questionnaire to elicit their opinions of the ESAS. Written transcripts of 20 audio taped sessions were coded and analyzed independently by at least two research team members. Results: 22 patients participated; 2 were excluded due to cognitive impairment and tape-recording error. Symptom ratings were influenced by factors such as current symptom profiles, past symptom experiences, patient perceptions and temporal changes. Symptom interpretation and numerical rating assignments varied across individuals. Words that were difficult to understand included tiredness vs. drowsiness, depression, anxiety, appetite and wellbeing. Constipation was frequently cited as an additional symptom. Most patients agreed with the item order and thought the ESAS was easy to complete, in the presence of a health care professional. Patients expressed a need to emphasize the timeframe as “now”. Conclusions: Modification of the tool and administration process is recommended. Funded by CIHR PainNET.

Poster N°: 188

Type of presentation: Poster
Poster session: First Group 29 May Thursday, 10.30 to 30 May Friday 13.00
Category: Assessment & measurement tools
Title: A survey of user groups representing a range of diagnoses to assess the acceptability and relevance of SPARC
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Background: The Sheffield Profile for Assessment and Referral for Care (SPARC) is a multi-dimensional screening questionnaire to facilitate the referral of patients with advanced illnesses, regardless of diagnosis, to supportive care services. This project has elicited consumer views regarding the acceptability and relevance of SPARC used as an assessment of need for supportive care in the context of a wide variety of diagnoses. Methods: A self-complete postal questionnaire was distributed to consumer groups concerned with serious and life threatening disease such as cancer, mental disorders and medical conditions. Contact details of groups are in the public domain, and the groups were asked to pass on the questionnaire together with the SPARC to members. The questionnaire focused on their views and perceptions of SPARC. Results: Thirty eight groups circulated their members and 135 questionnaires were returned. A majority of users (93%) found SPARC easy to complete and 60% of respondents found it relevant to them or their relatives, with a further 19% envisaging that it might be relevant for them in the future. Themes emerging from comments were:
• Relevant to a wide range of diagnoses.
• Easy to understand.
• Quick to fill in.
• Relevant for professionals.
• Sensitive questions – but worthwhile.
Conclusions: Consumers appear to consider that SPARC is an acceptable and relevant tool for clinical assessment of supportive care needs for patients with a wide variety of diagnoses.
Opioids exert most of their clinical effects through binding to μ opioid receptor. The gene encoding this receptor, OPRM1, contains several coding regions (exons) which may be combined in different ways by alternative splicing to generate distinctive mRNAs. We have identified several new, alternatively spliced transcripts from the OPRM1 gene. Generation of these transcripts involves two different promoters; P1 and a new putative promoter P2, giving rise to mRNA transcripts with unique 5' ends. An important question is whether these differentially spliced transcripts may encode μ opioid receptor variants with different pharmacological properties. One of the new identified transcripts, hMOR-1A2?, resembles the previously described variant hMOR-1A except that the first exon is missing. This implies that the putative receptor encoded by this transcript lacks the first of the seven transmembrane-spanning segments believed to be essential for opioid binding. Transcription of hMOR-1A2? involves the putative promoter P2, which is located upstream of exon 2. A previously described receptor variant, termed μ3 (now hMOR-1W?), is also lacking exon 1, but is different from hMOR-1A2? in its 3' end. We have identified a new variant, hMOR-1W, which contains the sequences of μ3 (or hMOR-1W?), but this new variant includes exon 1. In order to examine the different splice variants of the μ opioid receptor in more detail, we have made DNA constructs containing the different receptor variants fused to a fluorescent tag (GFP, hMOR-1W, which contains the sequences of μ3 (or hMOR-1W?), but this new variant includes exon 1. In order to examine the different splice variants of the μ opioid receptor in more detail, we have made DNA constructs containing the different receptor variants fused to a fluorescent tag (GFP, CFP) at their C-terminal end, and expressed these transiently and stably in HEK293 cells. We have examined the cellular localization of the different receptors and how this is influenced by exposure to different opioids. We have also measured intracellular levels of cAMP after treatment with opioids and looked for similarities and differences between the variants of the μ opioid receptor.

**Poster N°: 190**

**Type of presentation:** Poster & poster discussion session  
**Poster session:** First Group 29 May Thursday, 10.30 to 30 May Friday  
**Category:** Basic & translational research  
**Title:** Constipation and genetic variation in opioid receptors.  
**Authors:**  
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**Background:** Opioid receptors, especially mu and delta, are present on gut musculature and neural innervations where they play an important role in the regulation of gut function. The gastrointestinal effects of morphine are mediated primarily by mu opioid receptor activation. Furthermore, novel drugs acting at gut opioid receptors are being proposed as selective antagonists to the constipating effects of opioids.  

**Methods:** The aim of this study was to investigate whether variation in genes coding for mu, delta and kappa opioid receptors are associated with variation in constipation in cancer patients on opioids. This was an observational study carried out in a tertiary referral cancer hospital and 274 cancer patients taking oral morphine were recruited. Clinical data collected included a subjective patient assessment of constipation in the preceding week and laxative use. The clinical data was used to phenotype inter-individual variation in constipation on opioids. Single nucleotide polymorphisms (SNPs) in the genes coding for mu, delta and kappa opioid receptors were identified and genotypes for 21 SNPs were determined using sequence-specific primers in a polymerase chain reaction.  

**Results:** There is no significant association between the constipation on opioids and single nucleotide polymorphisms in the mu or kappa opioid receptor. There is a significant association with a polymorphism in the gene coding for the delta opioid receptor (p=0.03), an association so weak as to be unlikely to be clinically relevant.  

**Conclusions:** Polymorphisms in the opioid receptor gene subgroups are not relevant to the clinically observed inter-individual variation in constipation on opioids.
There was no injection site toxicity after 165 injections. Systemic toxicity was observed in 2 pt (8%), one diabetes insipidus, and the other severe hypotension <90/50. Efficacy was achieved in 8 of 14 evaluable pt.

**Conclusions:** Se OLZ is well tolerated and can be effective in controlling agitation in ea pt with hyperactive/mixed delirium, not responding to H. Further research is needed.

**Poster N°: 192**

**Type of presentation:** Poster
**Poster session:** First Group 29 May Thursday, 10.30 to 30 May Friday 13.00
**Category:** Cognitive symptoms and delirium
**Title:** Use of the 10 point abbreviated mental test score on admission to a specialist palliative care unit

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- Julie Doyle Northern Ireland Hospice Care Belfast UNITED KINGDOM
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**Background:** Due to a high incidence of cognitive impairment in palliative care patients a baseline assessment of cognitive function is useful. While detailed assessment is often necessary, this review assesses the usefulness of performing a 10 point abbreviated mental test score (AMTS) on admission to a specialist palliative care unit for the presence of cognitive impairment. **Methods:** A retrospective review was performed of the charts of 50 randomly selected patients who were admitted to a SPCU over 2 years. The admission proforma, which includes an AMTS, was reviewed to determine the incidence of confusion, the causative factors, treatments and outcomes. **Results:** All 50 charts were included. 48 patients had advanced malignancy and 2 had advanced non-malignant disease. 13 (26%) scored 10/10 and 11 (22%) did not have an AMTS performed as they were deemed ‘fully alert and orientated’ by the admitting doctor. 20 (40%) patients scored between 4 and 9/10. 6 (12%) were deemed ‘unable to cooperate’ with the test. A variety of reversible causes was found for the reduction in scores including opioid toxicity, infection, dehydration, renal failure, and brain metastases. In 10 (20%) the cause of confusion was multifactorial. With treatment of the suspected underlying cause(s), confusion totally resolved in 5 (10%) and partially resolved in a further 7 (14%). Improvements were as described in the medical notes. 5 (10%) were thought to have a reduced score due to a chronic irreversible dementia process. **Conclusions:** A reduced AMTS is common in patients admitted to a SPCU. The aetiology of this is often multifactorial, and not always reversible. However, a significant number of patients appear to have complete resolution of their confusion when causes are correctly identified and treated. Further evaluation of the usefulness of the AMTS in palliative care is needed.

**Poster N°: 193**

**Type of presentation:** Poster
**Poster session:** First Group 29 May Thursday, 10.30 to 30 May Friday 13.00
**Category:** Cognitive symptoms and delirium
**Title:** The effects of chronic non-malignant pain and of long-term opioid therapy on working memory and attention.

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- Petter C Borchgrevink NTNU Trondheim NORWAY

**Background:** The objective was to study the effects of long-term opioid therapy in chronic non-malignant pain patients on cognitive functioning. **Methods:** Twenty chronic non-malignant pain patients not using opioids (CP), twenty chronic pain patients on long-term codeine therapy (CPO) equipotent to daily orally mean 40 mg morphine, and twenty healthy controls (HC) were included. Three tests were administered: Letter-Number Span test (LNS); working memory capacity, Paced Auditory Serial Addition Task (PASAT); working memory executive attention, Stroop color naming test (Stroop); selective attention. The subjects were tested two times (T1 and T2) the same day with 5 hours interval, the codeine group both at therapeutic and sub-therapeutic levels. The main outcomes were Working memory capacity, Working memory executive control, and Selective attention. **Results:** The CPO group showed significant impaired performance on the PASAT at T2 compared to healthy controls (p < 0.021). **Conclusions:** Chronic pain patients on long-term opioid treatment had significant impaired executive control compared to HC. The differences were particularly manifested in the last part of PASAT indicating reduced perseverance. Cognitive impairments should be specific targeted in treatment of chronic pain patients both for diagnosing, treatment and rehabilitation.
**Poster N°: 195**

Type of presentation: Poster  
Poster session: First Group 29 May Thursday, 10.30 to 30 May Friday 13.00  
Category: Dyspnoa & breathlessness  
Title: Effect of Hydromorphone on Ventilation in Palliative Care Patients with Dyspnoea  
Authors:  
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Eberhard Klaschik Centre for Palliative Medicine, Malteser Hospital Bonn, University of Bonn Bonn GERMANY

**Background:** The aims of the study were to verify the efficacy of hydromorphone for the management of dyspnoea and assess its effect on ventilation in palliative care patients. **Methods:** 14 patients admitted to our PCU were included in this prospective, non-randomised trial. At admission, all patients suffered from dyspnoea. The intensity of dyspnoea was measured using a numeric rating scale (NRS 0–10). Peripheral oxygen saturation (SaO2), transcutaneous arterial pressure of carbon dioxide (tcpaCO2), respiratory rate (f) and pulse frequency (PF) during the titration phase with hydromorphone for symptomatic therapy of dyspnoea were measured transcutaneously. The study included 14 patients with amyotrophic lateral sclerosis (ALS), breathing room air at admission, 30 min during nasal O2-insufflation, and 30, 60, 90 and 120 min after the first morphine application. O2-insufflation had no effect on the intensity of dyspnoea. **Conclusions:** Neither a significant tcpaCO2 increase nor SaO2 decrease were found. Oxygen should be given based on clear indication.

**Poster N°: 196**

Type of presentation: Poster  
Poster session: First Group 29 May Thursday, 10.30 to 30 May Friday 13.00  
Category: Dyspnoa & breathlessness  
Title: Use of oxygen and opioids in the palliation of dyspnoea in hypoxic and non-hypoxic palliative care patients: a prospective study  
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**Background:** Dyspnoea is a highly prevalent and distressing symptom in palliative care patients. Opioids are the first-line therapy for symptomatic relief of dyspnoea in palliative medicine whereas the role of oxygen is still unclear. This study assessed the effects of symptomatic oxygen and opioid treatment on ventilation and relief of dyspnoea in hypoxic and non-hypoxic palliative care patients. **Methods:** In a prospective, non-randomised study 46 patients with mild to severe dyspnoea were included. Transcutaneous measurement (earlobe sensor) of carbon dioxide partial pressure (tcpaCO2), pulse oximetry oxygen saturation (SaO2) and pulse frequency (PF) were monitored with SenTec Digital Monitor. Compared was: Baseline data of the continuously documented respiratory parameters for about 15 min in patients breathing room air at admission, 30 min during nasal O2-insufflation, and 30, 60, 90 and 120 min after the first morphine application and without O2-insufflation. **Results:** Measurements showed no significant differences between the groups of hypoxic and non-hypoxic patients with regard to tcpaCO2 increase or SaO2 decrease after opioid application. There was no opioid-induced respiratory depression. Already the first opioid application resulted in a significant decrease in the intensity of dyspnoea and respiratory rate. O2-insufflation had no effect on the intensity of dyspnoea. **Conclusions:** No higher risk of respiratory depression and increase in tcpaCO2 in hypoxic palliative care patients, as compared to non-hypoxic patients, during symptomatic therapy of dyspnoea with opioids could be found. Oxygen should be given based on clear indication.

**Poster N°: 197**

Type of presentation: Poster  
Poster session: First Group 29 May Thursday, 10.30 to 30 May Friday 13.00  
Category: Dyspnoa & breathlessness  
Title: Is morphine an effective and safe treatment option in the management of dyspnoea in patients with amyotrophic lateral sclerosis?  
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**Background:** The aim of the study was to verify the efficacy and safety of morphine for the management of dyspnoea in patients in the final stage of amyotrophic lateral sclerosis (ALS), furthermore to assess its effect on ventilation, and investigate whether nasal O2-insufflation previous to morphine application leads to a decrease in the intensity of dyspnoea. **Methods:** In a prospective, non-randomised study 6 dyspnoeic ALS patients were included. The intensity of dyspnoea was measured using a numeric rating scale (NRS 0–10). Ratings were recorded at rest. Transcutaneous carbon dioxide partial pressure (tcpaCO2), pulse oximetry, oxygen saturation (SaO2) and pulse frequency (PF) were continuously monitored during nasal insufflation of O2 previous to and also after the first morphine application. The programms SPSS was used for statistical evaluation. Descriptive methods (mean±SD) were used for comparative quantification of dyspnoea and anxiety. Karnofsky Performance Index was given in median (range). Wilcoxon Test was employed for comparative testing. The P values cited were two-sided, and P values <0.05 were judged as statistically significant. Pearson’s correlation coefficient (r) was used to calculate the correlation of dyspnoea intensity with anxiety. **Results:** O2-insufflation produced no significant decrease in the intensity of dyspnoea (r = 0.861, p = 0.028) in all patients. Both respiratory rate (42.0±6.0/min to 29.0±4.0) (p = 0.027) and intensity of dyspnoea (from 7.5±1.9 to 1.8±0.8) (p = 0.027) showed a significant decrease 120 min after morphine application. Neither a significant tcpaCO2 increase nor SaO2 decrease were shown. **Conclusions:** Therapeutic doses of morphine were an effective and safe treatment option for management of dyspnoea in ALS patients; respiratory depression did not occur. According to the patients’ ratings on NRS, the intensity of dyspnoea did not improve during O2-insufflation.

**Poster N°: 198**

Type of presentation: Poster  
Poster session: First Group 29 May Thursday, 10.30 to 30 May Friday 13.00  
Category: Dyspnoa & breathlessness  
Title: Referring to a complex intervention for breathlessness, the ’Breathlessness Intervention Service (BIS): expectations and experiences of referrers of COPD patients.

**Background:** The aims of the study were to verify the efficacy of hydromorphone for the management of dyspnoea and assess its effect on ventilation in palliative care patients. **Methods:** 14 patients admitted to our PCU were included in this prospective, non-randomised trial. At admission, all patients suffered from dyspnoea. The intensity of dyspnoea was measured using a numeric rating scale (NRS 0–10). Peripheral oxygen saturation (SaO2), transcutaneous arterial pressure of carbon dioxide (tcpaCO2), respiratory rate (f) and pulse frequency (PF) during the titration phase with hydromorphone for symptomatic therapy of dyspnoea were measured transcutaneously by means of a SenTec Digital Monitor (SenTec AG, Switzerland). We compared dyspnoea scores and changes in respiratory parameters over time as compared to baseline using the Wilcoxon matched pairs signed rank sum test. P values <0.05 were judged as statistically significant. The results were calculated using SPSS. **Results:** The mean hydromorphone single dose was 2.5±1.8 mg (0.5–6.0 mg). As early as 30 min after the first hydromorphone application, mean respiratory rate decreased from 38.8±4.9 / min (range 30.0–45.0 / min) to 34.6±4.2 (29.0–41.0); after 120 min to 29.0±3.1 /min (range 24.0–33.0 /min), (P = 0.001) breaths/min. The other monitored respiratory parameter, however, showed no significant changes. A significant improvement was shown in the intensity of dyspnoea (NRS 0–10: 5.2±1.5 (4–8) / 6.4±2.1 (4–10) vs. 1.1±0.9 (0–3) / 2.3±1.3 (1–5), P = 0.001). **Conclusions:** Neither was there a significant decrease in SaO2 nor a significant increase in tcpaCO2 after the initial hydromorphone application, i.e. there was no hydromorphone-induced respiratory depression. Already the first hydromorphone application resulted in a significant decrease in the intensity of dyspnoea and respiratory rate.
Background: Research aims: To identify reasons for referral, expectations, and experience of referring to BIS, and referrers’ views on its future development. Methods: Study population: Referrers (GPs, respiratory nurses, respiratory physicians) of patients with advanced COPD recruited to a delayed intervention RCT of BIS versus standard care. Study design & methods: Audio taped qualitative interviews with nine referrers following discharge of patients from BIS. Tapes were transcribed verbatim. Method of analysis: Framework analysis. Results: All referrers agreed to be interviewed. Referrals to BIS came from both primary and secondary care. Referred patients had complex psychosocial and medical conditions and had accessed all other treatments. Reasons for referral included patient anxiety, difficulty accepting diagnosis, non-compliance with/unrealistic hopes of treatment, low morale and poor functioning: referrers sought greater mastery of breathlessness for their patients as opposed to reduced symptom severity. From the referrers’ perspectives the outcomes of using BIS were very positive in all but one case (patient reported no change). Referrers valued: prompt access to a specialist physiotherapist within a multidisciplinary team (MDT) approach, location of care in the home, time given, attention given to a chronic condition, and educational role (for patients, carers and themselves). Views on future development included: increasing BIS’s profile, enhancing education role, referrer opportunities for shadowing, MDT meetings with referrers for case management, increasing BIS’s capacity, clearer communication of discharge from BIS to the patient, and facilitation of earlier referral. Conclusions: BIS is highly valued by referrers and appears to be meeting their needs in respect of complex patients with intractable breathlessness due to COPD. Future analysis will examine patient and carer views of the service and future studies will assess BIS’s role with other disease groups (e.g. cancer).

Poster N°: 199

Type of presentation: Poster
Poster session: First Group 29 May Thursday, 10.30 to 30 May Friday 13.00
Category: Dyspnoea & breathelessness
Title: Management of malignant pleural effusions in palliative care.
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Background: Malignant pleural effusions (MPE) occur frequently in advanced cancer and may contribute to dyspnoea. Drainage of MPE has potential to improve symptom control; however procedures are invasive and mostly performed in hospital. Little evidence exists regarding drainage of MPE in hospices. Methods: Aim: To examine the management of MPE from advanced cancer in hospital & hospice palliative care settings and review palliative care guidelines. A survey of regional hospice & hospital palliative care teams was performed to establish MPE management in individual units. Retrospective analysis was then performed in 2 units (hospital & hospice) performing drainage of MPE. Episoses were identified by palliative care teams at each location and by computer coding. Case-notes were analysed for details of primary cancer, investigations performed, therapeutic management and symptoms pre and post procedure. Results: 10 sites responded to the survey (response rate=66%). Hospital teams referred to on-site respiratory teams for management. 4 hospices reported performing therapeutic procedures on site. Retrospective analysis identified 32 patients (21 hospital/11 hospice) giving 65 separate episodes of MPE management. The commonest primary site was lung. All patients had radiological confirmation of MPE prior to 1st procedure. For subsequent procedures, some hospice MPE were identified by clinical means only. Interventions included aspiration & intercostal tube drainage. Only aspiration was performed in hospice. Symptoms of dyspnoea, cough & pain were reported. Dyspnoea & cough improved post procedure; pain did not. Improvement in dyspnoea was similar in hospice (57%) & hospital cases (54%) Conclusions: Procedures for MPE drainage can aid symptom control. Simple interventions may be considered in hospices, depending on individual unit resources and development of appropriate management policy. An algorithm for management of MPE in palliative care has been developed for inclusion into regional palliative care guidelines.

Poster N°: 200

Type of presentation: Poster
Poster session: First Group 29 May Thursday, 10.30 to 30 May Friday 13.00
Category: Dyspnoea & breathelessness
Title: Dyspnoea & breathelessness
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Background: In patients with advanced Lung cancer the objective of disease modifying treatment is symptom palliation and improvement in quality of life with a minimum of treatment toxicity. The EORTC Lung Cancer Module (LC-13) has been developed for use in patients with lung cancer receiving treatment with chemotherapy and/or radiotherapy. The LC-13 includes questions assessing lung cancer associated symptoms (cough, dyspnoea, haemoptysis, chest pain), treatment related side effects (sore mouth, dysphagia, peripheral neuropathy, alopecia) and need for pain medication. In this study population we assessed disease related symptoms and treatment side effects at time of first dose chemotherapy and again following three months of a Taxol / Carboplatin chemotherapy regime. Methods: 33 patients with advanced Lung Cancer receiving palliative chemotherapy were assessed at time of first dose of chemotherapy (T1) and again at three months (T3) using the EORTC-QLQ and Lung Cancer Module (LC-13). Results: At T1 the highest symptom scores were for cough (mean score 41.4), dyspnoea (mean score 27.7) and chest pain (mean score 11.11). At T3 39.9% of patients were taking medication for pain. At T3 the highest scores were for alopecia (mean score 82.22) and paraesthesiae (mean score 26.66). Mean symptom scores had decreased for cough (mean score 17.7), dyspnoea (mean score 25.25) and chest pain (mean score 2.22). At T3 26.6% of patients were taking pain medication. Conclusions: These results indicate an improvement in disease related symptoms with a concomitant increase in chemotherapy related side effects after three months of palliative chemotherapy.

Poster N°: 201

Type of presentation: Poster
Poster session: First Group 29 May Thursday, 10.30 to 30 May Friday 13.00
Category: Dyspnoea & breathelessness
Title: Dyspnoea: a life-shortening symptom?
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Background: Dyspnea is a quite frequent symptom in terminal ill patients. Its prevalence increases significantly as death is approached. The purpose is the estimation of average of survival after dyspnea, and evaluation of patients’ prognosis. Methods: It’s a longitudinal study conducted with patients included in a Palliative Care Program during 2005. The patients belonged to a health district with approximately 245.000 inhabitants, and they all died during that year. Information concerning age, sex, dyspnea in oncology and non-oncology terminal patients was recorded. In order to perform a survival analysis, the following groups were considered: a) Patients with dyspnea: Prevalent or Incident.b) Patients without dyspnea. Average of survival was analysed using Stata-9 statistical software: Kaplan-Meyer model for survival analysis. Results: The average age was 73 years and 64% of patients were female. Dyspnorea was recorded in 54% and 72% of oncoology and non-oncology groups, respectively. Complete monitoring time was recorded for 160 (82%) out of a total of 195 recruited patients.66% (60%) of those 160 patients presented dyspnea at any moment during the observation period. 71 patients had dyspnea when they were recruited, while 23 developed it during the monitoring period. Other remarkable results are the following: 7 patients: Dyspnorea disappeared after treatment. 52 patients: Dyspnea did not appear after treatment. The averages of survival were found to be 52 and 69 days for the groups of patients with and without dyspnea, respectively. However, median survival time was achieved to be quite similar for both groups (24 and 26 days, respectively).A longer survival time was achieved for the group of patients with dyspnea, although the difference with that of the group without such symptom was found not to be statistically very significant.

Poster N°: 202
Type of presentation: Poster
Poster session: First Group 29 May Thursday, 10.30 to 30 May Friday 13.00
Category: Dyspnoea & breathlessness
Title: Effectiveness of Benzodiazepines for the Relief of Breathlessness – a Systematic Review
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Background: Benzodiazepines are frequently used for the relief of breathlessness in advanced diseases and are regularly recommended in the literature. However, the evidence for the use of benzodiazepines in this symptom is still unclear. Methods: Objective: To determine the efficacy and effectiveness of benzodiazepines for the relief of breathlessness in patients with advanced disease. Methods: Relevant data bases and grey literature were searched. The retrieved titles were checked independently by two reviewers. Relevant articles were extracted to a specially designed data extraction sheet. Selection criteria: randomised controlled trials (RCTs) and controlled trials (CTs). Participants: adult patients suffering from breathlessness due to malignant and advanced non-malignant diseases. Intervention: benzodiazepines compared with either placebo or other drugs. Outcomes: Subjective measures of breathlessness as primary and adverse effects as secondary outcomes. The quality of study was assessed (Jadad-Scale, Methods score). Results: The search yielded five studies (3 RCTs, 2 CTs) which met the inclusion criteria, one trial is currently recruiting patients. A total of 153 patients (range 4–101) were included in the studies. Four trials were conducted in COPD patients, one study included only patients with advanced cancer. Investigated drugs were diazepam (3x), alprazolam (1x) and midazolam (1x). All studies used placebo as a control. The results were inconsistent: three studies showed a positive effect of benzodiazepines for the relief of breathlessness whereas two studies did not. One of these two studies shows neither positive nor negative effect, but the other study state a contraindication of diazepam for breathlessness in COPD because of intolerable drowsiness. This effect might be caused through the high doses of diazepam (25mg daily) which were used. Conclusions: Based on the current literature there is not enough evidence for the use of benzodiazepines for the relief of breathlessness.

Poster N°: 203
Type of presentation: Poster
Poster session: First Group 29 May Thursday, 10.30 to 30 May Friday 13.00
Category: Dyspnoea & breathlessness
Title: The Pathophysiology of Dyspnoea in End-stage Chronic Heart Failure (CHF) – Implications for Symptom Management
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Background: Chronic heart failure (CHF) is one of the most common and deadly cardiovascular disorders and is the end stage of many heart diseases. Dyspnea is the most common and troublesome symptom in CHF with 60–88% of patients suffering from it in the last six months of life. Understanding the pathophysiology is important for the management of this symptom. Methods: Objective: The aim of this review is to demonstrate the pathophysiology of dyspnea in end-stage CHF and understand the different mechanisms in symptom management. Methods: Review of the literature (Medline search and relevant textbooks) and presentation of the current research and knowledge about CHF and dyspnea. Results: CHF is a multisystemic, progressive and often fatal disease. The stimulation and overdrive of the neurohumeral (sympathic nervous system, renin-angiotensin-aldosteron-system) and immunological system (cytokines) are the main pathophysiological causes of ‘remodelling’ and the vicious circle of functional deterioration of the heart and other organs. Muscle myopathy, augmented peripheral chemoreflex, vascular remodelling with abnormalities in gas exchange and other mechanisms are the reasons for the resulting dyspnoea and fatigue. Three relevant models are illustrated for explanation: the corollary discharge, the efferent-reafferent dissociation, and the reaction of mecano- and chemoreceptors. Pharmacological and non-pharmacological strategies in symptom management of dyspnoea and fatigue in relation to the pathophysiology are presented, e.g. opioids (modulating the sensitivity of chemoreceptors), rehabilitation and exercise programmes (muscle myopathy and mechanoreceptors). Conclusions: The pathophysiology of chronic heart failure and related dyspnoea is a multisystemic reaction of the organism. The approach to treatment and care of patients with end-stage chronic heart failure should be multidimensional, to meet the needs for these patients at the end of their life.

Poster N°: 204
Type of presentation: Poster
Poster session: First Group 29 May Thursday, 10.30 to 30 May Friday 13.00
Category: Dyspnoea & breathlessness
Title: Nebulized opioids for cancer-related dyspnoe – is there evidence?
Background: Breathlessness is one of the most burdensome symptoms in patients with advanced cancer. For the symptomatic treatment the administration of systemic opioids is evidence based good clinical practice, but the empirical use of nebulised opioids is still controversial. Methods: A systematic review was performed. Papers treating patients with cancer-related breathlessness were included. Results: Twenty relevant papers could be identified. Three studies were randomised double-blind controlled trials with the evidence grade I B; five were controlled trials with evidence grade II B or C. The other papers were case reports and one chart review. Two randomised controlled studies showed no significant effect of nebulised morphine, one randomised controlled trial found nebulised morphine similar to subcutaneous morphine. Four non-randomised studies found an improvement of dyspnoea; two of them were of inferior quality. One non-randomized study found no effect of nebulized morphine. The chart review and five single case reports found an improvement of breathlessness. Mild side effects were reported in some references, but also occasional severe. The comparison of the twelve reviewed studies remains difficult, because of different study designs, the inhomogeneous groups of patients, different outcome measures, grade of breathlessness and incomparable treatment regimes. Regarding all reviewed references there is an inverse correlation between positive study outcome and the grade of evidence. Conclusions: At this time there is no evidence, that nebulised morphine or other opioids have a benefit beyond the placebo effect or an advantage over systemic administration of opioids in the treatment of cancer-related breathlessness. Because of reported side effects, this approach should only be used within clinical trials.

Poster N°: 205

Type of presentation: Poster
Poster session: First Group 29 May Thursday, 10.30 to 30 May Friday 13.00
Category: End of life care & quality of death
Title: Care Setting Transitions at the end-of-Life in the Netherlands: a nationwide study
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Background: Multiple care setting transitions could have a negative impact on dying patients, thereby suggesting a low quality of end-of-life care. This study aims to determine the characteristics of care setting transitions (prevalence and patterns) in the last 3 months of life in the Netherlands and to identify potential patient predictors of multiple transitions and their care.

Methods: Standardised registration forms were sent to all General Practitioners (GPs) within the Dutch Sentinel Network, a representative health surveillance network covering approximately 1% of the population. The GPs registered retrospectively all non-sudden deaths (a mortality follow-back study); of patients aged a year and above occurring between January 2005 and December 2006. A care setting transition was defined as a change in the location of a patient’s care. Results: A total of 718 transitions were made by the 690 non-sudden deaths registered. Two-thirds of these had their place of care changed at least once in the last four weeks of life. Over 80% of the ‘hospital’ deaths consisted of patients who were at ‘home’ 7 days prior to death. The patient’s age, primary cause of death and personal wishes were related to fewer care setting transitions. Conclusions: Although some care setting transition are required, others could be avoided. It is advisable to anticipate and implement ‘needed’ transitions in a more coordinated manner.

Poster N°: 206

Type of presentation: Poster
Poster session: First Group 29 May Thursday, 10.30 to 30 May Friday 13.00
Category: End of life care & quality of death
Title: Aminoff Suffering Syndrome a New Pathological Entity in End-Stage Dementia
Authors:
Bechor Zvi Aminoff Geriatric Division Sheba Medical Center, Tel-Hashomer ISRAEL

Background: Patient suffering is a pathological syndrome traditionally viewed as a state encompassing psychological distress, spiritual concerns and various aspects of physical pain. There is insufficient clinical evidence for suffering in dying dementia patients and key criterions of irreversible medical condition, which may lead to inappropriate evaluation and insufficient palliative treatment. To evaluate the suffering of terminal dementia patients (MMSE=0/30, FIM=18/126) over time, from admission to a geriatric ward and on during six months follow up. Methods: A prospective study of consecutive end-stage dementia patients, admitted to a general geriatric department of a tertiary hospital. Patients were evaluated weekly by the Mini Suffering State Examination scale (MSSE) which developed by us. Results: Two hundreds patients have been studied. During six months follow up survived 88 (44%) and died 112 (56%) of end stage dementia (ESD) patients whom admitted to geriatric department. The MSSE scale score of six months survived ESD patients was low with MSSE=3.41±2.02 at day of admission and decreased during six months follow up to MSSE=2.77±1.90, P=0.003. In contrary, the MSSE scale score of died ESD patients was high with MSSE=4.97±2.46 at day of admission to geriatric department and increased until last day of life until MSSE=5.93±2.39, with significant difference P=0.0001. Conclusions: ‘Aminoff Suffering syndrome’ in terminal dementia is the new pathological and geriatric symptomatology and entity which characterized by high MSSE scale score, irreversible and intractable aggravation of suffering and medical condition until death and less than six months survival. ‘Aminoff Suffering syndrome’ could be key criterion for enrolling ESD patients for palliative treatment and new alternative setting approaches as Suffering Relief Units should be developed for end stage and dying dementia patients being in Aminoff Suffering syndrome.

Poster N°: 207

Type of presentation: Poster
Poster session: First Group 29 May Thursday, 10.30 to 30 May Friday 13.00
Category: End of life care & quality of death
Title: The New Israeli Law
Authors:
Bechor Zvi Aminoff Geriatric Division Sheba Medical Center, Tel-Hashomer ISRAEL

Background: The new Israeli Law “The Dying Patient” provides avenues for possible medical, ethical and Halachic (Jewish religious law) solutions in view of the complexity of the treatment of an end-stage dementia (ESD) patient. The establishment of a hospice-like setting for dementia patients in Israel, based on palliative treatment only, similar to the Jewish hospices in the United States of America, is extremely important. This paper proposes a new, alternative approach and setting for patients with ESD that could pertain to the Israeli setting and could possibly also be acceptable in other countries. Methods: Key points: 1. Screening the suffering level of dying patients by means of the Mini Suffering State Examination (MSSE) scale
developed by us for revealing which patients have a high level of suffering (MSSE = 7–10) 2 Patients with a high level of suffering (MSSE = 7–10) should be hospitalized in “Relief of Suffering Units” 3. Period of hospitalization in such a unit is estimated to be 1 month 4. Patients whose suffering level diminishes during hospitalization in these units could be discharged 5. The desirable approach to dying patients in “Relief of Suffering Units” will be to seek solutions for diminishing the high suffering level of the patients Results: Treatment in the Relief of Suffering Units would be in accordance with the principles determined in the New Israeli Law. These units would be the source for integral medical, nursing, religious, ethical, psychological and sociological research, seeking methods to cope with the horrendous burden of suffering of dying patients, their families and the nursing staff. Conclusions: Our proposal was published in book – Measurement of Suffering in end-stage Alzheimer’s Disease, Dyonon, Tel-Aviv, 2007.

Poster N°: 208

Type of presentation: Poster
Poster session: First Group 29 May Thursday, 10.30 to 30 May Friday 13.00
Category: End of life care & quality of death
Title: Experience of the Moment of Death in Hospital.
Authors: Jodie Battley Palliative Medicine Milford Hospice IRELAND
Sinead Donnelly Milford Hospice Limerick IRELAND

The moment of death is a highly significant event which has become increasingly marginalised. Although the majority of deaths occur in acute hospitals, literature suggests that dying in hospital is largely a negative experience. Methods: This is a qualitative enquiry conducted over six months into the experience of the moment of death in a tertiary referral hospital in the Mid West of Ireland. Relatives of patients who died in the palliative care service were recruited. Fifteen semi-structured interviews of relatives present at the time of death were conducted within two weeks of death in order to best capture recall. The interviews were transcribed and then analysed by both researchers and an independent analyst experienced in qualitative methods in order to identify the underlying themes and avoid potential investigator bias. Bereavement counselling was offered to all participants. Results: Included in the emerging themes is the impact of the patients’ location within the hospital. Contrary to popular belief, families had varying opinions about a ward or a private room just as some preferred in qualitative methods in order to identify the underlying themes and avoid potential investigator bias. Bereavement counselling was offered to all participants. Results: Included in the emerging themes is the impact of the patients’ location within the hospital. Contrary to popular belief, families had varying opinions about a ward or a private room just as some preferred

Poster N°: 209

Type of presentation: Poster
Poster session: First Group 29 May Thursday, 10.30 to 30 May Friday 13.00
Category: End of life care & quality of death
Title: Subcutaneous administration for drugs in German palliative care units and hospices – results of a national survey
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Mark Braun Interdisciplinary Centre for Palliative Medicine, University Hospital Munich Munich GERMANY

Background: Subcutaneous (s.c.) administration of drugs and fluids is common practice in palliative care. There is little documented information on the use of s.c. drugs and fluids in German palliative care settings. Aim of the study: To describe and compare the practice of s.c. administration across three different settings in Germany: palliative care units (PCU), hospices and oncology units (OU), and to explore the experiences and attitudes of professionals using s.c. drugs. Methods: Postal questionnaires (n=381) were sent to all German PCU, hospices and oncology departments. Results: Response rate was 63%. S.c. administration was routinely used in 97/100 hospices (97%) and 86/89 PCU (97%) compared to 34/47 (72%) of oncology units. 2/3 of PCU and hospices had excellent/very good experiences compared to only 18% in OU. Main indications for s.c. use in all units were nausea/vomiting, terminal phase, dyspnoea and unconsciousness; main contraindications were patient refusal, oedema and clotting disorders. Morphine, midazolam, hyoscine butylbromide and haloperidol were most frequently used in all three settings but overall significantly less often in the OU. The following advantages emerged from the thematic analysis of open questions independent of type of setting: patient comfort, less invasive or avoiding use of i.v. lines, administration by nurses or relatives, and ease of use. Disadvantages were use in patients with cachexia or oedema, dislodgement of s.c. needle in delirious patients, and local reactions at infusion site. Some OU viewed s.c. administration as unusual and identified the need for doctors and nurses for special training. Discussion: Although palliative care development has a shorter history in Germany compared to the UK this first study of s.c. administration in Germany illustrates that s.c. administration is widespread in German PCU and hospices. Knowledge and training especially in the oncology setting need to be addressed in the future.

Poster N°: 210

Type of presentation: Poster
Poster session: First Group 29 May Thursday, 10.30 to 30 May Friday 13.00
Category: End of life care & quality of death
Title: Riding the tandem: Sedation at the End of Life
Authors: Declan Cowley Inpatient Unit St Ann’s Hospice UNITED KINGDOM
Jan Colling St Ann’s Hospice Cheddar UNITED KINGDOM
Dave Waterman St Ann’s Hospice Cheddar UNITED KINGDOM
Alison CubittChristie Hospital Foundation NHS Trust Manchester UNITED KINGDOM

Background: Sedation towards the End of Life (EOL) is common and varies depending on the healthcare setting. Current literature suggests a modest increase in its use towards the EOL but is not associated with a decrease in survival. Sedation acts as an indicator for impending rather than the cause of premature death. EOL initiatives have seen the advent of anticipatory prescribing along with advance care planning. The aim was to establish whether sedation at the end of life is used in accordance with current hospice algorithms developed as a consequence of the use of the Liverpool Care Pathway (LCP). Methods: Retrospective case note review of deceased hospice inpatients within a 2 month period and a survey of medical staff. Results: Excluding deaths of patients that were sudden or unexpected, 78% (40/51) of dying patients were commenced on the LCP with 22% (11/51) having no documentary explanation of why not. Only 88% of patients on the LCP had any initial documentary assessment for agitation with 92% (37/40) having midazolam prescribed. Only 72% of prescriptions met the prescribing algorithm for agitation with 92% (37/40) having midazolam prescribed. Only 72% of prescriptions met the prescribing algorithm for agitation. Surprisingly those patients that died not on the LCP, a higher proportion 87% met the prescribing algorithm for agitation. When trying to match variances observed for agitation with medications given, 13% (10/78) had sedation given but comments that pain was observed, not documented as a variance and no analgesia given. All (4/4) medical staff knew about the algorithms for sedation, 75% (3/4) where they were kept but only 50% (2/4) said they use them. Conclusions: The findings in conjunction with the hospices’ clinical governance framework devised an action plan addressing LCP education, the importance of documentation of observations, prescribing in conjunction with algorithms and widening the debate about interpreting algorithms. It highlighted the need
for documentary explanation if variances are observed while outlining the reasons if deviation occurs.

**Poster N°: 211**

**Type of presentation:** Poster  
**Poster session:** First Group 29 May Thursday, 10.30 to 30 May Friday 13.00  
**Category:** End of life care & quality of death  
**Title:** Royal Marsden Hospital2Home Pilot Programme  
**Presenting author:** Julia Riley  
**Authors:**  
Nigel Dodds Palliative Care Royal Marsden NHS Foundation Trust UNITED KINGDOM  
Julia Riley Royal Marsden NHS Foundation Trust London UNITED KINGDOM  
Deirdre Adams Royal Marsden NHS Foundation Trust London UNITED KINGDOM  

**Background:** In England, patients’ actual place of death infrequently corresponds with their preferred place of death. The Royal Marsden Hospital2Home (H2H) Programme was established to improve the numbers of patients dying in their preferred place.  

**Aims and methods:** The aims of the pilot are to: “allow more patients to die in their preferred place”; “give patients more choice by planning ahead”; “reduce the number of unnecessary acute admissions”; “improve quality of life.” This is a prospective trial, to consider the effectiveness of a palliative care intervention initiated by a cancer centre. The H2H team arrange case conferences in patients’ homes, attended by carers and primary care professionals. Roles and responsibilities are agreed and documented. Documentation forms part of the hospital electronic patient record and is communicated to the primary care team. This study is using a multi-method approach, in gathering and analysing data.  

**Results:** 1) Audit data looking at stat admissions for patients no longer receiving active oncological care (n=75) over a 42 day period, demonstrates a decrease in admissions for pain control from 19% in 2004 to 14% (n=11) in 2008; and a decrease in the hospital death rate for this group from 17.4% in 2004 to 4% (n=3) in 2008. 2) An education programme has been initiated across all health care sectors to support the pilot. 3) Early data and feedback demonstrates that the H2H Programme enables communication between health care providers and improves the coordination of care in the patient’s home.  

**Conclusions:** The Royal Marsden H2H Program has developed a model for end-of-life care offering i) a personalized care plan where patients are given opportunities to discuss their preferences with skilled health professionals ii) locally-tailored information and co-ordination of services with clearly identified roles and responsibilities of professionals, ultimately increasing the number of patients dying in their preferred place.

**Poster N°: 213**

**Type of presentation:** Poster  
**Poster session:** First Group 29 May Thursday, 10.30 to 30 May Friday 13.00  
**Category:** End of life care & quality of death  
**Title:** Social and psychologigal aspects in palliative care  
**Presenting author:** Eleonora Mess  
**Authors:**  
Eleonora Mess Dept. of Nurse Palliative Care Wroclaw Medical University, POLAND  
Jolanta Pierzchala Wroclaw Medical University, Dept. of Nurse Palliative Care Wroclaw POLAND  
Aleksandra Lisowska Wroclaw Medical University, Dept. of Nurse Palliative Care Wroclaw POLAND  
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Kamila Jonak Wroclaw Medical University, Dept. of Nurse Palliative Care Wroclaw POLAND  
Tomasz Bał Wroclaw Medical University, Dept. of Nurse Palliative Care Wroclaw POLAND

**Background:** In England, patients’ actual place of death infrequently corresponds with their preferred place of death. The Royal Marsden Hospital2Home (H2H) Programme was established to improve the numbers of patients dying in their preferred place.  

**Aims and methods:** The aims of the pilot are to: “allow more patients to die in their preferred place”; “give patients more choice by planning ahead”; “reduce the number of unnecessary acute admissions”; “improve quality of life.” This is a prospective trial, to consider the effectiveness of a palliative care intervention initiated by a cancer centre. The H2H team arrange case conferences in patients’ homes, attended by carers and primary care professionals. Roles and responsibilities are agreed and documented. Documentation forms part of the hospital electronic patient record and is communicated to the primary care team. This study is using a multi-method approach, in gathering and analysing data.

**Scale-Global Distress Index (MSAS-GDI).** Descriptive statistics were used to analyse the data.  

**Results:** For 205 of 229 eligible non-suddenly deceased patients, the GP participated in the interview (89.5%). The patients had a mean age of 75.4 years (±14.3) and 62.4% were male. The most reported cause of death was cancer (59.3%). The most prevalent physical symptoms included lack of energy (96.3%), lack of appetite (91.0%), feeling drowsy (75.7%), shortness of breath (58.7%) and pain (57.7%). In more than 50% of the patients experiencing lack of energy and/or shortness of breath, burden was considered as “quite a bit” or “very much”. For more than 50% of the patients experiencing the other symptoms, the GP reported at least “something” burden. The most prevalent psychological symptoms included feeling sad (55.0%), worrying (50.3%) and feeling nervous (46.0%). More than 60% of the patients feeling sad or worrying experienced these symptoms “frequently” or “almost constantly” according to the GP.  

**Conclusions:** Patients dying at home seem to experience a whole range of symptoms at the end of life. GPs and other caregivers at home encounter important challenges in adequately treating these symptoms to guarantee optimal end-of-life care.
Poster N°: 214

Type of presentation: Poster
Poster session: First Group 29 May Thursday, 10.30 to 30 May Friday 13.00
Category: End of life care & quality of death
Title: Advance Care Planning in Care Homes for Older People: Managers’ Perspectives on Consultation and Challenges
Authors:
Katherine Froggatt International Observatory on End of Life Care Lancaster University UNITED KINGDOM
Caroline Bernard Counsel & Care London UNITED KINGDOM
Suzanne Vaughan Lancaster University Lancaster UNITED KINGDOM
Deidre Wild University of the West of EnglandBristol UNITED KINGDOM

Background: Advance Care Planning (ACP) has been promoted in England as part of the End of Life Care Programme. It is proposed that ACP enables care staff to deliver a high standard of end of life care in line with a resident’s wishes, however little is known about current practices in care homes for older people. This study aimed to: – Ascertain care home managers’ views about consultation on end of life issues – Identify challenges faced by staff undertaking ACP

Methods: A postal survey of managers of 500 care homes in two regions in England was undertaken. This addressed managers’ views about consultation for care including end of life care, the use of ACP tools and the challenges faced by staff in this sector. A response rate of 43% (n=213) was obtained.

Results: The majority of managers indicated that consultation with residents about specific and general end of life issues was “very important” across a range of issues, including resuscitation wishes (81% managers) and hospital admissions (87%). Managers report varying levels of confidence in addressing end of life issues with residents, relatives and staff, but indicate being most confident consulting with relatives. Managers report lower levels of confidence regarding their knowledge of end of life issues and supporting staff to undertake discussions. Managers reported a range of barriers to consultation with residents about end of life wishes, relating to staff knowledge and skills, communication challenges and family dynamics.

Conclusions: Whilst care home managers indicate consultation about end of life issues with residents to be an important priority, a number of challenges exist in consulting with residents that may explain a greater involvement with family than residents in this process.

Poster N°: 216

Type of presentation: Poster
Poster session: First Group 29 May Thursday, 10.30 to 30 May Friday 13.00
Category: End of life care & quality of death
Title: What is the latest evidence on preferences for place of care and place of death?
Authors:
Barbara Gomes Palliative Care, Policy & Rehabilitation Cicely Saunders International/King’s College Londo UNITED KINGDOM
Marjolein Gysels Cicely Saunders International/King’s College London London UNITED KINGDOM
Irene J Higginson Cicely Saunders International/King’s College London London UNITED KINGDOM

Background: Evidence prior to 2000* showed that well over 50% of patients prefer to be cared for and die at home. Since then, many more studies have been conducted but are not yet systematically reviewed. We aimed to systematically review and appraise studies examining people’s preferences for place of care in terminal illness and place of death, comparing the evidence prior and after 2000.

Methods: Literature searches were conducted in January 2007; sources included databases (MEDLINE, EMBASE, psycINFO, CINAHL), handsearches and tracking of reference lists. Qualitative and quantitative studies were assessed using different quality scales. Progression of research over time, mapping of studies in the world, and the consistency of findings on the prevalence of a home preference (% respondents expressing a preference for home care/death) were described visually. Prevalences in individual studies were plotted by population group (general public, patients, carers). Results: The review included 135 studies,
Background: This article examines delicate issues in continuous deep sedation (CDS) from the perspectives of different types of physicians. The following sensitive issues involved in CDS were investigated: 1) the relation between CDS and euthanasia; 2) artificial hydration; 3) sedation for non-physical suffering; and 4) patient involvement in decision-making for CDS. Methods: A structured retrospective questionnaire concerning the last case of CDS in the past 12 months was administered to a sample of medical specialists (n=727), general practitioners (n=626), and nursing home physicians (n=111). Results: Response rates were 27% for medical specialists, 37% for general practitioners, and 59% for nursing home physicians. Indications for CDS significantly differed between types of physicians. General practitioners were confronted with a patient request for euthanasia prior to CDS in the most (25%) compared to medical specialists (9%) and nursing home physicians (7%). A decision to forgo artificial hydration was made most by nursing home physicians (91%) relative to general practitioners (51%) and medical specialists (54%). Remarkably, a shorter survival was found for patients sedated for non-physical suffering (vs. other patients) by general practitioners Of all patients, 74% were involved in decision-making prior to CDS. Conclusions: The present study demonstrates significant differences in CDS practice between types of physicians. To what extent this is exactly related to different patient populations or rather different expertise needs further investigation. Continuous deep sedation for non-physical suffering calls for critical examination, in order to avoid ambiguous practice.
health care supply data. The main outcome measures were: the percentage of home death, hospital death and care home death. Odds ratio’s for home death vs. hospital death and care home death vs. hospital death, adjusted for clinical, social-demographic, residential and local health care system factors. Results: In Brussels, 17.2% were home deaths; 56.7% hospital deaths and 25.4% care home deaths. Home death was less likely for people suffering from hematologic malignancies and acute lower respiratory infections, who are older and living in low SES districts, and for single cancer patients. Care home residents suffering from diseases of the nervous system or heart diseases were more likely to die in the care home if they were at an advanced age, married and lived in a district with high SES and higher availability of skilled nursing facility beds. Cancer patients living in Antwerp or Brussels were more likely to die in a hospital, compared to the rest of Flanders. Conclusions: In Brussels, the cause of death is most predictive for the place of death. However, people living in a prosperous community, married or living in a household, are more likely to die in their familiar surroundings. Availability of skilled nursing facilities seems to decrease the likelihood of care home residents being transferred to a hospital at the end of life. End-of-life care quality in metropolitan regions requires more attention, in particular in backward districts.

Poster N°: 220

Type of presentation: Poster
Poster session: First Group 29 May Thursday, 10.30 to 30 May Friday 13.00
Category: End of life care & quality of death
Title: Dying in a metropolitan region in Flanders (Belgium), the Netherlands and England
Presenting author: Joachim Cohen

Authors:
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Background: The advancing urbanisation in Europe, the social fragmentation of Europe’s metropolitan populations, the poor social conditions in parts of the inner-cities, and the concentration of inpatient care make the place of death in West European metropolitan regions a point of interest. The aim of this study is to examine metropolitan – non metropolitan variation in place of death in Flanders (Belgium), the Netherlands, and England. Methods: We gathered death certificate data of all patients who died after chronic diseases (cancer, COPD, Alzheimer, Parkinson, or heart failure) in Flanders, the Netherlands and England in 2003 and linked these data to health services data and census data. Place of death in 2 Flemish, 3 Dutch and 9 English metropolitan regions (+/-500,000 inhabitants or more) was compared to the non-metropolitan parts of the countries. Results: Place of death differs significantly between metropolitan and non-metropolitan regions in all countries, with less home deaths and more hospital and (except for England) care home deaths in metropolitan regions. The contrast was limited in the Netherlands and England, but striking in Flanders with 15.6% home and 64.5% hospital deaths in metropolitan regions against 28.7% home and 52.3% hospital deaths in non-metropolitan Flanders. In Dutch metropolitan regions home was as often as hospital the place of death (+/- 34%). In English and Dutch metropolitan areas respectively 12.2% and 3.0% died in an institution other than hospital or care home (e.g. hospice). Conclusions: Metropolitan chronically ill people in Flanders, the Netherlands and England have less favourable odds of dying at home, mostly the preferred place of death, compared to non-metropolitan populations. Metropolitan populations die more often in an inpatient setting. These metropolitan non-metropolitan contrasts were most striking in Flanders. Major cities, specifically in Flanders, may need to be a focal point for the organisation of end-of-life care. Funded: Brussels Capital Region.
Poster N°: 223

Type of presentation: Poster
Poster session: First Group 29 May Thursday, 10.30 to 30 May Friday 13.00
Category: End of life care & quality of death
Title: Collaborative research with patients experiencing end of life care
Authors:
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Patient centred care is fundamental to the work of palliative care clinicians. However, despite this, there is a paucity of palliative care research that is patient focused and explores patients’ experiences, particularly in relation to collaborative, patient involvement research. Aims: To understand patient and carer experiences of end of life care and to utilise this experience to enhance the delivery of palliative care services. Methods: A participatory action research model was used, allowing collaboration and participation of people affected by advanced cancer. The study was a 2 year post-doctoral, 3 phase study, with multiple methods of data collection. The study was conducted in Scotland including rural, remote, and socially deprived areas. For the patient experience phase – reported here – data were collected from 20 patients as well as their main carer and the health professional who they perceived had given them the most support – via longitudinal, usually two, unstructured in depth interviews. Data were analysed using both within case and between case in-depth thematic analysis. Key Findings: A total of 70 interviews were conducted. Maintaining normality and the support of family members were the two most important areas as far as their self care was concerned for the patients in the study. Patients appreciated support from family members and health professionals, particularly when this enabled them to maintain their independence and manage at home. Information was important to many people although they wanted this in a variety of ways and it differed at various stages of their illness trajectory. An intervention to deliver out of hours support and advice is to developed to improve services in the study areas from the findings. Conclusions: Self care is different in advanced cancer to self care issues in chronic illness. People receiving end of life care, want to, and are able to participate and collaborate in in-depth research. Self care is important to this group of people. In addition, terminology used by patients and family members to describe their end of life care is different to professionals.

Poster N°: 224

Type of presentation: Poster
Poster session: First Group 29 May Thursday, 10.30 to 30 May Friday 13.00
Category: End of life care & quality of death
Title: The NHS End of Life Care Programme: stakeholders’ views and experiences
Authors:
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Karen Cox University of Nottingham Nottingham UNITED KINGDOM

Background: The NHS End of Life Care Programme has been central to efforts to improve end of life care in England. As part of a wider evaluation of the Programme, we sought to understand how the Programme was implemented across England, what issues were perceived by stakeholders at local, regional and national levels and what lessons could be learnt for future policy. Methods: 27 interviews and one focus group were conducted with 37 stakeholders identified as active in shaping the direction and/or implementation of the Programme. The sample included: 8 personnel employed by the Department of Health to lead the Programme; 21 managers and facilitators involved in implementing the Programme; 8 representatives of key voluntary sector bodies influential in shaping wider palliative and end of life care policy. Fieldwork was conducted from September 06–January 07. Interviews were recorded and subject to framework analysis. Results: The following factors were perceived as key to the success of the Programme: decisions delegated to regional level; leadership of the National Programme Team; clear central direction and a supportive steering group. Some criticisms were expressed, including: the relative neglect of strategic and long term workforce planning; insufficient attention to development and training; and the limited development of end of life care policies across clinical areas and networks. The recommended end of life tools (Gold Standards Framework, Liverpool Care Pathway and Preferred Place of Care) were perceived mostly in positive terms, but some argued that the development of a single, integrated care pathway may have been preferable. Concerns were expressed often about sustainability as well as about methods of monitoring the impact of the programme, in the context of broad agreement about its achievements. For many, the announcement of the End of Life Strategy represented a ‘life line’ for end of life care. Conclusions: It is hoped that the End of Life Strategy helps sustain EOLCP achievements.

Poster N°: 225

Type of presentation: Poster
Poster session: First Group 29 May Thursday, 10.30 to 30 May Friday 13.00
Category: End of life care & quality of death
Title: Need for advance directives in inpatients with malignancies in Austria
Authors:
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Background: Advanced care directives (AD) are intended to preserve autonomy of patients at the end of their life and are therefore recommendend for palliative care patients by many authorities. Nevertheless, use of AD by patients is rather low. Reasons for that have not been systematically
evaluated. We therefore investigated attitudes towards AD in hospitalized patients with malignancies. **Methods**: Patients were consecutively approached in a prospective controlled study and were informed about the features of AD in a standardized manner by a single independent physician. **Results**: One hundred eight (39 female, 69 male; age:56.6+/–14.9 years) out of 140 patients who were invited, completed the study. Among these, 5% (5/108) already had an AD and 85% (92/108) did not want to make one. “Full trust in physicians” (22%) and “not important for me at the moment” (15%) were the most prevalent reasons for denying the need of AD. Only 10% (11/108) of patients decided to make an AD. Their decision was not found to be interrelated with a specific diagnosis nor with a panel of sociodemographic variables. Patients who decided for an AD were significantly more depressive than patients who decided against it (HADS-D: 8.3+/–5.0 vs. 5.8+/–4.1, p= 0.035). Their HADS depression score was negatively associated with their Karnovsky index (r=-0.232, p=0.017). **Conclusions**: Our data show that demand for AD is low in our population of hospitalized cancer patients and is associated with a high depression score and a low performance status.

**Poster N°: 226**

**Type of presentation**: Poster  
**Poster session**: First Group 29 May Thursday, 10.30 to 30 May Friday 13.00  
**Category**: End of life care & quality of death  
**Title**: When do we use the subcutaneous route?  
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**Introduction**: Usefulness of subcutaneous (SC) route in palliative care is a topic in palliative care (PC). Some drugs are often used by this route at the end of life. Could be the SC route a valid prognostic factor? A survey has been carried-out by our group (the Regional Observatory on Palliative Care in Extremadura) to measure the correlation of SC use with the survival time. **Method**: The route of administration of drugs for all the patients followed by the eight PC teams in Extremadura were observed during eight days. SC use, name of the drugs delivered, location of punctures, and survival time were registered for each patient. A descriptive analysis was used to estimate the rate of SC route use. A logistic regression analysis between the use of this route with the survival time was made. **Results**: All the SC use. 1,271 patients were included. 138 of them (10.9%) used SC route. 1,248 patients were followed until death and were finally included in the regression analysis (136 of them used SC route the given day when they were observed). The calculated value of R was 0.4533. **Conclusions**: The global prevalence of SC use in patients followed by PC teams in Extremadura is 10.9%. Low survival time and SC route use are quite correlated. Prevalence of use is much higher on the last days of life. More surveys on survival time and use of drugs by this route are needed.

**Poster N°: 227**

**Type of presentation**: Poster  
**Poster session**: First Group 29 May Thursday, 10.30 to 30 May Friday 13.00  
**Category**: End of life care & quality of death  
**Title**: Dying at the place of wish: results from the SENTI-MELC study

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**Background**: As primary caregiver, the general practitioner (GP) can play a key role in honouring the patient’s wishes at the end of life. We investigated how well GPs are informed about the patient’s preference for place of death and the congruence between the preferred and actual place of death. In Belgium, reliable data on this subject are lacking. **Methods**: A one-year nationwide mortality follow-back study in 2006 in Belgium. Data were collected within the SENTI-MELC study – the study on Monitoring end-of-life Care via the nationwide Sentinel Network of GPs. All GPs reported weekly, via a standardized registration form, every deceased patient in their practice (>1 year). For all non-sudden deaths, the GPs were asked what the patient preferred and actual place of death was, and who had informed them. **Results**: The 174 GP practices registered 818 non-sudden deaths. The GP was informed about the patient’s preference for place of death, in 45.6% of the cases. If informed, the GP obtained this information directly from the patient in 62.6% of the cases. More than half (57.7%) preferred to die at home, 30.9% preferred to die in a care home, 4.7 % in a hospital and 6.6% in a palliative care unit. Overall, 80.1% of these patients died at the place of their wish: 71.8% for home deaths, 92.9% for deaths in a care home, 94.1% for hospital deaths and 83.3% for those who died in a palliative unit. **Conclusions**: Although communication about patients’ preferences is an important prerequisite to achieve ‘a good death’, GPs are often unaware of their patients’ preference for place of death. However, if GPs are informed, patients very often die at their place of wish. These findings emphasize the importance of timely discussion about patient’s wishes and the crucial role of the GP in the management and coordination of care at the end of life.

**Poster N°: 228**

**Type of presentation**: Poster  
**Poster session**: First Group 29 May Thursday, 10.30 to 30 May Friday 13.00  
**Category**: End of life care & quality of death  
**Title**: Informational needs among patients in terminal state  
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**Background**: The aim of the study was exploring terminal state patients needs of information about their health situation. This aim was divided into following questions: Do patients have reliable information about their health situation? Do they have need to talk about their health situation? What attitude do they have towards informing about terminal sickness and death? How do they rate their current situation? **Methods**: Study population consisted of 40 subjects in terminal phase of cancer, being under care of stationary hospice by Regional Health Centre. Subjects were in age of 45 to 85, 19 were woman and 21 men. Research was conducted using own questionnaire consisting of five factors: 1. social and economical characteristic, 2. current health situation evaluation, 3. patient’s knowledge about his health situation, 4. patients needs to talk about his health situation, 5. patients attitudes towards terminal disease and death. **Results**: Full, reliable knowledge about disease and no perspectives of curing had 50% of
subjects, 30% got this information from their doctor. 85% claims that man should always know all about his health, 70% claims the same about coming death. Half of subjects (50%) deny inevitability of their death. Need to talk about their health situation with family or doctor was reported by 67.5% of subjects. 70% claimed that they could talk about their health situation with their family. 87.5% stated that one should talk about it with family. Quality of life was described as low by 85.5% of subjects, 87.5% suffers with pain which in 52.5% cases requires analgesics. In 75% of cases subjects need constant care in daily life activities and 62.5% does not accept their health and current situation. Conclusions: There is noticeable discrepancy between terminal patients knowledge about their health, and their informational needs in that area.

Poster N°: 229

Type of presentation: Poster
Poster session: First Group 29 May Thursday, 10.30 to 30 May Friday 13.00
Category: End of life care & quality of death
Title: Dignity of patients in the last phase of life: a study among physicians and volunteers
Authors: Breggie Onwuteaka-Philipsen dept of public and occupational health / EMGO VU University medical center NETHERLANDS
H Roeline W Pasman VU University medical center, dept of public and occupational health, EMGO Amsterdam NETHERLANDS
Mette L Rurup VU University medical center, dept of public and occupational health, EMGO Amsterdam NETHERLANDS

Background: Dignity is often considered a central principle in palliative care. Above that, loss of dignity is frequently mentioned as reason for patients to request for assistance in dying. However, little is known about what is considered to constitute dignity. Aim: to study what aspects are important for dignity patients perceive to have at the end of life. Methods: We studied two populations: physicians who are trained to do and have experience with doing second opinions in euthanasia procedures (SCEN-physicians; n=427; response 86%) and volunteers in palliative care who (as member) visited a congress for an organisation of volunteers in palliative terminal care. All respondents filled in a written questionnaire that consisted of a list of 22 items possibly relevant for dignity that was developed first by Chochinov in Canada. Results: t-tests that SCEN-physicians and volunteers most frequently considered to be a (very) large extent important for the feeling of dignity of patients were ‘not being able to independently manage bodily functions’ (67% en 69%), ‘feeling not having control over life’ (65% en 66%), ‘not being able to think clearly’ (55% en 52%) and ‘feeling not being in control over life’, ‘not being able to mentally fight’ and ‘not being able to think clearly’ to be in practice most problematic in keeping ones dignity in the last phase of life. Conclusions: Especially issues concerning autonomy and independency are mentioned as very important to ones feeling of dignity. The judgements of SCEN-physicians and volunteers about items relevant to dignity for patients are quite similar. However, it is important to study dignity directly among patients.

Poster N°: 230

Type of presentation: Poster
Poster session: First Group 29 May Thursday, 10.30 to 30 May Friday 13.00
Category: End of life care & quality of death
Title: “Do not resuscitate” (DNR) status upon referral to a Palliative Care Team at a Comprehensive Cancer Center: patients’ characteristics and timing of DNR orders.
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Ray Chacko M.D. Anderson Cancer Center Houston U. STATES
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Background: DNR orders were introduced in the 60’s to prevent unnecessary cardiopulmonary resuscitation (CPR). In advanced cancer patients (pts) CPR usually has limited therapeutic benefit and may cause harm and distress for pts and families. Aim: To study the influence of pts’ demographic and clinical characteristics on DNR status, the timing of DNR orders, and the involvement of PC in DNR conversion. Methods: We retrospectively reviewed 200 consecutive charts of inpatients seen by the PC team. Data were collected regarding demographical/clinical factors, DNR, CPR, and death. Results: Median age was 61 years (range 7-87). 59% were female, 64% were White, 17% African-American, and 14% Hispanics. 82% had solid tumors and 18% hematological malignancies. In 154/200 pts(77%) resuscitation was considered medically inappropriate by the PC team: 68(154(44%)) had documented DNR by the primary team (PT) before the referral. No significant associations were found comparing patients with DNR conversion before and after PC referral. DNR status was obtained after PC referral in 85/86 DNR-appropriate pts (99%), in 46(54%) by the PC team, in 32(38%) by the PT, and in 7(8%) the obtention team was unclear. 174/200 pts died, of which 145 had documented DNR. The median(SD) time between admission and DNR was 5(9) days for 84 patients who were discharged alive and 11(13) days for 61 inpatient deaths (p<0.0001). The median(SD) time between DNR and death was 10(17) days and 33(28) days for inpatient and outpatient deaths, respectively (p=0.0001). No other significant associations were found. Conclusions: DNR status was obtained in the vast majority of pts eligible for DNR referred to PC (99%). Only 43% of the eligible pts had DNR before PC referral. DNR orders were obtained at the very end of life, potentially creating pts and families distress. Further studies are needed to explore the effect of late DNR discussions on pts and families.

Poster N°: 231

Type of presentation: Poster
Poster session: First Group 29 May Thursday, 10.30 to 30 May Friday 13.00
Category: End of life care & quality of death
Title: Role of unbearable suffering in refused requests for euthanasia
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Breggie Onwuteaka-Philipsen VU University Medical Center Amsterdam NETHERLANDS
Mette Rurup Vu University Medical Center Amsterdam NETHERLANDS

Background: Aim of the study is to obtain in-depth information on how patients who request for euthanasia and their physician define unbearable suffering, and the role of unbearable suffering in de decision of the physician whether or not to grant a request for euthanasia. Methods: In-depth interviews with patients who explicitly requested for euthanasia (or with a proxy when the patients had deceased) and, when the patient/proxy gave consent, in-depth interviews with the physician who received the request for euthanasia. In total 10 patients, 8 proxies and 12 physicians were interviewed (12 patient/proxy-physicians pairs). Results: Patients and physicians often defined unbearable suffering as physical suffering and some defined unbearable suffering as extreme pain. Others described their unbearable suffering with terms as loneliness and weariness of life. Although most physicians said in general that unbearable suffering is personal and thus subjective, some physicians compared the situation of the patient who requested for euthanasia with the situation of other patients. Furthermore, most physicians said that the patient said he/she was suffering unbearable, but that they were not convinced themselves that the suffering was unbearable. An important reason for physicians to reject a request was that they
had doubts about the unbearable nature of the suffering. **Conclusions:** Patients and physicians seem to define unbearable suffering stricter than the authorities in the Netherlands require unbearable suffering. The definition and assessment of unbearable suffering does play an important role in rejected request for euthanasia.

**Poster N°: 232**

**Type of presentation:** Poster  
**Poster session:** First Group 29 May Thursday, 10.30 to 30 May Friday 13.00  
**Category:** End of life care & quality of death  
**Title:** Are all patients sedated during their last days of life?  
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Gilbert Zaluan Dpt Rehabilitation and Geriatrics. University Hospital Geneva Collonge-Bellerive SWITZERLAND  

**Background:** Optimal delivery of palliative care means impeccable assessment/treatment of pain and other physical/psychological symptoms together with identification of social and spiritual needs. To make adequate symptom assessment possible, patients must be able to communicate. However, during the last weeks or days of life, communication can be altered because of delirium or coma. The objective of the study is to characterize the last days of life and to measure the number of days during which patients can’t communicate because of delirium or impaired level of consciousness.  

**Methods:** Retrospective chart review of 141 consecutive patients who died in 2005. **Results:** Mean age of the 141 patients (88F, 53M) was 74 ±11.8 years. Primary sites of tumor were gastrointestinal tract (48), respiratory system (30), genitourinary (30), breast (14). Mean MMSE at admission was 20.9 ±10.1. 61 (43 %) had a diagnosis of delirium, 5 of dementia. At time of admission 17 (12%) patients were severely impaired in their consciousness and 16 (11%) could not communicate because of delirium. Median length of hospitalization was 15± 30.4 days. 18 (13%) patients died suddenly with unaltered cognition. 87 (62%) had delirium with severe communication impairment during a median of 2±5.2 days before death and were comatose during a median of 1±3.2 day. 3 (2%) received palliative sedation to relieve intolerable suffering from refractory symptoms for a total period of 5 days.  

**Conclusions:** Most dying patients are able to communicate about their symptoms and suffering despite cognitive impairment until the last 3 days of their life.

**Poster N°: 233**

**Type of presentation:** Poster  
**Poster session:** First Group 29 May Thursday, 10.30 to 30 May Friday 13.00  
**Category:** End of life care & quality of death  
**Title:** Current practice of palliative sedation at home: a survey of Dutch nurses involved in the practice of palliative sedation at home.  
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Annamarie Stoffer-Brink Comprehensive Cancer Center Amsterdam Amsterdam NETHERLANDS  
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Marianne Klinkenberg Comprehensive Cancer Center Amsterdam Amsterdam NETHERLANDS  

**Background:** Palliative sedation (PS) is an important intervention for relief of refractory symptoms at the end of life. In 2005 the Dutch Royal Medical Society established guidelines for the application of PS at home. To evaluate the current practice of PS after introduction of the guidelines, a nation wide survey was performed among nurses providing medical technical assistance (MTA-nurses) for general practitioners (GP) at home.  

**Methods:** A web based structured questionnaire was sent to 387 MTA-nurses from 49 MTA-teams in The Netherlands, investigating their experiences with and opinions on PS. Focusing on the last patient receiving PS, the survey contained questions on knowledge about the PS guidelines, the decision making process, administration of drugs for PS, the treatment policy, and the communication between health care workers, patients and their relatives. **Results:** 201 MTA-nurses filled out the questionnaire, 161 of which completely. 91% of respondents were aware of the existence of the PS guidelines. According to the respondents, in 89% of the cases the patient was suffering unbearably, and in 82% all available treatment options had been explored. 97% agreed with the indication for PS. The GP was not present at the start of the PS in 32%, but was available when needed in 95% of cases. The possibility of conducting PS had been discussed with the patient in 83%, and with the relatives in 79% of cases. According to 32% of the nurses, the level of sedation was not related to the required level of symptom relief, and 36% reported that changes in dosage was not based on the severity of symptoms. For 42% of nurses, the effectiveness of the sedation was insufficient. The level of sedation was measured systematically in 55% of cases. **Conclusions:** This survey identified points of concern in medication policy, medical control over the start and continued monitoring of PS. These issues should be addressed in future research, including views of health care workers in different settings of palliative care.

**Poster N°: 234**

**Type of presentation:** Poster  
**Poster session:** First Group 29 May Thursday, 10.30 to 30 May Friday 13.00  
**Category:** End of life care & quality of death  
**Title:** Barriers to care at home at the end of life: the role of transport.  
**between care settings**  
**Presenting author:** Sheila Payne  
**Authors:**  
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Sheila Payne Lancaster University Lancaster UNITED KINGDOM  
Jane Seymour Universityof Nottingham Nottingham UNITED KINGDOM  
Christine Ingleton University of Sheffield Sheffield UNITED KINGDOM  

**Background:** Enabling patients to be cared for in their preferred location often involves journeys between care settings. Facilitating transfers in a timely and safe way is a key challenge: this emerged as a theme in an evaluation of palliative care services, informing a service redesign programme in three areas of the UK by the Marie Curie Cancer Care ‘Delivering Choice Programme’. The wider evaluation aimed to identify the barriers that may prevent patients with palliative care needs being cared for and dying at home. **Methods:** This paper focuses on one aspect of the evaluation study. We report data from service users and key stakeholders of palliative care services on problems encountered in transfers between care settings during end of life care. **Results:** This paper draws on data from interviews with stakeholders (n=49), patients (n= 19), carers (n=12) and bereaved carers (n=20); focus groups (n=12) with specialist nurses, questionnaires completed by General Practitioners and District Nurses (n= 467) Data were gathered in three areas of the UK. Qualitative data were analysed using a framework approach. Questionnaire data were analysed to produce descriptive statistics. **Conclusions:** Transport emerged as a key theme in the data and was more prevalent as an issue in two of the three areas. Four difficulties were identified: 1) the urgent nature of needs; 2)limited time to organise transfers; 2) managing specialist equipment 3) the negotiation of protocols of care such as Do Not Attempt Resuscitation orders. UK NHS ambulance services were seen as essential for transfer between care environments. Partnership working is required to develop joint protocols of care to ensure timely and safe transfers of patients near the end of life. Commissioning of provider services should be responsive to the complexities of patients’ needs at the end of life.
Poster N°: 235

Type of presentation: Poster
Poster session: First Group 29 May Thursday, 13.00
Category: End of life care & quality of death
Title: A qualitative, two-country study of yoga in palliative care
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Background: Yoga is an ancient Indian system of physical and spiritual practices, psychology and philosophy. A recent systematic review found that yogic techniques have beneficial effects in advanced disease. Complementary therapy is a growth area in palliative care, but evidence is lacking in this area. The study aimed to explore the provision of yoga by palliative care services in India and the UK, and compare the experiences of class participants, to inform future research and practice. Methods: Semi-structured qualitative interviews were conducted with yoga teachers, patients and carers at services in New Delhi and London. In India, trained volunteers interpreted. Interviews were transcribed and imported into NVivo v7 for thematic content analysis. Demographic data were analysed using SPSS. Results: Respondents were: in Delhi, two teachers, eight family carers and three cancer patients; in London, one teacher, one assistant and ten patients (nine with cancer, one with MND). Key themes across interviews included: yogic techniques (postures, breathwork, meditation); physical/emotional benefits (help with insomnia, breathlessness, fatigue, stress, sadness); challenges (time, physical capabilities, other priorities); the union/separation of yoga from spiritual beliefs. Indian respondents reported more barriers to yoga practice, but were more likely to practice daily. UK respondents were less likely to see yoga as a spiritual practice and more likely to emphasise social benefits. Conclusions: Yoga may benefit patients with progressive disease and their carers, and can be effectively integrated into supportive services. Given its holism, yoga appears well suited to palliative care. However, cultural differences in attitudes and responses to yoga should be taken into account in service provision internationally, and are relevant to multi-cultural populations found in Europe. Rigorous research into the effects and feasibility of yoga as a nonpharmacological intervention is needed, in line with the MRC framework.

Poster N°: 236

Type of presentation: Poster
Poster session: First Group 29 May Thursday, 13.00
Category: End of life care & quality of death
Title: The first Implementation of the Liverpool Care Pathway (LCP) in a German Hospital
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Background: The hospice movement in Germany is growing in the last five years and the numbers of palliative care units at hospitals are increasing. However, there is still a lack in caring of dying patients in hospitals beyond hospices and palliative care units (PCU). Aim: The aim of this study is to explore the professionals’ experiences while the implementation of the LCP in a general hospital in Germany for the first time. Methods: A qualitative study with a focus group of professionals’ experiences during the implementation and a literature review are presented. Results: The implementation of the LCP started in 2007 with the translated form of a Swiss group (St. Gallen). The qualitative exploration among the professionals shows a high acceptance of the LCP in general. Three aspects in particular are reported with a high value for quality of care: an improvement of self-confidence, a better symptom control and an enhancement of the interpersonal communication. However, some weaknesses are described like special phrases or some extra documentation. Most of the difficulties seem to be based on cultural differences or translation problems. Conclusions: After the first implementation of the LCP in a German hospital there is a good acceptance of this pathway among the professionals. Some suggestions for adaptation to the German situation are presented. For further research it is necessary to evaluate the effectiveness of this pathway in the German setting.

Poster N°: 237

Type of presentation: Poster
Poster session: First Group 29 May Thursday, 13.00
Category: End of life care & quality of death
Title: Monitoring palliative sedation therapy in terminally ill patient with refractory symptoms in hospice use of modified Ramsay scale and Bispectral Index (BIS)
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Background: The literature shows a gap of informations about criteria used to decide to start sedation, patient’s consent, minimal level to obtain sedation and tools to measure it. Methods: This is a prospective study. The population is our Hospice cancer inpatients divided in two groups: a) patients with refractory symptoms admitted from July 1 to August 31 2007; b) patients with refractory symptoms admitted from November 1 to December 31 2007. We filled a schedule for each patient with: clinical data, patient’s awareness and consent to PST. Sedation is started using Midazolam via s.c. or i.v. in continuous (0.02 mg/kg/h) and increased on the basis of clinical response. Level of sedation is measured with modified Ramsay scale, registered every 6 hours. The second group b we’ll evaluate possible correlation between Ramsey scale and BIS. Statistical analysis with s.d. Results: We enrolled in group a 24 patients with refractory symptoms for whom we used PST. Refractory symptoms were: terminal distress 67%, dyspnoea 50%, pain 33%, delirium 21%, vomiting 9%. We obtained 11 patients’ consent; the others 13 weren’t able to express it. Symptoms’ control was reached with q Ramsey scale level 3 in 4 cases. q Ramsey scale level 4 in 13 cases; q Ramsey scale level 5 in 5 cases. From the beginning of PTC survival time was 45.2 ± 49.5 hours (range 2-171). Average midazolam dose to have symptoms’ control was 0.035 mg/kg/h (range 0.02-0.06 mg/kg/h). Conclusions: In palliative care is necessary to monitor level of sedation at the end of life with a validated instrument. We are waiting for latest results to see if Ramsay Scale and BIS are the right ones.

Poster N°: 238

Type of presentation: Poster
Poster session: First Group 29 May Thursday, 13.00
Category: End of life care & quality of death
Title: Analysis of the drug policy when patients are admitted to a palliative care unit
Authors:
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Background: The hospice movement in Germany is growing in the last five years and the numbers of palliative care units at hospitals are increasing. However, there is still a lack in caring of dying patients in hospitals beyond hospices and palliative care units (PCU). Aim: The aim of this study is to explore the professionals’ experiences while the implementation of the LCP in a general hospital in Germany for the first time. Methods: A qualitative study with a focus group of professionals’ experiences during the implementation and a literature review are presented. Results: The implementation of the LCP started in 2007 with the translated form of a Swiss group (St. Gallen). The qualitative exploration among the professionals shows a high acceptance of the LCP in general. Three aspects in particular are reported with a high value for quality of care: an improvement of self-confidence, a better symptom control and an enhancement of the interpersonal communication. However, some weaknesses are described like special phrases or some extra documentation. Most of the difficulties seem to be based on cultural differences or translation problems. Conclusions: After the first implementation of the LCP in a German hospital there is a good acceptance of this pathway among the professionals. Some suggestions for adaptation to the German situation are presented. For further research it is necessary to evaluate the effectiveness of this pathway in the German setting.
Background: After the admission of a patient to a palliative care unit his medication is looked after and adapted by the doctor according to the vision and principles of palliative care. Achieving comfort and good quality of life are of crucial importance. Methods: The records of 100 patients are analysed. All these patients are brought into a database registering their age, sex, length of stay at the unit, diagnosis and sub-diagnosis. The medication at the moment of decease or discharge of each patient is compared with the medication at the day of arrival at the palliative care unit. Because of the extensive drug arsenal, medication is classified in large drug categories. Results: The top 5 of the medication categories most frequently used at the palliative care unit are: strong opioids (69%), corticosteroids (54%), laxatives (52%), hypnotics (46%) and drugs for stomach protection (46%) at a shared fourth place, and non-opioid analgesics (42%). Conclusions: Important changes are observed in the subcutaneous medication: there is an important increase in the use of subcutaneous corticosteroids (300%) and of subcutaneous morphine (96%). The main reason is the intensive use of subcutaneous syringe drivers at the palliative care unit. Hypertension medication decreases with 41%, while the use of heart medication and diuretics remains almost identically. Drugs for diabetic patients diminish with 37% and medication to prevent thrombosis with 45%. Last but not least, the observation of a decrease of chemotherapeutic medication with 75% and of anti-parkinson medication with 50% is important. The use of cholesterol decreasing medication and of bifosfonates is reduced to zero. Doctors are adapting patients medication according to a clear-cut and fixed pattern but are taking into account the individual framework of each patient.

Poster N°: 239

Type of presentation: Poster
Poster session: First Group 29 May Thursday, 10.30 to 30 May Friday 13.00
Category: End of life care & quality of death
Title: End-of-life care and decision-making for cancer patients in different settings
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Background: We investigated possible differences between clinical settings in the characteristics of medical decision-making during the last three months and the last three days of life of dying cancer patients. Methods: Physicians (response 100%) and relatives (response 59%) filled out questionnaires to collect data about cancer patients who had died in either the hospital (n=192), the nursing home (n=84), or at home (n=36). Results: Hospital patients were younger than other patients. Most symptoms were equally common in all settings. Hospital patients had more often than patients in both other groups received cancer treatment during the last three months of life. Explicit decisions to refrain from cancer treatment were equally common in all settings. Physicians reported that hospital patients received substantially more medication during the last three days of life than other patients and that they also more often received medication that had potenually hastened death. Relatives of hospital patients were slightly less positive about the patient’s and their own involvement in the medical decision making. Conclusions: We conclude that the final disease trajectory of cancer patients who die in the hospital involves more active medical management than the final disease trajectory of other cancer patients. This holds for both treatment of the underlying disease and treatment of symptoms. These differences have to be taken into account when evaluating the quality of life and communication in end of life care between settings.

Poster N°: 240

Type of presentation: Poster
Poster session: First Group 29 May Thursday, 10.30 to 30 May Friday 13.00
Category: End of life care & quality of death
Title: The struggle behind “I’m all right”: adaptation in cancer patients
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Anne-Mei The Department of Public and Occupational Health, EMGO Institute, VU University Medical Centre Amsterdam NETHERLANDS
Harry Green Department of Pulmonary Diseases, University Hospital Groningen NETHERLANDS

Background: Many patients with a diagnosis of incurable cancer are willing to undergo toxic treatments in the hope of living longer. These patients do not report the deterioration in health and quality of life that would objectively be expected. Adaptive self-regulation could possibly explain their “positive” self-reports, but we do not fully understand adaptation from the perspective of a terminally ill patient. Methods: A qualitative longitudinal multiple case study in 31 newly-diagnosed small-cell lung cancer patients who were evaluated for first-line chemotherapy. Data were collected through home-interviews at equivalent points during chemotherapy: at the start, 4 weeks later, after the last cycle and 6 weeks after completing the first course; and at the end and start of further chemotherapeutic treatment. Results: Patients were firstly and predominantly struggling to manage the side-effects of chemotherapy, to fulfil their duties as a family member, and to enjoy life by living it day by day and treasuring the good moments. Adopting a positive attitude and herewith presenting oneself as “doing all right” seemed to function as an anchor in the struggle of shifting back and forth between awareness, acceptance and denial of their prognosis. Although patients made preparations for their imminent death, they wished to live as normal a life as possible. Positive self-reports cover up the sometimes daily need for willpower. Acknowledgement of the struggle behind “I’m all right” may assist physicians in their approach to patients with a terminal illness, and to discuss hope as well as end-of-life issues.

Poster N°: 241

Type of presentation: Poster
Poster session: First Group 29 May Thursday, 10.30 to 30 May Friday 13.00
Category: End of life care & quality of death
Title: Quality of handling in prehospital palliative emergencies is depending on the level of expertise in emergency and palliative care of the emergency team
Authors:
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Background: Many patients with non curable life threatening diseases is increasing depending on modern concepts in palliative care (PC), a
change in health care policy (outpatient before hospital care), and the availability of home care services [1,2]. Caused by this trend caregivers are forced to assume much more responsibility for the care of their loved ones and are often distressed by acute exacerbation of symptoms of their relatives. Under these conditions the last resort is calling for help. Methods: In a retrospective study we analysed a twelve month period of emergency calls in two services in Germany for the percentage of calls caused by emergencies in palliative patients. Participating physicians (specialists or trainees in anaesthesiology) were rated according to their expertise in emergency care (EC) and PC: PNEN: high level experience in EC and PC NEN: high level experience in EC; less experience in PC UEN: less experience in EC and PC. Results: During the period of interest 68 corresponding emergency calls were detected. Corresponding to 2.7% of all emergency calls during this period. Patients were comparable in their stage of disease. Twenty patients were treated by PNEN, twenty-one by NEN, and twenty-seven by UEN. Significantly more patients (p<0.05) were transferred to hospital by physicians of group UEN (62.9% by UEN vs. 42.9% by NEN vs. 30.0% by PNEN). Conclusions: Medical treatment of PC patients in an emergency is depending on the experience of emergency physicians (EP). Best agreement to the principles of PC is shown by EP’s with a high level of expertise in EC and PC. We are convinced that knowledge of PC must be integrated into the education of EP. Then it seems possible to translate the principles of PC and patients’ will into emergency prehospital treatment [3]. 1 Papke & Koch (2007) Onkologie 30: 94–95 2 Sessa et al. (1996) Support Care Cancer 4: 180–185 3 Hinkka et al. (2002) J Cancer Educ 17: 12–18.

Poster N°: 242

Type of presentation: Poster
Poster session: First Group 29 May Thursday, 10.30 to 30 May Friday 13.00
Category: End of life care & quality of death
Title: A population-based survey of people who died from a stroke: the determinants of satisfaction with services reported by informants using the VOICES questionnaire
Presenting author: Julia Addington-Hall
Authors:
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Angie Rogers University of Southampton Southampton UNITED KINGDOM
Julia Addington-Hall University of Southampton Southampton UNITED KINGDOM

Background: Stroke is one of the leading causes of death. Recent UK policy increasingly emphasises the need for palliative care services to be based on individual need rather than diagnosis. Patient and carer satisfaction remain of primary importance. Methods: The VOICES questionnaire was developed and piloted. Informants were asked about their experiences of and satisfaction with services and quality of care. The survey was piloted in a palliative hospice. Results: Findings of this population-based survey highlight the importance that family members place on their loved ones treated with respect and dignity at the end of life. Improving end of life care beyond cancer will require attention to improving fundamental aspects of health care, as well as specialist palliative care. Funding: Department of Health

Poster N°: 243

Type of presentation: Poster
Poster session: First Group 29 May Thursday, 10.30 to 30 May Friday 13.00
Category: Epidemiology
Title: A comparison of end-of-life decision-making for non-western migrants and Dutch natives in the Netherlands
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Background: Objective Non-western migrants have a different cultural background that influences their attitudes towards health and health care. As this group is growing older, we compared end-of-life decision-making practices for non-western migrants and Dutch natives. Methods: Design Nation wide study about random samples of deaths reported to the central death registry of Statistics Netherlands in 2005. Participants Physicians received a questionnaire about medical decisions that preceded the patients' death (n=9651, non-western migrants: n=627, response: 78%). Non-western migrants were defined as persons living in the Netherlands of whom at least one parent was born in Africa, Latin America or Asia. Results: Results Of all deaths of non-western origin, 54% were non-sudden, whereas 67% of all deaths with a Dutch origin were non-sudden (p<0.01). Among non-western migrants, a larger number of non-sudden deaths died under the age of 65 (53%)and in hospital (59%) compared to Dutch natives (15% and 32%). Euthanasia was performed in 2.4% of all non-sudden deaths in the non-western migrant group and in 2.7% in the native Dutch group (adjust ed OR=0.82, p=0.63). For non-western migrants from (former) Dutch colonies euthanasia occurred most often. Alleviation of symptoms with a potential life-shortening effect was lower for non-western migrants (30% vs. 38%; adjusted OR=0.78, p=0.07). Physicians decided to forgo potentially life-prolonging treatment in comparable rates: 26% and 23% for non-western migrants and Dutch natives respectively (adjusted OR=1.1, p=0.73). Yet, the type of treatments forgone and underlying reasons differed. Conclusions: Conclusion Viewing the whole group of non-western migrants, euthanasia was not less common compared to Dutch natives. However, intensive symptom alleviation was used less frequently and forgoing potentially life-prolonging treatment involved different underlying characteristics. These findings suggest that cultural factors indeed affect end-of-life decision-making.

Poster N°: 244

Type of presentation: Poster
Poster session: First Group 29 May Thursday, 10.30 to 30 May Friday 13.00
Category: Epidemiology
Title: Racial Disparity in Hospice Use in the United States
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Background: Despite the growth of hospice use in the United States following the enactment of the Medicare Hospice Benefit, relatively little is known about differential access to hospice care. While several studies have found that minorities are more likely to die in the hospital than Caucasians (Iwashyna and Chang 2002, Weitzen et al. 2003, Flory et al. 2004) and that minorities use hospice services at a lower rate than Caucasians (Colon and Lyke 2003, Greiner et al. 2003, Ngo-Metzger et al. 2003, Virnig et al. 2002, Enguidanos et al. 2005), no large-scale study has simultaneously evaluated the differences in access to, and utilization of, hospice care among different racial groups by age, sex, geography, and cause of death. Methods: We used complete Centers for Disease Control death certificate records and the CMS Medicare 100% Standard Analytic File for hospice claims for 2002 to evaluate differences in hospice utilization between African American and white decedents living in the United States. Results: White decedents were more likely to use hospice in the year prior to their death than African American decedents (29% vs. 22%). Cause-specific hospice utilization rates among women were consistently higher than among men within a given race. African American decedents were consistently less likely to use hospice than were white decedents for almost all conditions. Hospice utilization was lower among African American than among white decedents in 31 of 40 states. Conclusions: The higher the overall hospice utilization in a state, the less the positive difference between white and African American usage rates; that is, the more accepted hospice is, as measured by “market share,” the lower the racial disparity in its use.

Poster N°: 245

Type of presentation: Poster
Poster session: First Group 29 May Thursday, 10.30 to 30 May Friday 13.00
Category: Epidemiology
Title: Monitoring the quality of end-of-life care through administrative data: is it possible?
Authors:
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Piero Morini ASL 10 Florence ITALY
Eugenio Pacci CSPO Florence ITALY

Background: Place of death and time spent in the hospital are considered useful indicators to monitor the quality of end-of-life care. Recently, other indicators of ‘aggressiveness’ of end-of-life care have been proposed. They need to be tested and to respond to some methodological critiques. Methods: 6036 cancer deaths which occurred in the region of Tuscany (about 3,500,000 inhabitants) had been included in the study. They refer to all cancer cases who were incident in the area during the year 2004 and survived <=1 year since diagnosis. Data on incidence, cause of death, inpatient and outpatient use of the hospital from diagnosis till death were collected by the local Cancer Registry. Information on the admission to palliative care were supplied by the local home palliative care services for the area of Florence (about 1,000,000 inhabitants). Results: Mean age at diagnosis was 76.1, female 40%, 26% died of lung cancer. Among residents in the province of Florence 29% received home palliative care (21% in the city, 38% in the rest of province) with a median stay of 23 days (19 in the city, 24 in the rest of province). At a regional level (excluding Florence) 43% dead in the hospital and among them 19% received an ‘invasive’ procedure during their last 48 hours of life. 11% had more than 1 admission and 14% spent more than 2 weeks in the hospital during the last month; 4% received chemotherapy during the last 2 weeks. In the province of Florence those same indicators were 48.3%,8.6%,9.1%,16.3%,4% and 12.6%,1.8%, 4.6%,6.6%,2.7% respectively in people not receiving/receiving home palliative care. Differences were statistically significant both at univariate and multivariate analyses (including adjustment for length of survival). Conclusions: Home palliative care was effective in reducing the level of ‘aggressiveness’ in end-of-life care. Deriving end-of-life care indicators from administrative data is a viable option to look at the impact of palliative care at a population level and to monitor its temporal trend.

Poster N°: 246

Type of presentation: Poster & poster discussion session
Poster session: First Group 29 May Thursday, 10.30 to 30 May Friday 13.00
Category: Epidemiology
Title: Access to Hospital Palliative Care in the United States
Authors:
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Jessica Dietrich Center to Advance Palliative Care New York U. STATES
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Background: U.S. hospital palliative care programs (HPCP) are increasing in prevalence. This study was undertaken to explore geographic variation in patient access to HPCP and to examine access to HPCP by medical trainees in the U.S. Methods: Design: Primary and secondary data analyses of national survey and U.S. census data. Methods: Data on HPCP were obtained from the 2006 American Hospital Association (AHA) annual survey supplemented by mailed surveys. The AHA surveys all hospitals in the U.S. annually and includes data on hospital structures, programs, and since 2000 the presence of a HPCP. Medical school-affiliated hospitals were obtained from the American Association of Medical Colleges, web-site review, and telephone survey. Multivariable logistic regression was used to identify characteristics associated with HPCP. Results: 46.5% of hospitals with 50 or more beds reported a HPCP. Considerable variation in state prevalence rates was observed – from 2% of hospitals (Mississippi) to 100% (Vermont). 21.0% (204 of 970) of public hospitals reported a HPCP. Factors significantly associated (P<.05) with a HPCP included location, greater hospital size, owning a hospice, having a cancer program, percent of persons in the county with a university education, and medical school affiliation. For-profit and public hospitals were significantly less likely to have HPCP when compared to non-profit hospitals. Most medical schools (81.7%) are associated with at least one HPCP (86% of private and 80% of state supported schools, P<.01). 65.6% of hospitals with post-graduate residency training programs reported a HPCP. Conclusions: This study represents the most accurate estimate to date of the prevalence of U.S. HPCP. There is geographic variation in access to palliative care although factors predicting HPCP have not changed since our last report in 2005. Medical students and post-graduate trainees have high rates of access to HPCP although complete penetration into these academic settings has not yet been achieved.

Poster N°: 247

Type of presentation: Poster
Poster session: First Group 29 May Thursday, 10.30 to 30 May Friday 13.00
Category: Epidemiology
Authors:
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Background: The objective is to describe for the first time where patients with cancer and cardiovascular/respiratory diseases die in Greece and what has changed between 1993 and 2003. We used data on all patients with cancer and cardiovascular/respiratory diseases who died in Greece in the years 1993 and 2003. **Methods:** We studied the changes in the location of death in the total population, age- and sex-adjusted incidence changes and age and sex specific incidence changes between years 1993 and 2003 according to a linear regression model. **Results:** In 1993 in Greece approximately 50.7% of men and 50.9% of women cancer patients died in hospital, while in 2003 the respective percentages were 57.3% and 56.1%. In 1993, approximately 46.5% of men and 38.3% of women patients in Greece suffering from cardiovascular/respiratory disease died in hospital while in 2003 the respective percentages were 50.1% and 42.3%. In case of cancer and cardiovascular/respiratory diseases, there was an overall 35.9% and 22.3% increase in the possibility for a hospital death between 1993 and 2003 according to a linear regression model. **Conclusions:** Over the years, more and more patients in Greece are dying in hospitals and this should be taken under consideration for future planning of end-of-life care.

### Poster N°: 248

**Type of presentation:** Poster & poster discussion session  
**Poster session:** First Group 29 May Thursday, 10.30 to 30 May Friday 13.00  
**Category:** Epidemiology  
**Title:** Palliative care issues in patients with primary and secondary brain tumours – Data from the German Hospice and Palliative Care Evaluation (HOPE) 2002–2005  
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Gabriele Lindena CLARA Klein-Manchow GERMANY  
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**Background:** Involvement of the central nervous system is common in patients with cancer. Primary (PBT) or secondary brain tumors (SBT) can lead to serious deterioration of neurologic and neurocognitive functions. Information on specific diagnosis related palliative care issues in these patients is rare. Therefore data from the German Hospice and Palliative Care Evaluation (HOPE) was analysed. **Methods:** Since 1999, a three months census is conducted annually in different palliative care settings. Data from 5684 patients were documented; PBT 153 (2.7%), SBT 661 (11.9%), OP 4872 (85.4%). Patients with PBT show more frequently a poor functional status (ECOG 3–4) and the need for nursing support is considerably higher than for patients with SBT. Whereas physical symptoms (e.g. pain, nausea, vomiting, dyspnoea, weakness, tiredness) are reported less frequently and less intense in PBT / SBT compared to OP, symptoms and problems in the other categories (nursing, psychological and social) are more frequent and of higher intensity, especially the need for support with the activities of daily life (ADL), disorientation/confusion and overburden of the family. Neurologic dysfunctions are more common in PBT / SBT but are documented only rarely as main cause for admission (e.g. seizures PBT 8.2%, SBT 3.1%, OP 0.1%/ brain edema PBT 5.2%, SBT 1.7%, OP 0.1%). **Conclusions:** The presented data shows that palliative care patients with tumors of the central nervous system suffer a range of problems that differ in prevalence and intensity to other patients. The specific needs have to be addressed to achieve an adequate provision of care. Further prospective research is essential.

### Poster N°: 249

**Type of presentation:** Poster  
**Poster session:** First Group 29 May Thursday, 10.30 to 30 May Friday 13.00  
**Category:** HIV / AIDS  
**Title:** AIDS: a shifting care model from palliative care to rehabilitation where antiretroviral therapy is available in Africa  

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**Background:** Antiretroviral therapy (ART) is increasingly available in African communities to people who would otherwise die, yet uptake is relatively slow. We aim to gain patient perceptions on factors which facilitate and challenge access and adherence to ART as this disease-modifying therapy becomes available. **Methods:** Forty HIV positive people from a deprived township in the Copperbelt, Zambia undertook semi-structured interviews which were repeated 12 months later by 25 participants; 12 participants also took part in a focus group. Interviews were conducted in the local vernacular, recorded manually, and transcribed in English. Transcripts and field notes were checked and coded by two experienced researchers and analysed around access, adherence and any emerging themes. **Results:** Availability of medication did not automatically translate to uptake. Initially, too few HIV testing centres, plus family and community rejection and male control over sexual relationship decisions, reduced the numbers of those coming for testing. Unhelpful rumours and inconsistent information, and the costs of tests and drugs (in the first interviews), plus overcrowded clinics and overworked staff all hindered people starting treatment. Therapy brought side effects such as increased appetite and hunger. Factors which enabled good adherence were: seeing ill people becoming well; being supported by a friend or family member; having a watch or clock to keep to a regular regime. The increase in people looking well also changed community attitudes. These factors contributed to the perception of AIDS as no longer a terminal disease, but as a condition which is treatable. **Conclusions:** Many local factors challenged uptake and adherence. The recent availability of effective treatment and healthy survivors is helping to motivate people to come for testing, and serving to destigmatise the disease. A holistic, rehabilitation focused model for HIV care, integrated in primary care, is now needed.

### Poster N°: 250

**Type of presentation:** Poster  
**Poster session:** First Group 29 May Thursday, 10.30 to 30 May Friday 13.00  
**Category:** HIV / AIDS  
**Title:** Specialist Palliative Care for HIV in the HAART Era: A qualitative study of HIV and Palliative Medicine Physicians  

**Authors:**  
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**Background:** The need for Specialist Palliative Care (SPC) in HIV decreased with the advent of highly active antiretroviral therapy (HAART). However,
infection rates are rising again; consequently HIV-related deaths are increasing, and end-of-life care becoming more complex and challenging. The role of SPC in the current era is unclear. AIM To understand physicians’ views about the palliative care needs of HIV patients and the role of SPC in HIV disease since the introduction of HAART. Methods: A qualitative study with thematic analysis of 14 semi-structured audio-taped anonymised interviews with 7 HIV and 7 Palliative Medicine consultants working in an urban Strategic Health Authority in Northern England. Key areas of questioning included: elicitation of current service provision – exploration of understanding of current role, needs, benefits and perceived difficulties of SPC for HIV patients – exploration of views of future of SPC in HIV disease. Results: Four main themes were identified: 1 CLARITY. Vague understanding of SPC by HIV physicians, lack of clarity about the role of SPC in HIV disease and uncertainty regarding the referral criteria and process into SPC services; 2 CURRENT NEED. Identified areas of need included symptom control, end-of-life care, communication, carer support and bereavement care in late presenting HIV infection, end-stage HIV disease, HIV-related malignancy and HIV-related neurological disease; 3 CONSTRAINTS. Medical, patient and service factors limit the numbers of referrals to SPC services; 4 COLLABORATION. Need for collaboration and joint working between HIV and SPC services, requiring mutual understanding of the two specialties, clearer definition of needs and roles, knowledge of local services, and bidirectional education and training. Conclusions: This study confirms that physicians believe HIV patients have unmet palliative care needs. Education and improved collaborative working between the two specialties would increase utilisation of SPC services by HIV patients.

Poster N°: 251 withdrawn

Poster N°: 252

Type of presentation: Poster
Poster session: First Group 29 May Thursday, 10.30 to 30 May Friday 13.00
Category: Pain
Title: Pain in cancer: An Outcome Research Project to evaluate the epidemiology, the quality and the effects of pain treatment in cancer patients
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In the context of a wide multidisciplinary project (I Ambulatory Care Manage 29:332–341, 2006), a nationwide multicenter, prospective outcome research study was launched in Italy in 2006 to investigate the epidemiology of cancer pain, the pattern and quality of analgesic-drug therapy, and the evolution of health outcomes over time. In a large, prospective, cohort of advanced cancer patients reporting pain, investigators collected predictive and prognostic variables, information about type of care, as well as several patient-reported-outcomes, such as pain, quality of life, satisfaction with analgesic care using standardized questionnaires and data collections forms, 110 centers recruited 1801 patients from February 2006 to March 2007. Subjects were monitored for 28 days and then with a simplified scheme for another 8 weeks. At inclusion, 50% had bone metastasis, 73% a level of pain classified as moderate-severe, 48% reported episodes of breakthrough pain, 49% were still on active anti-cancer treatments and 60% were already on treatment with strong opioids. When the Pain Management Index (PMI) was computed to provide a rough estimate of how pain was treated (Cleeland et al, NEJM 330:592–596, 1994), up to 45% had negative values suggesting a possible analgesic under-treatment, with large variations according to a selected list of clinical variables. In the sub-sample of patients with a complete follow-up at 28 days (n=1461), all pain and palliative outcomes did significantly improve on average, with variations according to case mix, type of treatments and type of recruiting centers. Outcomes based on worst and average pain intensity showed the higher effect size estimates (0.84 and 0.69) when compared to patients’ satisfaction and quality of life (0.44, 0.35). Up to 26% of patients were classified as non-responders. This outcome research study carried out at national level produced data to help implement future educative and research activities in Italy.

Poster N°: 253

Type of presentation: Poster
Poster session: First Group 29 May Thursday, 10.30 to 30 May Friday 13.00
Category: Pain
Title: Strong Opioid Substitution, does it work?
Authors:
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Background: Opioids are used commonly in palliative care. The range of strong opioids available is increasing and substitution of one opioid for another is established practice. In the current literature there are differences of opinion regarding reasons for substitution and choice of opioid to switch to. Methods: This project aimed to examine all cases of strong opioid substitution within a Palliative Care Network in Northwest England during a six week period. A multi-centre multi-disciplinary prospective survey was performed. A questionnaire for each opioid substitution was distributed to all specialist palliative care inpatient, hospital and community teams within the network. It detailed the reason for substitution, the opioids used and symptoms at the time of substitution and three days later. Results: 63 opioid substitutions were performed in patients whose opioid was for pain control. 51 (77%) had not undergone opioid substitution at study entry. Morphine was the most commonly used opioid prior to substitution (37 patients, 59%). Oxycodone was the most commonly used opioid after substitution (37 patients, 59%). The reasons for substitution were: adverse effects 48 (76%), uncontrolled pain 45 (71%), renal impairment 14 (22%), loss of oral route nine (14%), neuropathic pain nine (14%). Pain improved in 37 (59%) and was worse in two (3%) patients after substitution. Five (8%) patients required further opioid substitution. In those with adverse effects hallucinations improved in 88%, myoclonus in 71%, drowsiness in 65%, confusion in 64% and constipation in 38% following substitution. Conclusions: This survey confirms that opioid substitution can be employed successfully in a large proportion of patients with uncontrolled pain and opioid related side effects. Morphine remained the first choice opioid, oxycodone was the most commonly used opioid after substitution. Following this survey, guidelines on opioid substitution will be revised to support safe strong opioid substitution across the network.

Poster N°: 254

Type of presentation: Poster
Poster session: First Group 29 May Thursday, 10.30 to 30 May Friday 13.00
Category: Pain
Title: Pump systems improve the analgesia in pre-terminal head neck cancer patients
Background: Advanced head neck cancer patients are often suffering from ineffective analgesia due to their cachexia and dysphagia. The continuous application of opiates may offer a new approach for effective pain control.

Methods: We report about our experiences with 21 patients between 2006 and 2007. The median survival time of included patients was 2 month (range 14 days to 124 days). All patients suffered from advanced head and neck cancer and had reported about ineffective analgesia by trans-dermal systems and enteral morphine via PEG. That’s why all patients received intravenous morphine (doses between 200 mg and 1.150 mg/day). In 10/21 patients we used electronically controlled pump systems. Results: All patients reported about improved analgesia. 19/21 patients were free of pain. Side effects were infections of the port system in 7/21 cases, somnolence (3/21), and abuse reactions (2/21). Both cases of abuse reactions were seen in cases of bolus administrations. The time of intravenous morphine administration varied between 2 week and 4 month. 10/21 patients died at home. Conclusions: The continuous administration of opiates is a safe way to improve the analgesia in cachectic patients with advanced head and neck cancer. Bolus applications should only be offered in patients with sufficient compliance. This individual decision should include the personal abuse history.

Poster N°: 255

Type of presentation: Poster
Poster session: First Group 29 May Thursday, 10.30 to 30 May Friday 13.00
Category: Pain
Title: Efficacy of morphine and methadone association in refractory cancer pain: a Case Report
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Carla Forlano S.C. Terapia del dolore e cure palliative Torino ITALY
Maria Teresa Ambrosini S.C. Terapia del dolore e cure palliative Torino ITALY

Background: A 72 year-old man was diagnosed four years ago with pulmonary large cell neuroendocrine carcinoma. He had thoracic pain poorly responsive to escalating dose of transderal fentanyl, thus he received an implanted epidural catheter for long term analgesia. The pain had been adequately controlled with morphine cloridrate 120 mg/die and bupivacaine 90 mg/die for 6 months. Methods: He was admitted to the hospital for acute intolerable thoracic pain: magnetic resonance imaging showed an epidural fibrosis and a epidural haematoma without neurological symptoms, at the C7-T1 level. He underwent removal of the catheter and the analgesia was converted to subcutaneous (SC) morphine 400 mg/die, with inadequate pain control, somnolence and confusion. The Karnofsky Performance Status (KPS) was 40. He was switched to SC methadone 90 mg/die. The sedation disappeared, the pain was still unrelieved although methadone was increased to 200 mg/die in the following five days. The patients underwent a central venous catheter placement for continuous infusion of intravenous (IV) methadone because of local toxicity of SC infusion. During the following two days the infusion rate was increased to 270 mg/die. Supplemental methadone doses were ineffective, while the patient reported pain relief with supplemental IV morphine. Thus the patient started continuous infusion of IV morphine 100 mg/die and IV methadone 270 mg/die. After four days the pain was adequately controlled with IV morphine 230 mg/die and IV methadone 300 mg/die, without side effects. Results: He was discharged from the hospital and supported at home by a palliative care unit. During 60-day follow-up, he was pain free, the KPS was 80 and the dose of IV morphine was progressively decreased to 110 mg/die. Conclusions: This case indicates the potential utility of methadone and morphine association in refractory cancer pain, but further investigations are needed to confirm this observation.

Poster N°: 256

Type of presentation: Poster
Poster session: First Group 29 May Thursday, 10.30 to 30 May Friday 13.00
Category: Pain
Title: Total Pain in Patients With Bone Metastases
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Background: Total pain is a central concept in palliative care. We promote that study which goal was exploring the practical dimensions of that concept in a particular population of patients with bone metastases. The goal is to describe the Total Pain in patients with bone metastases, through the identification of the different associated problems. Methods: The study is a simple descriptive, transversal and quantitative one, with an accidental sample, rationally selected, of 53 patients followed in an oncological unit. We used BPI, HAD, FACT-Sp-EX, and others scales. Results: Bone pain is a somatic pain, sometimes with neuropathic traits, described through a large range of concepts and expressions; like describe pain in locals where the x-ray and other image techniques don’t show metastases; Even a low or moderate level of pain, as that showed by the majority of patients, has important impact in the daily living activities, namely sleeping, humour, general wellbeing, walking and working Patients show significant physical limitations, with impact on simple activities like climbing stairs, walking, bending and kneeling down; Anxiety and/or depression are present in less than 20% of the patients, although, in general, patients are more nervous, with memory problems and unsatisfied with their reactions to their illness. They express concerns and fear about death; There was no evidence of delirium; In general, these patients show evident signs of important social and spiritual suffering (burden for the family, unsatisfied with your body and sexual life, to achieve less activities than your wish, not discuss their problems with the others, inability to work in your job, feeling of not useful and not independent, unsatisfied with your quality of life, life without meaning and reason, not accepted the disease). Conclusions: In general, the majority of these patients show important amount of suffering/total pain, depending on the impact that each of them attributes to the losses the illness produced in their lives.

Poster N°: 257

Type of presentation: Poster
Poster session: First Group 29 May Thursday, 10.30 to 30 May Friday 13.00
Category: Pain
Title: Comparison of the tolerability profile of oral slow release morphine and oxycodone in cancer pain treatment
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Background: Although morphine is considered the first choice drug for moderate to severe cancer pain, various studies show that other opioids like
The results of the present study show that slow release oral morphine (SROM) after starting treatment. (on a 0–10 scale) on at least one of the following adverse events (AEs): nausea, vomiting, hallucinations, confusion, constipation, drowsiness, dry mouth, itch. Each of the AEs are measured at baseline, and at 1 and 2 weeks after starting treatment. Results: 187 patients with cancer pain were randomized to receive SROM (95 pts) or SROO (92 pts). The percentages of patients who report a worsening in the AEs measured (as defined in the method section) are 76.4% and 78.5% respectively in the SROM and in the SROO groups, with a difference of 2.1% (95% CI from –10.2% to 14.6%) not statistically different from 0. When considering each of the AEs separately no statistically significant differences emerge between the two groups. Also pain intensity reduction (secondary outcome) show no statistically significant differences between the two groups: average pain reduction on a 0–10 numerical rating scale from baseline to follow-up data is 3.95 vs 3.58 respectively for SROM and SROO groups. Conclusions: The results of the present study show that slow release oral morphine (SROM) and slow release oral oxycodone (SROO) have a similar profile of side effects and tolerability.

Poster N°: 258

Type of presentation: Poster
Poster session: First Group 29 May Thursday, 10.30 to 30 May Friday 13.00
Category: Pain
Title: Use of Hydromorphone in patients with renal impairment
Authors: Katri Elina Clemens Department of Science and Research, Centre for PM University of Bonn, Malteser Hospital Bonn GERMANY Helmut Hoffmann-Menzel Centre for Palliative Medicine, Malteser Hospital Bonn, University of Bonn Bonn GERMANY Eberhard Klaschik Centre for Palliative Medicine, Malteser Hospital Bonn, University of Bonn Bonn GERMANY Ines Quednau Centre for Palliative Medicine, Malteser Hospital Bonn, University of Bonn Bonn GERMANY

Background: Hydromorphone (HM) is a semi-synthetic opioid for the treatment of malignant and non-malignant chronic pain. Its pharmacokinetics and pharmacodynamics have been well studied. In clinical practice, it is a widely used analgesic in palliative care patients. The purpose of this study was to evaluate the safety and efficacy of HM in the management of difficult cancer pain in patients with poor health status and renal failure. Methods: A retrospective study of 546 patients admitted to our Palliative Care Unit between 2004–2006 was performed. Patients with mild to severe renal failure (creatinine serum concentration >2.0 mg/dl) and cancer pain treated with hydromorphone during their hospital stay were included. Demographic and cancer-related data were documented. Statistics: mean±SD, significance p < 0.05. Results: Renal impairment was documented in 138 (25.3%) patients, (age 66.3±12.5, 60 (43.5%) men). In all patients, the reason for admission was inadequate control of pain, dyspnoea and/or other symptoms. Most patients had cancer in an advanced stage (most common of lung, prostate, and breast). Mean Karnofsky index was 51.4±14.1 (range 20–80). Mean serum creatinine concentration was 4.8±3.0 mg/dl, and blood urea nitrogen 64.0±53.3 mg/dl. Of the 138 patients 9 were opioid-naive, 92 pre-treated with morphine (M) and 37 with transdermal fentanyl. Mean daily dose of HM at discharge was 37.0±34.1 mg (277.8±255.0 mg morphine equivalence – considering an equianalgesic conversion ratio of M:HM = 7:5.1). Nausea and vomiting, myoclonus and sedation were significantly reduced by use of HM. Analgesic response improved clearly. Conclusions: HM can be an effective safe analgesic alternative for oral management of chronic cancer pain and/or dyspnoea in patients with renal impairment and pharmacological side effects under M treatment.

Poster N°: 259

Type of presentation: Poster
Poster session: First Group 29 May Thursday, 10.30 to 30 May Friday 13.00
Category: Pain
Title: Older Peoples Attitudes Towards their Cancer Pain Experience: A review of the literature
Authors: Margaret Dunham Faculty of health & Wellbeing Sheffield Hallam University UNITED KINGDOM Christine Ingleton Centre for Health & Social Care Studies, University of Sheffield Sheffield UNITED KINGDOM Mersyn Gott Sheffield Institute for Studies on Ageing, University of Sheffield Sheffield UNITED KINGDOM

Background: Older people with cancer do not always have access to appropriate palliative care teams and their end of life care is often suboptimal (Burt & Raine 2004). Pain and symptom management are critical for quality end-of-life care with recent research suggesting that many are dying without adequate pain relief (Fineberg et al 2006). There is an unfortunate myth that older people feel less pain than younger ones hence older people are less likely to receive appropriate pain relief and are less likely to have opioids for pain control. User involvement is advocated as having the potential to enhance the care of palliative care recipients (Gott 2003). This review aims to explore the literature surrounding attitudes to cancer pain in older people from the patient’s and carer’s perspective. Methods: A literature review of a variety of published literature was undertaken using the principles of the systematic review process. Papers were identified from a variety of sources including relevant databases and journals including Medline, Cinahl Embase, PsyelINFO and the Cochrane Library. Initial terms included “pain”, “cancer”, “attitudes” and “older people”. Search terms were widened to incorporate MeSH term variations to ensure a thorough and comprehensive search. Results: Initial trawl of the databases has identified over 300 research papers written in English. The majority of papers are about the health professional’s perspective. Recently there appears to be a trend moving away from researching the health professionals’ perspective. There is increasing research on the carers’ perspective but a definite paucity of significant research on older people from the users’ perspective on cancer related pain. Ethical considerations appear to be a significant barrier to research in this field. Conclusions: There is an imperative to embrace more sensitive qualitative research in this area. Reluctance to approach this vulnerable group must be overcome in order to support the delivery appropriate and effective patient care.

Poster N°: 260

Type of presentation: Poster
Poster session: First Group 29 May Thursday, 10.30 to 30 May Friday 13.00
Category: Pain
Title: Use of transdermal opioids in cancer patients referred to a mobile palliative care team
Authors: Monica Escher Clinical Pharmacology and Toxicology Geneva University Hospitals SWITZERLAND Valérie Piguet Geneva University Hospitals Geneva SWITZERLAND Marie Besson Geneva University Hospitals Geneva SWITZERLAND

Background: Although it is recommended to use short acting opioids to rapidly relieve uncontrolled pain, slow-released morphine can also be used
effectively. Transdermal systems are slow-released devices which prolong the apparent half-lives of opioids even more. The aim of this study was to determine if cancer patients receiving transdermal opioids (TO), and referred to our palliative care team for uncontrolled pain, could be maintained on TO. **Methods:** Retrospective chart review of the cancer patients hospitalised in the Geneva University Hospitals between January 1st, 2006 and July 31st, 2007, and receiving transdermal buprenorphine or fentanyl when first assessed. **Results:** Among 158 patients, 29 patients (18.3%) were included. Twenty-one were on transdermal fentanyl. Mean age was 60.5 (SD 14.6) years. Pain was mainly related to bone metastasis (n=11) and head and neck cancer (n=6). Eight patients had abdominal pain due to peritoneal carcinomatosis or primary cancer. TO were continued in 23 patients (79.3%). Reasons to stop TO were severe pain (n=3), lack of efficacy of TO (n=6), and simplification of treatment (n=1). Pain tended to be more severe in patients whose TO was stopped (mean VAS 90 vs 72 mm; p=0.09). There was no difference in the time needed to relieve pain. **Conclusions:** Adequate pain relief can be obtained with transdermal opioids despite their slow-released formulation. Appropriate assessment of the patient’s situation is the key factor for individualised treatment.

**Poster N°: 261**

**Type of presentation:** Poster

**Poster session:** First Group 29 May Thursday, 10.30 to 30 May Friday 13.00

**Category:** Pain

**Title:** Can Two Questions Screen for the Need for Antiemetic Prophylaxis when Starting Treatment with Opioids in the Palliative Setting?

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**Background:** Opioid-induced nausea is experienced by 25–40% of a population. In a palliative setting little is known about who will encounter this, but for anesthetists postoperative nausea and vomiting is a well-established term. We have extrapolated from their research two questions; whether a history of previous opioids or of motion sickness can foresee who needs prophylaxis. **Methods:** In 3 palliative home care centers patients with incurable cancer who were in need of a strong opioid and opioid-naïve were identified and included after given informed consent. Reasons for exclusion were nausea or vomiting the last two days, use of antiemetic drugs, cognitive failure, short life expectancy, and recent or planned chemotherapy. Concurrent medicines of interest were registered. The patients were asked whether they had had nausea at earlier opioid-use/surgery, and if they had a previous history of motion-sickness. For 7 days nausea was rated according to an NRS scale (0–10). If the patient scored more than 2, vomited or needed antiemetics, the study ended. **Results:** We enrolled 42 patients, whereof 20 (48%) were female. The median age was 70.8. 15 (35.7%) became nauseous or vomited within a week. There was no correlation between the proposed risk factors alone and nausea, but with the two factors together there was a tendency towards a correlation between them and nausea (p=0.079). The specificity was 89% but sensitivity was only 33%. There was no difference in outcome between different opiates, cancer forms, or sex. Use of corticosteroids was an independent risk factor against nausea (p=0.0040). **Conclusions:** The group with nausea is large, even in this selected group. We found no hard statistical evidence that our screening questions could find patients at risk to develop nausea upon starting opioids. We found a negative predictive value, but for screening the questions are worthless due to their low sensitivity. Corticosteroids seem to protect against nausea and should maybe have been a criterion for exclusion.

**Poster N°: 262**

**Type of presentation:** Poster

**Poster session:** First Group 29 May Thursday, 10.30 to 30 May Friday 13.00

**Category:** Pain

**Title:** Classification and assessment of cancer breakthrough pain: a review of the literature

**Authors:**
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Marianne Jensen Hjerstad Department of Cancer Research and Molecular Medicine, Norwegian University of Science and Technology, and Department of Oncology, Ullevaal University Hospital Trondheim and Oslo NORWAY
Stein Kaasa Department of Cancer Research and Molecular Medicine, Norwegian University of Science and Technology, and Palliative Medicine Unit, Department of Oncology, St. Olav’s Hospital Trondheim NORWAY

**Background:** The European Palliative Research Collaborative (EPCRC) is developing a computer-based tool for classification and assessment of cancer pain. The tool shall include breakthrough pain (BTP). The aim of the present study was to perform a systematic review of the literature on classification and assessment of BTP. **Methods:** PubMed, Embase, CINAHL, PsycINFO, and the Cochrane Database were searched using “[breakthrough pain” OR “break through pain” OR “BTP” OR “incident pain” OR “incidental pain” OR “episodic pain” OR “transient pain” OR “transitory pain” OR “pain flare”] AND Neoplasms [Mesh], with no limitations. Searches were completed by 28 Sept 2007. **Results:** 325 different abstracts were identified and screened. They yielded 47 relevant articles: 18 reviews, 20 clinical studies, 3 case studies, and 6 guidelines / expert opinions / consensus reports. The number of patients in the clinical studies ranged from 7 to 1095. All papers came from North America or Europe. The term BTP was by far most commonly used (31/47), although the EAPC in 2002 proposed the terms transient or episodic pain. There is no consensus for a definition of BTP. The first definitions proposed by Portenoy and Hagen 1989/1990 were most often cited. 35 papers presented a classification of cancer BTP: according to subtypes (35), pathophysiology/mechanism (27), and etiology/cause (13). Most authors agreed on three subtypes based on precipitating factors and predictability: incident pain (volitional and non-volitional), spontaneous/idioopathic pain, and end-of-dose failure. Assessment of BTP was included in 38 articles. Several well-known pain questionnaires were used or mentioned. Eight assessment tools for BTP were described. None of these were validated. **Conclusions:** There is no consensus concerning the definition or classification of BTP. Most authors agree that BTP needs a separate, thorough assessment, but no independently validated assessment tool was identified.

**Poster N°: 263**

**Type of presentation:** Poster & poster discussion session

**Poster session:** First Group 29 May Thursday, 10.30 to 30 May Friday 13.00

**Category:** Pain

**Title:** Pharmacokinetics of transdermal fentanyl in normal weight and cachectic cancer pain patients

**Authors:**
Tarja Heiskanen Pain Clinic Helsinki University Central Hospital FINLAND
Eija Kalso Helsinki University Central Hospital Helsinki FINLAND

**Background:** Absorption of fentanyl from the transdermal patch is governed by skin permeability and by local blood flow. In clinical practice, cachectic
cancer patients often seem to require higher transdermal fentanyl doses for adequate analgesia than normal weight or obese cancer patients, without suffering from intolerable opioid adverse effects. We hypothesised that cachexia has an effect on skin permeability, thereby reducing fentanyl absorption. **Methods:** Twenty patients with cancer related pain were recruited: ten normal weight (BMI 20–25 kg/m²) and ten cachectic (BMI < 18 kg/m²) patients. The patients in the normal weight group weighed (mean) 63 kg and had a mean BMI of 23 kg/m², whereas the cachectic patients weighed (mean) 46 kg with a mean BMI of 16 kg/m². The study was prospective and non-randomized. The height and weight of the patients were measured and the BMI was calculated (weight (kg): height² (m²)). The transdermal fentanyl patch was applied to the skin of the upper arm on Day 1. Breakthrough pain was treated as needed using oral immediate-release oxycodone solution. Blood samples for determination of plasma fentanyl concentration were drawn at baseline, 4h, 24h, 48h, and 72h (±1h). The fentanyl patches were stored at 4°C after removal for analysis of the remaining fentanyl quantities. The Mann-Whitney test was used for statistical analysis. **Results:** The area under the plasma fentanyl concentration versus time curve did not differ between cachectic and normal weight patients. Time to maximum plasma concentration was longer in the cachetic group. **Conclusions:** Transdermal fentanyl was equally well absorbed in cachectic and normal weight patients with cancer related pain. The study was funded by the Helsinki University Central Hospital research funds.

**Poster N°: 264**

**Type of presentation:** Poster  
**Poster session:** First Group 29 May Thursday, 10.30 to 30 May Friday 13.00  
**Category:** Pain  
**Title:** Chronobiology of Pain  
**Authors:**  
Uwe Junker Pain Therapy and Palliative Care Sana Klinikum Remscheid GERMANY  
Hanna Ludwig Sana Klinikum Remscheid GERMANY

**Background:** Chronobiological background: Circadian rhythms have been documented throughout the plant and animal kingdom. They are endogenous in nature, driven by oscillators or clocks, and persist under free-running conditions. Clock genes have recently been identified in human tissues such as the skin and the mucosa. Generally, the endogenous clock in man does not run exactly at a frequency of 24 hours. Environmental time cues, or Zeitgebers, entrain the circadian rhythm to a precise 24-hour period. It is important to note that endogenous biological rhythms are anticipatory in nature. Chronokineti, chronodynamics and pain: It is still a common phenomenon in clinical pharmacology that pharmacokinetic (PK) parameters, as well as drug effects, are not considered to be influenced by time of day of drug administration. Nevertheless we find important, therapeutic-relevant rhythms in different types of pain such as rheuma-symptoms and pain in osteoarthritis, cancer-pain and post-operative pain. Drugs of different classes used for pain treatment—local anaesthetics, NSAIDs, opioids and placebo – do not only display significant variations in PKs but also in analgesic effects. Even concentrations of endogenous opioids such as endorphins and enkephalins, were shown to be rhythmic in rodents. **Methods:** Review. **Results:** The results of a multitude of studies in chronobiology are not consistent. By administration of analgesics over a constant or continuous dosage time fluctuations in pain perception and a multitude of studies in chronobiology are ignored that prove the influence of biological rhythms on the pharmacokinetic and pharmacodynamic of analgesics. **Conclusions:** A flexible dosage depending on pain intensity and a fast dose adjustment are essentials of a modern pain therapy. We have to reflect critically on the latest developments in pain therapy aiming the longest sustained release possible. More studies with standardised protocols concerning the circadian intensity of different kinds of pain are needed.

**Poster N°: 265**

**Type of presentation:** Poster  
**Poster session:** First Group 29 May Thursday, 10.30 to 30 May Friday 13.00  
**Category:** Pain  
**Title:** Classification of cancer pain – a systematic literature review and further research strategy  
**Authors:**  
Anne Kari Knudsen Dep. of Cancer Research an Molecular Medicine Norwegian University of Science and Technology NORWAY  
Marianne Jensen Hjerstad Norwegian Institute of Science and Engineering and Ullevål University Hospital Trondheim and Oslo NORWAY  
Marit Jordhøy Norwegian Institute of Science and Engineering and Sykehuset Innladet Gjovik Trondheim and Gjovik NORWAY  
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Nina Aas Norwegian Institute of Science and Engineering and the Norwegian Radium Hospital Trondheim and Oslo NORWAY  
Robin Fainsinger Capital Health Regional Palliative Care Program, Grey Nuns Hospital Edmonton CANADA  
Stein Kaasa Norwegian Institute of Science and Engineering and St. Olav University Hospital Trondheim NORWAY  
representing the EPCRC

**Background:** Pain is one of the most prevalent and feared symptoms in advanced cancer patients. Insufficient assessment methods and inconsistent classification are cited as important reasons why treatment is still often inadequate. Thus, one aim of the EPCRC is to develop a classification system for advanced cancer patients with pain, based on international consensus. As a first step, a systematic literature review was performed in order to identify existing classification systems for cancer pain and cancer patients with pain. **Methods:** A systematic literature search in Medline and Embase using OVID as search engine was performed, covering 1986–2006. The search strategy was based on the terms “classification” or “categorisation” or “staging”, and “neoplasms” or “cancer”, and “pain”. Only papers in English or German assessing adult patients were included. All reports were evaluated by two independent readers. **Results:** 692 hits were obtained. 95 papers were included for further analysis. Nine papers describing three formal classification systems for cancer pain were identified: The International Association for the Study of Pain (IASP) Classification of Chronic Pain, the Cancer Pain Prognostic Scale (CPPS) and the Edmonton Classification System for Cancer Pain (ECS-CP). The first is a descriptive system for pain syndromes, while the latter two include both pain and patient related factors aiming to predict probability of pain control. However, the factors included in the CPPS are more complex and less well defined than in the ECS-CP. Otherwise, several informal approaches for classifying cancer pain were found, most of which were based on pathophysiology, etiology, intensity, temporal pattern, pain syndromes and location of pain. **Conclusions:** Further research found on this review, expert meetings and consensus within the EPCRC. The development of a new classification system will be based upon the ECS-CP and include pain-, disease– and patient related dimensions and tested empirically in an international setting.

**Poster N°: 266**

**Type of presentation:** Poster  
**Poster session:** First Group 29 May Thursday, 10.30 to 30 May Friday 13.00  
**Category:** Pain  
**Title:** Cancer Pain and Depression: A Systematic Review  
**Presenting author:** Angela Boyd  
**Authors:**  
Barry Laird Palliative Medicine University of Edinburgh UNITED KINGDOM  
Angela Boyd University of Edinburgh Edinburgh UNITED KINGDOM  
Lesley Colvin University of Edinburgh Edinburgh UNITED KINGDOM  
Marianne Jensen Hjerstad Norwegian Institute of Science and Technology NORWAY  
Augusto Caraceni National Cancer Institute of Milan Milan ITALY  
Marianne Jensen Hjerstad Norwegian Institute of Science and Engineering and Ullevål University Hospital Trondheim and Oslo NORWAY  
Robin Fainsinger Capital Health Regional Palliative Care Program, Grey Nuns Hospital Edmonton CANADA  
Stein Kaasa Norwegian Institute of Science and Engineering and St. Olav University Hospital Trondheim N
**Background:** A single point prevalence survey demonstrated that approximately 90% of patients with cancer experience pain. Depression occurs in approximately one quarter of advanced cancer patients. The relationship between depression and pain is of great importance in routine clinical practice. The aim of this systematic review is to examine the relationship between cancer pain and depression. **Methods:** An extensive literature search was undertaken. The following databases were searched electronically: Medline (1950–2007), Embase (1988–2007), Cinahl (1982–2007) and the Cochrane Database of Systematic Reviews (Issue 2 2007). Relevant journals were also searched by hand. **Results:** As a consequence of a broad search strategy, 892 articles were identified. A consensus was reached that 41 papers were suitable for detailed review using a pre-determined proforma. Following independent review 14 articles were deemed appropriate for inclusion. The mean prevalence of depression and pain was 31.5% (range 20.2 – 46.0) and 63.3% (range 37–100%) respectively. In 10 out of 14 studies a statistically significant association was demonstrated between pain and depression: Pain intensity positively correlated with depression (to levels of statistical significance p<0.05). Pain interference items such as “worst pain” and “enjoyment of life (measured on the BPI) correlated significantly with depression. When using the McGill Pain Questionnaire, depressed patients used more affective descriptors. It was also shown that the longer the duration of pain, the higher the risk of depression. Conversely, as pain decreased so did depression, to levels of statistical significance. **Conclusions:** Both pain and depression are highly prevalent in cancer patients however there have been no appropriately designed studies to examine a causal relationship. A suitably designed longitudinal study to examine causality would be a highly, clinically relevant step in the research agenda.

**Poster N°: 267**

**Type of presentation:** Poster  
**Poster session:** First Group 29 May Thursday, 10.30 to 30 May Friday 13.00  
**Category:** Pain  
**Title:** Cancer Related Breakthrough Pain: A critical review of the literature  
**Presenting author:** Angela Boyd  
**Authors:**  
Barry Laird Palliative Medicine University of Edinburgh UNITED KINGDOM  
Lesley Colvin University of Edinburgh UNITED KINGDOM  
Marie Fallon University of Edinburgh UNITED KINGDOM  
Angela Boyd University of Edinburgh UNITED KINGDOM

**Background:** Cancer related breakthrough pain is a prevalent and clinically meaningful problem that presents challenges in both its diagnosis and management. This review appraises available literature on the definition, prevalence and management of cancer related breakthrough pain. **Methods:** An electronic search of Medline (1996–2007), Embase (1996–2007) and the Cochrane Database of Systematic Reviews (Issue 2 2007) was performed. Only papers which studied breakthrough pain in a malignant setting were deemed eligible for inclusion. **Results:** 24 articles met the inclusion criteria. Breakthrough pain (that is not end of dose failure) can be subdivided into spontaneous or precipitated (incident) pain. 20–60% of breakthrough pain is spontaneous in nature with the frequency of breakthrough pain between 4–7 episodes per day (average duration of 15–30min). Breakthrough pain results in increased pain scores and increased pain intensity. Breakthrough pain interferes with general activity, ability to work and walking. Morphine remains the gold standard analgesic although its work on its use in breakthrough pain is limited. Oral Transmucosal Fentanyl Citrate (OTFC) has been shown to be effective in cancer related breakthrough pain. **Conclusions:** Currently strong evidence exists for oral transmucosal fentanyl citrate with less evidence existing for other fentanyl preparations and other opioids. This probably reflects the type of clinical trials funded to date rather than necessarily inherent superiority. A simplification of the term “breakthrough pain” into its component parts would facilitate meaningful discussion about epidemiology, clinical findings, management and research. We propose that the global term “breakthrough pain” should be only a functional term for describing any pain other than background pain. The components of breakthrough pain can be labelled as: end-of-dose failure, spontaneous pain at rest, movement-related pain and lastly pain related to a particular incident e.g. coughing, straining at stool etc.

**Poster N°: 268**

**Type of presentation:** Poster  
**Poster session:** First Group 29 May Thursday, 10.30 to 30 May Friday 13.00  
**Category:** Pain  
**Title:** The role of transdermal buprenorphine in cancer pain treatment  
**Authors:** Wojciech Leppert Chair and Department of Palliative Medicine Poznan University of Medical Sciences POLAND

**Background:** Recently buprenorphine is administered in transdermal form (Transtec®) in matrix patches **Methods:** Patients and methods: Open, prospective, clinical study assessing analgesic efficacy and side effects of transdermal buprenorphine administered to patients with cancer pain. Transdermal buprenorphine was applied to 20 patients (11 men, 9 women) aged 35–74 (mean 59.5 ± 12.2) with severe cancer pain – over 6 in 11 – step numerical rating (NRS). The type of pain was nociceptive in 14 patients and neuropathic in 6 patients. 12 patients were opioid – naive and 8 opioid tolerant who received previously tramadol. The doses of transdermal buprenorphine were 35, 52.5 and 70 mcg per hour. In case of breakthrough pain 12 patients received buprenorphine in sublingual tablets (0.2 mg) and 8 patients tramadol in drops or immediate release capsules (dose range 50–100 mg). **Results:** The time of treatment 28.3 ± 17.1 (range 3–75) days. The starting dose was 35 mcg per hour, and the dose was increased in 13 patients: in 7 of them till 52.5 and in 6 gradually up to 70. In 13 patients good analgesia (pain intensity below 3 in NRS), in 3 patients partial effect (NRS 3–5), lack of analgesic effect in 4 patients with neuropathic pain (NRS over 5). 12 patients needed the rescue doses of sublingual buprenorphine (8 patients) or oral tramadol (4 patients). Side effects: 4 patients moderate constipation, 3 drowsiness (2 mild, 1 moderate), 2 nausea, 1 sweating, which was chronic but acceptable. In one patient redness was observed in the region of patch application. These symptoms did not cause buprenorphine treatment termination, respiratory depression was not observed. **Conclusions:** The use of transdermal buprenorphine in the patches in doses 35, 52.5 and 70 mcg per hour, allows to achieve satisfactory analgesia in majority of patients with nociceptive pain and in some patients with neuropathic pain of severe intensity. The tolerance of treatment was good without severe side effects.

**Poster N°: 269**

**Type of presentation:** Poster  
**Poster session:** First Group 29 May Thursday, 10.30 to 30 May Friday 13.00  
**Category:** Pain  
**Title:** The role of methadone in cancer pain treatment – experience from Poland  
**Authors:** Wojciech Leppert Chair and Department of Palliative Medicine Poznan University of Medical Sciences POLAND  
Jacek Luszcz Chair and Department of Palliative Medicine, Poznan University of Medical Sciences Poznan POLAND  
Aleksandra Lemieziek Chair and Department of Palliative Medicine, Poznan University of Medical Sciences Poznan POLAND
**Background:** Open clinical study to assess analgesia and side effects of methadone and calculation of equianalgesic doses of oral morphine and methadone. **Methods:** Patients and methods: Methadone was administered to 21 opioid-tolerant patients with severe cancer bone and neuropathic pain because of inadequate analgesia (VAS > 5) (number of patients in brackets) on morphine (10), transdermal fentanyl (TF) (4), morphine, ketamine and TF (3), tramadol (1), pethidine (1), histamine, and drowsiness on morphine with ketamine (1) and strong pain with nausea on morphine (1). Dose ratios of daily doses of oral morphine (ddom) to daily dose of oral methadone (ddomet): 4:1 (ddom to 100 mg), 6:1 (ddom 100–300 mg), 12:1 (ddom 300–1000 mg), 20:1 (ddom over 1000 mg). Single dose of oral methadone did not exceed 30 mg regardless ddom before methadone switch. Previous opioids were stopped completely in 19 patients and 2 patients were treated concomitantly with methadone and other opioids. Mean equivalent ddom before methadone switch 812 ± 486 mg. Methadone administered regularly 3 times a day, 20 patients received oral methadone, 1 rectally in suppositories. Breakthrough pain treated with methadone (half of regular dose), morphine, fentanyl, metamizol and ketamine. **Results:** Methadone treatment lasted 38.3 ± 27.1 (range 3–95) days, daily dose range 9–400 mg, mean daily doses 48.1 ± 19.7 at beginning, maximal 148.5 ± 104.1, and 131.1 ± 104.3 mg at the end of methadone treatment. Good analgesia (NRS < 4) 11 patients, partial (NRS 4–5) 8, unsatisfactory 2 (NRS > 5) who stopped methadone. Side effects: drowsiness (6 patients), constipation (4), nausea and vomiting (2), one respiratory depression probably due to methadone and alfuzolam interaction disappeared after naloxone administration and methadone cessation. **Conclusions:** Results of the study confirmed high analgesic efficacy, good adverse event profile of methadone and effectiveness of morphine to methadone dose calculation.

**Poster N°: 270**

**Type of presentation:** Poster  
**Poster session:** First Group 29 May Thursday, 10.30 to 30 May Friday 13.00  
**Category:** Pain  
**Title:** The role of paminodronate in the treatment of pain in advanced cancer patients with bone metastases  
**Authors:** Wojciech Leppard Chair and Department of Palliative Medicine Poznan University of Medical Sciences POLAND  
Wojciech Rolski Head and Neck Cancer Department, Maria Sklodowska-Curie Memorial Cancer Center Institute of Oncology Warsaw POLAND  

**Background:** One of the important group of drugs that can inhibit development of bone destruction and possessing analgesic effects are bisphosphonates. The aim of the study was to assess the usefulness of the bisphosphonates (paminodronate) in the treatment of cancer pain in patients with bone metastases. **Methods:** Patients and methods: 50 advanced cancer patients with osteolytic bone lesions and bone pain of severe intensity – over 6 in 11-point categorical scale. Patients were treated with 2-hourly intravenous infusion of pamidronate (Pamifos® and Aredia®) in the dose of 30–90 mg in 500 ml 0.9% NaCl, every 3–4 weeks. All patients apart from the pamidronate were treated with other analgesics, 15 received radiotherapy, 5 hormone therapy, 2 chemotherapy. Analgesia was assessed after administration of at least 1 (total 1–16) dose of pamidronate. **Results:** In 38 patients good analgesic effect was achieved (at least 2 points decrease of pain intensity) or less than 4 in categorical scale. In 6 patients partial effect (at least 1 point decrease of pain intensity) or 4–5 on categorical scale. In 6 patients no therapeutic benefit was achieved. The tolerance of the treatment was good with no severe side effects. The most common adverse reactions were temporary fever (10 patients), headache (4), intensifying bone pain (3). These symptoms did not cause cessation of pamidronate treatment and disappeared within 1 day without treatment. Local reactions appeared in 3 patients, in 5 patients asymptomatic decrease of calcium level in blood serum and in 3 patients increase of creatinine level in serum were observed. **Conclusions:** Pamidronate administered to patients with advanced cancer and with osteolytic lesions as intravenous infusion every 3–4 weeks in the dose of 30–90 mg is effective in the treatment of bone pain when combined with other analgesics and other methods of cancer treatment. The treatment was well tolerated with no serious adverse reactions.

**Poster N°: 271**

**Type of presentation:** Poster  
**Poster session:** First Group 29 May Thursday, 10.30 to 30 May Friday 13.00  
**Category:** Pain  
**Title:** An open label, dose titration study to assess the analgesic potential of mirtazapine for cancer-related neuropathic pain  
**Authors:** Clare Marlow Medical Team Compton Hospice UNITED KINGDOM  
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**Background:** A preliminary unblinded evaluation of the analgesic effect of mirtazapine was carried out, administering mirtazapine to 24 patients with cancer-related neuropathic pain only partially responsive to opioid analgesia. **Methods:** A prospective, single-centre, 2 week, open label, dose titration study was performed. Mirtazapine was initiated at a dose of 15 mg nocte for 2 days (days 1 and 2), increasing to 30 mg nocete for the following 5 days (days 3 to 7) and to 45 mg nocete for the final 7 days (day 8 to end of study). Analgesic efficacy was assessed on days 1, 8 and 15 using the Brief Pain Inventory (BPI) short form. The Hospital Anxiety and Depression Scale (HADS) was administered on days 1 and 15 to screen for changes in psychological state. Changes in BPI mean pain severity, BPI mean pain interference and mean HADS scores between pairs of days were analysed using paired student’s t-tests. **Results:** Seventeen patients completed the 2 week study period. Reasons for non-completion were: 3 because of side effects (severe sleepiness), 3 because of disease progression and 1 because of an unrelated drug error. The mean pain severity score at baseline was 5.1, decreasing by 1.9 points to 3.2 at day 15 (p<0.0008). A decrease in the mean pain interference score of 2.3 points (p=0.0004) was also observed. Mean HADS anxiety and depression score ratings did not decrease significantly during the 2 week study (p=0.12, p=0.20 respectively). The most frequently reported adverse event was sleepiness with 17 (70.8%) experiencing sleepiness during week 1, and 10 (58.8%) during week 2 of the study. Fourteen patients continued mirtazapine in the longer term. Eleven patients rated mirtazapine as ‘good’ or ‘very good’ at relieving their neuropathic pain. **Conclusions:** This uncontrolled study suggests that mirtazapine has activity in cancer-related neuropathic pain and gives a baseline from which to proceed to a comparative phase III study against placebo or other non-opioid analgesics, required to confirm these results.

**Poster N°: 272**

**Type of presentation:** Poster  
**Poster session:** First Group 29 May Thursday, 10.30 to 30 May Friday 13.00  
**Category:** Pain  
**Title:** Heart rate variability in relation to pain intensity during flexible sigmoidoscopy: a pilot study.  
**Authors:** J.J. Meese Internal Medicine, Section of Palliative Medicine University Medical Center Groningen NETHERLANDS  
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Background: Pain induces a stress reaction. The autonomous nervous system responds to stress with a relative increase in sympathetic tonus. Quantification of this response is being explored as a measure of pain intensity. The variability of the heart rate is influenced by the autonomic nervous system. Heart rate variability (HRV) can be expressed in the time domain (e.g. standard deviation of normal to normal heart beat intervals [SDNN]) and in the frequency domain (total power of the variability [TP], low frequency variability [LF], and high frequency variability [HF]). HRV parameters have been shown to be a measure for the parasympathetic (SDNN, HF) and sympathetic tonus (LF). The LF/HF ratio is considered to reflect the sympathovagal balance. Aim: To evaluate whether the response of the autonomic nervous system, measured by heart rate variability, correlates with the visual analogue score (VAS) of pain intensity. Methods: Before and during 71 flexible sigmoidoscopy procedures a complete registration of heart beat intervals was obtained with the portapress (computerised beat-to-beat blood pressure registration using a cuff, applied to the right middle finger). From this dataset HRV parameters were calculated. Also the pain intensity before and during the endoscopy was quantified with a VAS (0–100 mm scale). The Spearman’s correlation coefficient (r), between VAS and HRV parameters was calculated. Results: During sigmoidoscopy the VAS was correlated with SDNN (r=0.348, p=0.003), TP (r=0.334, p=0.004), LF (r=0.28, p=0.018) and HF (r=0.27, p=0.023), but not with LF/HF (r=−0.059, p=0.626). The positive correlations suggest increased sympathetic and parasympathetic tonus during pain. No evidence of a relative increase in sympathetic tonus was found. Conclusions: During sigmoidoscopy there is a correlation between pain intensity measured with VAS and HRV parameters, especially the SDNN.

Poster N°: 273

Type of presentation: Poster
Poster session: First Group 29 May Thursday, 10.30 to 30 May Friday 13.00
Category: Pain
Title: Morphine dosing in breakthrough cancer pain in patients on transdermal fentanyl
Presenting author: Monika Lichodziejewska-Niemierko
Authors: Aleksandra Modlińska Department of Palliative Medicine Medical University of Gdańsk POLAND
Łukasz emoitel Medical University of Gdańsk, Department of Emergency Medicine Gdańsk POLAND
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Background: The WHO analgesic ladder is recommended for chronic pain control. For more than 10 years transdermal fentanyl has been existing on its third step as very efficient in cancer pain management. Although most cancer patients attain good pain relief, many suffer from breakthrough pain which can create a significant clinical problem. The aim of this retrospective study was to assess the effective analgesic dose of morphine administered for breakthrough pain in hospice patients receiving fentanyl TTS as a background analgesia. Methods: Data of 171 consecutive patients admitted to the local hospice were recorded. On the day of admission the most common painkiller was transdermal fentanyl. Majority of admitted patients required titrating up the dose of analgesics. 91 dosing periods of combined treatment with transdermal fentanyl and morphine as rescue dose were finally analysed. Pain was assessed with the use of verbal Borg scale &#8211; with words for symptoms intensity. Results: The doses of fentanyl TTS were 25 mcg/h and 50 mcg/h in 25% and 33% of dosing periods respectively. In the rest, higher doses of fentanyl were required (75, 100, 150 mcg/h ). For breakthrough pain morphine was given in the subcutaneous dose of 5 and 5–10 mg in patients on fentanyl 25 and 50 respectively. This recommended dosage of morphine provided good pain control according to Borg scale. However, in majority of patients with higher doses of fentanyl, despite guidelines, also 10 mg of subcutaneous morphine was administered as a rescue therapy. This low dose provided effective analgesia as assessed with verbal scale. Conclusions: Most of patients treated with transdermal fentanyl find subcutaneous rescue morphine as the effective mode of analgesia in breakthrough pain. Good pain control with small doses of morphine may suggest that the breakthrough dose of morphine when given with fentanyl TTS should be corrected and recalculated.

Poster N°: 274

Type of presentation: Poster
Poster session: First Group 29 May Thursday, 10.30 to 30 May Friday 13.00
Category: Pain
Title: Evaluation of pain control in patients with bone metastases or multiple myeloma in Zoledronic acid therapy. Observational clinical study
Authors: Luigi Montanari Oncology Civil Hospital Umberto I° ITALY
Laura Amaducci Oncology Faenza(Ra) ITALY
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Background: Pain associated with metastatic bone disease is present in 70% of oncologic advanced patients, reduced quality of life and performance status of patients. Zoledronic acid is a bisphosphonate recommended in treatment of skeletal complications, reduced calcemia and pathologic fractures. The primary endpoint was evaluation of pain control and analgesic use, the secondaries endpoints were evaluation of quality of life and tolerance.

Methods: Eligible patients with histologic diagnosis of Carcinoma or Multiple Myeloma, at least one bone metastasis with radiological diagnosis, bone pain, prevision survival at least 6 months, written informed consent. Treatment: Zoledronic acid 4 mg administered as a 15 minutes infusion in 100 cc of normal saline every 4 weeks. Pain was assessed with Brief Pain Inventory (B.P.I.) and Analgesic Score. Evaluation of Quality of Life was investigated with questionnaires FACT-G. Centres participants were the Institutions of Medical Oncology and Palliative Care of Oncological Institute of Romagna (I.O.R.): Forlì, Lugo, Rimini, Faenza, Ravenna, Cesena. Results: 66 patients are enrolled age range 37–86 years, median 68 years, 92% with multiple bone metastases, 36% with lytic metastases. At baseline 48.8% of patients required opioids to control pain but 39% at the end of treatment; analgesic score mean decreased by 3 to 2. 42 patients are evaluated for BPI, performed at baseline and at the end of treatment: median baseline BPI was 13 (range 0–26) and the final median BPI was 11 (range 0–27). Overall BPI was significantly decreased in 64.3% of patients. Evaluation of quality of life investigated with questionnaire FACT-G is ongoing. Conclusions: Zoledronic acid in this study appears to be effective in bone pain control and is well tolerated (no cases of osteonecrosys of jaw).

Poster N°: 275

Type of presentation: Poster
Poster session: First Group 29 May Thursday, 10.30 to 30 May Friday 13.00
Category: Pain
Title: Prolonged-release oxycodone/naloxone is effective and safe in patients with metastatic bone disease treated for bone pain with oral opiods or for Multiple Myeloma
Authors: Thomas Nolte Palliative Care Schmerz– und Palliativzentrum GERMANY
Background: The prolonged-release oxycodone/naloxone® combination prevents one of the most common side effects of opioid therapy, opioid-induced constipation without reducing analgesic efficacy. A multicentre observational trial studied the efficacy and safety of a fixed oxycodone/naloxone combination in clinical use in several thousand patients. Methods: In the 4-week observational study, data was recorded at four assessment times (begin followed by 1st, 2nd and 3rd visit after one, two and 4 weeks respectively), the 2nd of which was optional. Efficacy of oxycodone/naloxone was measured by change in pain intensity (NRS, 0–10 = no pain – worst imaginable pain) and quality of life using the overall score (0–70 = no limitation – worst limitation) of the 7 usual parameters. Bowel function was assessed using the arithmetic mean of the following three parameters: ease of defecation (0–100 = no difficulty – worst difficulty), sensation of incomplete bowel evacuation and assessment of constipation (0–100 for each = none – very severe). At trial completion, doctors and patients assessed efficacy and tolerance. Results: 7836 patients with severe and very severe chronic pain of different gene-sis took part. More than 80% assessed tolerance of oxycodone/naloxone compared to previous treatment (predominantly analgesics at times coanalgesics) as “very good” and “good”. At treatment initiation, most patients received 2 x 10/5 mg oxycodone/naloxone. Pain reduced significantly during treatment. Bowel function and quality of life improved markedly. In the final assessment, the vast majority of doctors and patients assessed efficacy and tolerance as “very good” and “good”. Conclusions: The fixed oxycodone/naloxone combination proved effective and safe clinically in several thousand patients with severe and very severe pain of different genesis. Its strong analgesic efficacy combined with improved bowel function markedly increases quality of life. *Targin®, manufactured by Mundipharma GmbH, Limburg (Lahn).

Poster N°: 276

Type of presentation: Poster
Poster session: First Group 29 May Thursday, 10.30 to 30 May Friday
Category: Pain
Title: Opioid Prescribing in Cancer Pain: The WHO guidelines 20 years on
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Background: An individualised balanced analgesic regimen is the mainstay of cancer pain management. Opioids are the principal analgesics used. The WHO Guidelines for Cancer Pain 2 is the gold standard. This study assessed whether these guidelines were being followed in clinical practice in a teaching hospital, twenty years after their introduction. Methods: A retrospective cohort study was undertaken of opioid analgesic prescribing of all consecutive discharges of patients with a cancer diagnosis for a four month period. Exclusion criteria were non-cancer pain, chart unavailable, prn opioids only. An audit tool, using 18 standards of good practice, allowing into route, frequency, choice of drug, dose and titration was developed. A variance of greater than 15% resulted in non-achievement of the standard. Describing practice of specialist palliative doctors (SPDs) was compared with non-SPDs. Results: There was a total of 248 discharges for the study period. This correlated with 192 individual patients. 122 charts were retrieved. This generated n=181; 82 met the inclusion criteria. SPDs achieved 16 of 18 standards, while non-SPDs achieved 6 of 18 standards. Non-SPDs prescribed parenteral opioids when patient was taking all other medications p.o. 59%. Non-SPDs more likely to prescribe combinations of weak and strong opioid 47%. Patients were more likely to be prescribed a regular opioid (weak or strong) 98% & 92%, when they required frequent prn analgesia. However they were more likely to be prescribed a weak 98% than a strong opioid 92%. When a regular opioid was prescribed (non-SPDs) the dosage interval was incorrect 65%, and breakthrough dose and freq 55% was at variance with standard. A prescription of an opioid was more likely to be accompanied with an antiemetic 90%, than a laxative 71%. Conclusions: This study shows that the WHO guidelines are not routinely followed by non-SPDs. A follow-up study is underway to see how compliance may be improved.

Poster N°: 277

Type of presentation: Poster
Poster session: First Group 29 May Thursday, 10.30 to 30 May Friday
Category: Pain
Title: Examination of Cancer Pain Management in Children
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Background: Pain is a significant and much feared symptom for children undergoing cancer therapy with many studies reporting that around 60% of childhood cancer patients experienced pain as a presenting symptom. This survey aimed to collect data on pain management and assessment in recently hospitalised children with cancer pain and to outline directions for improved care, future audit and research. Methods: A repeated measures prospective survey of children’s cancer pain was conducted on admission to a national tertiary referral children’s cancer centre. A questionnaire was used to gather data from children or their parents, regarding their experiences with pain assessment and management at T1, on admission; and again within 48 hours, T2. Results: Over 4 months, 65 interviews involving 40 children, 18 months to 17 years were carried out. At T1, 62% of children experienced pain, mean pain score 6 (0, no pain, 10 worst pain). This decreased significantly, by T2 (p<0.001). At T1, 97% of charts failed to meet the standard for documentation of all the core elements of assessment of cancer pain. Children’s mood, reports of comfort and satisfaction with analgesics improved at T2 when pain was controlled. Failure to recognise or believe children’s reports of pain; fears and misconceptions around opioid analgesics; and lack of knowledge about pain control was shown to be an obstacle to effective pain management. Analysis of the strategies children employed for managing pain revealed 5 themes: behavioural avoidance, behavioural and cognitive distraction, emotional expression, and social support. Three themes for improving pain management emerged: Identify and acknowledge children’s pain; decision making and pain management; Interpersonal and organisational factors affecting pain management. Conclusions: This survey demonstrated that pain is a feature of childhood cancer and effective pain control remains a clinical problem. Further education and research is required into children’s cancer pain management.

Poster N°: 278

Type of presentation: Poster & poster discussion session
Poster session: First Group 29 May Thursday, 10.30 to 30 May Friday
Category: Pain
Title: Effect of topical morphine (mouthwash) on pain due to chemotherapeutic and/or radiotherapy induced mucositis: a randomized double blind study
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Oral pain due to mucosal lesion is frequent in oncology mainly secondary from radio– and/or chemotherapy induced oral mucositis. No single product has shown to be efficient in preventing oral mucositis induced by chemo– or radiotherapy. The objective of the study is to demonstrate that mouthwashes with a morphine containing solution decrease oral pain substantially, while not causing the side effects of systemic opioids administration. Methods: Randomized double-blind cross-over study to evaluate the effect of topical oral application of 0.2% morphine solution in patients suffering from radio– and/or chemotherapy induced oral mucositis. Participants assigned to either the morphine solution or a placebo mouthwash received one of the solutions days 1–3 and were then switched over to the other treatment for days 4–6. Basic oral care was offered to all patients. Preliminary Results: Nine patients were randomised in both groups. All patients had oral pain (mean pain intensity on ten point VAS: 6 ± 2.7) associated with mucosal injury (WHO mucositis ?2) secondary to chemotherapy (cispaltine) and for 6 patients concomitant radiotherapy. 6 patients received first level analgesia, 3 patients received oral opioids medications. Pain intensity decreased significantly in both groups after mouthwash. The mean difference in pain intensity one hour after mouthwash was 1.8±0.42 when patients received morphine solution and 1.6±0.41 when patients received placebo. Systemic analgesic treatment was identical during 6 days of the study. Conclusions: Both morphine and placebo mouthwash resulted in significant symptom improvement. Longer study duration is justified.

Poster N°: 279

Posters: Type of presentation: Poster
Poster session: First Group 29 May Thursday, 10.30 to 30 May Friday 13:00
Category: Pain
Title: Combination of transdermal fentanyl and morphine in patients with oncological pain resistant to single drug therapy: 14 patients report Authors: Simone Piazza Oncology and Palliative Care Novara’s Maggiore Hospital ITALY
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Background: Recents evidences suggest that fentanyl and morphine have synergetic effect in pain control. Methods: Combination of two drugs has been used in oncologic patients with pain resistant to single drug therapy, previously treated with fentanyl or morphine; Escalation of dose wasn’t effective or not well tolerated. Results: One patient were shifted from TDF100 µg for hour to subcutaneous (SC) morphine 80 mg in 24 hours infusion, obtaining reduction of pain; we obtained complete pain control adding transdermal fentanyl (TDF) 25 µg for hour. One patient, treated with TDF 75 micrograms for hour was shifted to TDF 50 µg for hour in combination with morphine substanated release (MSR) 60 mg in 24 hours in two administrations, obtaining complete pain control. One patient, treated with morphine in continuous SC administration, needed escalation dose until 150 mg without pain relief; reducing morphine of about 30% and adding TDF 25 µg for hour we obtained reduction of pain score (Numerical Rate Scale) from 8–9 to 2–3. One patient, treated with MSR 240 mg in 24 hours in two administrations, were shifted to MSR 120 mg in 24 hours in two administrations in combination with TDF 25 µg for hour, obtaining only a partial pain relief. Other 8 patients were treated with TDF at doses from 12.5 to 100 µg for hour; we added oral morphine at dose from 15 to 90 mg in 24 hours (divided in 2 or 3 administrations), obtaining pain control. Two patients, one treated with TDF 75 µg for hour and MSR 120 mg in 2 administration and one with TDF 25 µg for hour and oral morphine didn’t have benefit and needed to be shifted to other treatment. Conclusions: We observed that combination therapy has been, on most analysed patients, more effective than single drug therapy to obtain complete pain control, without significant escalation dose. We didn’t observe relevant side effect, and the treatment has been well tolerated by all patients. Pain control were more difficult at worsening of performance status.

Poster N°: 280

Type of presentation: Poster
Poster session: First Group 29 May Thursday, 10.30 to 30 May Friday 13:00
Category: Pain
Title: Clinical experience with transdermal buprenorphine for the treatment of moderate-severe pain in palliative care: a prospective, observational, multicenter study
Presenting author: Annette Welshmann
Authors: Francesca Bordin Palliative Care Unit Fondazione Sue Ryder Onlus ITALY
Piero Morino FILE Firenze ITALY
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Annette Welshman Fondazione Sue Ryder OHLUS Roma ITALY

Background: Transdermal buprenorphine (TDB) is currently available in matrix patches with release rates of 35, 52.5, and 70 g/h for a three to four day duration. TDB has been shown to be effective in chronic, severe pain in 3 multicenter randomized trials. Objective: Aim of this prospective, multi-center, observational study was to collect effectiveness, safety and usefulness data of TDB in daily palliative care practice. Methods: 153 patients with moderate to severe cancer pain in home (68%), hospice (25%) and outpatient PC setting were enrolled; TDB was prescribed at physicians discretion. Primary outcome measure was pain relief using regular NRS (0–10) assessment; statistical analysis was performed including grouping factors such as sex, type of pain, previous treatment. Other analyses assessed sleep improvement, side effects, compliance and satisfaction for drug and transdermal route by patient, caregiver and investigators, evaluated via descriptive analyses and verbal scales. Results: Average age of patients was 71.5 years; at baseline mean Karnofsky PS was 41 (10.7 SD) and mean pain intensity NRS 5,85 (1,83 SD). Reduction in pain intensity was mean 62.5% at T1 (after 2 weeks), and 59,5% at the last visit; TDB was “effective-very effective” for 80%, and tolerability was “good-very good” for 100%; sleep disturbance (as “very disturbed sleep”, “with frequent awakening”) decreased from 80% to 25%. Withdrawal rate due to adverse events was 9%; 8% of pts discontinued treatment owing to unsatisfactory pain relief. Compliance was reported as “good-very good” by 98% of pts, and 99% both of caregivers and professionals. Conclusions: TDB seems to be well tolerated and effective in the treatment of moderate to severe cancer pain in all palliative care setting.
Poster N°: 281

Type of presentation: Poster
Poster session: First Group 29 May Thursday, 10.30 to 30 May Friday 13.00
Category: Pain
Title: Transfusion-induced opioid requirements: Results of a first clinical study and its consequences
Authors:
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Background: Cancer patients who have anemia are required to have blood transfusion to palliate the symptoms of fatigue or dyspnea. The WHO found that 77% of men and 68% of women admitted to a hospice had anemia of chronic disease. This retrospective study looked at the posttransfusion pain scores and opioid intake in patients with chronic malignant pain who received red blood cell (PRBC) transfusion. Methods: 17 consecutive patients with unselectable cancer received PRBC transfusion concurrent with an opioid delivered by patient controlled analgesia (PCA). Patients were receiving morphine (n=6), fentanyl (n=5) or hydromorphone (n=6) and the corresponding opioid was continued posttransfusion. Data on hemoglobin, pain assessment using verbal analog scale (VAS), PCA opioid intake and survival were abstracted from patient’s medical records. Differences in pain scores and PCA opioid intake were determined using a paired Student’s t-test or the Wilcoxon signed rank-sum test with p<0.05 considered significant. Results: A significant increase in each patient’s pain score occurred after transfusion. The pre-transfusion mean pain score of 3.9 (+/- SD) (1.7) increased to a mean of 5.2 (2.6). The mean percent change of opioid intake was also significantly increased. The increase was 2-fold for morphine, 3-fold for hydromorphone and 4-fold for fentanyl. This survey revealed that following the 4 hr post-transfusion, pain was significantly increased and 24 hr after transfusion the opioid requirements for each patient was significantly increased. 35% of the patients died within 7 weeks posttransfusion. Conclusions: Palliative care clinicians face difficult decisions when challenged with patients that are anemic and need blood transfusion to palliate their symptoms. Although offering to transfuse blood appears a logical strategy, we have shown that transfusion increased posttransfusion opioids due to increase in pain score. Therefore, PRBC transfusion may in fact dictate more aggressive approaches to pain management.

Poster N°: 283

Type of presentation: Poster & poster discussion session
Poster session: First Group 29 May Thursday, 10.30 to 30 May Friday 13.00
Category: Pain
Title: Efficacy and safety of intrathecal Ziconotide (Z) in adults with severe chronic pain. Pooled analysis of Randomized Clinical Trials (RCTs)
Presenting author: Emanuela Scarpi
Authors:
Davide Tassinari Oncology City Hospital ITALY
Marco Maltoni Hospice and Palliative Care Unit Forlì ITALY
Carlotta Santelmo Supportive and Palliative Care Unit Rimini ITALY

Background: Z is a new nonopioid intrathecal agent recently approved for the treatment of chronic pain. Z is indicated for the management of severe chronic pain in patients for whom intrathecal therapy is warranted and who are intolerant of or refractory to other treatment, such as systemic analgesics, adjunctive therapies or intrathecal morphine. Z is a potent analgesic with a narrow therapeutic window, and its efficacy and safety has been demonstrated in 3 RCTs. We present the preliminary data of a pooled analysis about efficacy and safety of Z when compared with placebo. Methods: A pooled analysis of the 3 RCTs (trials 95–001, 96–002, 301) has recently completed. Pain relief was the primary end point of the analysis, overall safety, the secondary one. Pain relief was assessed as pain reduction, T30% using the Visual Analogue Scale of Pain Intensity; safety was assessed as the absolute risk of Any Side Effect (ASE), Severe Side Effect (SSE), and neurological side effects [Confusion (C), Dizziness (D), Nystagmus (N) and Abnormal Gait (AG)]. The pooled analysis was performed using a random effect model; an alpha error lower than 5% was assumed as statistically significant. Results: 588 patients were enrolled in the 3 randomized trials; 354 patients were treated with intrathecal Z and 234 with placebo. A significant improve in pain relief was observed for Z (odds ratio=2.7, p=0.004), with an absolute risk of side effects of +17% for ASE (p=0.008), +10.4% for C (p<0.001), +37.2% for D (p<0.001), and +17.1% for AG (p<0.001). No significant differences in the absolute risk of side effects were observed for SSE (+9.1%, p=0.164) and N (+18.6%, p=0.087). Conclusions: Intrathecal Z is a potent analgesic with a narrow therapeutic window. Further trials are probably needed to better define both the classes of patients to be treated with Z and the kind of titration to reduce acute side effects and improve the outcome of the treatment.

Poster N°: 282

Type of presentation: Poster
Poster session: First Group 29 May Thursday, 10.30 to 30 May Friday 13.00
Category: Pain
Title: Transdermal Opiates (TO) in the treatment of Moderate-Severe Cancer Pain (MSCP). Systematic review of literature
Presenting author: Emanuela Scarpi
Authors:
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Barbara Poggi Supportive and Palliative Care Unit Rimini ITALY
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Marco Maltoni Hospice and Palliative Care Unit Forlì ITALY
Emanuela Scarpi Hospice and Palliative Care Unit Forlì ITALY

Background: Although oral morphine (OM) represents the treatment of choice in front-line approach against MSCP, in Europe the most part of clinicians are preferring TO (mainly transdermal fentanyl) to OM as front line approach. As a better safety profile has been hypothesized to support this kind of attitude, a systematic review of literature with meta-analysis comparing side effects of TO and OM has been recently completed by our group. Methods: A systematic review of the literature in the MEDLINE and EMBASE data bases from 1966 to June 2007 was independently performed by two authors. All phase III randomized trials comparing TO and slow release oral morphine (SROM) in the treatment of MSCP were considered eligible and included in the analysis. The primary end point was the overall adverse effects odds ratio (OR); secondary end points were the overall gastrointestinal adverse effects, constipation, nausea, somnolence, patients’ preference, and trial withdrawal. Heterogeneity was analysed using the Mantel-Haenszel test, and outcome analysis was performed using a random effect model; an alpha error lower than 5% was assumed as statistically significant. Results: Four trials met the selection criteria. The safety of TO (fentanyl and buprenorphine) and SROM was analysed in 425 patients. A significant difference in favour of TO was observed for constipation (OR=0.38, p<0.001), and patients’ preference (OR=0.43, p=0.014, in the 3 trials investigating transdermal fentanyl). No significant differences were observed for overall adverse effects, overall gastrointestinal adverse effects, overall neurological adverse effects, nausea, somnolence, hypoventilation, trial withdrawal and changes in opiate treatments. Conclusions: Although no difference in the overall adverse effect profile exists between TO and SROM, the difference in some adverse effects (mainly constipation) seems to favour TO in the preference of patients with MSCP.
Poster N°: 284

Type of presentation: Poster
Poster session: First Group 29 May Thursday, 10.30 to 30 May Friday 13.00
Category: Pain
Title: Optimizing the control of severe cancer pain: Add On Therapy in stead of rotation of strong opioids
Authors: Johan Van den Eynde Waasland Network Palliative Care BELGIUM

Background: Most guidelines tell us to avoid the combination of strong opioids because of possible antagonism. Searching in pharmacological literature we found lot of arguments to combine opioids in order to get an additive effect. Aim: to evaluate the effect of the combination of two opioids with a different MOR agonistic spectrum –Buprenorphine TTS (BUP TTS) and Fentanyl TTS (FEN TTS)– on pain scores in patients with severe cancer pain. Secondary: evaluation of the slope index of the opioid dose curve. Methods: Cancer patients were treated with FEN TTS. The dose was up titrated in proportion to the pain score. When the normal increase of dose did not give the expected decrease in pain score, we didn’t rotate to another opioid, but FEN TTS was diminished to the previous dose (=inclusion dose) and BUP TTS was added in an equivalent dose. Results: 7 pts are already included an evaluated, a larger recruitment is ongoing. Starting doses FEN/BUP varied from 25µg/17.5µg to 200µg/105µg (av. 65/42.5). Doses FEN/BUP at study end varied from 25µg/17.5µg to 200µg/140µg (av.67.9/52.5). Observation period varied from 3 to 20 wk (av.10wk). Pain scores could be kept under 3, by titrating the doses of FEN: 4.5% increase, but mainly by titrating the doses of BUP: 24% doses increase. Conclusions: instead of the general believe that combination of strong opioids is to be avoided, we find no clinical evidence of antagonism, but we find an better pain control by combining two opioids with a different spectrum. There was a longer steady state without up titration of the doses. This opens new possibilities to treat severe cancer pain. More research is needed, so this abstract is a call for other investigators to set up a trial to optimize the combination and conversion rate.

Poster N°: 285

Type of presentation: Poster
Poster session: First Group 29 May Thursday, 10.30 to 30 May Friday 13.00
Category: Pain
Title: A prospective, observational study about the efficacy and safety of buprenorphine-patch in the case of patients with cancer pain
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Introduction: Neuropathic (cancer) pain remains difficult to understand as well as to treat. Most opioids are not able to relieve neuropathic pain effectively. Most of the time co-analgesics or even invasive pain relieving techniques are needed. Nevertheless the characteristics of buprenorphine, a semi-synthetic opioid drug, are promising in order to relieve neuropathic pain. Research question: What is the efficacy and safety of the use of buprenorphine-patch to relieve cancer pain, especially in the case of neuropathic or mixed (nociceptive-neuropathic) pain? Methodology: The choice fell on a prospective, observational, non-interventional study design including about 30 patients with cancer pain who need step 3 pain medication. There is no randomization or selection but patients will be informed and asked to sign an informed consent document. For pain relief patients will receive a buprenorphine patch. Further titration and increase of the dose will be based on the evolution of the pain; for incidental and breakthrough pain immediate release morphine will be proposed. Besides demographic and diagnostic characteristics, pain and other symptoms will be registered. There will also be a specific registration (of possible) neuropathic characteristics of the pain by means of the LANSS-pain scale (Leeds Assessment of Neuropathic Symptoms and Signs) and of side effects and unwanted phenomena. The study design was approved by the Ethical Committee. Results: 30 patients were included, 15 men and 15 women, with a mean age of 73.2 years (range 39–85). 28 (93.3%) patients were diagnosed with a primary tumour, 16 (53.3%) had metastases. By using the LANSS-scale, 16 (53.3%) patients were suffering from an important neuropathic pain component. The mean pain intensity of the patients at the beginning of the study was 7.50 (VAS), 5.95 after 2 days of application of buprenorphine patch and 2.81 at the moment of final evaluation (0=no pain, 10=worst pain). When comparing the group of patients with a major neuropathic pain component with the group of purely nociceptive pain statistical analysis shows a significantly higher relief of the pain in the group with neuropathic pain, after 2 days and after 10 days of therapy. After 4 weeks the difference between these 2 groups remains but is statistically not significant anymore. Conclusion: We conclude that the application of buprenorphine patch improves the pain and the comfort of all types of cancer pain. This improvement is statistically the most distinct in the case of patients with a major neuropathic pain component, especially in the first weeks after starting this therapy.

Poster N°: 286

Type of presentation: Poster
Poster session: First Group 29 May Thursday, 10.30 to 30 May Friday 13.00
Category: Pain
Title: BEMATM (BioErodible MucoAdhesive) Fentanyl Demonstrates a Favorable Pharmacokinetic (PK) Profile Compared to Oral Transmucosal Fentanyl Citrate (Actiq®) in Healthy Volunteers
Authors: Niraj Vyas, Clinical Development BioDelivery Sciences International U. STATES
Jeffrey Stark, CEDRA Corporation Austin, TX U. STATES
Andrew Fium, BioDelivery Sciences International Raleigh, NC U. STATES

Background: Oral transmucosal delivery of fentanyl is a rapid and proven route of administration for breakthrough pain in cancer patients. However, variability in fentanyl PK has been observed with the use of Actiq®, which is attributed to several uncontrolled factors including patient mouth surface area, patient diligence in the application process, and the amount of swallowed fentanyl. BEMATM Fentanyl consists of a small, bilayered, water erodible polymer unit that adheres to the oral mucosa and rapidly delivers fentanyl into the systemic circulation through a defined surface area. Methods: A total of 12 healthy volunteers received single 800µg doses of three BEMATM fentanyl citrate formulations (pH 6.0, 7.25, 8.5) and Actiq® 800µg at 48-hour intervals in an open-label, four-period, Latin-square, crossover study. Serial blood samples for fentanyl analysis were collected over a 48 hours after each dose. Results: Plasma fentanyl concentrations were greater and observed earlier with all formulations of BEMATM Fentanyl than with Actiq®; the pH 7.25 formulation had the best profile. Compared to Actiq®, peak plasma fentanyl concentrations with BEMATM Fentanyl pH 7.25 occurred earlier (median Tmax 1.0 vs. 2.0 hr and mean Tfirst 9.0 vs. 13.2 min) and were significantly higher (mean Cmax 1.67 vs. 1.03ng/mL, p<0.05). Overall exposure was also greater with BEMATM Fentanyl than with Actiq® (mean AUCinf 14.5 vs. 10.3hr•ng/mL). BEMATM Fentanyl units adhered to the oral mucosa within 5 seconds of application and dissolved in less than 30 minutes without irritation. Conclusions: All three BEMATM Fentanyl formulations provided faster absorption, higher maximum plasma concentrations and greater systemic exposure to fentanyl compared to Actiq®; the pH 7.25 BEMATM Fentanyl formulation offered the best profile.
Background: Opioid analgesics are the mainstay of therapy for cancer-related pain. Although morphine is usually considered the preferred drug for the treatment of severe cancer pain, other opioids like fentanyl and methadone have been increasing in the last years. Methods: Retrospective review of the number and type of opioid used, duration of treatment, MIDD at the beginning and end of treatment, need of opioid rotation and review of the number and type of opioid used, duration of treatment, clinical characterisation is fundamental to effective assessment of breakthrough pain. This makes effective management a considerable clinical challenge. Cancer induced bone pain (CIBP) is a common cause of pain in patients with cancer. It often exists as a combination of background and breakthrough pain. Although morphine is usually considered the preferred drug for the treatment of severe cancer pain, other opioids like fentanyl and methadone have been increasing in the last years.

Methods: Retrospective review of the number and type of opioid used, duration of treatment, MIDD at the beginning and end of treatment, need of opioid rotation and review of the number and type of opioid used, duration of treatment, clinical characterisation is fundamental to effective assessment of breakthrough pain. This makes effective management a considerable clinical challenge. Cancer induced bone pain (CIBP) is a common cause of pain in patients with cancer. It often exists as a combination of background and breakthrough pain. Although morphine is usually considered the preferred drug for the treatment of severe cancer pain, other opioids like fentanyl and methadone have been increasing in the last years.

Results: 107 patients were recorded. 97 (91%) received opioid treatment. At first consultation: 60% were opioid naive, 26% were receiving weak opioids and 11% strong opioids; methadone was prescribed in 40% patients, morphine in 22%, weak opioids in 16% and 16% none. Initial median MIDD was 37.5 mg (Q25: 20mg-Q75: 75mg). Initial route of administration was 87% oral and 12% SC. At the end of follow up: 31% received methadone; 40% morphine; 7% fentanyl 9% none, with a final median MIDD of 40 mg (Q25: 20mg-Q75: 75mg). Final route of administration was 57% oral and 35% SC. 61 opioid rotations were done in 40 patients. The main reasons were possible opioid induced toxicity in 77% and change in route of administration in 20%. Conclusions: Almost all of our patients received opioid treatment during the course of their disease. Methadone was the opioid of choice at the beginning of the follow up and morphine the most used at the end, mainly due to the need of change in the route of administration. Opioid doses at the beginning and the end were similar and low in most of the patients. The main reason of opioid rotation was uncontrolled pain with possible opioid induced neurotoxicity.

Poster N°: 289
Type of presentation: Poster
Poster session: First Group 29 May Thursday, 10.30 to 30 May Friday 13.00
Category: Pain
Title: Use of Lidocaine patches for poorly controlled neuropathic pain in patients with advanced cancer
Authors:
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Damien McMullan Northern Ireland Hospice Care Belfast UNITED KINGDOM
Julie Doyle Northern Ireland Hospice Care Belfast UNITED KINGDOM

Background: Lidocaine 5% patches (LP) have been reported to be useful in some non-malignant painful conditions e.g. post herpetic neuralgia. This case series reports the experience of the use of LP off label in patients with advanced malignant disease in a specialist palliative care unit (SPCU). Methods: A retrospective chart review of advanced cancer patients who were treated with LP in a SPCU was performed. All patients who had a LP initiated as an inpatient over a one year period were included, and are reported as a case series. Results: 15 patients were treated with LP for poorly controlled neuropathic pain. All patients were already on a combination of ‘strong’ opioids and adjuvant analgesics which did not provide sufficient analgesia. The response to treatment was assessed from documentation in the medical notes as no formal pain assessment scores had been used. 1 patient described excellent pain relief, 12 described fair to good pain relief and 2 had minimal or no pain relief with the addition of a patch. A range of 1–4 patches was used. The duration of application of patches ranged from 12–24 hours. All patients had normal or near normal renal function. No patients experienced skin irritation or other side effects. Conclusions: LP used as an adjuvant treatment can provide useful analgesia in patients with advanced cancer who have neuropathic pain which is difficult to control. While not effective in all patients, our experience is that useful analgesia can be achieved with a favourable side effect profile. More controlled prospective studies in this population are required to further evaluate this medication.
Background: Introduction – When used flexibly and broadly, guidance issued by the World Health Organisation (WHO) underlines that utilising morphine or diamorphine as the gold standard opioid can achieve satisfactory pain relief in 88% of cancer patients. However, up to 20% of patients may need to be switched from morphine to an alternative strong opioid in an attempt to achieve a better balance between analgesia and side effects. A robust evidence base for the practice of opioid rotation, or more accurately opioid switching, does not exist. Despite this, such practice is well recognised in the management of cancer related pain and likely to be seen more frequently in those patients with non-cancer pain and poor opioid response. A need for clear local guidelines to inform practice at a London teaching hospital has been acknowledged. Aim: To develop evidence-based guidelines for opioid switching that could be used by specialists in the fields of palliative medicine, oncology and haematology in a hospital or hospice setting. Methods: Guidelines were produced by synthesising current recommendations from the World Health Organisation (WHO) and the European Association of Palliative Care (EAPC) on morphine and alternative opioids in cancer pain as well as a previously published Cochrane systematic review. This was complemented by an electronic search of the literature, i.e. PubMed years 2001 to 2007 using the terms “opioid switching” and “opioid rotation”. Results: The outcome of this literature search was to produce a clear, user-friendly algorithm to guide practice, taking into account influencing factors such as renal impairment, unstable pain and swallowing problems. Conclusions: The criteria for opioid switching along with the clinical decision support algorithm for opioid switching will be presented at the congress.

Poster N°: 291

Type of presentation: Poster
Poster session: First Group 29 May Thursday, 10.30 to 30 May Friday 13.00
Category: Pain
Title: Systematic review of the pharmacokinetics of commonly used rescue medication: implications for the management of breakthrough cancer pain
Authors: Giovambattista Zappettella Clinical St Clare Hospice UNITED KINGDOM
Brian Palphram And Acumen Healthcare Communications Ltd Basingstoke UNITED KINGDOM

Introduction: Opioids are traditionally used in the management of breakthrough pain (BTP), but their time to onset of action may not always be ideal. This systematic review aims to determine the pharmacokinetics (PK) of opioids commonly used as rescue medication and compares this to the usual time course of BTP. Methods: Pharmacokinetic studies of opioids in patients or healthy volunteers were identified from electronic databases and reference lists of retrieved articles; the final search was in September 2007. Inclusion criteria included published human data, normal-release opioids, non-invasive administration routes and presentation of PK data. Results: Electronic searching identified 2011 studies, of which 417 were duplicates and 1492 were excluded on reading the abstracts. Of the remaining 102 studies, 33 were excluded on reading the papers, leaving 69 studies reporting on 7 opioids: morphine (30 studies), fentanyl (17), hydromorphone (8), methadone (8), oxycodone (6), diamorphine (2) and alfentanil (1). Administration routes included oral (34 studies), buccal (15), rectal (12), intranasal (10), inhaled (6), sublingual (6), and transdermal (3); some studies reported multiple routes. Time to maximum plasma concentration (Tmax) varied across opioids and administration routes; morphine (2–420 mins), fentanyl (5–122), hydromorphone (20–90), methadone (7–225), oxycodone (25–348), diamorphine (7–174) and alfentanil (9). Preliminary analysis suggests inhaled, buccal and sublingual administrations have shorter Tmax values than oral, rectal and transdermal administrations. Conclusion: A typical BTP episode is often fast onset, severe, reaches peak intensity within minutes, and lasts on average approximately 30 mins. This review suggests inhaled, buccal and sublingual rescue may perform better as rescue medication than other non-invasive routes. Further analysis is underway, although complicated by different formulations, sampling methods, patient groups and reporting methods.

Poster N°: 292

Type of presentation: Poster
Poster session: First Group 29 May Thursday, 10.30 to 30 May Friday 13.00
Category: Palliative care in Children and Adolescents
Title: Parental decision-making about experimental and life prolonging treatment for children with incurable cancer
Authors: Ria De Korte Julius Center for Health/ Nursing Sciences University Medical Center NETHERLANDS
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J.J.M. (Hans) Van Delden University Medical Center Utrecht Utrecht NETHERLANDS

Background: Parents of children with terminal cancer play an important role in making decisions at the end of their child’s life, especially when the child stays at home. In the Netherlands each year 150 children die of cancer, 80 percent of whom at home. The research question is: How do parents make treatment-related decisions at the beginning of the palliative treatment of their child? Methods: Qualitative design: Grounded Theory Population: of 23 cases both parents (n=44) were interviewed one or more times, independently of each other. A total of 55 open in-depth interviews with parents were held; 40 during the palliative phase and 15 after the death of the child. A total 42 professionals, involved in the care of the cases under consideration, were interviewed. The interviews were audio taped and transcribed verbatim. Results: When (chemo)therapy aimed to cure the child fails, parents experience the transition from the curative to the palliative phase as overwhelming. In this transition the physician passes actorship to the parents and, in case the child is aged 12 or older, to the child as well. Parents have to choose whether or not to opt for life prolonging or experimental treatment. Anticipated regret, seeing death as a reality, fighting for life, the age of the child, and the opinion of the physician are important aspects of parental decision-making. When parents have a glimmer of hope they take for granted the physical burden but they tend to accept the disturbance it causes in their child’s life. When parents believe everything possible has been done and there is no hope for cure they choose either withholding treatment or life prolonging treatment with a minimum of burden to the child. Conclusions: In the transition from curative to palliative treatment the role of the parents changes. Professionals play a role in guiding the parents in this transition period so that they can make treatment-related decisions bearing in mind both the impending death of their child and living a good life.
Conclusions: Relinquishing is not a natural process but asks efforts to deal with the loss. To optimize the child’s caring situation professional caregivers should place their treatment and support in the context of loss and preservation in order to support parents in their process of relinquishing.

Poster N°: 295

Type of presentation: Poster
Poster session: First Group 29 May Thursday, 10.30 to 30 May Friday 13.00
Category: Palliative care in Children and Adolescents
Title: Optimization of palliative care for children with solid tumors during three last months of their life
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Sergey Postovsky Pediatric Oncology/Hematology Rambam Medical Center ISRAEL
Myriam Weyl Ben Arush Rambam Medical Center Haifa ISRAEL
Bilal Moad Rambam Medical Center Haifa ISRAEL

Background: Aim of the study: evaluate the influence of incorporation of community services in the palliative care of pediatric cancer patients (pts) during last 3 months of life. Methods: Retrospective analysis of medical charts of 48 (25 males and 23 females, with median age of 12.5 years, range 0.5–28y) pts who died between 1.1.2003 and 1.10.2007 was performed. 21 pt suffered from brain tumors, 19 pts – sarcomas, 6 pts – neuroblastoma and 2 pts – carcinoma. Two groups of pts were analyzed separately: those who were followed by personnel of hospital only (35 pts) and those who received care both by hospital and community palliative care team as well (13 pts). Results: Among pts included in the 1st group were 121 overnight admissions (at average, 3.46 per pt). Combined with day-care admissions were 619 days totally (at average, 17.7 per pt) which child spent during the last 3 months of his/her life. 17% of these children were not satisfactory managed regarding various symptoms they suffered from. 31/38 (81.6%) pts needed use of opioids as apart of their palliative treatment. Among children included in the 2nd group, there were 35 overnight hospital admissions (at average, 2.7 per pt) and 227 days of hospitalization (at average, 17.5 days per pt)All but one pt received satisfactory symptom management and only 9/13 (69.2%) needed opioids. Conclusions: 1. Integration of community services into the palliative care of pediatric oncology pts facilitates their better management allowing such pts spent more time at their homes and thus to avoid many hospitalizations. 2. Pts receiving palliative care using community services experience less symptoms. necessitating using opioids and probably other drugs.
charts of 48 (25 males and 23 females, with median age of 12.5 years, range 0.5–28y) pts who died between 1.1.2003 and 1.10.2007 was performed. 21 pt suffered from brain tumors, 19 pts – sarcomas, 6 pts – neuroblastoma and 2 pts – carcinoma. Results: During the final period of pts’ life were performed 126 various imaging studies (X-ray, US, CT, MRI, bone scan and other scans with various isotopes). Every pt underwent at average 2.62 IS (range, 0–10) 70% of IS were performed in pts with sarcomas. One pt with sarcoma and 6 pts with brain tumors underwent no IS at all. 40% of all IS were performed due to emergency conditions, 52% of IS – for evaluation of disease status, 8% – as follow-up after some kind of surgical intervention (pleural puncture, central line insertion, etc). Conclusions: 1. Complexity of final phase of life with pts with sarcomas necessitates relatively frequent performance of various IS. 2. Earlier clarification of incurable status of pts’ disease may potentially decrease the need for performance IS and thus to diminish discomfort of such pts during last months of their life.

Poster N°: 297

Type of presentation: Poster
Poster session: First Group 29 May Thursday, 10.30 to 30 May Friday 13.00
Category: Palliative care in Children and Adolescents
Title: Parents’ perspective: Symptoms and quality of life in children with cancer in the end-of-life care period
Authors:
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Betina Hübner Vodafone Foundation Institute for Children’s Pain Therapy and Paediatric Palliative Care Datteln GERMANY
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Andrea Menke Vodafone Foundation Institute for Children’s Pain Therapy and Paediatric Palliative Care Datteln GERMANY
Wilma Henkel Vodafone Foundation Institute for Children’s Pain Therapy and Paediatric Palliative Care Datteln GERMANY
Dörte Garske Vodafone Foundation Institute for Children’s Pain Therapy and Paediatric Palliative Care Datteln GERMANY

Background: In the present study, we investigated the situation of children who had succumbed to their malignancy in Germany as perceived by their parents. Methods: We contacted all existing departments for paediatric oncology in the German federal state of North-Rhine Westphalia and asked them to contact parents for participation in our study who had lost their child to cancer in 1999 and 2000. Upon agreement, we interviewed the parents utilising a validated semi-structured interview on distressing symptoms and quality of life of their children during the end-of-life care period. Results: Six of the 19 departments agreed to participate. Parents of 48 children (31 boys, 17 girls) were interviewed. 74% of the children died due to a progression of their malignancy. Of these, 50% obtained cancer-directed therapy, which was negatively rated by the parents in hindsight. The main distressing symptoms were fatigue, pain, loss of appetite, and dyspnoea according to the parents. While parents perceived pain and constipation to have been treated successfully, loss of appetite and anxiety were not treated effectively. Conclusions: Questions in terms of benefits and costs of cancer-directed therapy in the end-of-life care period need to be addressed in future prospective studies. In addition, the present study demonstrated that psychological symptoms (e.g. anxiety) are frequent symptoms in the end-of-life care period and cause severe suffering in the children. Future studies need to investigate effective treatment strategies, e.g. in a multidisciplinary setting.

Poster N°: 298

Type of presentation: Poster
Poster session: First Group 29 May Thursday, 10.30 to 30 May Friday 13.00
Category: Research into policy
Title: Palliative care in azores, yes or no?
Authors:
Lina Andrade Continued Care Primary Helcare Center of Ponta Delgada PORTUGAL

Background: As a nurse, and as a person, I am very interested in Palliative Care, and have been continuing my education so, I can care better, of a group of people that is getting bigger as time goes by. There are eleven Palliative Care Units in Portugal, but none in Azores Islands. In my study I proposed to know how people of Azores think and feel, about the care given to the patient and family, that goes on through an incurable illness, and a terminal stage. The aim of the study was to analyze the importance, people, healthcare professionals and others, based on their experiences, give to the implementation of Palliative Care Units, in Azores. Methods: The study population, was, everyone older than eighteen, who would like to participate in the study by filling the questioner. Six hundred questioners were distributed and 197 were returned, being three of them invalid. I had 194 participants. This was a quantitative study, based in descriptive research, which purpose was observe, describe and classify, the answers to the method of gathering data which was a questioner with yes or no, and open kind of answers. The former ones, were categorized and passed through a thematic categorical analyzes. Access and Excel were the informatics programs used in dealing with data. Results: The results show there is still lack of knowledge about Palliative Care, but, participants feel that the type of care patients with incurable illnesses have, is lower of what they should. Even some healthcare professionals said they fear dealing with death because they have no education on how to do it. Participants told us that Palliative Care Education is essential for healthcare professional, and the majority think Palliative Care are a need in Azores. Conclusions: People feel that there should be a specific care towards those in suffering because of incurable illnesses, and point out education as the first thing to do. The majority think Palliative Care Units should be a reality in Azores.

Poster N°: 299

Type of presentation: Poster
Poster session: First Group 29 May Thursday, 10.30 to 30 May Friday 13.00
Category: Research into policy
Title: End-of-life care policies and guidelines in Flemish health care institutions: a comparison with The Netherlands
Authors:
Ina D’Haene Faculty of Medicine & Health Sciences Ghent University BELGIUM
Johan Bilsen Vrije Universiteit Brussel, End-of-Life Care Research Group Brussels BELGIUM
Roeline Pasman VU University Medical Centre, EMGO Institute Amsterdam NETHERLANDS
Luc Deliens Vrije Universiteit Brussel, End-of-Life Care Research Group Brussels BELGIUM
Robert Vander Stichele Ghent University, Heymans Institute of Pharmacology Ghent BELGIUM
Poster N°: 300

Type of presentation: Poster
Poster session: First Group 29 May Thursday, 10.30 to 30 May Friday 13.00
Category: Research into policy
Title: Does palliative care turn more generalist under current policy reforms?
Authors:
Marjolein Gysem Palliative Care, Policy & Rehabilitation King’s College London UNITED KINGDOM
Irene Higginson King’s College London London UNITED KINGDOM
Patrick White King’s College London London UNITED KINGDOM
Stephen Barclay University of CambridgeCambridge UNITED KINGDOM
Cathy Shipman King’s College London London UNITED KINGDOM

Background: Palliative care is an area of service provision that, in the past, has been relatively neglected. In the UK, palliative care services have been developed as a part of the reforms of cancer services, which determined its specific focus on specialist palliative care. Methods: The aim was to examine the most recent policy developments, and explore whether these signal a shift in focus from specialist to generalist palliative care. In the context of an SDO* scoping exercise of the literature on generalist palliative care provision in the UK. Conclusions: Recent policy reforms have led to a more generalist view of palliative care reflecting an increased awareness of the extent of the generalist contribution. In this area of service development policy aspirations seem to be considerably ahead of published research and service implementation. Funder: * National Health Service (NHS) Service Delivery and Organisation (SDO) Research Programme

Poster N°: 302

Type of presentation: Poster
Poster session: First Group 29 May Thursday, 10.30 to 30 May Friday 13.00
Category: Research into policy
Title: Pain and symptom relieving drugs for HIV/AIDS in Sub-Saharan Africa: a study of policy and practice
Authors:
Richard Harding Palliative Care, Policy & Rehabilitation King’s College London UNITED KINGDOM

Background: Palliative care is an area of service provision that, in the past, has been relatively neglected. In the UK, palliative care services have been developed as a part of the reforms of cancer services, which determined its specific focus on specialist palliative care. Methods: The aim was to examine the most recent policy developments, and explore whether these signal a shift in focus from specialist to generalist palliative care. In the context of an SDO* scoping exercise of the literature on generalist palliative care provision in the UK. Conclusions: Recent policy reforms have led to a more generalist view of palliative care reflecting an increased awareness of the extent of the generalist contribution. In this area of service development policy aspirations seem to be considerably ahead of published research and service implementation. Funder: * National Health Service (NHS) Service Delivery and Organisation (SDO) Research Programme, England.
Background: Pain, nausea & anxiety are burdensome throughout the HIV trajectory, and effectively managed in palliative care. Availability and supply of opioids in Africa (where 25 million live with HIV) are critical factors contributing to inadequate management. To identify current prescribing policies & practice in 12 African countries and to examine barriers, and potential facilitators for opioids and key symptom-controlling drugs. Methods: A) Cross sectional survey of palliative care sites, B) telephone interviews with International Narcotics Control Board (INCB) competent authorities. Results: 62 sites (61% response rate). 36 (58.1%) currently dispensing opioids in following formulations: oral liquid, n=29 (46.8%), tablets, n=20 (32.3%), and injectable, n=17 (27.4%). 7 sites reported Step 1 analgesics not always available, 7 sites Step 2 analgesics were not always available; with respect to antiemetics, neuropathic pain agents and anxiolytics, these were irregularly available for 32, 20 and 16 sites respectively. Respondents from all 12 countries cited similar themes for challenges to opioids provision: Supply (overly tight control, unreliable stocks, few dispensers); Legislation (lack of national policy, bureaucratic processes); Education (clinician knowledge, fear of addiction, poor compliance); Practical (costs, storage requirements, insufficient prescribers). 5 INCB competent authorities participated within Ministries. Contrary to provider data, respondents reported an adequate numbers of opioid providers, and that Ministries may not be able to offer adequate regulation for increased provider numbers. In every country, INCB competent authorities cited opioids they believed to be available in-country that were never cited by any service within that country. Conclusions: Practical recommendations have been made to address fundamental challenges, including inadequate staff numbers to prescribe, and unreliable supply. Any efforts to expand supply should ensure that current systems are not weakened.

Poster N°: 304
Type of presentation: Poster
Poster session: First Group 29 May Thursday, 10.30 to 30 May Friday 13.00
Category: Research into policy
Title: Palliative care in hospitals: a multidisciplinary approach
Authors:
- Anneleize Anja Lefebre – van de Fliert Dutch Support Centre for Palliative Care Agora NETHERLANDS
- Wim Jansen Agora Bunnik NETHERLANDS

Background: Investigation of the palliative care practices in Dutch hospitals showed hospitals are currently struggling to develop the best palliative care possible. Various initiatives are being taken throughout the Netherlands leading up to a practise known for its diversity. No doubt palliative care requires a multidisciplinary work field and would benefit by a multidisciplinary approach. Methods: In a first conference representatives of various disciplines discussed the need of a “best practise based” approach. This in alignment with current government policies regarding best practices. The various initiatives in hospitals were collected and translated into a multidisciplinary approach. A multidisciplinary taskforce has been initialized and a multidisciplinary expert team will follow. These taskforces will feed research and optimize a multi-disciplinary approach fitting for the Dutch situation. Goal will be development support, determination of quality criteria and implementation to enhance broad support for a multidisciplinary approach to palliative care. Results: Through integration of various initiatives into a multidisciplinary approach, hospitals receive a tool to test and adapt the quality of their palliative care practices. This multidisciplinary approach supports hospitals in developing palliative care policies, providing best end-of-life care possible, improving quality of life and diminishes costs. Momentarily a further analysis regarding the different initiatives takes place to visualize how the current practises fit into different multidisciplinary approaches. First results show five target areas in need of further research: transfer of terminal patients, cases management, patient transition, palliative interventions and palliative terminal care in hospitals. Conclusions: A best practise based approach proves to be indispensable in choosing a fitting structure regarding palliative care in any particular hospital. The taskforce and experteam enhance commitment in hospitals.

Poster N°: 305
Type of presentation: Poster
Poster session: First Group 29 May Thursday, 10.30 to 30 May Friday 13.00
Category: Research into policy
Title: Chronic cancer pain treatment in Russia: focus on legislation
Presenting author: Georgiy Novikov
Authors:
- Valery SAMOYLENKO Palliative Care Course Sechenov Moscow Medical Academy RUSSIA
- Georgiy Novikov Sechenov Moscow medical Academy Moscow RUSSIA
Background: More than 300,000 patients annually die of cancer in Russia, and about 70% from them suffer from chronic pain during end-of-life. In the past decade significant progress in the opioids availability was made due to Regulations No. 53/9-96 of 17.12.1996 of the Narcotics Control Committee and Regulations No 330 of 12.11.1997 and No 2 & No 3 of 09.01.2001 of the Russian Ministry of Health on the level of opioids used in hospices and prescribed to home care patients. The last Regulation No. 110 of 12.02.2007 of the Russian Ministry of Health allows significantly increasing the dose of narcotics per capita compared with previous regulating acts. So, there is a progress in the opioids availability for the patients with cancer pain. Strict and rigid regulations on the prescription of strong opioids, and very close control of their use involving police requirements and much medical administration that were an object of criticism now is reviewed. Nowadays, many pharmacotherapeutic choices are available for the management of cancer pain. They are include: codeine, morphine sulfates, propionilphenyletoxyethylpiperidine (Russian original opioid), trimiperidine hydrochloride, etylmorphine, buprenorphine, and fentanyl. Perspectives in the complex approach to control chronic cancer pain are determine, and include increase in opioids availability, preferable use of noninvasive long-acting formulations and adequate selection of adjunctive medications and other modalities combined with opioid therapy. Transdermal fentanyl (Durogesic) introduction in clinical practice was successful, and in the past 5 year more than 20,000 cancer patients from 62 cities relieved their suffering with this opioid. Opioids treatment, including transdermal forms, is free of charge in Russia.

Methods: No. Results: No. Conclusions: No.

Poster N°: 306

Type of presentation: Poster & poster discussion session
Poster session: First Group 29 May Thursday, 10.30 to 30 May Friday 13.00
Category: Research into policy
Title: Engaging practitioners in developing research priorities for end of life care: using the nominal group technique
Authors:
Cathy Shipman Department of Palliative Care & Policy King's College London UNITED KINGDOM
Sarah Forrest University of Cambridge Cambridge UNITED KINGDOM
Allison Worth University of Edinburgh Edinburgh UNITED KINGDOM
Jeremy Dale University of Warwick Coventry UNITED KINGDOM
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Background: As little is known about generalist end of life care, a consultation was commissioned across England and Scotland to identify key issues and research priorities. This presentation aims to describe use of the nominal group technique in developing agreement amongst diverse multi-professional and user groups on research priorities to improve generalist end of life care. Methods: The modified nominal group technique was used to seek views, discuss, clarify, and prioritise suggestions for research. 285 commissioners, generalist and specialist palliative care providers, academics, voluntary and user groups in England and Scotland were invited to participate. Interviews were undertaken by telephone, face-to-face, and by email using short questionnaires. A thematic analysis was undertaken and research themes prioritised at group meetings. Results: Consultations were held in London, Cambridgeshire, Warwickshire and Scotland over 7 months. 210(74%) participants undertook an interview or returned an email questionnaire; 170 enthusiastically voted on their top 5 priorities. The technique provided a transparent, democratic method of discussing and prioritising research. Meetings facilitated networking between organizations and led to local strategy development. The method was modified to enable participation by email voting and translating the ideas of those less familiar with research into research questions. A wide range of ideas for research were generated confirming that this is an important and neglected area. Conclusions: The modified nominal group technique was an effective method of engaging a wide range of participants quickly. It was particularly successful in involving those with clinical expertise in research prioritisation, before contributing to bridging the research-practice gap. The process was transparent and democratic and could be adapted to other areas of policy and research in palliative care. Funder: National Institute for Health Research SDO Programme, England

Poster N°: 307

Type of presentation: Poster
Poster session: First Group 29 May Thursday, 10.30 to 30 May Friday 13.00
Category: Research into policy
Title: Physician-assisted death and the involvement of palliative care professionals in Belgium
Authors:
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Background: Medical end-of-life decisions are known to occur in several countries. They include withholding or withdrawing potentially life-prolonging treatments, alleviation of pain and symptoms with a potential life-shortening effect, and physician-assisted death (PAD). PAD is deemed the most controversial category and therefore deserves closer scrutiny. In this study we investigate the characteristics of patients whose request for PAD was granted and the preceding decision-making process, with special attention to the involvement of palliative care professionals. Method: We analysed data on 998 reported cases of PAD in Belgium, between 22 September 2002 and 31 December 2005. Results: Of all patients 51.6% were male, 48.4% were female. Most patients (51.6%) were between 60 and 79 years old. The most frequent underlying illness was cancer (83.1%). For 95.8% of the patients, unbearable physical and/or psychological suffering was reported. Most often reported were: pain (53.5%), loss of dignity/despair (42.5%), and cachexia/exhaustion (32.5%). Physicians are legally required to consult another physician. The consultant was in 45.6% of the cases a specialist, in 39.8% a general practitioner, and in 14.6% a palliative care physician. Palliative care physicians were more often consulted when a patient died in a hospital (19.1%) than at home or in a nursing home (8.8%). In 32.6% of all patients the treating physician additionally consulted 1 or more palliative teams. Palliative teams were more often consulted for cancer patients (34%) than for non cancer patients (25.2%). No correlation was found between whether or not palliative care professionals were consulted and type of suffering. Conclusions: Although not legally required, many physicians involved palliative care professionals in the decision-making process preceding PAD. Physicians thus seem to be aware of the importance of consulting palliative care experts and offering available palliative care options for suffering patients requesting to end their life.

Poster N°: 308

Type of presentation: Poster
Poster session: First Group 29 May Thursday, 10.30 to 30 May Friday 13.00
Category: Research into the organization of services
Title: Palliative careers fear the use of computer technology threaten optimal care of their patients
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Introduction: For years now, scientists have lobbied the German government to increase efficiency, accuracy and accessibility of information, has been expected to play an important role in supporting and developing these changes. Understanding a health care group’s culture can facilitate the change process. The aims of this study were to investigate the culture, attitudes and behavioral modification toward changing processes in a palliative care unit. Methods: Health care personnel (N=25) at the Palliative Medicine Unit (PMU) filled in a questionnaire including statements about different statements about their perception of the culture at the unit. Each statement was given in relation to three different perspectives: today, future and desired. Physicians, nurses and physiotherapists were among the responders. The method of Systematizing Person-Group Relations was used for gathering data and for the analysis. Results: The scores for the statements referring to the perspectives today, future and desired were nearly equal. There were differences between the statements referring the perspectives to today and desired and that indicates that the respondents were not satisfied with the current situation. The culture at the unit seems to consider more time and closer relation to the patients as important values. Conclusions: The difference between the perspectives today and desired shows that the respondents in this study want a change and were not satisfied with the current situation. The passive attitude towards the influence on the future. Both the passive attitude and the existing culture can be a barrier to implementation of computer technology in PMU.

Poster N°: 309

Type of presentation: Poster
Poster session: First Group 29 May Thursday, 10.30 to 30 May Friday 13.00
Category: Research into the organization of services
Title: What do we learn from studying best-practice models for the implementation of integrated palliative care in Germany?
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Poster N°: 310

Type of presentation: Poster
Poster session: First Group 29 May Thursday, 10.30 to 30 May Friday 13.00
Category: Research into the organization of services
Title: A neurological care pathway to trigger palliative care and neuro-palliative rehabilitation for people with neurological disease
Authors:
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Background: The neurological conditions policy group of the National Council for Palliative Care in the UK has a mission to promote the provision of palliative care in all health and social care settings for all who need it. They aimed to develop a neurological care pathway as a means of supporting health and social care professionals to support identification of palliative and neuro-palliative rehabilitation needs; to serve as a resource with in-built triggers and referral indicators to guide professionals in enhancing delivery and quality of care for neurological patients from pre-diagnosis to specialist palliative and neuro-palliative rehabilitation care; mapping clinical need to services and supporting proactive interface between pivotal services. The focus was on four disease groups: motor neurone disease, multiple sclerosis, Parkinson’s disease and Huntington’s chorea. Methods: Three stages were identified; review of pathways in the four patient groups; review of current clinical services and practice in neurological disease; public and web based consultation of the developing pathway. Results: The neurological care pathway developed as two diagrammatic pathways with indicators for referral and in-built triggers to enhance health and social care professional decision making for considering palliative care and neuro-palliative rehabilitation for people with neurological disease. Pathway 1 presents the pathway to diagnosis. Pathway 2 is the neurological care pathway consisting of two parts; at diagnosis with early action considerations and the neurological care pathway. Conclusions: The neurological care pathway is a tool to assist health and social professionals enhance the quality of care for people with life-limiting neurological conditions from pre-diagnosis to the palliative phase.
Background: The «Cancer, Suffering and Healthcare Services» research program funded by the Canadian Institutes of Health Research, aimed to better understand the suffering of palliative stage cancer patients and to identify, from the perspective of healthcare providers, organizational obstacles that impede suffering alleviation within our occidental healthcare settings. Methods: A qualitative research design with phenomenological analysis of data yielded emergent conceptual categories progressively integrated into a theoretical dynamic formulation. Due to the inductive properties of this method, unexpected dimensions beyond the initial focus of research were allowed to spontaneously emerge, highlighting healthcare providers’ own suffering. Participants: 26 palliative stage cancer patients were interviewed, some of them twice (n=5). 93 healthcare providers were interviewed; 6 focus groups were organized for validation purposes. Studies were conducted in a variety of oncology centers from teaching and non teaching hospitals from the Greater Montreal region in Canada. Results: Patients’ subjective experiences of chaos and helplessness are often shared by healthcare providers working alongside those nearing the end of life. Faced with the many constraints stemming from healthcare management practices, healthcare providers see themselves as subjected to a suffering which interferes with their capacity to receive and to alleviate the suffering of their patients. This personal «wound» adds to unavoidable, idiosyncratic lifelong burdens. Conclusions: Rather than to flee from such a wound, the healthcare provider confronted with his own suffering can use it to better attune himself to his patient’s suffering. Acknowledging healthcare providers’ own suffering can only benefit the level of care afforded in the palliative stages of patients’ illnesses.

Poster N°: 312

Type of presentation: Poster
Poster session: First Group 29 May Thursday, 10.30 to 30 May Friday 13.00
Category: Research into the organization of services
Title: Case Management in Palliative Care: quantitative analysis of scope of enquiries
Presenting author: Christoph Ostgathe
Authors: Anne Düsterdieck Department of Palliative Medicine University Hospital Cologne GERMANY
Raymond Volz Department of Palliative Medicine, University Hospital Cologne Cologne GERMANY
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Sigrid Altmeyer Department of Palliative Medicine, University Hospital Cologne Cologne GERMANY
Christoph Ostgathe Department of Palliative Medicine, University Hospital Cologne Cologne GERMANY

Background: Growing complexity of Palliative Care (PC) services and patient needs lead to the necessity of better coordination. Therefore a specific Case Management (CM) position was created. One of the main tasks of CM is the central coordination and management of enquiries. This study aimed to identify to what extent this facility is used by different stakeholders and which contents and needs of patients and families are connected with it. Methods: All new contacts to the newly established CM telephone “hotline” were documented prospectively and consecutively between 01/2006 and 05/2007. The documents were analysed using descriptive statistics on SPSS. Results: 1000 enquiries were documented. Enquiries came from internal staff (36%), patients/caregivers (41%) and external services (23%). Of the internal enquirers most were physicians and case managers from different medical departments with 60% (n = 361). Of the external enquirers the major group were general practitioners with 60% (n = 227). The range of contents included: requests for admission to the palliative care unit (46%), for the home PC service (14%) and for the hospital support team (9%). Information about hospice and PC as well as psychosocial counselling was asked for by 26%. 5% were referred to the physicians of the PC team as they concerned the management of pain (70%) and other symptoms. 62% of the enquiries for admission (n = 464) indeed lead to an admission, 38% could be dealt with by telephone advice, admission to hospice etc. Conclusions: CM in PC is used by different internal and external stakeholders and meets a wide spectrum of needs. About 90% of all requests within the new contacts can be answered by the Case Manager if adequately qualified. These data prove that CM fulfills an extensive clearing function. According to the theoretical model of CM this is the first necessary condition for a successful CM process. It guarantees that patients get access to the services they need.

Poster N°: 313

Type of presentation: Poster
Poster session: First Group 29 May Thursday, 10.30 to 30 May Friday 13.00
Category: Research into the organization of services
Title: The Active Support Unit – the integration of specialist palliative care into specialist oncology
Authors: Ilora Finlay Oncology and Palliative Medicine Cardiff university UNITED KINGDOM
Nicola Pease Velindre NHS Trust Cardiff UNITED KINGDOM

Background: In 1998 a review of inpatients in the 94 bed inpatient oncology centre revealed that many of the patients had palliative care needs and some were in the terminal phase of their illness, but referral processes delayed care and hence delayed discharge to home or hospice. The ASU aimed to have patients with the greatest palliative care needs together in a ward with higher nurse-patient ratios. All ASU patients were to be primarily under the care of the oncologist and secondarily receiving specialist palliative care input. Patients with malignant spinal cord compression were felt to be a high need category and were therefore accommodated on one ward of 15 beds, which was designated the Active Support Unit (ASU).

Methods: The ASU was evaluated after a pilot six months and then formally evaluated by questionnaire to all consultant oncologists. It was re-evaluated after a further five years. The care of those patients with spinal cord compression (SCC) was rationalised by developing an early mobilisation pathway of care. Results: At initial evaluation all 11 consultants agreed the ward should continue; only one raised concern about complex ENT patients being on this ward. At subsequent evaluation continuation of the ward was supported by all the consultants and fundraising to upgrade the facility was approved. Evaluation of the SCC pathway showed early mobilisation without an increase in unstable spine complications.

Conclusions: The seamless integration of palliative medicine on ASU has resulted in a relative fall in patient complaints, an increased in expressions of gratitude from patients’ families and built on trust between the two specialties. It has fostered care pathway development and allowed a ward upgrade to build an ASU environment more suited to the combined oncology and palliative care needs of patients and families, despite a cut in the total hospital inpatient beds to 83 beds.

Poster N°: 314

Type of presentation: Poster
Poster session: First Group 29 May Thursday, 10.30 to 30 May Friday 13.00
Category: Research into the organization of services
Title: Improving Community Palliative Care
Authors: Stephanie Gomm Hospital Palliative Care Team Salford Royal Foundation NHS Trust UNITED KINGDOM
Background: A 3 year project to improve access to Community Palliative Care for the residents of Salford UK commenced in 2004 funded by Big Lottery Fund. The major elements were: to improve access to palliative care out of hours; single process of assessment; develop a patient and carer 24 hour advice line; enable development of skills to meet the palliative care needs of non-cancer, patients. Methods: A project lead and multi-agency steering group established working parties to implement and evaluate the 3 year programme. Results: Palliative care medicines and drug packs are now stocked in 8 pharmacies, in hospital A & E department, and for the GP out of hours car; with a patient information leaflet devised; 24 hour advice line used by 52 and patients and 75 carers annually; 25 syringe drivers purchased with training provided to community nurses and care home staff. Education programme provided to 400 staff with training needs identified by questionnaire for pain and symptom control, communication skills, bereavement and palliative care emergencies, and for cardiac, renal, respiratory and neurology topics. Overall 95% staff satisfaction. New links were established between community hospice, hospital and social care teams, and strengthened between generalists and specialists. The maintenance of the improved knowledge base across the Health and Social Care Economy was achieved by production of non-cancer and palliative care education materials and by establishment of a specialist palliative care interest network (SPIN) for sustainability. Single assessment pilot by a health and social care team successfully implemented and rolled out across Salford. Conclusions: The outcome was enhanced multi-agency partnership working by use of a single assessment process, improving delivery of out of hours palliative care, access to 24 hour advice for patients and carers, and development of sustainable palliative care and non-cancer education.

Poster N°: 315

Type of presentation: Poster
Poster session: First Group 29 May Thursday, 10.30 to 30 May Friday 13.00
Category: Research into the organization of services
Title: Expert advice given in palliative care consultation
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Richard Grol UMC St Radboud Nijmegen NETHERLANDS

Background: This national multicentre study concentrates on the expert advice given by members of Palliative Care Consultation teams. This information is relevant to the future development of palliative care and the arrangement of the optimal composition of PCC teams. Study aims: determine the extent and nature of advice given in PCC and identify the factors influencing differences in advice given. Methods: Variables: 1) advice given was classified according to four general expert advice domains (pharmacological; providing information; direct patient care; advice to refer to other professionals; 2) consultation characteristics: problem domain; type of consultation; profession of the requesting care provider; profession of the consultant. Frequencies and proportions were analysed to assess the nature and extent of the advice given. Logistic regression analysis was used to determine the factors associated with the advice. Results: More than half of all the expert advice given concerned pharmacological advice; providing information was the second most frequent action. Over 10 percent of all actions concerned direct patient care. Significant relationships with expert advice in all four general domains were found for most of the consultation characteristics. Pharmacological advice was related to telephone consultations; GPs as requesting care provider; advice given by clinical or nursing home physicians; and problems in the physical/pharmacological domain. Advice to refer to other professional care providers was related to problems within the psychosocial- and organizational domain coming from requesting care providers other than GPs and advised by GPs, nurses or a multidisciplinary team. Conclusions: To optimize the Dutch model of PCC, choices with regard to PCC team composition and the type of consultation should be made, because these characteristics evidently result in different advice domains. Further research is needed to address issues on the level of patients as well as requesting care providers.

Poster N°: 316

Type of presentation: Poster
Poster session: First Group 29 May Thursday, 10.30 to 30 May Friday 13.00
Category: Research into the organization of services
Title: Transfer of cancer patients to palliative care services. A survey among Austrian oncologists
Authors: Katharina Kiernern Dept. of Internal Medicine I Palliative Care Unit AUSTRIA
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Background: The awareness of palliative care services among oncologists has generally been increasing within the last decade. Nevertheless, data on the point of time at which palliative care services are involved in care of patients with advanced cancers are lacking. We therefore performed a survey among oncologists in Austria on the use of palliative care. Methods: A total of 785 medical, surgical or gynaecological oncologists were invited to participate in a case based survey in which the clinical course of a patient with primary metastatic breast cancer was described from the diagnosis until death. Oncologists were asked to indicate at what point in time they would inform the patient about the incurability of her disease, about the existence of palliative care services and at what time they would transfer her to a palliative unit or a hospice. Results: 176 oncologists (23%) participated of whom 67% would inform the patient about her prognosis at the time of diagnosis. Only 5% would involve palliative care services at that point. The majority of physicians would involve palliative care services when the patients Karnovsky index (KI) was 70% or lower and hospice services when the KI was < 50%. Information on advance directives was provided by 74% of oncologists. Reasons for not including palliative care were systematically evaluated and included among others “fear from destroying patient’s hope”, “not now but later”, “not available”. Conclusions: Our data show, that palliative care services are used by Austrian oncologists at a rather late stage in the clinical course of a patient.
Purpose: To determine the need for the establishment of an advanced nurse practitioner (ANP) in Specialist Palliative Care and the feasibility of introducing and integrating the role within an existing interdisciplinary palliative care team. Background: Currently there are 70 ANP’s accredited in Ireland. However, there are few examples of such roles within palliative care. ANP’s are defined as; ‘autonomous, experienced practitioners who are competent, accountable and responsible for their own practice’. The present study describes the action research process employed to inform and direct the planning and implementation of ANP role within an Integrated Specialist Palliative Care Programme. Method: The project adopted a ‘research utilisation model’ to critically address the desirability and feasibility of practice change. Findings: The project identified a number of factors reflected in the literature facilitating or inhibiting the process of developing and implementing the ANP role. Conclusion: There is a need for a multidisciplinary collaborative approach to the planning development and implementation of such roles. Care must be taken to alleviate fears among the other team members affected by the implementation of the new role. Careful consideration needs to be given to how the organisational governance can facilitate and enable the integration of the ANP into the service whilst providing support for the person in the role. Facilitating factors for this project included strong medical support and a committed steering group who provided structure and direction by having a clear vision. The contributions and impact advanced nurse practice may have within the service was effectively communicated with all stakeholders affected by this new role development. Financial support acknowledged from the National Council for the Professional Development of Nursing & Midwifery.

Poster N°: 319
Type of presentation: Poster
Poster session: First Group 29 May Thursday, 10.30 to 30 May Friday 13.00
Category: Research into the organization of services
Title: Narratives surrounding emergency medical care for patients at the end of life in the community: a feasibility study of a new method
Authors:
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Marion Corroon Coventry PCT Coventry UNITED KINGDOM
Frances Griffiths Health Services Research Institute, Warwick Medical School Coventry UNITED KINGDOM

Background: At the end of life most patients prefer to remain at home but may need help from healthcare professionals (HCP) at any time, day or night. Problems may arise during these episodes of care and patient and HCP perspectives should be sought to obtain a full understanding of them. Little research in this area has been reported. Research aims: To assess the feasibility of interviewing patients, carers and HCPs about episodes where urgent community clinical care for patients at the end of life is needed, including: usefulness of data gathered, access to participants and acceptability of the process. Methods: Eligible patients were invited to participate by a community nurse following an episode of urgent care. Semi-structured interviews were conducted with patients/carers and HCPs after receiving consent from patients for them to be contacted. Interviews explored events before, during and after the episode and relevant contextual factors. Interviews were recorded, transcribed and analysed using a critical incident technique. Collected narratives were compared. Feasibility notes were made throughout the study. Results: Six episodes were explored (22 interviews). Presenting problems were pain (5); nausea and vomiting (2). Variation in accounts given by patients and HCPs emerged even for ‘simple’ problems. Major themes included: patients using their experience to select the service/HCP to call; satisfaction with a personal approach; and attempts to avoid hospital admission. HCPs reported busy-ness and lack of information as frustrating good care. All patients were keen to be interviewed; some HCPs were reluctant. Access to HCPs was improved by interviews being conducted by a research nurse rather than a non-clinical researcher. Conclusions: Useful insights into urgent community care may be gained by this method. Clinician-researchers may achieve better access to HCPs by using their clinical experience to negotiate access. Further research is planned. Funding: Warwick Primary Care Research Network.

Poster N°: 318
Type of presentation: Poster
Poster session: First Group 29 May Thursday, 10.30 to 30 May Friday 13.00
Category: Research into the organization of services
Title: Establishment of an advanced nurse practitioner role within a specialist palliative care team: an Irish perspective
Presenting author: Eileen Mc Guigan
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Dominic ÓBrannagain HSE Dublin North East Drogheda, Co. Louth IRELAND
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John Mc Evoy Dundalk Institute of Technology Dundalk, Co. Louth IRELAND

Purpose: To determine the need for the establishment of an advanced nurse practitioner (ANP) in Specialist Palliative Care and the feasibility of introducing and integrating the role within an existing interdisciplinary palliative care team. Background: Currently there are 70 ANP’s accredited in Ireland. However, there are few examples of such roles within palliative care. ANP’s are defined as; ‘autonomous, experienced practitioners who are competent, accountable and responsible for their own practice’. The present study describes the action research process employed to inform and direct the planning and implementation of the ANP role within an Integrated Specialist Palliative Care Programme. Method: The project adopted a ‘research utilisation model’ to critically address the desirability and feasibility of practice change. Findings: The project identified a number of factors reflected in the literature facilitating or inhibiting the process of developing and implementing the ANP role. Conclusion: There is a need for a multidisciplinary collaborative approach to the planning development and implementation of such roles. Care must be taken to alleviate fears among the other team members affected by the implementation of the new role. Careful consideration needs to be given to how the organisational governance can facilitate and enable the integration of the ANP into the service whilst providing support for the person in the role. Facilitating factors for this project included strong medical support and a committed steering group who provided structure and direction by having a clear vision. The contributions and impact advanced nurse practice may have within the service was effectively communicated with all stakeholders affected by this new role development. Financial support acknowledged from the National Council for the Professional Development of Nursing & Midwifery.

Poster N°: 320
Type of presentation: Poster
Poster session: First Group 29 May Thursday, 10.30 to 30 May Friday 13.00
Category: Research into the organization of services
Title: Integrated shared care between general practice, local hospital and a specialised palliative care team for terminally ill cancer patients
Authors:
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Anders Bonde Jensen Dept. of Oncology, Aarhus University Hospital Aarhus DENMARK

Background: The aim of this study was to implement and evaluate multiple interventions (service planning, physician referral and support, and communication) to optimize continuity of care in a community-based palliative care program in Ottawa, Canada. Three types of continuity were evaluated: 1) Management Continuity (consistency of care and responsiveness to changing needs of the client and family caregivers); 2) Relational Continuity (ongoing client-provider relationships and consistency of provider); and 3) Informational Continuity (efficient and effective transfer of information and accumulated knowledge of the client). There were 200 palliative home care client participants living in urban and rural communities. Methods: A case study research design was utilized to systematically collect and synthesize information to provide a complete description of the contribution of the specific interventions on continuity of care. Data collection included quantitative and qualitative approaches incorporating six primary sources: clients and family caregivers, home care nurses, family physicians, CCAC case managers, program documents, and client charts. Results: Findings pertain to challenges in coordination of services, trends in communication, and generalist and specialist models of physician practice, and evaluation of the Chart-in-the-Home. Conclusions: The results of this project provide a practical approach to optimize continuity of care for community palliative services in Canada. The proposed reorganization of services can strengthen collaborative relationships among health care providers through effective service planning and coordination, increasing family physician referral and support, and improving communication. Findings also illustrate how to apply direct measures of continuity of care from the client/caregiver perspectives, and how to measure continuity over time across organizational boundaries. (Funded by the Canadian Institutes of Health Research and the Ontario Ministry of Health.)
Background: International research shows that the majority of terminally ill cancer patients wish to die at home. At present there are no Danish data identifying patients wishes regarding place of death and end of life care. About 25% of cancer patients in Denmark die at home. The GP has traditionally had the full responsibility for the palliative care of terminally ill cancer patients. In recent years changes have been made to the organization of palliative care: Some hospitals have set up specialized palliative care teams and hospices have been established in some areas. Recent research defines a problem when it comes to communication between the hospital and general practice when the patient is being discharged. This is often done in a way that can cause the patient to feel “left in limbo”, especially if it is not completely clear to the patient and his or her relatives who has the responsibility for the palliative care.

Methods: The project will be based on a clinically controlled randomised trial of 2 different organizations (groups B & C) of palliative care versus usual care (group A). A) Usual discharge with regular discharge letter to the GP; B) Discharge with referral to a specialist palliative care team. This is a patient-centred shared care model, in which the palliative team helps plan the patient’s treatment and care; C) Discharge with extra effort put into improving the communication between the hospital and the GP. This is a shared care model, where focus is on supporting the primary health care professionals.

Results: Data collection for the usual care group (A) will commence in February / March 2008. Primary endpoints will be patients and relatives wish fulfilled regarding preferred place of death of the patient. Conclusions: There will be no conclusions ready for presentation in May 2008. However, we will have experiences with the study design, development of questionnaires and inclusion of patients, which might be of interest to other researchers.

Poster N°: 321

Type of presentation: Poster
Poster session: First Group 29 May Thursday, 10.30 to 30 May Friday 13.00
Category: Research into the organization of services
Title: Symptom Control Effectiveness in Advanced Cancer Patients by Spanish Palliative Care Team: National-wide study
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Antonio Pascual-Lopéz Hospital de la Santa Creu i Sant Pau Barcelona SPAIN

Background: Aim: To know the effectiveness in alleviation of a set of significant symptoms in far-advanced cancer patients cared by Spanish palliative care teams (PCT). Patients were recruited when medical attention was requested for the first time in their illness, from any PCT & fulfill inclusion criteria. Signed patient Informed consent was obligatory. PCT were suitably stratified from the Spanish Directory of Palliative Care. Methods: Prospective, multi-centered study, 14 days follow-up with evaluation points at day 0, 7 & 14. Patients were enrolled consecutively, symptoms were assessed using a Verbal Rating Scale (0–10) – VRS [pain (basal, at crisis, No pain crisis per day, average), anorexia, nausea/vomiting(N/V), constipation, insomnia, dyspnoea (at rest, at exertion), anxiety, depression] accordingly the patient perception of the previous 24 hours. Method statistical design: For the main study purpose symptoms were grouped as to be % 4 or > 4 in VRS and Wilcoxon signed rank test was used to compare related qualitative variables. The α value was established as:05 for all the statistics tests. Results: PCT participants were 105 enrolled 265 patients, being assessable 203. Men 61.1%. Mean age 72.2 Years-old. ESS II-II 50% 0 day 0 day 7 14 p N² ENv <4 ENV <4 ENV <4 % % Pain average 173 68.8 90.2 89.6 0–7d(<0.001); 7–14 d(NS) Anorexia 189 50.3 67.2 8 0–7d(<0.001); 7–14 d(NS) N/V 170 87.6 95.9 97.1 0–7d(<0.001); 7–14d (NS) Constipation 199 65.8 83.4 92 0–7d(<0.001); 7–14d (.001) Insomnia 196 64.8 82.7 86.7 0–7d(<0.001); 7–14d (NS) Dyspnoea 167 58.7 70 75.4 0–7d(<0.001); 7–14 d(NS) Anxiety 186 59.1 79 84.4 0–7d(<0.001); 7–14 d(0.025) Depression 181 60.9 71.3 76.8 0–7d(<0.001); 7–14 d(.012). Conclusions: Participant PCT are effective in obtaining a quick (at 7th day) & steady symptom alleviation with similarly results independently where treated; home or hospital.

Poster N°: 322

Type of presentation: Poster
Poster session: First Group 29 May Thursday, 10.30 to 30 May Friday 13.00
Category: Research into the organization of services
Title: The nursing contribution to palliative care in a community hospital
Authors: Julie Steers Faculty of Health & Wellbeing Sheffield Hallam University UNITED KINGDOM
Louise Breteron Sheffield Hallam University Sheffield UNITED KINGDOM
Christine Ingleton University of Sheffield Sheffield UNITED KINGDOM

Background: UK health policy recommends palliative care for all using a ‘needs-based’ model. Evidence suggests that most community hospitals have the resources to provide general palliative care. These hospitals are complex organisations that view nurses as vital to care provision, since there is no resident doctor, yet, little is known about the contribution they make to palliative care in this setting. Aim: To explore the nature of the nursing contribution to those with life-limiting illness in a community hospital. Methods: A conceptual framework including the palliative care approach and Chronic Illness Trajectory Framework informs the study. Constructivism provides the structure to explore the experiences of key stakeholders, using multi-method case study design. Data collection included participant observation, informal and formal conversation and document review. Constructivist grounded theory guides the iterative approach to data collection/analysis. ‘Framework’ facilitates the emerging construction through within-case and cross-case analysis. Data analysis will be completed early 2008. Sample: Nurses agreed criteria to theoretically sample ‘cases’. A case is the person with life-limiting illness and those directly involved in their care i.e. nurse/s and carer. 17 patients were sampled: 9 recruited as ‘cases’ and 7 explored in-depth. Results: The nursing contribution is described as Supportive, Kind, Respectful care. Achieving this is dependent upon experiences in three constructs, environment, nursing activities and knowing the person. ‘Knowing the person’ is the central construct that influences all others. Conclusions: The nursing contribution to those with life-limiting illness in this community hospital is a dynamic construct responsive to patient need irrespective of diagnosis. However, the complexity of care in this setting has resource implications to ensure the nursing contribution to all those with life-limiting illness is not undermined.

Poster N°: 323

Type of presentation: Poster
Poster session: First Group 29 May Thursday, 10.30 to 30 May Friday 13.00
Category: Research into the organization of services
Title: An exploration of how the hospice multidisciplinary team perceives the provision of spiritual care
Authors: Ian Stirling Chaplaincy Tha Ayrshire Hospice UNITED KINGDOM
Background: Spiritual care is no longer regarded as the sole responsibility of the chaplain but is now the responsibility of the whole multidisciplinary team (MDT). The aim of the research was to explore the provision of spiritual care in a hospice and in particular to explore the particular role and contribution of team members and to explore the influence of personal and professional factors. Methods: • Qualitative case study research • A purposive and representational sample of 12 members of a hospice MDT was recruited. The sample included a chaplain, 2 doctors, 6 nurses, 2 occupational therapists and a social worker • Qualitative semi-structured interviews, including a critical incident, were conducted within the hospice, during April 2007 • The data were analyzed using Burnards Thematic Content Analysis (1991). Results: Thematic analysis highlighted five main themes: hospice; spiritual care; process; self awareness and relationship. Fifteen sub-themes were identified: context, environment; inclusive; process; language; holistic; complex; innate; patient-led; being; doing; own spirituality; own role; relationship is and relationship creates. Participants core understanding of spiritual care influences the provision of spiritual care. Conclusions: The provision of spiritual care is seen to be a complex and dynamic process. This is due to the complexity of three key variables: patient spirituality; the professionals ‘own spirituality’ and the hospice context. A spiritual care framework based on human values is inclusive and allows the whole multidisciplinary team to play a part in the provision of spiritual care. 

Poster N°: 324

Type of presentation: Poster
Poster session: First Group 29 May Thursday, 10.30 to 30 May Friday 13.00
Category: Research into the organization of services
Title: The History of Palliative Care in Norway
Authors:
Kjell Erik stromskag Dep opf Anesthesiology Molde Hospital NORWAY

Background: The aim of this study is to elucidate the development of palliative care in Norway. Methods: The methods used are studies of literature like books and articles published both in newspapers and professional journals. In addition oral interviews and questionnaires have been done Results: As in the other Nordic countries, the history of palliative care in Norway is relatively short. The beginning in our country was a catholic organization in Oslo called “Franskushelpen”, which voluntarily offered help to people who wanted to die in their homes. This was inspired by the hospice movement in Great Britain. The pioneer period in the Nordic countries was around 1980. In Norway it started with the organization of the – “Counsel for critical ill and dying patients”, which were established in most hospitals during the 1980s. The journal “Omsorg” was published from 1984. The period had its pioneers, and they arranged conferences every year with top international experts. In the next period, the period of foundation, in the 1990s, palliative units were established in St. Olavs Hospital in Trondheim, St Sunivas Hospice in Bergen and Lovisenberg Hospice in Oslo. National Centres for palliative medicine were established in 1993. Norway got the first professor in palliative medicine. This became the beginning of the period of organization which also gave us the two associations of palliative care; The Norwegian association of palliative medicine and The Norwegian Palliative Association. The next period, from year 2000, is a period of consolidation. The governmental support was increasing, and a Nordic education for medical specialists was established. Conclusions: Conclusion: Palliative medicine as it appears in Norway today, fulfills many of the common criteria of a medical specialty, as an educational system, academic positions, research (projects), a journal and an association; but still it is not an approved medical specialty in Norway.

Poster N°: 325

Type of presentation: Poster
Poster session: First Group 29 May Thursday, 10.30 to 30 May Friday 13.00
Category: Research into the organization of services

Background: Whilst research has repeatedly shown that patients of low socio-economic status are less likely to be referred to palliative home care, it is unclear, whether poor service availability in deprived areas (Inverse Care Law) or referral bias affects disadvantaged groups. Methods: Data was collated from the National Census Data 2001, which provided socio-demographic indicators on electoral wards in Salford and Trafford (n=41), and hospice referral data (2004–7), of patients’ postcodes was matched to ward level. Results: Statistically significant correlations (Pearson) at ward level were detected between high referral rates and lower: income domain (less deprived), multiple deprivation, household deprivation, economic inactivity, social class, education and public housing (p<.001). Positive correlations were found between high referral rates and higher: economic activity, social class, moderate/high education, private home ownership, & pensioner households (p<.001). Effect sizes suggest that Census indicators for household deprivation (r=-.65), multiple deprivation (r=-.62), income (-.58) & outright home ownership (r=-.60) have the strongest effect on referrals independently. Modelling using multiple linear regression indicates that multiple deprivation is the strongest predictor of referrals (p<.001; â = -0.62; r²=39) explaining 39% of variation in referrals. Conclusions: Whilst not implying a direct relationship between ecological and individual levels, results indicate that inequalities of access to Hospice care at Home are related to deprivation indicators at the population level. Further research is required to identify barriers to equitable referral and the effective allocation of resources. [Source of Funding: The British Academy]

Poster N°: 326

Type of presentation: Poster
Poster session: First Group 29 May Thursday, 10.30 to 30 May Friday 13.00
Category: Research into the organization of services
Title: Case Management in palliative care in Germany
Presenting author: Lukas Radbruch
Authors:
Michael Wissert Department of Social Science Univ. of Applied Sciences Ravensburg-Weingarten GERMANY
Martina Kern Department of Palliative Medicine, Malteser Hospital Bonn GERMANY
Lukas Radbruch Department of Palliative Medicine, RWTH Aachen University Aachen GERMANY
Gerda Graf Hospice Sophienhof Düren GERMANY
Monika Müller ALPHA Northrhine Bonn GERMANY
Raymond Voltz Department of Palliative Medicine, University of Cologne Cologne GERMANY

Background: Patients needing palliative care are offered a wide range of services and options in the German health system. However, access is often hampered by lack of coordination or high administrative burden. Case management (CM) would offer a coordinated approach to overcome these problems. Aim: A model course on case management was started in 2007. We report first results of the case management activities of the participants at the beginning of the course. Methods: Participants of the course completed retrospectively a questionnaire on the last 5 patients they had accompanied. Participants were asked to document typical case
management activities for the time points of initiation and end of treatment for these patients. **Results:** Participants (n=20) had a background of nursing (12), social work (3), psychology (2) or other (3). A total of 88 patients were documented (mean age 60 years, 45% men, 55% women). Participants categorized their work as case management for 75 patients, counselling for 5 patients and provision of information for 5 patients (ND=not documented 3 patients). Nursing allowance was initiated by CM in 31% of patients and by others in 2% (ND 67%). Provision of medical appliances were initiated by CM for 2% of patients, suggested but not realized for 6% and initiated by others for 25% of patients (not documented 67%). CM ended with the death of the patient (66%), discharge or transfer (21%) in most cases, and only rarely because CM assignments had been completed (6%) or patients withdrew consent (3%, ND 4%). **Conclusions:** Some areas of CM such as provision of medical appliances were not performed by the participants, but left to others. This may point to areas of neglect, but could also relate to workflow procedures already well established in palliative care. Subsequent evaluation of performance of participants during and at the end of the CM course will be used to investigate these questions in more detail.

**Poster N°: 327**

**Type of presentation:** Poster  
**Poster session:** Second group 30 May Friday 13.30 to 31 May Saturday 13.30  
**Category:** Audit & quality control  
**Title:** Benchmarking the use of opioids in the last days of life: what are appropriate outcomes to compare?  
**Authors:** Milind Arolker Palliative Care Team Leeds General Infirmary UNITED KINGDOM  
Alpna Chauhan Hayward House Specialist Palliative Cancer Care Unit, Nottingham University Hospitals NHS Trust Nottingham UNITED KINGDOM  
Andrew Wilcock University of Nottingham Nottingham UNITED KINGDOM  
Michael Bennett St. Gemma’s Hospice Leeds UNITED KINGDOM

**Background:** Due to growing public and medicolegal interest, clinicians may have to demonstrate that their use of opioids at the end of life is not excessive. A marked increase has been defined as >3-fold increase over the last week of life representing a change in oral morphine dose of >60mg. To explore this further, practice was compared in two specialist palliative care units (PCUs) in the UK. **Methods:** Patients with cancer receiving regular ± prn strong opioids in the first 24h of admission and last 24h before death were retrospectively surveyed. Opioid doses were expressed as the oral morphine equivalent (OME) using identical potency ratios. Mean (SD) and median (range) doses were calculated and the change in dose expressed in milligram and as fold-change, to the nearest 0.25. **Results:** Of 100 and 50 consecutive deaths in the two PCUs, 72 and 26 patients respectively received regular ± prn opioids throughout their admission (Table). Age (mean 70 years) and duration of admission (median 9–10 days) were similar. There were differences in sex (56% vs. 35% males) and pattern of opioid use (e.g. morphine 48% vs. 38%). PCU, No. of patients: Nottingham, 72 Leeds, 26 Dose in 1st 24h (mg) Mean (SD) 245 (409) 152 (271) Median (range) 75 (15–2100) 60 (15–1300) Dose in last 24h (mg) Mean (SD) 303 (458) 241 (282) Median (range) 135 (15–2340) 98 (12–910) Change in dose (mg) Mean (SD) 50 (235) 89 (262) Median (range) 30 (–735–1290) 41 (–715–865) Change in dose (fold change) Mean (SD) 2.0 (1.25) 2.75 (4) Median (range) 1.5 (0.25–5.5) 1.75 (0.25–20.25) Number (%) exceeding >3-fold increase: 7 (10) 5 (19). **Conclusions:** A number of variables will influence the dose of opioids used at the end of life make comparing practice between PCUs difficult. However, despite differences in pattern of opioid usage, we found similar median fold changes in dose. Further comparison with other PCUs is required but the median fold change in dose may be the most appropriate benchmark of opioid use.

**Poster N°: 328**

**Type of presentation:** Poster  
**Poster session:** Second group 30 May Friday 13.30 to 31 May Saturday 13.30  
**Category:** Audit & quality control  
**Title:** Defining ‘Palliative Sedation Therapy’ – An audit of sedating drugs used at the end of life  
**Authors:** Milind Arolker Palliative Care Team Leeds General Infirmary UNITED KINGDOM  
Colin Campbell St. Catherine’s Hospice Scarborough UNITED KINGDOM  
Michael Bennett St. Gemma’s Hospice Leeds UNITED KINGDOM

**Background:** Wide variation exists in defining the use of sedating drugs at the end of life. De Graeff and Dean recommend the term ‘Palliative Sedation Therapy’ (PST): ‘the use of specific sedative medications to relieve intolerable suffering from refractory symptoms by a reduction in patient consciousness’ and describe standards for using medications to achieve somnolence, stupor or coma at the end of life. We audited the use of and indications for sedating drugs in a hospice against the standards recommended. **Methods:** Retrospective audit of 50 consecutive inpatient deaths in a 32-bedded hospice. Data analysis using Microsoft Excel. Intended sedation level and indication determined by examination of documentation and drug record. **Results:** 47/50 (94%) of patients received Midazolam, 4/50 (8%) required Midazolam with Levomepromazine, and 1/50 (2%) required additional phenobarbitone. In the final 24hrs of life, 5/50 (10%) required Midazolam pm alone, 39/50 (78%) required it via syringe driver. Median dose of Midazolam prescribed in the final 24hrs: 27.5mg (interquartile range: 15–42.5mg, maximum: 100mg); higher doses required in younger patients. Agitation and restlessness were the commonest indications (51%), then delirium (18%). Remaining indications were less frequent (10%, in descending order): dyspnoea, mental distress, seizure prophylaxis, nausea and vomiting, and one catastrophic death. Sedating drugs were titrated gradually in proportion to relief from distress, with only 3 patients requiring deliberate deepening of sedation further than stupor (for refractory agitation, over 1–5 days). **Conclusions:** As with De Graeff and Dean’s findings, delirium and terminal restlessness/agitation were the commonest indications, but we found midazolam used in preference to antipsychotics. We similarly found that deep sedation was required infrequently. We would favour the definition of, and standards for PST be restricted to the rare, difficult situations requiring deep sedation.

**Poster N°: 329**

**Type of presentation:** Poster  
**Poster session:** Second group 30 May Friday 13.30 to 31 May Saturday 13.30  
**Category:** Audit Quality Control  
**Title:** The Cost and Quality of Variations in Ambulatory and Home – Based Palliative Care?  
**Authors:** Frida Barak Ben-Gurion University of the Negev. Barzilai Medical Center ISRAEL  
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The aim of this study was to explore how patient’s(s) and family’s wishes, desires and support system, family status, availability of community services and intervention of hospital services influence their choice to obtain palliative care in the community and the decision to receive care at home until death. **Materials & methods:** 400 pts of both genders with advanced cancer
Lung cancer is a disease of increased symptom burden, psychosocial distress and high mortality. Many of the supportive needs of lung cancer patients are unrecognised or unmet. In Scotland, lung cancer is diagnosed in over 4000 people each year and accounts for over 25% of cancer related deaths. With low one year survival and high care needs, palliative issues are often relevant from time of diagnosis. This study used an adapted version of the validated palliative outcome scale (POS) and a respiratory symptoms questionnaire to quantify the physical, psychosocial and practical needs of ambulatory patients attending a lung cancer clinic at Stobhill General Infirmary, Glasgow, Scotland. Methods: 172 patients completed a questionnaire incorporating the adapted POS (possible score 0–42) and respiratory symptom questions (possible score 0–12). Responses were data based with further descriptive data obtained from case note review. Results: 172 questionnaires were completed. 2 were excluded as they were not diagnosed with lung cancer. n=170, 54.1% were female (92) and 45.9% male (78). Mean age of patient 69.4 years (range 45 to 90 years). Patient rated performance status median of 2 Mean POS and respiratory scores (9.57 & 3.15) The mean scores for most troublesome areas were: perception of family/friends anxiety (2.11), dyspnoea (1.72), personal anxiety/worry (1.51), cough (1.29), low self-esteem (1.25) and pain (1.23). Areas scored lower included: information needs (0.87), ability to share feelings (0.77), other symptoms (0.59), self-worth (0.55), practical concerns (0.47), time wasted (0.2) and haemoptysis (0.18). Conclusions: Lung cancer patients in North Glasgow, Scotland face a disease of high mortality, symptom distress and psychosocial burdens. Problems rated highest were: perception of family/friends worry, dyspnoea, personal anxiety, low self-esteem, cough and pain. POS allows description of supportive care needs in this population rated by the patients themselves.

Poster N°: 332

Type of presentation: Poster
Poster session: Second group 30 May Friday 13.30 to 31 May Saturday 13.30
Category: Audit & quality control
Title: The Last days of life: a retrospective review of deaths over a six month period
Authors:
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Maeve O’Reilly St. Luke’s Hospital Dublin IRELAND
Marie Twomey St. Luke’s Hospital Dublin IRELAND

Background: In order to care for the dying patient, it is essential to ‘diagnose dying’. Evidence based guidelines now exist to help with the care of dying patient. These include guidelines for symptom control, psychological support, and bereavement care. This reviewed all deaths in a six month period in a dedicated radiation oncology institution. The focus was clinical management of the dying patient in an acute medical setting. Methods: A retrospective chart review of all deaths which occurred from January 1, 2007, to July 1, 2007, was completed. Patient demographics, cancer diagnosis, and time interval from admission to death were recorded. It was
noted whether the patient’s death was expected, a discussion occurred with the family, and cardiac resuscitation was recorded in the medical notes. The time interval between death and the administration of chemotherapy, radiotherapy, phlebotomy, artificial nutrition, supplemental fluids, and antibiotics were recorded. It was noted whether non-essential drugs were discontinued and appropriate drugs were converted to a subcutaneous route, including ‘as required’ medication. The involvement of pastoral care and social work was noted. Results: This is a work in progress. It is to evaluate the management of the dying patient in our institution and whether it follows best practice. Conclusions: This review will give a baseline for further multi-professional education for care for the dying patient and whether a care pathway needs to be considered.

**Poster N°: 333**

**Type of presentation:** Poster  
**Poster session:** Second group 30 May Friday 13.30 to 31 May Saturday 13.30  
**Category:** Audit & quality control  
**Title:** Constipation in palliative care patients: Audit of Assessment and Management  
**Authors:**  
Joanne Dronley Palliative Medicine Royal Marsden Hospital UNITED KINGDOM  
Anna-Marie Stevens Royal Marsden Hospital London UNITED KINGDOM  
Julia Riley Royal Marsden Hospital London UNITED KINGDOM

**Background:** Treatment of constipation in cancer and palliative care patients is generally poor. There is no constipation assessment tool which has been specifically designed, validated and in general use in cancer and palliative care patients. Similarly there is no gold standard for the management of constipation in palliative care patients. **Aims:** The aim of this audit was to evaluate the documentation of constipation assessment and management in nursing and medical notes. **Methods:** This was a retrospective audit of medical and nursing documentation of 42 hospice inpatients, randomly selected from a 6 month period. The most recent inpatient clinical episode was analysed. Data on 3 key areas were recorded: (1) documentation of assessment of bowel function (2) identification of constipation as a symptom and (3) documentation of laxative use. **Results:** Patient’s usual bowel pattern was documented in 60% of cases. Frequency of bowel movements was recorded in 11/40 patients, consistency of stool in 8/40 patients and the need to strain at stool in 1/40. 50% of cases had none of these assessments documented. 74% (31/40) patients were documented as being constipated and 4 as being not constipated. There was no documentation at all about being constipated or not in a further 4 cases. 69% of patients were taking laxatives on admission to the hospice. 29% (9/31) of patients who were documented as being constipated did not have any changes made to their laxatives. Of the 21 patients who did have changes made to their laxatives, 11 cases (52%) had the response to their laxatives documented. **Conclusion:** This data gives an opportunity for benchmarking practice with other hospices/units. Constipation is a significant problem in palliative care hospice patients. Documentation of assessment and management of constipation is currently inadequate and further work is needed to identify an appropriate assessment tool.

**Poster N°: 335**

**Type of presentation:** Poster  
**Poster session:** Second group 30 May Friday 13.30 to 31 May Saturday 13.30  
**Category:** Audit & quality control  
**Title:** Patient Safety And Change Of Shift On A Palliative Medicine Unit  
**Presenting author:** Ruth Lagman  
**Authors:**  
Julie Pettie The Harry R. Horvitz Center For Palliative Medicine The Cleveland Clinic U. STATES  
Goldie Grewal The Cleveland Clinic Cleveland U. STATES  
Joanne Finelli The Harry R. Horvitz Center For Palliative Medicine, The Cleveland Clinic Cleveland U. STATES  
Catherine Costello The Harry R. Horvitz center For Palliative Medicine Cleveland U. STATES

**Background:** Patient falls are common on a palliative unit. During a 30-minute period of time at shift change, there are few caregivers in close proximity to patient rooms due to off-going info-related reporting procedures. This is one of the times of greatest risk for falls. **Methods:** In November 2006, the report procedure at change of shift for patient care nursing assistants (PCNA) was altered to one-on-one at bedside. Information regarding fall risk, verification of bed alarm, patient identification stickers for fall risk, personal care and safety issues were included in report. PCNA safety rounds included acquisition of vital signs within 30 minutes of shift change. Falls were compared using the number of falls per 1000 patient days. **Results:** The fall rate dramatically declined from 9.45/1000 patient days in November 2006 to 2.96 in May 2007 to <1 July 2007. Time to call light response decreased 71% from November 2006 to April 2007 and has been sustained through July 2007. Patient satisfaction with pain control rose from 70th percentile to the mid-80th percentile from January to May 2007 (National HCAPS Benchmark is 59%). **Conclusions:** Maintaining a PCNA presence on the unit during shift change has multiple benefits; reductions in falls, greater response to patient needs and greater satisfaction with pain control. It is important to note that satisfaction with pain management improved without changes in the method of assessment or management guidelines. Changing clinical operations during shift changes on a palliative unit has multiple beneficial clinical consequences besides reductions in falls. PCNA presence on a palliative unit during shift changes and check lists of patient safety issues reduces falls, improves response time and satisfaction with pain management.
Poster N°: 336

Type of presentation: Poster
Poster session: Second group 30 May Friday 13.30 to 31 May Saturday 13.30
Category: Audit & quality control
Title: National Care of the Dying Audit Hospitals England (NCDAH) – The Results!
Authors:
Maureen Gambles Directorate of Specialist Palliative Care Marie Curie Palliative Care Institute Liverpool UNITED KINGDOM
Tamsin McGlinchey Marie Curie Palliative Care Institute Liverpool Liverpool UNITED KINGDOM
Deborah Murphy Marie Curie Palliative Care Institute Liverpool Liverpool UNITED KINGDOM
John Ellershaw Marie Curie Palliative Care Institute Liverpool Liverpool UNITED KINGDOM

Background: The Marie Curie Palliative Care Institute Liverpool (MCP-CIL), in collaboration with the Royal College of Physicians (RCP) have successfully completed the first audit of care of the dying in acute hospitals in England. 118 hospitals from 94 Acute Trusts covering the length and breadth of England participated.

Methods: Aim To audit the standard of care for dying patients and their families whose care was delivered in the last days and hours of life using the Liverpool Care Pathway for the Dying Patient (LCP). Hospitals contributed data from up to 30 consecutive patients who died on an LCP within a 3 month time frame. Data were analysed descriptively illustrating % achieved (goal met); variance (goal not met); and goal not documented in 5 domains of care: • Physical Comfort of the Patient • Psychosocial and Spiritual Care • Communication • Information Giving • Practice Contextual data was also collected from each hospital, including the size of the hospital, the number of deaths, staffing/ resource issues, education in care of the dying, and the availability of supporting literature for the dying phase. Results: Data from 2672 patients from the 118 hospitals was entered into the audit. The results highlighted many areas of good practice, particularly where current medications were assessed and anticipatory medications were prescribed for at least 80% of patients, and 75% of hospitals achieved these goals for at least 70% of their patients. Discontinuation of inappropriate interventions occurred in over 87% of patients, but Intravenous fluids were continued more often than any other intervention (16% of patients). In 75% of assessments in the last 24 hours of life, patients were found to be physically comfortable. However, care delivery in other domains appeared to be less consistent, particularly for goals of care after the death of the patient. Conclusions: Key recommendations with implications for policy, education and care delivery were identified.

Poster N°: 337

Type of presentation: Poster
Poster session: Second group 30 May Friday 13.30 to 31 May Saturday 13.30
Category: Audit & quality control
Title: National Care of the Dying Audit Hospitals England (NCDAH) – data into action
Authors:
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Deborah Murphy Marie Curie Palliative Care Institute Liverpool Liverpool UNITED KINGDOM
Tamsin McGlinchey Marie Curie Palliative Care Institute Liverpool Liverpool UNITED KINGDOM
John Ellershaw Marie Curie Palliative Care Institute Liverpool Liverpool UNITED KINGDOM

Background: The Marie Curie Palliative Care Institute Liverpool (MC-CIL), in collaboration with the Royal College of Physicians (RCP) have successfully completed the first audit of care of the dying in acute hospitals in England. 118 hospitals from 94 Acute Trusts across England partici-

Poster N°: 338

Type of presentation: Poster
Poster session: Second group 30 May Friday 13.30 to 31 May Saturday 13.30
Category: Audit & quality control
Title: Dying without data: Modernising the Core Specialist Palliative Care Minimum Data Set
Authors:
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Clare Littlewood Marie Curie Palliative Care Institute Liverpool Liverpool UNITED KINGDOM
John Ellershaw Marie Curie Palliative Care Institute Liverpool Liverpool UNITED KINGDOM
Barbara Jack Marie Curie Palliative Care Institute Liverpool Liverpool UNITED KINGDOM
Ann Eve National Council for Palliative Care London UNITED KINGDOM
Ajeet Khatri National Council for Palliative Care London United KINGDOM
Deborah Murphy Marie Curie Palliative Care Institute Liverpool Liverpool UNITED KINGDOM

Background: The Minimum Data Set (MDS) for specialist palliative care services was developed in 1995 to provide annual data on palliative care services in the UK. The development of payment by results and health resource groups together with identified limitations of the current MDS including missing data, the potential for double counting, resulted in a project that aimed to revise the MDS. Methods: A modified action research approach was adopted for the study. Phase one focused on modernising the MDS. Purposive sampling was used to invite key stakeholders from multi-disciplinary specialist palliative care services from across England and Wales to participate. 38 respondents attended 3 workshops, where each section of the MDS were discussed and revised. Phase two piloted the revised MDS. Pilot data analysis and views of the pilot site respondents was undertaken. Additionally the revised MDS was reviewed by a panel of experts. The revised MDS was then presented at a showcase event for final agreement by all participants. Results: There was a consensus that the MDS did not completely reflect current patient workload, extent of services provided or the development of integrated palliative care services. Modifications to all the sections of the MDS were made and changes to terminology made. Conclusions: An action research approach enabled a national consultation process to be completed effectively. The involvement of a wide sample of stakeholders ensured revisions were made based upon a national consensus of opinion and met the changing provision of specialist palliative care
services. Further information regarding the process, and changes made to the MDS will be discussed.

**Poster N°: 339**

Type of presentation: Poster
Poster session: Second group 30 May Friday 13.30 to 31 May Saturday 13.30
Category: Audit & quality control
Title: Audit in resource-poor settings: design issues from a 5-centre Sub-Saharan study using the APCA African POS
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Diana Goring South Coast Hospice Durban S. AFRICA
Tony Moll Phelanjalo Tugela Ferry S. AFRICA
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Lydia Mpanga Sebuyira Hospice Africa Uganda Kampala UGANDA

Background: Audit is essential for quality improvement. However, there are no audit methodologies described in African palliative care. Aim: To undertake a 5-centre audit of palliative care services in South Africa and Uganda, utilising the APCA African POS. Population: Approx. 35% of patients had cancer; 75% were HIV+. All were new patients or patients with new problems. Methods: Full audit cycle designed as follows: 1. Data collection Phase 1 recruited approx 100 patients per site; assess at baseline and five weekly subsequent points; 2. Data analysis and feedback to sites; 3. Identify service-specific key areas for service improvement; 4. Set facility-specific targets; implement individualised service improvement strategies; 5. Data collection Phase 2 (as for Phase 1). Results: Based on Phase 1 data key areas for improvement were identified by site. Targets were set (A) and improvement strategies implemented (B), e.g.: Site 1: (A) Reduce pain scores in 80% of patients scoring ≥42 at baseline (T0) by ≥1 by T2; (B) Improve drug availability and pain recording; training in pain control. Site 2: (A) Statistically significant change in mean symptom score by T2; (B) Nurse to refer to doctor if no improvement in two days; improve laxative prescription. Site 3: (A) Mean score of ≤4 on peace by T5; (B) Train staff in spiritual assessment; collaborate with spiritual leaders. Site 4: (A) ≥75% of patients to be followed-up for six assessments; (B) Collaborate with home-based care NGOs. Site 5: (A) Reduce mean family worry score to ≤1.5 by T5; (B) Collaborate with social work NGOs; train home-based carers in communication skills. Conclusions: This first full clinical audit of five African palliative care services required adaptations to standard methods in more established health systems, e.g. validation of a suitable measure, evaluation of baseline data before setting standards. The APCA African POS is a feasible, effective tool for audit.

**Background**: Recruiting and retaining Clinical Nurse Specialists (CNS) to provide a 24-hour advice and visiting service was becoming increasingly difficult. The hospice reconfigured its service to maintain the visiting component of its out-of-hours service taking account of the work/life balance of staff. The new service included all CNSs in the on-call rota until 23.00hrs. CNSs opted into a rota from 23.00hrs until 09.00hrs. Eighteen out of thirty-two CNSs chose to be in the night rota. Calls were triaged by a senior nurse in the inpatient unit and further advice was available from the on call specialist registrar. The CNS was only woken if a visit was needed and was then paid at a rate of £50 per hour. An audit was undertaken to ensure that the service continued to be responsive to patients at home out of hours. Methods: All staff involved in the new service completed questionnaires identifying the number, timing, and nature of calls and visits by CNSs. Data were entered onto an Access database, and standard reports obtained. Results: During the audit period (13 weeks in Jan–March 2007), the service received 486 external calls; 74% (n=360) took place between 17.00 and 22.59, and 24% (n=116) between 23.00 and 07.59. Fifty percent were from carers (n=245), 18.5% (n=90) from care homes/other, 11% from district nurses (n=55), 8% (n=41) from patients, 6% (n=30) from agency nurses, the rest from hospitals, doctors, and ambulance services. Reasons for calls were mainly for symptom or medication advice (52%), coordination of care (15%), dying & symptomatic patients (11%), and psychological distress (4%). CNSs carried out 35 visits, 9 of which were between 23.00hrs and 07.59hrs. Doctors received 49 calls.

Conclusions: The findings revealed a similar volume and pattern of calls and visits to earlier audits. The audit showed that the modified out-of-hours service was able to withstand similar pressures to the ‘old’ service while reducing the burden on CNSs of sleep disruption and obligatory out-of-hours working.

**Poster N°: 341**

Type of presentation: Poster
Poster session: Second group 30 May Friday 13.30 to 31 May Saturday 13.30
Category: Audit & quality control
Title: Retrospective audit of discharges from a specialist palliative home care team of a London Hospice
Presenting author: Kathy Burn
Authors: Rosanna Heal Quality Assurance St Christopher’s Hospice UNITED KINGDOM
Penny Hansford St Christopher’s Hospice Sydenham, London UNITED KINGDOM

Background: The hospice’s criteria for discharging patients from home care include stable disease not requiring specialist care, and deterioration not expected in the following 3 months. The purpose of the audit was to establish whether discharge decisions appeared justified. Methods: All patients discharged during the first half of 2006 were identified using the hospice patient database (n=105). Clinical nurse specialists (CNS) followed up patients 12–18 months later by contacting their GPs; they consulted patient records and completed a data collection form. Data were entered onto SPSS 15.0 for analysis. A senior nurse and medical consultant independently reviewed the records of patients who had died or been re-referred within 15 weeks of discharge. Results: By June 2007, 50 (48%) patients had died. Where place of death was known, 36% died at home (n=17), 34% in hospital (n=14), 30% in the hospice (n=14). The gap between discharge and death or discharge and re-referral ranged from 1 to 67 weeks (mean = 15.5) and 1–54 weeks (mean = 23.7) respectively. Twenty–eight (26%) patients were still alive, had not been re-referred and showed no evidence of progressive disease. Overall, 20 patients (19%) had died or were re-referred within 15 weeks of discharge, 8 were discharged when they moved away. Notes for one patient were unavailable. Of the remaining 11, 8 fulfilled the discharge criteria, having a low symptom burden and stable disease and 1 had been discharged at their request. A patient with a CVA and no specialist palliative care needs should not have been
taken on. The hospice should have attempted to remain involved with a pancreatic cancer patient who was reluctant to accept hospice care, given her disease load and potential to deteriorate quickly. **Conclusions:** Discharge of patients from palliative care services can be justified once symptoms have stabilised, and a clear discharge policy can contribute to the efficient use of resources.

**Poster N°: 342**

**Type of presentation:** Poster  
**Poster session:** Second group 30 May Friday 13.30 to 31 May Saturday 13.30  
**Category:** Audit & quality control  
**Title:** An All-Wales Audit of the Integrated Care Pathway for the Last Days of Life; Establishing the Audit Cycle  
**Presenting author:** Andrew Fowell  
**Authors:**  
Rosalynde Johnstone North West Wales NHS Trust Palliative Care Unit UNITED KINGDOM  
Susan Closs Swansea NHS Trust Swansea UNITED KINGDOM  
Andrew Fowell North West Wales NHS Trust Caernarfon UNITED KINGDOM

**Background:** Since 2000 the Integrated Care Pathway (ICP) for the Last Days of Life has been implemented in secondary and primary care throughout Wales. Analysis and feedback of the variance sheets demonstrate that lookin at the ICP variances in isolation has limitations. Consequently an all-Wales audit of the ICP was undertaken. **Methods:** Using a standard audit template the base-line audit (31/8/06) data were analysed from 24 sites which include 4 (of 5) hospices, 3 (of 5) specialist in-patient units, 8 (of 28) community sites, 8 (of 9) district general hospitals, and one Nursing home. **Results:** These sites submitted data on 201 deaths managed using the ICP for the last days of life and represent a 77% response rate. The response rate to a concomitant staff survey sent out to district nursing teams, community hospitals, wards in district general hospitals and hospices was 48%. The findings of the audit indicate that standards were met in 62% of cases. Variance recording and reporting is mis-handled with 82% of sites not recording variances. **Conclusions:** Re-audit six months later showed an overall improvement with standards being met in 81% of cases. This second audit establishes the annual audit cycle for the ICP which will continue to monitor quality of care and contribute to the annual review of the pathway.

**Poster N°: 343**

**Type of presentation:** Poster  
**Poster session:** Second group 30 May Friday 13.30 to 31 May Saturday 13.30  
**Category:** Audit & quality control  
**Title:** Bed Blockers in Oncology; Myth or Reality? A snapshot oncology survey looking at whether palliative care involvement delays discharge  
**Presenting author:** Clare Marlow  
**Authors:**  
Samantha Kay Palliative Care University Hospital Birmingham UNITED KINGDOM  
Sharron Griffiths University Hospital Birmingham Birmingham UNITED KINGDOM  
Monica Thorpe University Hospital Birmingham Birmingham UNITED KINGDOM  
John Speakman University Hospital Birmingham Birmingham UNITED KINGDOM  
Emma Husbands University Hospital Birmingham Birmingham UNITED KINGDOM

**Background:** Oncology beds are in constant demand for emergency and elective admissions for ongoing treatment, including symptom control. Long inpatient stays can therefore result in treatment delays. It has been postulated that palliative care involvement can prolong admissions, due to symptom control requirements and complicated discharge packages. **Aims:** To establish the basis of an inpatient stay in a specialist oncology centre and whether palliative care involvement lengthens this time. **Method:** A survey was completed over a two week period, which included auditing the medical notes and interviewing medical staff of all oncology inpatients at University Hospital, Birmingham. Data regarding admission were recorded, including length of stay and Palliative care involvement. **Results:** 66 patients’ notes were audited. The minority (n=12; 18%) were planned elective admissions, with emergency admissions accounting for the remainder (n=54; 82%). 38% of these patients were known to palliative care, predominantly for ongoing symptom control. Nearly half of patients whose sole reason for being an inpatient was ongoing symptom control (n=11) were not known to palliative care. Although the majority had been inpatients for less than one week (n=42; 64%), 12% at the time of the survey were exclusively awaiting discharge packages and funding. Only 6% of patients had admissions of greater than three weeks. **Conclusions:** Palliative care is not predominantly responsible for inpatient discharge delays. It appears that financial planning and social input provide a far common aetiology than ongoing symptom control problems. This occurred despite early discharge planning and MDT involvement. In addition, a number of other causes, including further specialist treatment, and clinical deterioration, contributed to this. Palliative care was involved in many inpatients’ care, but this does not appear to result in lengthening of inpatient stay.

**Poster N°: 344**

**Type of presentation:** Poster  
**Poster session:** Second group 30 May Friday 13.30 to 31 May Saturday 13.30  
**Category:** Audit & quality control  
**Title:** Utilisation of in-hospital palliative care in rectal cancer patients. A population based study from Western Norway  
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**Background:** Cancer of the colon and rectum (CRC) is one of the most frequent malignancies in Western countries. At the time of diagnosis, about 25% of all patients present with incurable disease due to locally advanced or systemic disease, or both. While most reports mainly focus on curative treatment of this disease, less is known about palliative aspects, including needs for in-hospital palliative care in CRC patients with incurable disease. In this study we focus on in-hospital utilisation of palliative care in a well defined group of patients with Rectal cancer (RC) from a general population of Western Norway. **Methods:** Patients with incurable RC at the time of diagnosis in Western Norway between 1997 and 2002 were identified. The use of in-hospital resources was registered by a retrospective evaluation of hospital records, out-patient charts and patient administrative data at each hospital. Analyses were stratified with regard to age, distance to hospital and social status. **Results:** 297 of 1237 patients (23%) were identified. Median age was 77 years. 64% of them had primary surgery. In-hospital admissions were mostly at surgical departments, while outpatient contacts were mainly at oncological departments. 28% had palliative chemotherapy , and 31% palliative radiotherapy. 8% of the patients needed surgery during the course of their disease. Half of the patients died at home, while significantly more patients aged >77 years died in nursing institutions. **Conclusions:** To our knowledge, this is the first study analysing this topic on RC patients. Surgical departments are responsible for the majority of the hospital admissions, while outpatient contacts and treatments are mostly
Conclusions: of disease and radiotherapy were independent predictors of better survival. In multivariate analysis, only stage (median 2.8; p < 0.001) months, respectively. Use of chemotherapy was not associated with improved survival. In this study we focus on a group of patients with primary advanced RC considered as not operable. We address various clinical aspects relevant for decision making in a group of patients in need of palliative care. Methods: Between 1997 and 2001, 4831 patients with RC were registered in the Norwegian Rectal Cancer Registry (NRCR). In this national cohort, 386 patients (8%) without surgical interventions were identified, and clinical characteristics as well as survivals were addressed. Results: Not surgically treated patients were significantly older as compared to other treatment groups (median age 80 years; IQR, 72–86 vs. median age 71 years; IQR, 62–79 years; p < 0.001). Median survival time was 4.5 (range, 3.5–5.4) months, regardless of age, gender or hospital category. Patients who received radiotherapy had a significantly increased survival (median, 10 months) as compared to patients not treated with radiation (median 2.8; p < 0.001) months, respectively. Use of chemotherapy was not associated with improved survival. In multivariate analysis, only stage of disease and radiotherapy were independent predictors of better survival. Conclusions: Radiotherapy was associated with improved survival in patients with RC that received no surgery. A small proportion of patients with RC received no surgical treatment. Higher age and comorbidity seem to influence choice of treatment of patients with advanced RC. While radiotherapy was associated with improved survival, this is most likely explained by patient selection. In contrast to reports from single institutions with more or less selected patients, our prospective population based cohort study emphasis the dismal prognosis of this subgroup of mostly elderly patients with advanced RC at the time of diagnosis, which also should challenge our efforts and clinical approaches in palliative care.

Poster N°: 346

Type of presentation: Poster
Poster session: Second group 30 May Friday 13.30 to 31 May Saturday 13.30
Category: Audit & quality control
Title: Palliative Surgery for Rectal Cancer in a National Cohort
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Background: If resection of the primary tumour is of benefit to patients with incurable rectal cancer (RC) remains a matter of debate. In this study we analyse prospectively recorded data from a national cohort. Methods: Among 4831 patients diagnosed with RC between 1997 and 2001, 838 patients (17%) were treated with palliative surgery. Patients were stratified according to disease-stage, age, and type of surgery. Results: A significantly longer median survival, 12 (range 10–13) months, was observed in patients treated with resection of the primary tumour as compared to a survival of 5 (range 4–6) months in patients treated with non-resective procedures (p < 0.001). Median survival was significantly (p < 0.001) related to age groups (13 months in patients ≤60 years of age, 10 months in patients 60 to 69 years, 7 months in patients 70 to 79 years, and, 6 months in elderly >80 years of age, respectively). In the elderly group (>80 years of age), survival was similar regardless of the treatment. Thirty-day mortality varied between 2.5 % and 20 %, according to age groups. Conclusions: While longer survival was observed in patients when the primary tumour was resected, this may partly be explained by patient selection. Elderly patients (> 80 years) had a similar survival, irrespective of a resection of the primary tumour or not. Careful consideration of the individual patient, extent of disease and treatment related factors are of importance for an appropriate decision-making in palliative treatment for patients with advanced RC.

Poster N°: 347

Type of presentation: Poster
Poster session: Second group 30 May Friday 13.30 to 31 May Saturday 13.30
Category: Audit & quality control
Title: Utilization of Nurse Clinician Services in a Comprehensive Palliative Medicine Program
Authors:
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Pamela Ganier Cleveland Clinic Cleveland U. STATES
Brenda Cohren Cleveland Clinic Cleveland U. STATES

Aims: The goal of this retrospective study is to formally audit the number and type of services rendered by these nurse clinicians and the minutes spent for each call. Background: A well established comprehensive and integrated palliative medicine program has utilized the expertise of nurse clinicians from the time of its inception in providing for the holistic and interdisciplinary care of individuals with advanced illness and their families. They provide services in terms of symptom management, patient updates, arranging ancillary services and appointments, medication refills over the phone. Also, they provide direct contact with patients and families both in the inpatient and outpatient settings. Methods: Phone calls, Electronic Medical Record (EMR) staff messaging, emails and direct patient contacts during both during on-call and office hours were collected for 3 consecutive months using a data collection sheet. There were 2 nurse clinicians providing coverage for 3 full time physicians. These 2 nurses provided coverage for each other during their days off. Results: There were a total of 1085 patient contacts. Types of contacts were symptom management 282, patient update 135, laboratory and imaging appointment assistance 66, medication questions and refills 399, miscellaneous 136. Direct contact was 291, pages 145, voice mail/staff messages 595. Total minutes spent for patient contacts were 13,685 minutes, averaging 12.6 minutes per call.

Poster N°: 348

Type of presentation: Poster
Poster session: Second group 30 May Friday 13.30 to 31 May Saturday 13.30
Category: Audit & quality control
Title: Preventing Falls in an Acute Care Palliative Medicine Unit

Aims: A 24-hour phone triage system allows symptom management and medication questions answered promptly 2) If symptoms are not managed over the phone, arrangements are made to be admitted in a hospital or an inpatient hospice setting 3) Emergency room visits are kept to a minimum and are advised only if indicated 4) Costly emergency room visits are avoided 5) Nurse clinicians provide skilled care and expertise to this population.
Background: 1) To measure the impact of active nursing intervention and change in bed type in the rates of falls in an acute care palliative medicine unit 2) to identify effective strategies in reducing falls 3) to assess the number of severity of injuries after a fall before and after implementation. Methods: Strategies to improve patient safety to decrease falls were implemented as follows: 1) all beds were changed to have alarm sounding capability 2) nursing assistants gave report to each other in patient rooms that included patient safety 3) call lights were answered by caregivers near patient rooms 4) report was short and pertinent to patient safety 5) vital signs taken within 30 minutes of change of shift. The incidence of falls was measured 8 months before the intervention and 8 months after the intervention. Demographic data was collected on patients for both study periods. This is a retrospective study. Results: There were 40 patients who fell before the intervention with median age 64 (range 32–81), 24 males, 29 whites. 11 had lung cancer and 35 had metastatic disease. After the intervention, there were 27 patients who fell with median age 63 (range 21–86) with 20 males and 18 whites. 6 had lung cancer and 22 had metastatic disease. The number of falls decreased from 46 before the intervention to 31 (33% decrease). Median number of falls before the intervention was 1 (range 1–4) and after the intervention 1 (range 1–3). Most patients fell within the hours of 2301–0659 for both periods. 89% of falls were moderately severe in the first group compared to only 56% after the intervention. Conclusions: By implementing methods such as having caregivers in close proximity to patients increases visibility, allows exchange of information regarding falls risk, having beds with alarm sounding capability promotes overall patient safety.

Poster N°: 349
Type of presentation: Poster
Poster session: Second group 30 May Friday 13:30 to 31 May Saturday 13:30
Category: Audit & quality control
Title: Measuring Physician Productivity: Relative Value Units (RVUs) in Palliative Medicine
Authors:
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Background: 1) To analyze the trend in physician productivity (RVUs) over 3 years to identify the most common procedural terminology (CPT) services used by palliative medicine practitioners 3) to identify the most common Diagnostic Related Groups (DRGs) and All Patient Refined-Diagnostic Related Groups (APR-DRGs) and their corresponding case mix and patient acuity. Palliative medicine is a relatively new specialty and measuring physician work and productivity may be hard to quantify. Relative value units (RVUs) are nonmonetary objective weights assigned to an individual CPT service which assists physicians on their work productivity in the inpatient and outpatient settings. By analyzing the case mix of patients in parallel, the complexity of care for individuals being rendered can justify the time spent on a particular service. Methods: This is a retrospective study. The institution computer data base was used to collect RVUs, CPT codes, DRGs, and APR-DRGs for calendar years 2004, 2005 and 2006. Results: RVUs were 5663 in 2004, 5525 in 2005 and 5921 in 2006. Subsequent hospital level care III generated the most number of physician visits with 2178 for 2004, 2270 for 2005 and 2251 for 2006. Inpatient consult level IV was 234 for 2004, 195 for 2005 and 202 for 2006. Inpatient admission level III was 360 in 2004, 163 in 2005 and 203 in 2006. In the outpatient setting, established patient level IV was 356 in 2004, 178 in 2005 and 253 in 2006. The 5 most common DRGs and APR-DRGs for all 3 years were digestive malignancies, respiratory neoplasms, malignancy of hepatobiliary system, lymphoma and non-acute leukemia, and pathologic fractures. Conclusions: Analyzing the trends in RVUs and CPT services rendered by a palliative medicine physician 1) serves as a measure of productivity 2) identifies areas of resource utilization and 3) allows benchmarking and comparison with other providers.

Poster N°: 350
Type of presentation: Poster
Poster session: Second group 30 May Friday 13:30 to 31 May Saturday 13:30
Category: Audit & quality control
Title: Trends in the All Patient Refined-Diagnostic Related Group (APR-DRG) and Case Mix Index (CMI) in an Acute Care Palliative Medicine Unit
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Background: To evaluate the trends in severity of illness (SOI) by the All Patient Refined-Diagnostic Related Group (APR-DRG) and case mix index (CMI) by the Diagnostic Related Group (DRG) in an acute care palliative medicine unit. DRG and its corresponding CMI often do not reflect the accurate case mix and disease severity in patient populations. This is particularly true for palliative medicine when individuals have multiple sites of metastases, complications and comorbidities. The APR-DRG classifies patients into 4 subclasses of severity of illness (SOI) and risk of mortality (ROM). Recognizing this, the template for daily progress notes in place since 2004 captured the acuity of care delivered to these individuals. Though DRGs and APR-DRGs were the same year over year, the severity of illness was higher and more accurate for the latter demonstrating greater acuity. Methods: This is a retrospective study. Discharge data, APR-DRG/SOI/DRG/CMI, length of stay (LOS) were collected from the hospital database for calendar years 2003, 2004, July 2005–June 2006 and July 2006–June 2007. A template for daily physician progress note was put in place in January 2004 to capture multiple sites of metastases, complications and comorbidities that would have affected the SOI and CMI. Results: The number of admissions increased by 20% from 748 in 2003 to 999 in 7/06–6/07. Mean age was 60.8 +/- 14.6 in 2003, 61.7 +/- 14 in 7/06–6/07. Length of stay (LOS) showed an increasing trend: 9.31 +/- 7.54 days in 2003 to 10.21 +/- 8.85 from 7/06-6/07. ASOI also showed an increasing trend: 1.69 in 2003 and 1.98 in 7/06-6/07 (17% higher). CMI remained the same at 1.50 from 2003 and 7/06-6/07. Most common DRGs and APR-DRGs for all years included respiratory neoplasms, digestive malignancies, pathologic fractures, and hepatobiliary malignancies. Conclusions: The APR-DRG captures the true case mix and severity of illness in an acute care palliative medicine unit than the traditional DRG.

Poster N°: 351
Type of presentation: Poster
Poster session: Second group 30 May Friday 13:30 to 31 May Saturday 13:30
Category: Audit & quality control
Title: Assessment quality of life by the Palliative Outcome Scale. What do we improve?
Authors:
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**Background:** Aim: 1) To describe if the intervention of a Palliative Care Supportive Team in a University Hospital can improve Quality of life (QL) assessed by the Palliative Outcome Scale (POS). 2) To know which are the dimensions of QL that can be improved by our Palliative Care Team.

**Methods:** Descriptive, longitudinal and prospective survey by using the POS at the first visit and at discharge in all the patients treated by our palliative team from October 2006 to January 2007. Exclusion criteria: 1) patients with only one assessment, (survival less than 1 week or first assessment previous to the study period) 2) Assessments with any missing data. Variables assessed: POS items, age, sex and unit referred from.

**Results:** During the study, of the 115 newly treated patients, 50 were selected for the analysis. The 60% were men, the average age was 67.55. 86% were referred by medical specialties. Global POS improvement was significant after the palliative care intervention (p< 0.0001). The dimensions that improve most improve were: pain (p< 0.0000); other symptoms (p<0.0000); information (p = 0.026) wasted time (p = 0.005) and the way that problems were resolved. POS analysis by sex, age minor or more than 70 and ward of origin there were no differences except for anxiety which improved especially among patients over than 70, even though this item did not affect final result. **Conclusions:** 1) Palliative care intervention by a supportive team improves QL of attended patients. 2) Pain, others symptoms, information, waste of time and the way the outstanding matters were dealt are the dimensions of QL that improve most.

**Poster N°: 352**

**Type of presentation:** Poster

**Poster session:** Second group 30 May Friday 13.30 to 31 May Saturday 13.30

**Category:** Audit & quality control

**Title:** Review of utilisation of hydrotherapy unit within a hospice setting

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**Background:** Hydrotherapy is a therapy programme utilising the properties of water designed by a suitably qualified physiotherapist, specifically for an individual to improve function carried out by appropriately trained personnel, ideally in a purpose built and suitably heated hydrotherapy pool. This unit opened in an urban hospice setting in 2005. A qualified hydrotherapist attends 4 days per week. Following initial review by the hydrotherapist, a programme is structured and patients attend on a regular basis. **Methods:** I conducted a chart review of patients who attended the hydrotherapy service in the first 2 years. Data reviewed included patient demographics, the source of referral, the reasons for referral, the number of sessions attended and the reasons for discontinuing treatment. **Results:** 40 patients attended over a 2 year period from 01/02/05 to 31/01/07. These patients were referred from the day hospice, the in-patient unit and the homecare team. 38 patients had either an oncological or haematological diagnosis and 2 patients suffered from a degenerative neurological disorder. Patients attended for a number of reasons including mobility and balance, limb strengthening, pain relief and sense of well-being. A minority attended to participate in a stretching programme. The length of attendance was variable with the majority of patients (30) attending for 10 sessions or less. 20 patients discontinued hydrotherapy when they died or became too unwell. Other reasons for stopping included discharge from the in-patient unit or day hospice, dislike of water or unsuitability for ongoing treatment because of a cognitive deficit or medical reason. **Conclusions:** Hydrotherapy is currently a relatively new therapy for palliative care patients. Is use to date is mainly in rheumatology patients. Even though it appears to be of benefit, little research has been carried out to support this. Hopefully with further research, education and investigation of benefit its use will become more widespread in palliative care patients.

**Poster N°: 353**

**Type of presentation:** Poster

**Poster session:** Second group 30 May Friday 13.30 to 31 May Saturday 13.30

**Category:** Audit & quality control

**Title:** Symptomatic therapy effects of patients in hospice followed by esas scale (edmonton symptom assessment scale)

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**Background:** 1) Present work of Hospice from 1.1.2004 to 30.6.2007 2) Present the outcome and effects of therapy and treatment of symptoms among hospice patients Study population: The prospective study included 197 terminally ill oncology patients whose symptoms were treated. The average age was 62.51 years; the youngest 17 years old; the oldest 88 years old. **Methods:** Once a day at 10 a.m. throughout a seven day period the following symptoms were assessed with a mark of 0–10: • pain when not moving, • pain in movement, • fatigue, • nausea, • breathlessness, • dry mouth, • appetite, • anxiety, • depression, • general physical condition. **Results:** The results of the treatment and therapy administered were as follows From 197 patients 114 (57.8 %) were male and 83 (42.2%) were female. The average stay in hospice was 10.7 days. 91 patients (46%) were discharged (group 1) and 106 (54%) died (group 2). Of these, 76 (72%) died within 7 days of admission from the following: • lung cancer 41, • liver 39, • abdomen 39, • urological 31, • gynaecological 23, • ORL 12, • others (breast, skin) 12.

**Conclusions:** The majority of patients died within 7 days after admission (the total symptom score was always above 80). This shows the need for earlier referral to the hospice or the need for improved palliative home treatment.

**Poster N°: 354**

**Type of presentation:** Poster

**Poster session:** Second group 30 May Friday 13.30 to 31 May Saturday 13.30

**Category:** Audit & quality control

**Title:** Discharge planning in palliative medicine: electronic databases to evaluate continuity of care

**Presenting author:** Declan Walsh

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**Background:** Palliative medicine is evolving. The effective provision of care for patients in acute care inpatient palliative medicine unit (ACPMU) requires understanding demographic trends to plan clinical services. Our objective was to identify and compare overall trends for admissions / readmissions, age, gender, diagnosis (DRG, case mix index (CMI), length of stay, and referral types to determine future program services. **Methods:** Retrospective review. An electronic database (Eclipsys TSI system, Boston,
MA, 1985) analyzed patient demographics and compared trends over several years. An electronic program (ECIN Extended Care in Network inc. Chicago, ILL) that transfers information to post acute care resources identified and compared referral types over several years. Results: Admissions to the (ACPMU) have doubled from 400 to over 800 a year. The median age of patients declined from 69 to 61, although the mode remained at 74. DRG data was consistent. CMI increase was statistically significant. Mean length of stay decreased by 2 days. Medicare as primary insurance payer decreased 18%. Post-acute discharges have remained consistent: home with care 44% (30% hospice/14% homecare); follow outpatient 19%; placement 17% (6% nursing home/11% inpatient hospice); or died on unit 20%. The younger population increased demands on treatment and healthcare resources. Older patients had high complexity with co-morbidities from cognitive and physical decline. Conclusions: 1) Demographic trends showed younger patients, increased case mix index, increased volume, and reduced length of stay over time. The unit has been shown to be fiscally viable despite greater CMI. 2) Profiles of patient needs were identified. Younger patients accessed high tech interventions at discharge; older patients needed more resources for caregiving. 3) An electronic program enhanced the process of accessing post acute care earlier, reduced LOS, enhanced productivity and increased throughput.

Poster N°: 355

Type of presentation: Poster
Poster session: Second group 30 May Friday 13.30 to 31 May Saturday 13.30
Category: Audit & quality control
Title: A retrospective review to test the hypothesis that “opioid toxicity”, developing in an otherwise stable patient heralds imminent sepsis
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Eileen Mannion Department of Palliative Medicine, University Hospital Galway. Galway IRELAND

Background: Over many years working within a service, that was developed along the WHO model of care, engaging with patients with advanced disease on active chemotherapy/radiotherapy, a trend has been observed in relation to opioid toxicity developing in a relatively stable patient, that the actual toxicity heralds imminent sepsis. Methods: A retrospective audit was completed from September 2006 – November 2006. Medical charts of all patients referred were studied and documentation of patients: who developed opioid toxicity secondary to escalation of opioids, with opioid poorly responsive pain; who developed opioid toxicity secondary to successful radiotherapy and/or chemotherapy and or interventional blocks; who developed opioid toxicity and within 24–48 hours developed sepsis. Documentation of dose reduction in opioids was recorded; use or not of Naloxone was recorded; recalibration of opioid dose was recorded within a week to 10 days of successful treatment of sepsis was recorded; as well as evidence of recalibration and if it did or did not occur in the other patient groups. Results: 150 patients were referred. All charts analyzed. 30% of patients who commenced on Pregabalin; the indication for commencing Pregabalin; the starting dose; the incremental adjustments; the maintenance dose; and renal function. The need for escalation of opioids and other adjunctive analgesics two weeks prior to commencement of Pregabalin as well as reduction in other adjunctive analgesics two weeks after commencing Pregabalin was observed. Clinical recording of pain relief and/or reduction or discontinuation in other co-analgesics was used as a parameter of effectiveness. Results: 150 patients were referred. All charts analyzed. 30% of patients who commenced on Pregabalin, n=52 malignant, n=1 non-malignant. 43% of patients had complete pain relief; 43% had partial relief; opioid reduction was significant post Pregabalin with 30% of patients having 50% to 100% opioid reduction. Only one person discontinued Pregabalin due to side effects. Initial dose was 25mg bd in the majority of patients. Conclusions: Pregabalin was very effective for pain relief of neuropathic cancer pain. Side effect profile was minimal on commencing at much lower doses than recommended. For this population of patients with advanced disease the stabilisation and reduction in opioids has significant clinical implications.

Poster N°: 356

Type of presentation: Poster
Poster session: Second group 30 May Friday 13.30 to 31 May Saturday 13.30
Category: Audit & quality control
Title: A retrospective review of the use of Pregabalin in an acute hospital palliative medical referral liaison service
Authors:
Dymphna Waldron Department of Palliative Medicine University Hospital Galway. Galway IRELAND
Maura Grummell Department of Palliative Medicine, University Hospital Galway. Galway IRELAND
Florrie Daniels Department of Palliative Medicine, University Hospital Galway. Galway IRELAND
Eileen Mannion Department of Palliative Medicine, University Hospital Galway. Galway IRELAND

Background: Pregabalin is a neuropathic agent mainly used for Diabetic Neuropathy and Trigeminal Neuralgia. The initial starting dose recommended by the pharmaceutical company is 75mg bd (This dose is adjusted for those patients with renal impairment). Normally Gabapentin or Amitripthyline is used for neuropathic pain associated with malignant disease. Our Palliative Medical service has found Pregabalin very beneficial in the treatment of neuropathic pain. Methods: A retrospective audit was completed of all patients referred to the Palliative Care Medical Service at Galway University Hospitals from September 2006 – November 2006. This audit included all patients referred to the service; all patients commenced on Pregabalin; the indication for commencing Pregabalin; the starting dose; the incremental adjustments; the maintenance dose; and renal function. The need for escalation of opioids and other adjunctive analgesics two weeks prior to commencement of Pregabalin as well as reduction in other adjunctive analgesics two weeks after commencing Pregabalin was observed. Clinical recording of pain relief and/or reduction or discontinuation in other co-analgesics was used as a parameter of effectiveness. Results: 150 patients were referred. All charts analyzed. 30% of patients who commenced on Pregabalin, n=52 malignant, n=1 non-malignant. 43% of patients had complete pain relief; 43% had partial relief; opioid reduction was significant post Pregabalin with 30% of patients having 50% to 100% opioid reduction. Only one person discontinued Pregabalin due to side effects. Initial dose was 25mg bd in the majority of patients. Conclusions: Pregabalin was very effective for pain relief of neuropathic cancer pain. Side effect profile was minimal on commencing at much lower doses than recommended. For this population of patients with advanced disease the stabilisation and reduction in opioids has significant clinical implications.

Poster N°: 357

Type of presentation: Poster & poster discussion session
Poster session: Second group 30 May Friday 13.30 to 31 May Saturday 13.30
Category: Bereavement
Title: Issues in evaluating UK childhood bereavement services
Authors:
Liz Rolls Department of Natural and Social Sciences University of Gloucestershire, Cheltenham Glos UNITED KINGDOM

Background: The study ‘mapped’ evaluations of UK childhood bereavement services. It identified the challenging issues involved in evaluating children’s bereavement services; what evaluations had been undertaken; what needed to be evaluated and how best these could be achieved. The study participants involved UK childhood bereavement services including those in palliative care, and evaluation experts. Methods: The study used three research methods in a Delphi design: 1. Focus Groups of service practitioner identified the evaluation needs and concerns that were common to all, as well as those that were relevant to specific services. Evaluation aspects that still needed to be addressed were identified. 2. Two questionnaires; the first identified the evaluations that services had undertaken or used routinely; the second
identified and prioritised relevant dimensions arising from the Focus Group discussions. 3. Interviews with ‘experts’ identified the broader issues in evaluating childhood bereavement services. A descriptive statistical analysis was undertaken of both questionnaires, using SPSS. The qualitative data was analysed using NVivo. Results: All services undertook evaluation, the most common type being ‘user satisfaction’, and ‘post-intervention’ impact questionnaires. The challenge arising from the diverse range of users of evaluation, and the different types of monitoring and evaluation they required, was identified. The issues for services included: how to ethically meet these requirements; and the need for administrative support and skills to collate and analyse data. Conclusions: There is a need for greater consistency of the data required by evaluation users, as well as an increase in ‘impact’ and ‘outcome’ evaluation of services. Recommendations include the collection of a nationally agreed basic data set, and the development of a national outcome measure for services that will provide confidential data within, and between, services over time. The Clara Burgess Charity funded the research.

**Poster N°: 358**

Type of presentation: Poster  
Poster session: Second group 30 May Friday 13.30 to 31 May Saturday 13.30  
Category: Bereavement  
Title: Complicated grief risk factors in palliative care’s caregivers  
Presenting author: Patricia Yi  
Authors:  
Pilar Barreto faculty of Psychology University of Valencia SPAIN  
Elvira Martinez University of Valencia Valensia SPAIN  
Victoria Espinar Hospital Dr Moliner Serra (Valencia) SPAIN  
Miguel Fombuena Hospital Dr Moliner Serra (Valencia) SPAIN  
Carmen Soler Hospital Pare Jofre Valencia SPAIN  
Pilar Barreto University of Valencia Valensia SPAIN  

**Background:** Traditionally complicated grief risk factors have not been assessed in palliative care settings and usually these factors have not been studied simultaneously. **Aim:** To identify complicated grief risk factors in palliative care’s caregivers. **Methods:** Longitudinal study of 110 palliative care units’ patient’s grievers. 17 complicated grief factors were studied. Two complicated grief criteria were used: DSM-IV-TR and Inventory of Complicated Grief (ICG) administered 6 months postloss. **Results:** Significant differences were found between complicated/uncomplicated grievers using chi-square analysis with Cramer’s V effect (cv): caregiver’s dependency toward patient (chi2=18,038; p=0.000; cv=342), anger (chi2=7977; p=0.0021; cv=269), guilt (chi2=7,065; p=0.038; cv=253), previous psychiatric problems (chi2=12,853; p=0.003; cv=392), previous grief problems (chi2=28,993; p=0.000; cv=513), delay illness diagnosis (chi2=8,011; p=0.024; cv=270), symptoms without control during all illness trajectory (chi2=15,813; p=0.001; cv=379), symptoms without control during the last days (SWC) (chi2=7,727; p=0.019; cv=266) and SWC (chi2=7,727; p=0.019; cv=266). Differences between both criterias were found in anger and SWC. Binary regression analysis found that best complicated grief predictors were caretaker’s dependency (Wald=4,161, p=0.041, Exp(B) 2.29), guilt (Wald=5,892, p=0.017, Exp(B) 3.496), previous grief problems (Wald=5,689, p=0.017, Exp(B) 3.39), SWC (Wald=7,611, p=0.006, Exp(B) 3.02) and financial problems (Wald=5,783, p=0.016, Exp(B) 3.33). **Conclusions:** Better predictors of complicated grief factors in palliative care units were caregiver’s dependency, guilt, unresolved previous bereavements, symptoms without control (SWC) and financial problems. These are important cues for complicated grief assessment.

**Poster N°: 359**

Type of presentation: Poster  
Poster session: Second group 30 May Friday 13.30 to 31 May Saturday 13.30  
Category: Bereavement  
Title: The impact of early parental death on adult life: the impact of early parental death on adult life: a narrative approach  

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Authors:
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Mari Lloyd-Williams Academic Palliative and Supportive Care Studies Group, University of Liverpool Liverpool UNITED KINGDOM
Chris Dowrick Division of Primary Care, University of Liverpool Liverpool UNITED KINGDOM

**Background:** Around 53 children and young people under 18 are bereaved of a mother or father every day. Whilst there are a number of studies that report increased psychological disturbance in children as a result of early parental death, little attention is paid to the long term impact of such a loss, particularly in the UK. A qualitative, narrative approach provides rich insights into this phenomenon as it allows us to explore the individual experience of bereavement and the way in which wider social structures and processes impact on it. Drawing on Hermeneutic Phenomenology this study focuses on the question: What is the lived experience of bereavement regarding early parental death and its impact on adult life? **Methods:** Written and oral narratives (n=30) have been obtained to date from participants that had lost a parent before the age of 18, the majority of which live in the North West. The participants are from a broad age range and a variety of social backgrounds. Data analysis draws on a narrative holistic-context approach in conjunction with an organising thematic framework. **Results:** Early analysis of the data suggests that the impact of loss is different for each individual. This impact (perceived to be both positive and negative) is mediated by a complex range of inter-related factors. Of particular importance seems to be the age of the child at the time of death (i.e. the older the child, the greater the impact), the mode of death, family structure prior and post loss, the extent of their social support networks (formal and informal), family beliefs and values surrounding bereavement, communication and economic status. **Conclusions:** The preliminary findings suggest that the traditional models of bereavement which inform bereavement support are limited and oversimplify the grief process. From the results we will make a number of recommendations to inform future policy and practice.
results of the Inventory of Complicated Grief in a Danish population.

**Conclusions:** This study indicates, that about 1/3 of bereaved caregivers suffer from PTSD and/or depression one month after their loss. Indicating that more attention should be given to bereaved caregivers. Further results will be presented on the follow-up data.

**Poster N°: 361**

**Type of presentation:** Poster  
**Poster session:** Second group 30 May Friday 13.30 to 31 May Saturday 13.30  
**Category:** Ethics  
**Title:** Geriatrics D Refusal Phenomenon with End Stage Dementia Patients  
**Authors:**  
Bechor Zvi Aminoff Geriatric Division Sheba Medical Center, Tel-Hashomer ISRAEL

**Background:** In memory to Geriatrics D department which refused and closed due to failure coping with suffering of end stage and dying dementia patients, caregiver staff, and family members. The “Geriatrics D Refusal phenomenon” of end stage dementia (ESD) patients has never been was described in medical literature. Refusal phenomenon is entirely clear-cut different from the well-known “burn out syndrome”, and it is separate and independent part of abuse and neglect of elderly patients. In burn out syndrome the staff has motivation to give care, and they understand the importance of the challenge, but are exhausted due to the enormous burden. In the Geriatrics D Refusal phenomenon every effort is made in order not to admit ESD patients and there are numerous techniques are employed of getting rid these patients from the department. In the Geriatrics D Refusal phenomenon, both sides –the Health Insurance Funds and caregiver hospital staff reject the importance of the challenge to provide appropriate care to ESD patients. The refusal phenomenon of ESD patients by health services is one of main causes of suffering of in end stage dementia.  

**Methods:** We developed novel objective tool for measuring suffering in ESD Mini Suffering Examination (MSSE) which was published in our book – Measurement of Suffering in end-stage Alzheimer’s disease, Dyonon, Tel-Aviv, 2007.

**Results:** The results of our research regarding of measuring suffering of ESD patients dying after: A, 24 hours in hospice; B, 2–3 days; C, 4–10 days. Results: Sample with dyspnea: 307 of which 267 died, 99% had moderate to severe dyspnea in the last days. Dyspnea was a result of reduced pulmonary function due to: pulmonary cancer in 35% of cases, pleural-pulmonary metastases in 17%, a mediastinal syndrome in 2 cases, for a total of 142 patients (54%). Average survival rate: 11.17 days (range:1–108). Consciousness was reduced/absent in 81% of cases, while patient emotional states were characterized by: fear (64%), desperation (53%), panic attack (13%), moderate/severe anxiety (33%). Patients per group: A 10 (4%); B 66 (25%); C 102 (38%). Group A, therapy: benzodiazepines, lorazepam 1–5 mg per day; antipsychotics, haloperidol 2–6 mg per day; opiates, morphine 10–100 mg per day. Family consent for sedation was given in 100% of cases; patient in 40% (half patients experienced anxiety and panic); unresponsive drowsiness in 50% of cases.  

**Conclusions:** The data for groups B/C are still being analyzed. Establishing a communication protocol for the consent of palliative sedation is an important aspect of Palliative Care (PC) and needs to be addressed in the coming years. So communication instruments already in use should be verified to ascertain those aspects of PC that need to be modified in order to properly reflect the patient’s will in the presence of symptoms unresponsive to therapy.

**Poster N°: 362**

**Type of presentation:** Poster & poster discussion session  
**Poster session:** Second group 30 May Friday 13.30 to 31 May Saturday 13.30  
**Category:** Ethics  
**Title:** Ethics and refractory symptoms  
**Authors:**  
Daniela Cattaneo Hospice Vidas ITALY  
Emanuela Porta Vidas Milano ITALY  
Giada Lonati Vidas Milano ITALY  
Barbara Rizzi Vidas Milano ITALY

**Background:** The ethical implication is now the first problem for refractory symptoms’ treatment. One of these, dyspnea is experienced by 21–78.6% of terminally ill patients (Ripamonti 1999) and palliative sedation is usually the therapy of choice because this symptom is frequently unresponsive to treatment.  

**Methods:** Sample of patients hospitalized in the Casa Vidas Hospice (21/7/106–21/9/07) suffering from dyspnea. Analysis of therapy; patient clinical condition (consciousness, ability to speak, emotional state); origin (home, hospital); social status. Qualitative data of 3 groups of patients dying after: A, 24 hours in hospice; B, 2–3 days; C, 4–10 days.  

**Results:** Sample with dyspnea: 307 of which 267 died, 99% had moderate to severe dyspnea in the last days. Dyspnea was a result of reduced pulmonary function due to: pulmonary cancer in 35% of cases, pleural-pulmonary metastases in 17%, a mediastinal syndrome in 2 cases, for a total of 142 patients (54%). Average survival rate: 11.17 days (range:1–108). Consciousness was reduced/absent in 81% of cases, while patient emotional states were characterized by: fear (64%), desperation (53%), panic attack (13%), moderate/severe anxiety (33%). Patients per group: A 10 (4%); B 66 (25%); C 102 (38%). Group A, therapy: benzodiazepines, lorazepam 1–5 mg per day; antipsychotics, haloperidol 2–6 mg per day; opiates, morphine 10–100 mg per day. Family consent for sedation was given in 100% of cases; patient in 40% (half patients experienced anxiety and panic); unresponsive drowsiness in 50% of cases.  

**Conclusions:** The data for groups B/C are still being analyzed. Establishing a communication protocol for the consent of palliative sedation is an important aspect of Palliative Care (PC) and needs to be addressed in the coming years. So communication instruments already in use should be verified to ascertain those aspects of PC that need to be modified in order to properly reflect the patient’s will in the presence of symptoms unresponsive to therapy.

**Poster N°: 364**

**Type of presentation:** Poster & poster discussion session  
**Poster session:** Second group 30 May Friday 13.30 to 31 May Saturday 13.30  
**Category:** Ethics  
**Title:** Nurses’ attitudes towards end-of-life decisions in Flanders, Belgium
Poster N°: 366
Type of presentation: Poster
Poster session: Second group 30 May Friday 13.30 to 31 May Saturday 13.30
Category: Ethics
Title: Patient autonomy and therapeutic relation
Authors:
Cinzia Marini Kreftavdeling St. Olavs Hospital NORWAY

Background: In the advanced stage of breast cancer (III A or further stages) the therapeutic path is longer and more complex than in the earlier stages, the chances of relapse higher, and the prognosis relatively uncertain. In Norway, as in the rest of Europe, the follow up program stretches over at least five years' monitoring after surgery. Our clinical experiences indicate that information for these patients represents a central and particularly sensitive topic. However, scientific knowledge about how this group of patients experiences the different aspects of the information process is limited. Aims: To highlight how patients with advanced breast cancer experience the information process, in particular relatively to ethical and existential aspects. Methods: Qualitative interviews of 7 patients with advanced breast cancer (III A or further stages), treated at St.Olavs's University Hospital in Trondheim (Norway). The material was analyzed according to Giorgi's phenomenological method. Results: The need for information shows ambivalence between fear and hope. There is a strong need for a stable therapeutic relation to health personnel. Although the concept of patient's autonomy is deeply rooted in the Norwegian culture and medical practice, in the clinical encounter it does not seem to represent the most important issue for these patients. Information is not primarily seen as a precondition to autonomous therapeutic choice, but rather as an aid to keep up hope. Conclusions: The information process always implies an ethical choice. Information has a positive value for the patient if it takes place within a stable therapeutic relation with health personnel, based upon mutual trust. Patient autonomy acquires meaning only in an interpersonal context, where the health worker is an expert who, in addition to medical knowledge, acts according to empathy, ethics and human values.

Poster N°: 367
Type of presentation: Poster
Poster session: Second group 30 May Friday 13.30 to 31 May Saturday 13.30
Category: Ethics
Title: Knowledge and experience of health professionals working in a Rehabilitation and Geriatrics Department regarding to advance directives:
Authors:
Sophie Pantex Rehabilitation and geriatrics Service of palliative medicine SWITZERLAND
Paulette Le Lous Dpt Rehabilitation and Geriatrics. University Hospital Geneva Geneva SWITZERLAND
Laurence Déroué Dpt Rehabilitation and Geriatrics. University Hospital Geneva Collonge-Bellerive SWITZERLAND
Nora Zerari Dpt Rehabilitation and Geriatrics. University Hospital Geneva Collonge-Bellerive SWITZERLAND

Background: A specific legislation relative to advance directives (AdS) has been implemented in our the canton of Geneva since 1996. Health professionals (HP) are required to find out existing ADs and to provide informations about ADs at the time of patient hospitalization. The objective is to better characterize knowledge and experience of HP working in a Rehabilitation and Geriatrics Department regarding to advance directives and to develop an education program related to them. Methods: A survey that consisted of 29 questions was distributed to 490 auxiliary nurses and nurses. The survey included domains examining their knowledge concerning state laws and general informations concerning ADs, the proxies’ role, the health of arguments. Conclusions: This heading may seem a little comic when it comes to philosophical analysis.

Poster N°: 365
Type of presentation: Poster
Poster session: Second group 30 May Friday 13.30 to 31 May Saturday 13.30
Category: Ethics
Title: The dignity of the dead
Authors:
Göran Lantz Inst for Caring Science Ersta Sköndal University College SWEDEN

Background: There is a “chain of care” reaching from care for the elderly in service homes over special homes for the elderly to nursing homes. At the same time one might speak of a “chain of care” from the moment of death until the funeral. It includes the professional activities of hospital staff (including medical home care), pathologists, transporters of the dead, undertakers and ministers and churchyard personnel. It is essential that these professionals co-operate and have a fairly common view of the dead. I discuss what I would like to call a thanatroplogy, a view of the dead, analogous with an anthropology, i.e. a view of man. In my view there can be a reductionist and a more holistic view of the dead. The latter includes the narrative of the dead or her life-story. I further discuss whether the dead can be said to be a person and whether she can have rights. How can we justify such rights (legal and moral)? I lay religious as well as secular aspects on the view of the dead. Finally I distinguish between four kinds of dignity (Lennart Nordenfelt’s typology), and try to determine in which of these aspects there might be a dignity of the dead and what that implies for the care of the dead. Methods: Philosophical, concept clarification and analysis
Conclusions: A challenge every day. On the one hand it doesn’t seem to be an important question in the everyday work of the practitioners. On the other hand it seems to be an important question in the everyday work of the practitioners. The impact of the ADs on the partnership with the patients and the quality of care and existing education program. The motivation of the wish to hasten death and to discuss the question whether the patient’s opinion about life and death is related to their biographic context. One of the aims is to identify patients’ needs and to clarify what patients wishing for hastened death expect from caregivers. Methods: Hypotheses are generated on the basis of content categories and tested in the ongoing interviews to develop a concluding theory. Four patients have been included; none of them complains of additional burden from the participation in the study. Results: Preliminary results of 295 categorized statements show that the motivation to ask for hastened death is prominently influenced by the wish to avoid certain situations or conditions such as transfer to nursing home, social neglect as well as bodily changes in the future (37). Other reasons were level of understanding of the disease (26) and the dealing with the dimension of time (21). The patients’ expectations are focused on the wish to recover quality of life, to be treated holistically, to control major symptoms, to be heard and to get individual information and adequate treatment. Conclusions: Patients seem to be lead by their imagination and anticipation of suffering. They grapple with their need for an individualized care and fear a lack of resources which would make life worthless. Being a burden to others may strengthen the wish to hasten death. It is up to the next interviews to emphasize biographical changes and see whether similar patterns of thought on life and death are reported from earlier stages of life, as the tendency of the interviews suggests. Source of funding: Deutsche Forschungsgemeinschaft (DFG, 350253).

Poster N°: 369

Type of presentation: Poster
Poster session: Second group 30 May Friday 13.30 to 31 May Saturday 13.30
Category: Ethics
Title: Palliative patients’ wish to hasten death: motivations and expectations toward caregivers
Authors: Stephanie Stiel Klinik für Palliativmedizin RWTH Aachen GERMANY
Martina Pestinger Klinik für Palliativmedizin, RWTH Aachen GERMANY
Norbert Krumm Klinik für Palliativmedizin, RWTH Aachen GERMANY
Lukas Radbruch Klinik für Palliativmedizin, RWTH Aachen GERMANY
Frank Elsner Klinik für Palliativmedizin, RWTH Aachen GERMANY

Background: Patients from the palliative care units in Aachen, Bonn and Cologne who report a wish to die or ask for physician-assisted suicide are examined in a qualitative study by the method of Grounded Theory. An open, half-structured, audiotaped interview is used to further decode the communicative function and motivation of the wish to hasten death and to discuss the question whether the patient’s opinion about life and death is related to their biographic context. One of the aims is to identify patients’ needs and to clarify what patients wishing for hastened death expect from caregivers.

Methods: Hypotheses are generated on the basis of content categories and tested in the ongoing interviews to develop a concluding theory. Four patients have been included; none of them complains of additional burden from the participation in the study. Results: Preliminary results of 295 categorized statements show that the motivation to ask for hastened death is prominently influenced by the wish to avoid certain situations or conditions such as transfer to nursing home, social neglect as well as bodily changes in the future (37). Other reasons were level of understanding of the disease (26) and the dealing with the dimension of time (21). The patients’ expectations are focused on the wish to recover quality of life, to be treated holistically, to control major symptoms, to be heard and to get individual information and adequate treatment. Conclusions: Patients seem to be lead by their imagination and anticipation of suffering. They grapple with their need for an individualized care and fear a lack of resources which would make life worthless. Being a burden to others may strengthen the wish to hasten death. It is up to the next interviews to emphasize biographical changes and see whether similar patterns of thought on life and death are reported from earlier stages of life, as the tendency of the interviews suggests. Source of funding: Deutsche Forschungsgemeinschaft (DFG, 350253).

Poster N°: 370

Type of presentation: Poster
Poster session: Second group 30 May Friday 13.30 to 31 May Saturday 13.30
Category: Ethics
Title: Do Not Resuscitate (DNR) Policy in New York State: A focus on DNR by Therapeutic Exception
Authors: Roma Tickoo Pain and Palliative Care Service, Dept. Of Neurology Memorial Sloan-Kettering Cancer Center U. STATES
Eugenie Obbens MD PhD Memorial Sloan-Kettering Cancer Center New York U. STATES
Nessa Coyle NP PhD Memorial Sloan-Kettering Cancer Center New York U. STATES

Background: New York State mandates that the consent process for obtaining a DNR order must be documented on an appropriate consent form.
These are available for 7 categories of patients: Adult patient with capacity, patients without capacity who previously consented to a DNR order, patients without capacity who have a surrogate, patients without capacity and without a surrogate, minor patients, patients not in hospital and patients with capacity who would be harmed by a DNR discussion (Therapeutic Exception). There is little data on the prevalence of DNR by Therapeutic Exception in terminally ill patients.Objectives: 1. To identify the prevalence of DNR by Therapeutic Exception in a 450 bed urban comprehensive cancer center.2. To explore the physician documented reasons for evoking DNR by Therapeutic Exception. Methods: Data was retrieved electronically on 627 in-patient deaths from August 2005–2006. DNR by Therapeutic Exception had been evoked in thirteen patients (2.07%). The consent forms for DNR by Therapeutic Exception were then reviewed to identify the physician documented reasons for its use in these thirteen patients. Results: The reasons for “determination of injury” were documented by the physicians as: “Discussion would be traumatic and upsetting to patient”, “has intermittent encephalopathy”, “Severe pain and respiratory distress make a sufficient conversation of this issue impractical”, “Terminal illness”, “Patient clearly stated her wishes not to know the severity of her illness” and “Medical and/or surgical intervention for life support is futile”. In 4 (30.7%) of the 13 DNR forms, documentation was incomplete. Conclusions: Use of DNR by Therapeutic Exception was rare and evoked in only 2.07% of in-patient deaths in one year period. However, the reasons documented by the physicians are revealing and suggest the need for ongoing training in (1) the appropriate indications for the use of DNR by Therapeutic Exception (2) communicating with terminally ill patients (3) addressing goals of care early.

Poster N°: 371 withdrawn

Poster N°: 372

Type of presentation: Poster
Poster session: Second group 30 May Friday 13.30 to 31 May Saturday 13.30
Category: Evaluation of education programmes
Title: Outcomes for Nursing Students Following Clinical Rotation in End of Life Care
Authors: Barbara Lindenthal Bailey Center for Palliative Studies San Diego Hospice and Palliative Care U. STATES

Background: In 2002 San Diego Hospice and Palliative Care began an outreach program to two nursing schools offering a BSN degree. The program consists of two to four hour of classroom education and eight hours of clinical rotation caring for terminally ill patients in a twenty-four bed acute care center. Each student is assigned a nurse preceptor and has the opportunity to provide nursing care to the patients. Methods: Beginning with the academic year 2006 and continuing through 2007, students from each of the programs has completed a self analysis survey of ten items related to palliative and hospice care. The number is 350. The student was asked to evaluate competency regarding several nursing functions and activities related to end of life care. These include (but are not limited to) assessment of pain, use of a pain scale, identifying signs and symptoms of dying, caring for a dying patient and discussing end of life issues with patients/families. Results: Results indicate significant changes in seven of the ten items included on the survey. The greatest changes occurred in the ability to explain the difference between palliative and hospice care, participation in a hospice Interdisciplinary Group and providing patient/family education about end of life care. Additionally, there was a large increase in the number of students who identified an interest in pursuing a career in palliative and hospice nursing in the future. Conclusions: Results of this survey indicate that clinical experience does affect self report of competency for student nurses and enhances interest in pursuing future career opportunities.

Poster N°: 373

Type of presentation: Poster & poster discussion session
Poster session: Second group 30 May Friday 13.30 to 31 May Saturday 13.30
Category: Evaluation of education programmes
Title: Educational interventions in advanced care planning completion, a review of the literature
Presenting author: Jane Seymour
Authors: Brian Crosthie Sue Ryder Centre for palliative & Eol, studies School of Nursing UNITED KINGDOM
Caroline Sanders National Primary Care Research and Development Centre, The University of Manchester Manchester UNITED KINGDOM
Jane Seymour Sue Ryder Centre for Palliative & End of Life Studies, The University of Nottingham Nottingham UNITED KINGDOM

Background: This presentation reports on a literature review investigating educational interventions aimed at informing older people of Advance Care Planning (ACP). The review sought to examine evidence of reported success in terms of interventions; educational materials developed, and participants’ action towards some form of ACP. This review informs a new research project seeking to develop a peer education programme about end of life care (EoLC) for older people (funded by the Burdett Trust for Nursing, UK).

Methods: A critical review using electronic databases including Ovid, PubMed and Web of Science. Inclusion criteria included educational intervention studies targeting adults over the age of 65 from 1994–2007 published in English. Keywords used: advance care planning, advance directives, living will, patient education, peer education, and elderly. Relevant papers were hand searched for further material. After criteria attrition, 9 papers were included for review purposes. Data review included items on participants’ background, method of educational intervention, evidence of success and reported steps towards individuals completing some form of ACP. Results: The review captured a variety of educational interventions, included discussion groups, individual counselling, and mailed information on ACP. The majority of studies report the use of written information, with three studies using other technology, namely video and interactive CD-ROM. Studies reporting outcomes documented a rise in the number of completed ACP items (advance directives and Durable Power of Attorney) within intervention groups as compared to control or other intervention group. Conclusions: This review identifies that interventions are mainly directed at increasing completion of instructional directives. Our current research project will address ACP process issues around statements of wishes and preferences in EoLC.

Poster N°: 374

Type of presentation: Poster
Poster session: Second group 30 May Friday 13.30 to 31 May Saturday 13.30
Category: Evaluation of education programmes
Title: Competences of nurses in palliative care in all settings in Flanders (Belgium)
Authors: Lieven De Maesschalck Heath Care KHK BELGIUM
Katrien Moens Federatie Palliatieve zorg Vlaanderen Wemmel BELGIUM
Miek Grypdonck Universiteit Gent Gent BELGIUM
Paul vanden Berghe Federatie Palliatieve zorg Vlaanderen Wemmel BELGIUM
Tine Devlieger Universiteit Antwerpen Antwerpen BELGIUM
Inge Bossuyt Universiteit Ziekenhuizen Leuven Leuven BELGIUM

Background: Since the start of Palliative Care, we’ve seen an increasing number of courses and education programmes available for nurses that underpin the professionalization of Palliative Nursing. Today, due to all kind of education programmes on different levels, there is a lot of confusion about the level of education, the quality and content of the programmes, the value of the diploma/certificate, etc. The EAPC document ‘A Guide on the Development of Palliative Nurse Education’, offers a framework to
develop a concept of education for Palliative Care. This abstract will explain the methodology and will discuss the main results. The aims of this study were: A description of the presence and importance of the competences in all palliative settings; A description where these competences are and would be educated; A labelling in generic and specific. Methods: The list of competences in Palliative Care was used for a descriptive cross-sectional mail survey, after a validation study. 271 nurses from all settings in Palliative Care were included in the study. The mean age of the nurses was 41.8 (SD: 7.5), there mean years experience were 28.6 (SD: 7.9), with 7.5 years in Palliative care (SD: 5.2). The majority of respondents were employed clinically as nurse (40%), 23% were in supervisory roles, 10% were in a coordinator role and 10% were teachers. Results: We could build up a ranking in order of importance and in order of presence. Starting from global means we developed fingerprints (with ridit-analyses) for each setting. These results show that each setting has his own specific profile and that the current curriculum in the nursing bachelor program is focused on palliative care in Nursing homes. Conclusions: These results lead to a global concept of education of Palliative Care. Every competence is labelled on A, B, or C level and we have proved also the gaps in training in every setting. Next steps could be the development of quality indicators for training and education programmes, developing a self-assessment instrument, etc.

**Poster N°: 375**

Type of presentation: Poster
Poster session: Second group 30 May Friday 13.30 to 31 May Saturday 13.30
Category: Evaluation of education programmes
Title: Developing a multi-agency approach to improve non-cancer palliative care education
Authors:
Stephanie Gomm Hospital Paliative Care Team Salford Royal Foundation NHS Trust UNITED KINGDOM
Catherine Byrne Salford Royal Foundation NHS Trust Salford United Kingdom
Bethany Mills Salford Primary Care Trust Salford United Kingdom
Sara Walsh St Ann's Hospice Salford United Kingdom
Barbara Jackson Salford Primary Care Trust Salford United Kingdom

Background: A 3 year project to improve access to Community Palliative Care for the residents of the city of Salford commenced in 2004 funded by Big Lottery Fund. The major elements were: (1) to improve access to palliative care out of hours, (2) develop a patient and carer advice line, (3) enable development of skills to meet the palliative care needs of non-cancer patients. Methods: To devise an effective training programme to meet the palliative care education needs of, and promote multi-agency working for generic health and social care staff, specialist palliative care teams and nurse specialists from cardiac, renal, respiratory and neurological services. A multi-agency education working group identified knowledge and skills gaps for non-cancer and palliative care for health and social care staff. The resultant education programme was devised and evaluated as follows: by use of questionnaires to establish training needs, and assess effectiveness following delivery of the education programme. Results: During 2006/2007 over 400 staff have undertaken the education programme with an overall 95% satisfaction and enabled changes in practice following participants' attendance. New links were established between community, hospice, hospital and social care teams, and strengthened relationships between generalists and specialists. The profile of Palliative Care education was raised by the reciprocal exchange and delivery of non-cancer and palliative care education. The maintenance of the improved knowledge base across the Health and Social Care Economy was achieved by production of non-cancer and palliative care education materials and by establishment of a specialist palliative care interest network (SPIN) for sustainability. Conclusions: The outcome was enhanced multi-agency working by the delivery of a sustainable palliative care education programme to meet the needs of non-cancer patients, with increased knowledge and mutual understanding of individual and team roles for palliative care and non-cancer services.

**Poster N°: 376**

Type of presentation: Poster
Poster session: Second group 30 May Friday 13.30 to 31 May Saturday 13.30
Category: Evaluation of education programmes
Title: An Exploration of Palliative Care Nurses’ Educational Needs in the Practice of Spiritual Care
Authors:
Deborah Hayden Education & Research Our Lady’s Hospice IRELAND

Background: Despite the prominence of spiritual care within the philosophy of palliative care, deficient evidence exists as to how spiritual care should best be taught. The study aimed to explore what palliative care nurses consider as important when learning about the spiritual dimension of palliative nursing care. The objectives of this study were to contribute towards ascertaining palliative care nurses’ educational needs in the practice of spiritual care, and to contribute towards developing a curriculum outlining the spiritual dimension of palliative nursing care. Methods: Utilising a descriptive-exploratory qualitative approach, data was collected using semi-structured interviews. Eight purposefully sampled Palliative Care Clinical Nurse Specialists answered the research question “what are palliative care nurses’ educational needs in practicing the spiritual dimension of palliative nursing care?” Data analysis was facilitated by an adaptation of Burnard’s (1991) method of thematic content analysis. Results: The findings recommend that educators should develop palliative care nurses’ awareness of the attributes of the spiritual dimension of palliative care. Embedded in the attributes, are skills and qualities that are essential to spiritual practice, which educators should awaken. However, this is dependent upon the concept of ‘giving of time’. Conclusions: In conclusion, educators should encourage reflection on and generation of simplistic talk about the practice of spiritual care, which will result in the practice being more recognised. Educators must appreciate that the facilitation of an experientially safe and supportive environment is vital, so that students will perceive the learning of spiritual care as more memorable, understandable, and relevant to their practice of palliative nursing care. Derived from a personal willingness and a sound moral and ethical ethos, the spiritual aspect of palliative nursing practice is quite plainly ‘good’ palliative care.

**Poster N°: 377**

Type of presentation: Poster
Poster session: Second group 30 May Friday 13.30 to 31 May Saturday 13.30
Category: Evaluation of education programmes
Title: Changing the functional rehabilitation culture within care homes (nursing) to that of a palliative care approach: the evaluation of an intervention study
Authors:
Jo Hockley School of Community Health Sciences (GP) University of Edinburgh UNITED KINGDOM
David Oxenham Marie Curie Hospice Edinburgh Edinburgh UNITED KINGDOM
Keri Thomas GSF Central Team Birmingham UNITED KINGDOM
Nikki Sawkins GSF Central Team Birmingham UNITED KINGDOM
Julie Watson University of Edinburgh Edinburgh UNITED KINGDOM
Scott Murray University of Edinburgh Edinburgh UNITED KINGDOM

Background: Frailty, pain and other symptoms are issues for residents with multiple co-morbidities who live and die in care homes. A death-denying emphasis on functional rehabilitation in such a context is inappropriate. However, bringing about change where the context is ‘weak’ (i.e. lack of learning culture; poor multi-professional support; majority of staff are untrained) is complex. Methods: Aim & methods: To improve the palliative care knowledge/practice of care home staff through the parallel implementation of: The Gold Standards Framework for Care Homes · Macmillan learning pack: ‘foundations in palliative care for care home staff’ · An adapted Liverpool Care Pathway for care homes. In February 2007, the nursing home
managers of all seven nursing homes within one region in Scotland were invited to take part; all agreed. An experienced specialist nurse facilitates the implementation working alongside care home staff, general practitioners and specialist palliative care to encourage sustainable change. A mixed methods evaluation has been undertaken and will be repeated after the intervention. The evaluation includes: a palliative care audit of staff’s practice; ‘after death analysis’ interviews with general practitioners, relatives of residents who died in the home, and nursing home managers; and, fieldnotes of the facilitation process. Results: Preliminary results reveal a deficit of palliative care knowledge amongst staff and tensions caused by a lack of sufficient medical support. Nonetheless, through facilitation there is an increase use in proactive care planning, ‘do not attempt resuscitation’ orders, and the use of the Liverpool Care Pathway. Conclusions: Because of the ‘weak’ context of care homes, change is only likely to occur with projects that advocate ‘high’ facilitation. Without sufficient resource to ensure the appropriate implementation of end-of-life care tools, these tools will not get the credit that they deserve and true sustainability will be patchy.

Poster N°: 378
Type of presentation: Poster
Poster session: Second group 30 May Friday 13.30 to 31 May Saturday 13.30
Category: Evaluation of education programmes
Title: Teaching physicians basic palliative medicine. A pilot project
Authors:
Helle Hvamness Urological National Hospital, Rigshospitalet DENMARK
Henrik Larsen Department of Palliative Medicine. Bispebjerg Hospital Copenhagen, DENMARK

Background: Patients in ordinary hospital wards have the same number of symptoms as patients in palliative departments. The need for skills and knowledge therefore is paramount and underlining the need for training programmes with documented effect. We wanted to develop a result orientated and effect controlled danish educational material. Methods: Six senior doctors from non-palliative departments were offered education by the two authors in basic palliative medicine. Teaching material (slides and lectures) was developed. Four topics were covered in a one-day teaching session. Each senior doctor was supposed to teach colleagues in some of the four topics. Tests were developed to document the effect of the senior doctors teaching. 47 physicians performed the test before the teaching session and 25 physicians completed the test three months later. 17 completed both tests and were evaluated. A screening instrument (EORTC QLQ-C15-PAL) was introduced. Before and after the authors teaching session the senior doctors had to screen at least two patients. The EORTC screening and a copy of the case notes were used to evaluate the treatment in the five departments. 15 EORTC schemes were returned; 10 before and 5 after the teaching session, but two of these were not useable. Results: The senior doctors held from none to four teaching sessions. The 17 physicians evaluated significantly improved their overall knowledge (p = 0.005). Wilcoxon Signed Ranks Test was used. The ten EORTC schemes filled out before teaching in the departments disclosed a median of 6.5 severe or very severe symptoms (range 2–10). After teaching a median of 5 symptoms were disclosed. However, the material is too small for statistical analysis. Conclusions: Our educational material and screening proved to be effective and useable/adaptable for senior doctors when teaching younger colleagues. A larger material is needed to demonstrate a change in the performance of the organisation.

Poster N°: 379
Type of presentation: Poster
Poster session: Second group 30 May Friday 13.30 to 31 May Saturday 13.30
Category: Evaluation of education programmes
Title: Education on Palliative Care in the pre-graduated Nursing education in Portugal

Authors:
Sandra Pereira Escola Superior de Enfermagem de Angra do Heroísmo Universidade dos Açores PORTUGAL

Background: Nurses seem to feel some difficulties while accompanying terminal patients, which can be related to the lack of education that they possess in Palliative Care. Methods: Analysis of the study plans and programmed contents of the nursing courses taught by the Portuguese public superior education, at the present time. Comparative analysis of the reality about the teaching of palliative care in the pre-graduate nursing education in Portugal, in face of the recommendations pronounced by the European Association for Palliative Care-EAPC and by the Associação Portuguesa de Cuidados Paliativos. Results: In 14 of the 23 schools that constituted the sample, Palliative Care is taught in an explicit way. This subject appears mostly at the level of the 2nd year of the course, with an average number of 12 hours of education. In several schools are taught subjects close related to palliative care, namely “The terminal patient” (8 schools) and “The person at the end of life” (11 schools). In these cases, the number of hours dedicated to its approach goes from 1 to 31 hours. 62.3% of the schools that teach Palliative Care in an explicit way fulfill the year of recommended education, 14.3% fulfill the number of hours and almost all of the praised domains by the EAPC are taught. Having in account the subject “The terminal ill person”, 62.5% of the scales meet the year of education, no school fulfills the number of hours and only the domains “The ill person” and “Self care and ethical aspects” are considered. In relation to the subject “The terminal ill person”, 36.36% of the schools that teach it fulfill the year of formation, 9.09% fulfill the number of hours; “The ill person” and “Self care and ethical aspects” are the most boarded domains. Conclusions: Education on Palliative Care in the pre-graduated nursing education in Portugal is insufficiently systemized, dispersed and with a small number of hours dedicated. However, it is being made a notorious investment to include this subject in the nursing courses curricula.
improvements in communication skills. However, questions have emerged as to the evidence for sustainable impacts on whole organisations.

**Conclusions:** Evidence based communication skills training is currently being rolled across the UK with evaluation based on self assessment and confidence in communication. If this programme is to be sustained then more research is required to investigate the impact on whole organisations as well as individual improvement.

**Poster N°: 382**

**Type of presentation:** Poster  
**Poster session:** Second group 30 May Friday 13.30 to 31 May Saturday 13.30  
**Category:** Family & care givers  
**Title:** Predictors of Spanish hospital nurses’ views of relatives of terminally ill cancer patients  
**Authors:**  
Maria Aranzamendi Escuela de Enfermeria Universidad de Navarra SPAIN  
Professor Alison Richardson King’s College London London UNITED KINGDOM  
Silvia Corchon Universidad de Navarra Pamplona SPAIN  
Ana Carvajal Clinica Universitaria de NavarraPamplona SPAIN  
Ma Isabel Saracibar Universidad de Navarra Pamplona SPAIN  
Professor Julia Addington-Hall University of Southampton Southampton UNITED KINGDOM  
Marina Martinez Clinica Universitaria de Navarra Pamplona SPAIN

**Background:** Palliative care’s philosophy emphasises the importance of caring for families, as well as patients. It is of concern therefore, that research evidence indicates that hospital nurses may perceive terminally ill patients’ relatives negatively. If true, this is a barrier to improving palliative care in hospitals which needs addressing. This study therefore explored hospital nurses’ views of terminally ill patients’ relatives and sought to identify personal and professional factors influencing these.  

**Methods:** A survey was conducted of all nurses working on acute wards with terminally ill patients in eligible hospitals in Navarre, Spain. 165 nurses participated (65% response rate). Factor and regression analyses were used in analysis.  

**Results:** Almost all thought nursing care should include the family (96%) but 26% felt uncomfortable talking to relatives, 43% that they interfered with nurses’ tasks and 61% found them very demanding. Factor analysis identified three factors: challenges with relatives, positive views of relatives and negative involvement. Multiple regression analysis found that nurses’ reports of finding relatives challenging were positively associated with their discomfort with death and dying, and with how challenging they found caring for terminally ill patients, and negatively associated with how motivated they were to care for these patients. Those with a Catholic faith had a more positive view of relatives, as did those who thought relatives should be involved in patients’ care. Whether they thought relatives should be involved in their care was also associated with how challenging nurses found caring for patients.  

**Conclusions:** Many hospital nurses find supporting patients’ relatives challenging. Interventions to tackle hospital nurses’ discomfort with death and dying and to increase their motivation to care for terminally ill patients should be developed as these predict nurses’ views of their relatives.

**Poster N°: 385 withdrawn**

**Poster N°: 384 withdrawn**

**Poster N°: 383**

**Type of presentation:** Poster  
**Poster session:** Second group 30 May Friday 13.30 to 31 May Saturday 13.30  
**Category:** Family & care givers  
**Title:** Bereaved Hospice Caregivers’ Communication with Health Care Professionals in the Transition to Hospice Care  
**Authors:**

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Ellen Coak School of Social Work The University of Alabama U. STATES  
Shadi Martin The University of Alabama Tuscaloosa, AL U. STATES

**Background:** In 2005, about one-third of those who died in the U.S. received hospice services (NHPCO, 2007). Direct and timely discussions about diagnoses, prognoses and end-of-life care options may increase quality of life for patients and families at the end of life. Communication and education about the range of hospice services is essential for maximum hospice utilization, but little is known about how initial end-of-life care discussions are conducted.  

**Methods:** This qualitative phenomenological study was the second phase of a mixed-methods study aimed at understanding how the communication process proceeds and affects decisions to elect hospice. Ten bereaved hospice caregivers of patients over age 60 who received home hospice services were selected from respondents in the first phase. In-depth interviews were conducted within six months to one year post-patient death. Interviews lasted 1 1/2 to 2 hours, were audio-taped, and later transcribed. A semi-structured interview guide captured key aspects in end-of-life care discussions. Qualitative data analysis software was used to manage the large textual data.  

**Results:** Major themes that emerged from the data included: information known about diagnoses/prognoses; discussion of end-of-life care treatment; understanding and expectations of hospice; and involvement of health care professionals. Most information about end-of-life care came from physicians and social workers, with varying levels from other health care professionals. Also, participants lacked sufficient information and understanding about what patients would physically and emotionally endure in the dying process or about care needed prior to hospice enrollment.  

**Conclusions:** Collaborative communication, with social workers as liaisons between patients, families, and health professionals can facilitate informed decisions and ease transitions to hospice. Caregivers may then be better prepared to provide optimal care thus increasing quality of life when patients and families are most vulnerable.
and most concerning, dyspnea (19.4%), and pain (28.2%). Most documents included information in the family sensory, cause of symptoms, and what to do domains. **Conclusions:** This study indicates most hospices do not have written information on key symptoms such as pain and dyspnea in the last hours. Additional research is needed to determine what information family caregivers value and how to deliver the information. Funding: Charles A. Eckburg Foundation.

**Poster N°: 386**

**Type of presentation:** Poster  
**Poster session:** Second group 30 May Friday 13.30 to 31 May Saturday 13.30  
**Category:** Family & care givers  
**Title:** Does the number of domiciliary visits have influence on family's satisfaction in patients assisted by PCT?  
**Authors:**  
Ma Ángeles Martín Fuentes de la Rosa Palliative Care Servicio Extremoño de Salud SPAIN  
Vincent Robles Alonso Servicio Extremoño de Salud Plasencia SPAIN  
Patricia Hernández García Servicio Extremoño de Salud Mérida SPAIN  
Raúl Pérez Asensio Servicio Extremoño de Salud Don Benito SPAIN  
María del Pilar Ruiz Márquez Servicio Extremoño de Salud Zafra SPAIN  
Laura Blanco Toro Servicio Extremoño de Salud Mérida SPAIN  

**Background:** Satisfaction in terminally ill patients' families after their death is an important result measure although there is not any good tool validated in Spanish. Let’s say that satisfaction is related with the palliative care teams (PCT) contact, would it be the number or the quality of these visits the cause of this result? The aim of this job is to determine if the number of domiciliary visits of the PCT has influence in the satisfaction level of terminally ill patients’ families. **Methods:** Prospective, analytic study forming part of a bigger job on satisfaction. Population to be studied: main caregivers in patients assisted by PCT once dead. Variables: number of domiciliary visits and family’s satisfaction level (0–10), both are quantitative, discrete variables. Tool: satisfaction (0–10) is not a validated tool but it has been previously used in palliative medicine in Spain. After the signature of an informed consent, the families were telephonically surveyed. An Excel table was used and a linear regression analysis was performed in order to determine the relationship between both variables. Considering the null and void hypothesis of non existence of relationship between both variables. **Results:** A total of 184 relatives of patients dead after following of the PCT. The result obtained in the linear regression was a value R = 0.0203. Excluding all the patients showing maximum satisfaction (the vast majority), the value R2 was a value R2 = 0.0579. **Conclusions:** It is provable that the used tool does not determine correctly satisfaction given the high number of relatives showing the highest value. After the necessary adjustments it could be observed certain relationship between the number of visits and perceived satisfaction.

**Poster N°: 387**

**Type of presentation:** Poster  
**Poster session:** Second group 30 May Friday 13.30 to 31 May Saturday 13.30  
**Category:** Family & care givers  
**Title:** Development of support services for family carers: challenges in partnership working  
**Authors:**  
Sheila Payne International Observatory on End of Life Care Lancaster University UNITED KINGDOM  
Christine Ingleton Centre for Health and Social Care Studies, University of Sheffield Sheffield UNITED KINGDOM  
Terri O’Brien International Observatory on End of Life Care Lancaster University Lancaster UNITED KINGDOM  
Nolan Mike Community Sciences Centre University of Sheffield Sheffield UNITED KINGDOM  

**Background:** Evidence suggests that support services for family carers of terminally ill people in the United Kingdom are often either not available, or do not adequately address the needs of carers. One of the challenges facing service deliverers is the necessity to work collaboratively across health and social care, and statutory and voluntary sector organisational boundaries. This study aims to evaluate challenges of partnership working faced by service deliverers developing new support services for family carers in the hospice voluntary sector. The paper draws on an evaluation commissioned by Help the Hospices, a national United Kingdom charity. **Methods:** A formative evaluation methodology has been used which focuses on the processes, structures and outcomes of the new services. Semi-structured interviews, at both the start and end of the service delivery, as well as the organisations’ reports, form the basis for exploring service deliverers’ experiences of providing services to carers. A carers’ questionnaire also assesses carers’ views about service utilisation. Preliminary qualitative analysis was conducted using content analysis. **Results:** Preliminary Results Data have been collected from 9 organisations. These include 31 initial interviews with service deliverers (employees and volunteers) and 14 follow up interviews. 15 carers have also completed the carers’ questionnaire, a 68% response rate from 3 organisations. Analysis of service deliverers’ interviews reveals different experiences of working collaboratively with the organisations. The paper discusses some of the difficulties faced by service deliverers, focusing on examples of successful and problematic partnership working arrangements with both internal inter-disciplinary teams and external agencies. **Conclusions:** This research illustrates the challenges of providing hospice services that interface with other community based services.

**Poster N°: 388**

**Type of presentation:** Poster  
**Poster session:** Second group 30 May Friday 13.30 to 31 May Saturday 13.30  
**Category:** Family & care givers  
**Title:** Experiences of bereaved family carers with end-of-life care and support by the primary care system in Austria  
**Authors:**  
Sabine Pleschberger Palliative Care & Organisational Ethics, University of Klagenfurt, IFF Vienna, AUSTRIA  
Katharina Heimel Dept. of Palliative Care & Organisational Ethics, IFF, University of Klagenfurt Vienna AUSTRIA  
Klaus Wegleitner Dept. of Palliative Care & Organisational Ethics, IFF, University of Klagenfurt Vienna AUSTRIA  

**Background:** In Austria most of the people who have care needs are being cared for by their families in their homes with support of home care services and GP’s without contribution of specialist palliative care. Nevertheless many of these people end up their lives in hospitals or nursing homes due to a low level of development in palliative care, as part of primary care or specialist services. Within an ongoing project that aims at developing palliative care within home care services of the Austrian Red Cross (Funding Organisation), a qualitative study was done to look at their capacities and potential problems. The presentation will focus on the issue of how family caregivers, looking back, experienced end-of-life care at home. **Methods:** A theoretical sample of bereaved family carers (n=15) supported by services of the Austrian Red Cross in one urban and two rural regions was interviewed, using open questions with narrative stimuli. The interviews were transcribed verbatim and analysed by using a coding procedure aiming at finding central issues. **Results:** Recognizing dying revealed to be a key problem to end-of-life care at home, especially in older people or diagnoses other than cancer. Making decisions on care, e.g. admission to hospital, and feeling responsible for that was a strain on the family caregivers. Furthermore they had to coordinate care as well as the communication between the involved parties. Although the home care nurses were highly appreciated for the care they delivered and the social support they had given to the family, they did not have a stake in advance care planning, coordination or decision-making. This was all up to the families and their GP’s, whose qualifications in palliative care
varied much across the sample. **Conclusions:** Besides from further research there obviously is a need in developing and shaping the role of home care nurses in Austria to support families with advance care planning, coordination of care and communication with GP’s on interventions at the end of life.

**Poster N°: 389**

**Type of presentation:** Poster  
**Poster session:** Second group 30 May Friday 13.30 to 31 May Saturday 13.30  
**Category:** Family & care givers  
**Title:** The Family Conference: A Systematic Review  
**Presenting author:** Declan Walsh  
**Authors:**  
Declan Walsh Cleveland Clinic Cleveland U. STATES  
Ruth Powazki Harry R. Horvitz Center for Palliative Medicine Cleveland Clinic Taussig Cancer Center U. STATES  
Mellar Davis Cleveland Clinic Cleveland U. STATES  
Ruth Lagman Cleveland Clinic Cleveland U. STATES  
Susan Le Grand Cleveland Clinic Cleveland U. STATES  
Declan Walsh Cleveland Clinic Cleveland U. STATES

**Background:** Family conferences (FC) are a major means of communicating with families of patients with advanced or complex illnesses like cancer. FC are time consuming, involve multiple staff, and costly. Because of these factors it is important to understand the FC evidence base. We reviewed the literature focusing on the FC in healthcare. **Methods:** We searched 6 computerized databases; references were searched by hand, and we reviewed textbooks in relevant disciplines. Papers were reviewed using the four main elements from the British Medical Journal Evidence-based Medicine Toolkit: Patient, Intervention, Comparison and Outcome to grade the strength of evidence. Studies were graded as randomized control trial (RCT), cohort, case series, or opinion. **Results:** Four medical practice areas predominated in the FC studies: Oncology/Palliative Care (ONC), Intensive Care Unit (ICU), Acute Care (AC), Family Practice (FP). 1 RCT and 3 ICU cohort studies, and 2 FP cohort studies were designed with outcomes to the family conference as an intervention. Sixty-four others were either lower quality cohort studies, case series, case reports, or opinion papers that identified FC, FC guidelines, knowledge and skills required of facilitators, needs of the family, FC barriers, and how to communicate. **Conclusions:** One FC RCT demonstrated the importance of a format with a proactive end-of-life conference coupled with a brochure. Prospective single arm ICU studies had positive outcomes. FC guidelines are largely based on expert opinion and case series for information needs. Outcomes research is needed to confirm the FC anecdotal benefits claimed, regardless of the medical setting and trajectory of illness.

**Poster N°: 390**

**Type of presentation:** Poster  
**Poster session:** Second group 30 May Friday 13.30 to 31 May Saturday 13.30  
**Category:** Family & care givers  
**Title:** A Study on day care as one of the services being offered by hospice  
**Authors:**  
Stella Rithara Wvari Palliative Care/ Day Care Nairobi Hospice KENYA

**Background:** Day care activities have been described as a form of ‘sensory shielding’. By directing attention to something else, the patient less aware of noxious stimuli. **Methods:** A survey was developed to determine how the patients and families felt about the service. Explanation was done and 24 subjects volunteered to complete the survey, 16 patients and 8 family members. **Results:** 85% of the patient referred day care as a place to socialize, share their stories and encourage each other, by seeing and talking to others about their problems, it offers a form of distraction, which is one of the psychological method of relieving pain. They enjoy activities such as knitting, playing games, heading and singing. 15% attends once and refer day care as exposing their illness.80% families says it gives them time to do other things and re-charge their energies to care for their loved ones and it is part of occupational and rehabilitation therapy for their patients and some borrow different coping mechanism and so doing, they feel supported and not in it alone. 10% lacked time to drop or pick their loved ones, 10% feared their patients would not cope with group sharing. 75% patients find new friends while 25% fear knowing each other much, 90% families says patients are bright after day care while 10% disagree. **Conclusions:** Results indicate that majority of patients and families felt the service is importance and looked forward in attending. It shows psychosocial is one of the key area in having a better quality of life and need to be addressed. This study indicates day care service is valued and other Hospices need to implement in their services.

**Poster N°: 391**

**Type of presentation:** Poster  
**Poster session:** Second group 30 May Friday 13.30 to 31 May Saturday 13.30  
**Category:** Family & care givers  
**Title:** Does supporting terminally ill cancer patients dying at home introduce greater burden to family caregivers in Taiwan  
**Authors:**  
Siew-Tzuh Tang School of Nursing Chung Gung University TAIWAN

**Background:** Given the cultural meanings of dying at home, the majority of cancer patients in Taiwan prefer to die at home. Death at home does not come without significant challenges and consequences for family caregivers (FCs). The concern of being a burden to FCs has been identified as a major deterrent of preferences for dying at home. The literature provides inconsistent evidence for the impact of deaths at home on FCs grief reactions. However, comparisons of FCs caregiving burden/well-being while they provide end-of-life care to patients who eventually die at home or in a hospital have been limited. The purpose of this study was to investigate the differences on the amount of assistance provided, perceived subjective caregiving burden, quality of life (QOL), and depressive symptoms between FCs of Taiwanese terminally ill cancer patients who died at home or in a hospital. **Methods:** A prospective, longitudinal study was conducted among 187 FCs. Data were assessed every two weeks until the patient died. Differences on the selected variables were compared by a logistic regression model using a generalized estimation equation. **Results:** The results indicated that, over the dying process, the FCs of patients who died at home provided significantly greater amount of assistance in personal care, homemaking, transportation, and health care than their counterparts. However, caregiving did not introduce greater negative impact on their health, finance, or perceived family support to FCs of home-death group and they did not experience higher levels of depressive symptoms. Furthermore, FCs of home-death group reported non-significantly better QOL, more rewards and positive meaning derived from caregiving, and less disturbance on their daily schedule. **Conclusions:** Supporting a terminally ill cancer patient to die at home does not introduce greater burden for Taiwanese family caregivers and such a fact may be the reason why FCs can keep patients at home and let them die there.

**Poster N°: 392**

**Type of presentation:** Poster  
**Poster session:** Second group 30 May Friday 13.30 to 31 May Saturday 13.30  
**Category:** Fatigue & cachexia  
**Title:** Managing fatigue in Specialist Palliative Day Care  
**Authors:**  
Lena Baird Occupational Therapy The Ayrshire Hospice UNITED KINGDOM  
Joan Carrigan The Ayrshire Hospice Ayr UNITED KINGDOM
Background: Fatigue affects between 60% and 100% of cancer sufferers. More than 70% of patients with metastatic disease report fatigue. Sufferers report fatigue to be more debilitating than any other physical or mental consequence of the disease but only a minority of patients report being prescribed or recommended any treatment by any health professional. The most common advice given is to rest. The aim was to evaluate the effectiveness of a comprehensive, group programme in the management of fatigue, as otherwise relatively symptom free cancer patients with advanced disease.

Methods: Patients were recruited to the study using the Palliative Care Outcome Scale. The programme included: • Implementation of a personalised light exercise regime • Advice on energy conservation techniques • Dietary advice • Advice on managing sleep problems • Training in relaxation techniques • All aspects of the programme were underpinned by sound educational advice and materials The study was qualitatively evaluated on completion by the participants. Results: Levels of fatigue were monitored at commencement and end of programme using the Revised Piper Fatigue Scale and throughout the programme by fatigue diaries and visual analogue scales. Preliminary findings indicate that participants benefited from their fatigue being acknowledged and the opportunity to discuss its implications with health professionals and other sufferers. The educational and practical sessions were also deemed of benefit and most patients were able to adopt some aspects of the exercise programmes and relaxation techniques.

Conclusions: It would appear that a structured psycho-educational programme is useful in helping patients manage cancer related fatigue although it has no obvious effect on levels of fatigue experienced. The results of this study were significant in supporting the implementation of this programme within the newly designed day care services.

Poster N°: 393

Type of presentation: Poster
Poster session: Second group 30 May Friday 13.30 to 31 May Saturday 13.30
Category: Fatigue & cachexia
Title: Cachexias: A 2007 State of The Art Review of The Metabolic And Biochemical Abnormalities In Different Clinical Models Of Cachexia
Presenting author: Declan Walsh
Authors: Nabila Bennani-Baiti Cancer Center, Harry R. Horvitz Center For Palliative Medicine Cleveland Clinic U. STATES
Declan Walsh Cleveland Clinic Cleveland, Ohio U. STATES
Mellar Davis Cleveland Clinic Cleveland, Ohio U. STATES

Background: Cachexia is a widespread disorder, is frequently encountered in different chronic diseases. The purpose of this review is to compare the properties of cachexia in different clinical settings. Methods: Our Medline search was limited to English literature. Results: Our results show 4390 publications on cachexia. When combining MeSH terms of cachexia and any other disease: 2394 articles in cancer compared to only 257 for acquired immunodeficiency syndrome (AIDS), 222 for congestive heart failure, 52 for chronic obstructive pulmonary disease. There is no cut-off definition of cachexia, a major hurdle in the progress of research. Loss of both lean body mass and fat mass is a common feature to all cachexias studied. This distinguishes cachexia from starvation. Cachexia, in all clinical models, is multifactorial. Inflammation is a major common component. Pro-inflammatory cytokines are involved both peripherally and centrally. Hypermetabolism is usual in cachexia. Resting energy expenditure is increased. However, the total energy expenditure may be unchanged as a result of a compensatory decrease in physical activity. Increased protein breakdown, glucose turnover, and lipolysis are frequently seen. Anorexia is present in most cachexias. In cancer, anorexia is not necessary for the wasting process to happen. Cachexia is resistant to nutritional support in most cases, except in AIDS where wasting responds to nutrition. Differences between cachexias are inherent to the disease itself and its management: hypogonadism and lipodystrophy in AIDS, cachectic obesity in rheumatoid arthritis, uremic syndrome in end-stage renal disease. Tumor-host interactions are unique to cancer. Conclusions: Research in cachexia is limited compared to its prevalence in many disorders. Even though the pathophysiology of cachexia differs from disease to disease, we found many similarities. This understanding may lead to a unified definition of cachexia.

Poster N°: 394

Type of presentation: Poster
Poster session: Second group 30 May Friday 13.30 to 31 May Saturday 13.30
Category: Fatigue & cachexia
Title: Animal Models For Cancer Cachexia: What Are The Options?
Presenting author: Declan Walsh
Authors: Nabila Bennani-Baiti Cancer Center, Harry R. Horvitz Center For Palliative Medicine Cleveland Clinic U. STATES
Declan Walsh Cleveland Clinic Cleveland, Ohio U. STATES

Background: Cachexia in cancer is a complex syndrome often encountered in palliative medicine. The use of animal models has expanded our understanding of its multiple mechanisms. A review of different animal models in cancer cachexia will help investigators make an informed choice about the appropriate model to study cachexia. Methods: A PubMed/ Medline search was performed. MeSH terms used were: “biologic model” or “animal model”, “neoplasm” and “cachexia”. Results: Our search found 267 articles with 23 review articles. 96% were in English, 43% published during the last 10 years. Animal literature is extensive yet limiting when attempting to understand one particular mechanism in cancer cachexia. Animal models offer the advantage of tumor and host genetic homogeneity, well controlled studies without confounding variables such as food intake, comorbidities, variable tumor burden and multiple primary sites, heterogeneity of host responses to cancer, which are important in the clinical settings. MCG101 is a good anorectic model, while MAC16 is an excellent model to study wasting-related metabolic effects. The Yoshida AH-130 and Lewis lung carcinoma cause severe wasting at very low tumor burden. However, clinical cachexia differs from animal models. For instance, wasting in breast cancer which is often a late event, varies between individuals, possibly due to genetic polymorphisms that influence cytokine expression. No animal model can provide an adequate explanation for inter-individual and inter-tumor differences seen in clinical cachexia; none reproduce clinical settings; many models induce cachexia only at higher tumor burden which is not clinically relevant and many do not initiate inflammatory reactions commonly seen in patients. Conclusions: Animal models are a good way to study the different mechanisms of cancer cachexia, but no model reproduces the range of cancer cachexia in humans and none reproduces the spectrum of tumor-host interactions.

Poster N°: 395

Type of presentation: Poster
Poster session: Second group 30 May Friday 13.30 to 31 May Saturday 13.30
Category: Fatigue & cachexia
Title: A Survey of the Attitudes of Patients Regarding Cancer Associated Weight Loss
Authors: Simon Coulter Cancer and Palliative Care Team RVH, Belfast Health and Social Care Trust UNITED KINGDOM
Max Watson Northern Ireland Hospice Care Belfast UNITED KINGDOM

Background: Body weight is a contentious issue in society and a parameter given much attention in primary and secondary care, as well as in oncology settings. For those who are terminally ill, issues around weight loss hold great significance. Despite this, patients’ weight loss receives very little focus from, and is often ignored by healthcare professionals working in a palliative care setting. This may result from staff feeling powerless to effect change. As a result, patients may not have the opportunity to discuss important opinions, or have their information needs met. The primary objective of this study was to determine the attitudes of patients with advanced malignancy towards weight and weight loss. Methods: A cross sectional survey was conducted in
the Regional Medical Oncology Centre in Auckland, New Zealand. Results: The sample consisted of 54 patients with metastatic carcinoma. Fifty percent of participants stated weighing themselves at least weekly at home. Patients stated that monitoring weight served as an indicator of health. While some expressed worries around loosing weight, others expressed concerns over gaining weight. When asked to project how they might feel if they experienced weight loss, thirty percent stated they would feel good, while 55% stated they would be worried. Patients stated overwhelmingly that they would like to be aware of future weight changes with 91% reporting a desire for continued weigh assessment. Seventy four percent of the study sample expressed a desire for continued assessment even if experiencing advanced cancer associated cachexia. Conclusions: Participant's responses showed that attitudes to weight are complex. The majority of patients were keen to remain engaged with issues concerning weight change. Palliative healthcare professionals need to inquire if patients’ information needs are being met, emphasizing the need for individualised care plans for those approaching the end of life, as well the centrality of patient autonomy.

Poster N°: 396
Type of presentation: Poster
Poster session: Second group 30 May Friday 13.30 to 31 May Saturday 13.30
Category: Fatigue & cachexia
Title: Association between CRP and Symptoms in patients assessed at a Cachexia Clinic (CC) with Involuntary Weight Loss (IWL)
Authors: Shalini Dalal Palliative Care and Rehabilitation Medicine The University of Texas M.D. Anderson Cancer Cente U. STATES
Eduardo Brueua U.T. M.D. Anderson Cancer Center Houston, Texas U. STATES
Egidio Del Fabbro U.T. M.D. Anderson Cancer Center Houston, Texas U. STATES

Background: Inflammation is implicated in the pathogenesis of cancer cachexia and also in many other symptoms of cancer. CRP is a clinically useful marker for the severity of inflammation. The relationship between CRP and symptom distress in weight losing advanced cancer patients is not well known. Methods: We reviewed the charts of 67 advanced cancer pts referred to the CC with IWL. We sought to explore the relationship between inflammation (CRP) and symptom distress (Edmonton Symptom Assessment Scale). Descriptive analysis, Spearman s Rank correlation and Factor analysis (eigenvalue >1) were performed. Results: The median age was 64 (95% CI 60–66), predominantly males (66%). 46% of patients had GI malignancies. Median weight loss was 12% (95% CI 10–19 %) over 6 months. The median weight loss rate (kg/week) was 0.8 (95% CI 0.54–0.99) and 0.91 (0.29–1.06) in the 1 and 2 months preceding consultation, respectively. The median CRP levels was 1.95 mg/dL (95% CI 1.12–3.11) was higher related with the median weight loss rate (kg/week) and earlier (for both, p <0.05). CRP levels of 1 or higher (43 pts) were found to correlate with sleep (r=0.47; p <0.01), wellbeing (0.43; <0.01), depression (0.31; <0.05), appetite (0.29;0.05, with trends for fatigue (0.26; 0.09) and drowsiness (0.28; 0.06). Factor analysis revealed a two factor solution with Factor 1 (fatigue, wellbeing, appetite) and Factor 2 (depression, SOB, CRP, sleep) explaining 99 % of the variance. Conclusions: Our study suggests an association between CRP and multiple concurrent symptoms that are commonly experienced by advanced cancer patients with IWL. Therapies that target inflammation may help in ameliorating symptom distress in these patients. Further research is warranted.

Poster N°: 398
Type of presentation: Poster
Poster session: Second group 30 May Friday 13.30 to 31 May Saturday 13.30
Category: Fatigue & cachexia
Title: Do corticosteroids really improve non treatment associated anorexia, cachexia or fatigue in cancer patients near the end of their life?

Authors: Hermann Ewald Clinic for Radiooncology University of Schleswig-Holstein, Campus Kiel GERMANY

Background: Anorexia, cachexia and fatigue are frequent and distressing symptoms in patients with end stage cancer. Megestrol acetate is known to improve appetite and weight. Corticosteroids are also recommended widely especially for patients near end of life but clinical experience lets assume an overestimation of corticosteroid effects for this group of patients. This may possibly be due to a bias in study results which may arise from patient selection e.g. the inclusion of patients under cancer treatment, where corticosteroids are known to lead to an improvement – mostly without affecting tumor induced symptoms but only treatment induced side effects. Methods: A limited systematic review was performed including literature till March 2007. Seven electronic databases were searched, and a hand search on text books and references of the retrieved literature was done. We focussed on patients without chemotherapy or irradiation. Results: Five relevant RCTs are retrieved with 745 patients randomized and 496 (66,6%) evaluated. Assessment and treatment periods varied widely and populations differed in survival. Four studies showed an improved appetite with corticosteroids during the study period, but one of them also with placebo. One study demonstrated improved cachexia but three others could not confirm these results. Improved activity scores are found in one trial. Three studies found no improved fatigue score and one only in the placebo group. Conclusions: There is some but limited evidence for an improvement of anorexia with corticosteroids during the last weeks of life in cancer patients with far advanced disease. It remains unclear which dosage and duration of treatment should be used and wether this effect lasts during the last 4–6 weeks of life. For clinical practice we recommend to try 4mg Dexamethasone for at least 4 weeks and if effective as long as the effect could be seen. Cachexia or fatigue seem to improve only in patients with a longer life expectancy.

Poster N°: 399
Type of presentation: Poster
Poster session: Second group 30 May Friday 13.30 to 31 May Saturday 13.30
Category: Fatigue & cachexia
Title: Palliative cancer patients’ experience of physical activity
Authors: Ingrid Gdal Geriatric clinic, Palliative unit Sodertalje hospital SWEDEN
Cathrin Martin Department of Education, Uppsala University Uppsala SWEDEN
Line M Oldervoll Department of Cancer and Molecular Medicin, NTNU Trondheim NORWAY

Background: Physical activity (PA) has in recent years become more common in oncology rehabilitation and also proposed for use in palliative care. Results from pilot studies show that patients with advanced cancer report an increased well-being and less fatigue after PA. However, no studies have qualitative data about the patients own experience of PA. Aim: to gain a deeper understanding of how palliative cancer patients experience participation in PA. Study population: 11 patients (6 women/5 men) with different cancer diagnosis, participating in PA and receiving palliative care at home, were interviewed. A purposeful sampling with regard to age (45–81 years), gender, diagnosis and performance stage was made. Method: A qualitative design with audio taped semi structured interviews was used. Content was sorted in different themes and subcategories. Data collection and analysis were continued until data saturation was achieved. Findings: Four themes were identified: routines of every day life, less fatigue, professional guidance and hope. The theme “routines of every day life” had two subcategories: “something to do” and “being together with others in similar situation”. The theme “professional guidance” also had two subcategories: “the physiotherapist as a tutor” and “the physiotherapist as a motivator”. The findings indicate that PA helps to structure the day and gives extra energy for other activities. All patients report a sense of well-being related to PA. The physiotherapist was described to have an important role in motivating and guiding the patients in trusting their own body and knowing how to exercise wisely. Hope for the future was described as a result of being physically active including positive thoughts about the effect on the course of the
illness. **Conclusions:** Palliative cancer patients express a benefit from professional advice when engaging in PA in order to reduce fatigue and create routines of every day life.

**Poster N°: 400**

**Type of presentation:** Poster  
**Poster session:** Second group 30 May Friday 13:30 to 31 May Saturday 13:30  
**Category:** Fatigue & cachexia  
**Title:** Physical Activity as a Supportive Care Intervention in Advanced Cancer Patients: A Systematic Review  
**Presenting author:** Sharon Watanabe  
**Authors:**  
Sonya Lowe Oncology University of Alberta CANADA  
Kerry Courneya University of Alberta Edmonton CANADA  
Sharon Watanabe Cross Cancer Institute Edmonton CANADA

**Background:** Systematic reviews have concluded that physical activity improves supportive care outcomes in cancer patients, but the conclusions are based largely on data from early stage cancer patients. **Aim:** to systematically review the best available evidence of physical activity as a supportive care intervention in advanced cancer patients. **Methods:** CENTRAL, MEDLINE, EMBASE, CINAHL, PASCAL, SCOPUS, Web of Science, OCLC Papers First, OCLC Proceedings First, Proquest Dissertations & Theses, PEDro, CIRRIE, RehabData and PubMed were searched to March 2007. 3 peer-reviewed palliative care journals and reference lists of all included studies were handsearched. All published studies examining the effect of physical activity interventions on quality of life, fatigue and physical function outcomes in advanced cancer patients aged 18 years or older were included. Two independent reviewers screened the primary search results and reviewed the full texts of potentially relevant studies against the inclusion criteria. Double data extraction using pilot-tested paper forms, and methodological quality assessment using the validated Thomas tool, were conducted. **Results:** Six studies were identified as meeting the inclusion criteria. There was significant heterogeneity in terms of study design, participant characteristics, type of physical activity intervention and outcomes, hence data pooling and meta-analysis were deemed inappropriate. The six studies generally reported positive effect of physical activity, however overall methodological quality of the studies was poor, mainly characterized by small sample sizes and lack of comparison groups. **Conclusions:** There is insufficient evidence to evaluate the efficacy of physical activity as a supportive care intervention in advanced cancer patients, although preliminary findings are encouraging. Methodologically rigorous studies with larger samples and appropriate comparison groups are warranted. Funded by NCIS/CCS Sociobehavioral Cancer Research Network.

**Poster N°: 402**

**Type of presentation:** Poster  
**Poster session:** Second group 30 May Friday 13:30 to 31 May Saturday 13:30  
**Category:** Fatigue & cachexia  
**Title:** Barriers to exercise as a therapy in people living with or cured of cancer: a systematic review  
**Authors:**  
Matthew Maddocks Division of Physiotherapy Education University of Nottingham UNITED KINGDOM  
Andrew Wilcock University of Nottingham Nottingham UNITED KINGDOM  
Simon Mockett University of Nottingham Nottingham UNITED KINGDOM

**Background:** Therapeutic exercise may be a way of impacting upon the progressive loss of physical function caused by the cancer cachexia syndrome. However, the reasons for the apparent low levels of uptake and high drop out rates in exercise programmes in this patient group need to be better understood. This review aimed to: (i) quantify rates of uptake and completion of exercise programmes, (ii) summarise the common reasons for not taking up or completing exercise programmes, and (iii) determine exercise programme or cancer population characteristics that influence uptake and completion. **Methods:** Databases from 1970–2007 were searched for reports of exercise programmes offered to patients with or treated for cancer. Those providing data on the nature of the exercise, the patient group and outcomes of interest were obtained. Uptake and completion rates were converted into percentages and reasons for failure of uptake or completion of the programme were ranked according to prevalence. Multiple regression models identified any characteristics influencing rates of uptake and completion. **Results:** The majority of the 51 papers obtained related to aerobic exercise programmes offered to patients who had received curative treatment. About half had breast cancer. Median [range] uptake of eligible patients to an exercise programme was 65% [13–100] with a completion rate of 87% [50–100]. Common reasons for refusal were time commitments, need to travel and disinterest. Reasons for withdrawal were medical complications, social problems or deterioration in physical condition. No characteristics studied significantly predicted rates of uptake or adherence. **Conclusions:** The uptake and completion rates for exercise programmes vary widely. The data suggests that such programmes will only be acceptable and completed by about half
of patients. Modified programmes or novel forms of exercise are required if exercise is to be developed as a therapy applicable to the majority of patients. Funding: Dimbleby Cancer Care Trust.

Poster N°: 403
Type of presentation: Poster
Poster session: Second group 30 May Friday 13.30 to 31 May Saturday 13.30
Category: Fatigue & cachexia
Title: Colo-rectal cancer-related fatigue predictors: results of a Brazilian study
Authors:
Cibile Pimenta Enfermagem Médico-Cirúrgica Nursing School of the University of Sao Paulo BRAZIL
Dalete DCF Mota Nursing School of the University of Sao Paulo Sao Paulo/SP BRAZIL
Juliano Santos Nursing School of the University of Sao Paulo Sao Paulo/SP BRAZIL

Background: Determining predicting factors of cancer-related fatigue may help refine fatigue measures, lead to faster diagnose of the symptom, and lead professionals to propose interventions more efficiently. Aim: To identify independent predictors of fatigue in colo-rectal cancer patients.

Methods: A convenience sample of 157 adult outpatients with primary colo-rectal cancer recruited from 4 oncology clinics at Sao Paulo (Brazil), from July/2006 to July/2007, participated (mean age 60±11.7 years; 54% men; mean scholarity 10.7±5.4 years). Patients filled out an Identification Profile, Brazilian revised-Piper Fatigue Scale (min:0; max:10; cut-off score:4), Beck Depression Inventory (min:0; max: 63; cut-off score>12), and Karnofsky Scale (min: 0; max:100; cut-off score: 80%). Results: Fatigue was referred by 26.8% of the patients. Univariate analysis was performed by Chi-square test, T-test, Mann-Whitney according to the variables. Age, marital status, gender, skin color, scholarity level, employment status, family income, clinical staging of tumor, cancer treatment, time since surgery for cancer, body mass index, hemoglobin level, colostomy, co-morbidities, and antidepressants did not correlate to fatigue. The oncology clinic (public x private), pain, sleep disturbance, performance status, and depression significantly correlated to fatigue (p<0.05). Logistic regression analysis revealed that depression (OR:4.2; 95%CI 1.68–10.39), performance status (OR:3.2; 95%CI 1.37–7.51), and sleep disturbance (cut-off score >7;OR: 3.2; 95% CI 1.30–8.09) independently predicted fatigue.

Conclusions: These results demonstrate that assessing depression, performance status, and sleep disturbance is possible to identify fatigued colo-rec-tal cancer patients, and these patients should be thoroughly assessed using a multidimensional fatigue instrument. Yet, it is important to include these three factors in all multidimensional fatigue measures. This study was funded by the State of Sao Paulo Research Foundation.

Poster N°: 404
Type of presentation: Poster
Poster session: Second group 30 May Saturday 13.30 to 31 May Saturday 13.30
Category: Fatigue & cachexia
Title: Co-morbidity fatigue and depression among colorectal cancer patients
Authors:
Cibile Pimenta Enfermagem Médico-Cirúrgica Nursing School of the University of Sao Paulo BRAZIL
Daniela A. Luminio Nursing School of the University of Sao Paulo Sao Paulo/SP BRAZIL
Dalete DCF Mota Nursing School of the University of Sao Paulo Sao Paulo/SP BRAZIL

Background: The relation between fatigue and depression is not well understood leading to inadequate assistance. The present study had the purpose to characterize and to analyze the relation between fatigue and depression in colorectal cancer patients. Methods: Convenience sample of 154 adult outpatients (53% men; mean age 49.6±11.7 years; mean scholarity 8.9±5.4 years; 22% stage IV tumors; 80% preserved functional capacity) participated from four oncology clinics at Sao Paulo (Brazil), from July/2006 to July/2007. Instruments: Brazilian revised-Piper Fatigue Scale (0–10), Beck Depression Inventory (BDI; 0–63). Results: Fatigue was referred by 76 (49.4%) patients and 15 (19.7%) had severe fatigue (score>Y6). Scores compatible with depression (BDI>20) were observed in 11 (7.1%) patients. The correlation between the symptoms was 0.395 (Spearman’s correlation, p<0.001). Of the patients with depression (n=11), 64% referred severe fatigue, and of the patients with severe fatigue (n=15), 46.7% presented depression. Of the patients without depression (n=129), 58.1% did not have fatigue, and of the patients without fatigue (n=78), 96.2% did not have depression. The co-morbidity severe fatigue and depression occurred in 4.5% (n=7) of the patients, and co-morbidity moderate/severe fatigue and dysthymia/depression occurred in 12.3% (n=19) patients. Fatigue was refereed by all depressed patients (100%) and depression occurred in 18% of the patients with moderate/severe fatigue.

Conclusions: High prevalence of fatigue (49.4%), low prevalence of depression (7.1%), moderate positive correlation between fatigue and depression (r=0.395), and significant co-morbidity fatigue and depression (12.3%) were observed. The findings reinforce fatigue and depression as distinct concepts, and suggest that depression is more important in not well elucidated. Aim: To characterize and to analyze the relation between pain and fatigue among women with breast cancer. Methods: A convenience sample of 182 adult outpatients with primary breast cancer (mean age 52.8±10.5; mean scholarity 12.4±4.6 years) participated from three oncology clinics at Sao Paulo (Brazil), from July/2006 to July/2007. They filled out a numeric scale for pain assessment (0–10; cut-off score: 4); and the Brazilian revised-Piper Fatigue Scale (0–10; cut-off score: 3). Results: Fatigue was referred by 40.7% (n=74) patients and pain was referred by 34.6% (n=63). Of the patients with fatigue (n=74), 53% (n=39) had pain; of the patients with pain (n=63), 62% (n=39) had fatigue. The difference between the mean score of fatigue among women with pain (3.3±1.8) and without pain (4.2±2.1) was statistically significant (T-test, p=0.012). The difference between the mean score of pain among fatigued women (3.4±2.8) and women without fatigue (3.7±2.7) was not statistical-ly different (T-test, p=0.644). Pearson’s correlation coefficient between the symptoms was 0.379 (p=0.003), and the co-morbidity fatigue and pain occurred in 21.4% (n=39). Conclusions: The prevalence of fatigue was slightly superior to the prevalence of pain, and over 20% presented the co-morbidity fatigue and pain. Pain tends to increase the severity of fatigue but fatigue does not seem to influence the intensity of pain. This indicates that treating pain of fatigued patients will be beneficial, while treating fatigue of patients with pain will not influence pain severity. The correlation between the symptoms was moderate suggesting that many other factors influence both fatigue and pain. This study was funded by the State of Sao Paulo Research Foundation.

Poster N°: 405
Type of presentation: Poster
Poster session: Second group 30 May Friday 13.30 to 31 May Saturday 13.30
Category: Fatigue & cachexia
Title: Co-morbidity fatigue and depression among colorectal cancer patients
Authors:
Cibile Pimenta Enfermagem Médico-Cirúrgica Nursing School of the University of Sao Paulo BRAZIL
Dalete DCF Mota Nursing School of the University of Sao Paulo Sao Paulo/SP BRAZIL
Juliano Santos Nursing School of the University of Sao Paulo Sao Paulo/SP BRAZIL

Background: The relation between fatigue and depression is not well understood leading to inadequate assistance. The present study had the purpose to characterize and to analyze the relation between fatigue and depression in colorectal cancer patients. Methods: Convenience sample of 154 adult outpatients (53% men; mean age 49.6±11.7 years; mean scholarity 8.9±5.4 years; 22% stage IV tumors; 80% preserved functional capacity) participated from four oncology clinics at Sao Paulo (Brazil), from July/2006 to July/2007. Instruments: Brazilian revised-Piper Fatigue Scale (0–10), Beck Depression Inventory (BDI; 0–63). Results: Fatigue was referred by 76 (49.4%) patients and 15 (19.7%) had severe fatigue (score>Y6). Scores compatible with depression (BDI>20) were observed in 11 (7.1%) patients. The correlation between the symptoms was 0.395 (Spearman’s correlation, p<0.001). Of the patients with depression (n=11), 64% referred severe fatigue, and of the patients with severe fatigue (n=15), 46.7% presented depression. Of the patients without depression (n=129), 58.1% did not have fatigue, and of the patients without fatigue (n=78), 96.2% did not have depression. The co-morbidity severe fatigue and depression occurred in 4.5% (n=7) of the patients, and co-morbidity moderate/severe fatigue and dysthymia/depression occurred in 12.3% (n=19) patients. Fatigue was refereed by all depressed patients (100%) and depression occurred in 18% of the patients with moderate/severe fatigue.

Conclusions: High prevalence of fatigue (49.4%), low prevalence of depression (7.1%), moderate positive correlation between fatigue and depression (r=0.395), and significant co-morbidity fatigue and depression (12.3%) were observed. The findings reinforce fatigue and depression as distinct concepts, and suggest that depression is more important in not well elucidated. Aim: To characterize and to analyze the relation between pain and fatigue among women with breast cancer. Methods: A convenience sample of 182 adult outpatients with primary breast cancer (mean age 52.8±10.5; mean scholarity 12.4±4.6 years) participated from three oncology clinics at Sao Paulo (Brazil), from July/2006 to July/2007. They filled out a numeric scale for pain assessment (0–10; cut-off score: 4); and the Brazilian revised-Piper Fatigue Scale (0–10; cut-off score: 3). Results: Fatigue was referred by 40.7% (n=74) patients and pain was referred by 34.6% (n=63). Of the patients with fatigue (n=74), 53% (n=39) had pain; of the patients with pain (n=63), 62% (n=39) had fatigue. The difference between the mean score of fatigue among women with pain (3.3±1.8) and without pain (4.2±2.1) was statistically significant (T-test, p=0.012). The difference between the mean score of pain among fatigued women (3.4±2.8) and women without fatigue (3.7±2.7) was not statistical-ly different (T-test, p=0.644). Pearson’s correlation coefficient between the symptoms was 0.379 (p=0.003), and the co-morbidity fatigue and pain occurred in 21.4% (n=39). Conclusions: The prevalence of fatigue was slightly superior to the prevalence of pain, and over 20% presented the co-morbidity fatigue and pain. Pain tends to increase the severity of fatigue but fatigue does not seem to influence the intensity of pain. This indicates that treating pain of fatigued patients will be beneficial, while treating fatigue of patients with pain will not influence pain severity. The correlation between the symptoms was moderate suggesting that many other factors influence both fatigue and pain. This study was funded by the State of Sao Paulo Research Foundation.
determining fatigue than fatigue is for depression. This study is unique in our culture and presents original results in the international scenario. Funded by the State of Sao Paulo Research Foundation.

**Poster N°: 406 withdrawn**

**Poster N°: 407**

Type of presentation: Poster
Poster session: Second group 30 May Friday 13.30 to 31 May Saturday 13.30
Category: Fatigue & cachexia
Title: EPCRC draft recommendations for clinical practice guidelines on cancer cachexia in advanced cancer patients
Authors:
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Frank Elsner Dept. of Palliative Medicine, University of Aachen Germany
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Ken Fearon University of Edinburgh Edinburgh UNITED KINGDOM representing the EPCRC

**Background:** One of the aims of the European Palliative Care Research Collaborative (EPCRC) is to develop clinical practice guidelines on cancer cachexia to be implemented all over Europe. **Methods:** The workpackages on clinical practice guidelines of EPCRC agreed on a common method for guideline development, based on the NICE recommendations. Key questions will represent the scope of the guideline. Draft recommendations will be formulated with local expertise and presented to the expert-pool in a consensus procedure. Systematic literature reviews will be used to retrieve and grade the published evidence. Where adequate evidence is lacking consensus methods with both clinical cachexia experts, palliative care professionals, and other stakeholders will be applied. The final version of the guidelines will be published and updated regularly. **Results:** Key questions have been formulated and discussed at the EAPC-Congress in June 2007, as well as with experts and stakeholders on the web. A broad spectrum of fields and topics was included like definition, epidemiology, aetiology, pathophysiology, assessment and classification, psycho-social and ethical issues, as well as drug and non-drug treatment. Following this draft recommendations were formulated. For example the key question on the net benefit of megestrol led to the draft recommendation: “Do it (for short-term appetite stimulation and increase of body weight but not muscle mass)”. As a next step formal consensus using a Delphi procedure on the draft recommendations is planned. The draft recommendations will then be evaluated with systematic literature reviews wherever possible, leading to the final version of the guidelines. The workpackage on assessment and classification will contribute to the guidelines with their latest research results. **Conclusions:** EPCRC is on the way to develop guidelines. The rigorous methodological approach may enable the development of guidelines with high quality for palliative care professionals in clinical practice.

**Poster N°: 408**

Type of presentation: Poster
Poster session: Second group 30 May Friday 13.30 to 31 May Saturday 13.30
Category: Fatigue & cachexia
Title: Review on the relation between fatigue and physical symptoms in advanced cancer patients
Presenting author: Silvia van Dooren

**Background:** CRF is a primary factor that debilitates quality of life of cancer survivors. Little is known regarding its underlying pathophysiological mechanisms. We hypothesized that signals from the CNS would experience difficulties to get to the target muscle, which may lead to a reduction in corticromuscular functional connection during a voluntary motor task. The purpose of this study was to quantify EEG-EMG coherence at times when muscles experienced minimal and significant fatigue. **Methods:** Eight patients with advanced solid cancer (62.9 ±12.3 years) and 8 matched healthy controls (48.2 ±14.8 years) completed a Brief Fatigue Inventory (BFI) to assess the level of subjective fatigue and performed a sustained isometric elbow flexion contraction of the right arm at 30% maximal level (530) until self-perceived exhaustion. High-density 128 channel scalp EEG and EMG signals of the elbow flexor and extensor muscle were recorded during the
S30. Coherence between the EEG (left side) and biceps brachii EMG was determined during the first half (non-fatigue) and second half (fatigue task) of the S30. Coherence values above a significant level and number of significant frequency bins at alpha (8–14 Hz) and beta (15–35 Hz) bands were statistically analyzed using repeated measures general linear model. Results: CRF patients showed significantly higher (P<0.01) BFI scores (5.37±1.01 for CRF, and 0.85±0.56 for controls) and much earlier arrival (P<0.01) of perceived exhaustion (S30 lasted for 320 s for CRF and 550 s for controls), indicating greater fatigue in cancer patients. The EEG-EMG coherence in beta frequency (15–35 Hz) in non-fatigue stage was similar between the two groups. However, the coherence decreased significantly in the CRF (P<0.01) but not in the control (P>0.5) groups during the fatigue stage. Conclusions: CRF is associated with weakened functional binding between brain and muscle activities when muscle fatigue is present. EMG-EEG coherence in the latter half of a sustained contraction is lost in CRF.

Poster N°: 410

Type of presentation: Poster
Poster session: Second group 30 May Friday 13.30 to 31 May Saturday 13.30
Category: Medical sociology
Title: Local networks of Palliative Care and integration of volunteers (CPC)
Authors:
Franziska Domeisen Palliative centre Kantonsspital St.Gallen SWITZERLAND
Steffen Eychnmiller Kantonsspital, Palliative Care St.Gallen SWITZERLAND
Michaela Forster Kantonsspital, Palliative Centre St. Gallen SWITZERLAND
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Background: Starting point of the research is the need of severely ill and dying persons to spend their last phase of life in their familiar surrounding if support system is guaranteed on a 24–hours basis. In this Study the Gold Standards Framework (GSF), a Program for Community Palliative Care in England, will be used for the configuration of a successful network for the last time of life. The CPC-project contains a collaboration with the successful, carried by volunteers Neighbourhood Network Palliative Care in Southern India (Region North-Kerala). It seems that in Kerala the volunteer activities are more multifaceted than in Switzerland. This is possibly the reason for a major motivation and addressability of the population.

Methods: Structure of Palliative Care networks has been recorded by investigating the relations (content, frequency and quality) between the professional and volunteer organisations in Palliative Care in two communities in Eastern Switzerland and in Principality Liechtenstein (urban, rural, mixed community structure) by face to face interviews (n=35). Theoretical and statistical basis is the Network analysis, which is a suitable method for an explorative research of interaction networks with the objective of a better understanding of social structures and relations. Results: In some extent, existing networks are reaching some of the GSF-goals. There are also barriers for good collaboration that affect the quality of care. The barrier factors are in communication, time management, finances and expertise. The main barrier factor is a lack of communication (interindividual, –organisational, intraorganisational). Conclusions: Interdisciplinary communication could be improved and be important for enabling the primary care teams. The integration of volunteers varies enormously: from 15% workload up to 80%. The tasks of volunteers are mainly defined as “lay carers”, but do not encompass others like organisational issues, information etc. as in Kerala.

Poster N°: 411

Type of presentation: Poster
Poster session: Second group 30 May Friday 13.30 to 31 May Saturday 13.30
Category: Medical sociology
Title: Patient and physician-related barriers to cancer pain management with opioid analgesics: a systematic review of the literature

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Background: The prevalence of pain in cancer patients is high. Under-treatment of cancer pain can be caused by the barriers to the use of opioid analgesics. The objective of this study was to describe and summarise the findings from the literature regarding patient and physician-related barriers associated with opioid treatment of cancer pain. Methods: The literature search was conducted in PUBMED. Results: Thirty-eight relevant papers on patient-related barriers were identified. The majority of these articles studied cognitive barriers, while affective and sensory barriers, as well as pain communication and pain medication adherence were studied to a lesser extent. The findings from different studies regarding the relationship between cognitive barriers and pain intensity were not consistent. Nevertheless, cognitive barriers were consistently related with less optimal adherence to opioid analgesics. The findings on pain communication were also consistent: the quality of pain communication was consistently found to be inadequate in some key areas. Seventy papers on physician-related barriers were identified. Most of physicians understood the importance of cancer pain management, but did not have enough confidence in treating cancer pain. The most common barriers preventing physicians from prescribing adequate doses of opioids were concerns about side-effects. At the same time, treatment of side effects from opioids was found to be very poor. Physicians’ barriers to cancer pain management varied considerably in different countries. Conclusions: Further research is needed to differentiate the role of patient-related cognitive, affective and sensory factors with respect to their impact on pain relief and medication adherence. The evaluation of the influence of a cultural background on physician-related barriers, as well as the differences in barriers between different specialists involved in cancer patients’ care should be explored to obtain a better insight into the area of unrelieved cancer pain.

Poster N°: 412

Type of presentation: Poster
Poster session: Second group 30 May Friday 13.30 to 31 May Saturday 13.30
Category: Medical sociology
Title: From “cura palliativa” to “palliative care”

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Background: The differentiation of curing and caring is a core element of our modern understanding of the term palliative. However the word palliative has been used in the medical and in the non-medical literature in Germany, France and England since the 17th century in different connotations. Caring and curing are traditional elements of medicine. Methods: A systematic linguistic literature research in the internet, in dictionaries and old encyclopedias in german, english, french and other languages of the 17th, 18th and 19th centuries was performed to find out, in what medical and non-medical context the term palliative was used. The sources found were further analysed systematically. Results: The term palliative is already mentioned in encyclopedias of the 15th and 16th century. The characteristics of “cura palliativa” can be found in medical papers of the 17th and 18th century and were described as distinctive approaches and forms of medical treatment. To “palliate” had different meanings in different languages. Palliation was distinguished from “curing” as a special form of cure, but “caring” and “curing” were not distinguished as different forms of concern. In the 16th and 17th century the word “care” was not found in a medical context, while with the conceptualization of “curative medicine” in the 19th century, the term palliative was found less in medical sources but more in philosophical and lyrical texts. With the introduction of “palliative care”
in 1974 the words palliative and care were linked together in the special context of supportive care, symptom management and comfort care what can be found before in the concepts of “cura palliaviva”. **Conclusions:** The etymology of the term palliative is associated with different understandings of cure and care in medicine. Though “care” and “cure” seem to be linguistically closely related further studies should be done to find out, when and how the different meanings developed.

**Poster N°: 413**

**Type of presentation: Poster**

**Poster session: Second group 30 May Friday 13.30 to 31 May Saturday 13.30**

**Category: Medical sociology**

**Title: The Interdisciplinary Team Meeting: Themes**

**Presenting author: Declan Walsh**

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**Background:** In our 23-bed inpatient acute care palliative medicine unit the interdisciplinary team (IDT) meets daily for at least 30 minutes to plan patient care. The IDT includes staff physicians, clinical fellows, medical residents, consult staff, unit nurse manager, clinical nurses, social worker, hospice referral nurse, music therapist, and research fellows. **Methods:** One day a week over an 8-week period a research fellow recorded complexities in patient care planning. The objective was to identify patient care planning issues (themes) discussed by the IDT in a prospective observational study. **Results:** 59 patients were included. There were nine themes 1) multidisciplinary perspectives, 2) transition from anti-tumor treatment, 3) caregiving, 4) goals of care, 5) resource use, 6) psychosocial assessment, 7) clinical operations, 8) discharge resources, 9) spokesperson. Using the Ward method of hierarchical cluster analysis these were grouped into four clusters. Cluster 1: (Themes-5, 7) Inappropriate resource utilization associates with the need for clinical operations review. Cluster 2: (Themes 6, 9, 8) A family spokesperson and psychosocial assessment facilitated discharge planning. Cluster 3: (Themes 3, 4 and 6, 9, 8) Caregiving concerns and unclear goals of care clustered with discharge planning, psychosocial assessment, and a spokesperson. Cluster 4: (Themes 1, 2) Differing viewpoints arise from the unique skills and knowledge of the various disciplines that make up the IDT and bring together the information needed to assist in transition from anti-tumor treatment. **Conclusions:** We identified 9 IDT themes when planning patient care. Limitations are possible observer bias and small sample size. Further research should confirm our findings; potentially identify more themes and their influence on patient care and resource utilization.

**Poster N°: 414 withdrawn**

**Poster N°: 415**

**Type of presentation: Poster**

**Poster session: Second group 30 May Friday 13.30 to 31 May Saturday 13.30**

**Category: Neurological disorders**

**Title: Patient storylines on living whilst facing death from motor neurone disease**

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**Background:** The study aimed to add to the sparse evidence base of how people deal with the reality of facing death from motor neurone disease, a disabling and life limiting neurological disorder, through exploring types of patient narratives. Little is known about how people live or cope with motor neurone disease, particularly as patients know they are approaching end of life. Gathering stories from people with motor neurone disease offers an approach to further this understanding. Patients all have their unique ‘plot’ to tell but the elements may be complex and intertwined with existing ‘plots’ or ‘storylines’ from their culture. This study explores storylines with in the stories of people living with this disabling and terminal disease. **Methods:** Narrative case studies were used to explore patient experiences and how they talk about coping with motor neurone disease. Thirteen adult patients living in the community in the South of England were recruited through purposeful sampling. Longitudinal narrative interviews were conducted at three monthly intervals over an 18 month period between July 2005 and December 2006. First interviews were analysed focusing on the form and content of the patients’ narratives. **Results:** Four types of narrative, or storylines, are identified regarding how people talk about living and coping with motor neurone disease. They are named ‘fracturing’, ‘sustaining’, ‘preserving’ and ‘enduring’. **Conclusions:** Storylines help make sense of complex narratives by encouraging closer attention and active listening to the stories. The four storylines identified in this study offer unique insight into patients’ approaches to facing death and they serve as an organising thread to help patients, families, and health care professionals better understand living with motor neurone disease.
Poster N°: 417

Type of presentation: Poster
Poster session: Second group 30 May Friday 13.30 to 31 May Saturday 13.30
Category: Other non-cancer
Title: What about palliative care for advanced schistosomiasis patients?
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Background: Although palliative care is directed mainly at those with malignant diseases, non-cancer patients can also benefit. In developing countries, patients at the end stage of transmissible diseases (e.g., AIDS, TB and malaria) are candidates for palliative care services. Schistosomiasis is endemic in 74 developing countries and the estimated number of infected people is 200 million. Of these, 20 million suffer severe disease consequences and 120 million are symptomatic. It is the cause of up to 280,000 annual deaths in sub-Saharan Africa alone. Two important schistosome species are endemic in the Nile valley and sub-Saharan Africa: Schistosoma mansoni, and Schistosoma hematobium. Chronic hepatosplenic schistosomiasis caused by Schistosoma mansoni is associated with portal hypertension, splenomegaly, ascites, and esophageal and gastric varices. The major cause of death is from bleeding esophageal varices. Other coexistent liver diseases e.g. hepatitis C may aggravate the clinical picture and end stage hepatocellular failure often occurs. Schistosoma hematobium causes urinary schistosomiasis which may lead to renal failure and/or urinary bladder cancer. The later usually presents at an incurable stage. Methods: We searched CINAHL, MEDLINE, and PubMed looking for articles about palliative care provision for patients dying of advanced schistosomiasis. Results: Although advanced schistosomiasis patients may experience suffering comparable to that of patients with other diagnoses for whom palliative care is provided, we failed to locate articles discussing palliative care for schistosomiasis patients. Conclusions: While prevention and treatment of schistosomiasis remains an ultimate goal, the provision of palliative care services for those suffering from the late effects of schistosomiasis is an area that needs more attention. Research is warranted to identify schistosomiasis patients who are likely to benefit from such services, to assess their needs, and to establish programs that can meet these needs.

Poster N°: 418

Type of presentation: Poster
Poster session: Second group 30 May Friday 13.30 to 31 May Saturday 13.30
Category: Other non-cancer
Title: End stage COPD and heart failure: differences between patients’ experiences
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Background: End stage COPD and heart failure are often regarded as similar because of their illness trajectory with long term limitations and intermittent exacerbations. The aim of our study was to identify not similarities but differences in patients’ experiences from both conditions. A new method, comparative keyword analysis, was used to identify these differences. Methods: We used transcripts of semi-structured interviews with 11 end stage COPD (16 interviews) and 26 heart failure patients (58 interviews). Comparative keyword analysis is suited to analyse large bodies of text and combines quantitative and qualitative techniques. Keywords in each text are identified quantitatively (using Wordsmith software) by calculating words that occur unusually frequent in comparison to the other text. Once these keywords are identified, interpretative (qualitative) analysis is needed. Results: Heart failure patients talk about lifestyle advices like fluid restriction and a low salt diet, whereas this subject is not found in the COPD patients. COPD patients talk about hospitals and rehabilitation centres, whereas heart failure patients talk about home care. COPD patients talk about symptoms such as breathlessness, breathing and coughing. Heart failure patients describe being tired and having pain. Interpretation: An end stage COPD patient spends a routine day mostly indoors, with fear of breathlessness and with little activities. Health care is provided in hospitals and rehabilitation clinics. An end stage heart failure patient spends a routine day worrying about the side effects of diuretics, complying to lifestyle restrictions and feeling tired. Health care is provided through home care. Conclusions: There are considerable differences in the way end stage COPD and heart failure patients experience their daily life. Palliative care for COPD patients requires a specific focus on psychosocial care while for heart failure patients the focus should be on living with (dietary) restrictions.

Poster N°: 419

Type of presentation: Poster
Poster session: Second group 30 May Friday 13.30 to 31 May Saturday 13.30
Category: Other non-cancer
Title: Megestrol acetate in the treatment of malnutrition in dialysis patients
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Background: Despite the huge headway that has been made in dialysis techniques, the symptom burden faced by dialysis patients still remains unacceptably high. Among the most common problems experienced by these patients are anaemia and malnutrition. Megestrol acetate is a well-established treatment in anorectic cancer patients. However, it has not been widely used in dialysis population. To evaluate the efficacy and safety of megestrol acetate suspension in malnourished dialysis patients. Methods: In this multicentre, prospective, open-label study 26 hypoalbuminemic (albumin ≤38g/l) maintenance hemodialysis and chronic peritoneal dialysis patients took 160mg of megestrol acetate daily for a period of two months. Anthropometry, Subjective Global Assessment (SGA) score and biochemical indices of nutrition (serum albumin, triglicerides and total cholesterol concentrations) were performed on monthly basis. To assess the significance of changes of the investigated variables Friedman’s ANOVA and Kendall’s coefficient of concordance tests were used, when appropriate. Results: All patients reported improved appetite, which was accompanied by an increase in the daily energy intake. There was a concurrent significant increase in mean body weight and BMI. SGA scores increased insignificantly. An increase in serum albumin concentration over the intervention period was observed, while concentrations of triglicerides and total cholesterol decreased. These changes were also not statistically significant. Side effects were common and included overhydration, diarrhoea and hyperglycaemia. Conclusions: Megestrol acetate may be an effective therapeutic agent in reversing poor appetite in carefully selected dialysis patients. Because of prevalent side effects it must be monitored closely. Further studies are needed to learn whether benefits of megestrol acetate would outweigh the side effects.

Poster N°: 420

Type of presentation: Poster
Poster session: Second group 30 May Friday 13.30 to 31 May Saturday 13.30
Category: Other non-cancer
Title: Symptoms in the month before death – cross-sectional analysis from a longitudinal survey of symptoms in patients with stage 5 Chronic Kidney Disease managed without dialysis
Background: As palliative care extends to non-cancer, understanding symptom prevalence & severity as death approaches (and how this compares to cancer) will clarify which symptom interventions are most needed, and which elements of (largely cancer-driven) models of palliative care best translate into non-cancer end-of-life care. We describe symptom prevalence & severity in the last month of life for patients with stage 5 chronic kidney disease (CKD) managed without dialysis. Methods: Longitudinal symptom survey in 3 UK renal units, using the patient-completed Memorial Symptom Assessment Scale-Short Form (MSAS-SF). Individual symptom prevalence is reported (and 95% confidence intervals, to reflect sample size), plus MSAS-SF subscales. Findings are directly compared to MSAS-SF data in the last month of life for cancer patients (Hwang, J Pain Symp Manag, 2003). Results: 74 patients (mean age 82, SD 6.6) were recruited (response rate 62%), and 49 (67%) died during the study. Symptom data in month before death was available for 38 (78%) of these decedents (mean age 81, SD 6.2, & mean time of data collection 18 days from death, SD 8.0). Symptoms in >1 in 2 patients were fatigue 97% (95% CI 86–100%), itch 92% (79–98%), dyspnoea 89% (75–97%), drowsiness 89% (75–97%), pain 84% (69–94%), poor concentration 84% (69–94%), poor appetite 82% (66–92%), swelling arms/legs 74% (57–87%), dry mouth 74% (57–87%), constipation 68% (51–82%), and nausea 55% (38–71%). Median scores (interquartile range) for MSAS-SF subscales were Global Distress Index 2.10 (1.76–2.28), Physical Symptom Subscale 1.73 (1.27–1.93), and Psychological Symptom Subscale 1.55 (1.27–1.83). Prevalence of both physical & psychological symptoms and level of symptom-related distress is notably higher than previously reported for advanced cancer patients in month before death. Conclusions: Stage 5 CKD patients have major physical/psychological symptom burden in the last month of life which needs addressing with appropriate interventions & pertinent models of end of life care.

Poster N°: 421

Type of presentation: Poster
Poster session: Second group 30 May Friday 13.30 to 31 May Saturday 13.30
Category: Other non-cancer
Title: Palliative Care in Rheumatic Diseases
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Background: Despite major advances in the treatment of rheumatological diseases some patients are still dying from their disease suffering severe impairment and symptoms prior to death. Methods: Aim: To demonstrate the situation and palliative care needs of patients with rheumatologic diseases towards death. Three case reports are describing the problems of patients with advanced rheumatologic diseases. A literature search shows the current knowledge. Results: The three demonstrated patients all suffered from a variety of distressing symptoms such as pain, nausea, vomiting and immobility and psychosocial problems resulting in poor general condition and poor quality of life. The main characteristic of all three patients was the fulminant and dramatic trajectory of illness with two patients dying ten and four months after the diagnosis had been established. In all reported cases, inner organ manifestations were regarded as risk factors predicting a fulminant and fatal course. The degree of inner organ manifestations may be similar to the degree of metastasis in cancer. All three patients fulfilled the criteria for palliative care. Conclusions: Discussion: The major advances in the treatment of inflammatory-rheumat-ic diseases should not obscure the fact that fulminating courses will further exist. Vasculitides, connective tissue diseases, severe forms of rheumatoid arthritis and the development of a progressive pulmonary fibrosis may have a “malignant” illness trajectory leading to the patient’s early death. Most patients at this stage have multiple palliative care needs but will not have access to specialist palliative care. Both rheumatologists and palliative care physicians should become more aware of this patient group despite the fact that the numbers are small. Conclusion: Patients suffering from advanced rheumatological disease should have access to palliative care. Further research is necessary regarding disease trajectories, needs of patients and symptom control.

Poster N°: 422

Type of presentation: Poster
Poster session: Second group 30 May Friday 13.30 to 31 May Saturday 13.30
Category: Other non-cancer Cardio-pulmonary diseases
Title: The perceptions of cardiologists regarding end of life care in heart failure. Results of a consensus development process
Authors:
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Background: The need to improve end of life for people with heart failure is accepted by the World Health Organisation and the European Society of Cardiology have supported initiatives aimed at meeting this need. However, the perceptions of cardiologists are hitherto unknown. This consensus development process was designed to understand the views of cardiologists. Methods: A consensus process in the spirit of Delphi was used. Stage 1 – A national electronic survey was sent to each of the lead clinicians of the 32 cardiac networks in England asking a broad range of questions about the role of the cardiologist in end of life care. Fifteen surveys were completed. Stage 2 – An expert panel was invited to a consensus development conference. The panel consisted of 12 consultant cardiologists, two other consultants and one doctor working for a national heart charity. Panel members were twice asked to rate their agreement with 12 statements developed in Stage 1. A focus group discussion was audio taped and an attempt to identify agreement about the prognostic criteria was made. Six consensus statements were developed. Results: Cardiologists: • Embrace the need to improve end of life care and wish to be fully involved in that process • Have concerns that improving end of life care might distract from the need to improve the detection, diagnosis and treatment of heart failure • Approve of frameworks of care such as the Gold Standards Framework and the Liverpool Care Pathway • Call for clarity in the terms used and the symptom control guidelines applicable • Perceive a need for training of cardiologists, particularly in communication skills • Call for local and national leadership on this issue. Conclusions: Cardiologists wish to engage with colleagues in other specialties including palliative care to improve the end of life care for patients with heart failure. They identify the need for clarification of the terms used and prognostic indicators.

Poster N°: 423

Type of presentation: Poster
Poster session: Second group 30 May Friday 13.30 to 31 May Saturday 13.30
Category: Other non-cancer Cardio-pulmonary diseases
Title: Improving symptom control in patients with end-stage chronic obstructive pulmonary disease with FDE5 inhibitors
Background: Chronic obstructive pulmonary disease (COPD) is a leading cause of morbidity and mortality in the Russian Federation; up to 12 millions suffer from COPD, more than 2 millions are disabled. Equal numbers of patients with COPD and lung cancer are therefore experiencing preterminal disease and are likely to require similar medical and social services. Dyspnea is common symptom in patients with COPD, especially in advanced disease; however, evidence-based approach to treatment is poor understood in Russia. Methods: 8 male patients with end-stage COPD (Criteria of end-stage COPD: Disabling dyspnea at rest (forced expiratory volume in 1 s [FEV1] <30% predicted); Increasingly frequent hospitalizations for chronic obstructive lung disease or infection; Hypoxemia: oxygen level <55 in room air; Hypercapnia: carbon dioxide level >50; Cor pulmonale and right heart failure secondary to pulmonary disease; Progressive weight loss >10% of total weight over last 6 mo; Resting tachycardia >100/min) were investigated (mean age 67.4±7.6 yrs) were investigated. The Charlson Comorbidity Index was 0.656. All the patients despite standard symptomatic therapy including oxygen therapy experienced dyspnea. Dyspnea was assessed with MRC and Borg scale. All the patients were treated with the FDE5 inhibitor vardenafil (20 mg/d) adjunctive to standard treatment. After follow-up period was (2 weeks) pulmonary function test, pulse-oxymetry, echocardiography and subjective sensation of dyspnea were assessed. Results: 6 of 8 patients experienced improve in dyspnea according to Borg scale. No significant changes in PFT, oxygen saturation and pulmonary hypertension were observed. Conclusions: FDE inhibitors may be used for palliative control of dyspnea in patients with end-stage COPD. Positive effects on dyspnea may be not attributed to decrease in pulmonary hypertension.

Poster N°: 424

Type of presentation: Poster
Poster session: Second group 30 May Friday 13.30 to 31 May Saturday 13.30
Category: Other symptoms
Title: Symptom distribution in haematologic patients and its influence on referral and admission to palliative care services
Authors: Bernd Alt-Epping Palliative Medicine University Hospital GERMANY

Background: There is few but remarkable evidence in literature that patients with haematologic malignancies like leukemias or lymphomas (haematology patients, HP) are rarely embedded in palliative care (PC) supply networks – in contrast to patients with solid tumour entities (oncology patients, OP). Whether symptom patterns in HPs differ from OPs and whether this influences referral behaviour, is currently under debate. Methods: 365 applications for patients to be taken over on our PC unit were retrospectively analyzed with respect to diagnostic spectrum, referral rates, and prevalence of patients with haematologic disease. Application figures were set into context with a cohort of patients (n=205) having actually been taken over in PC services, and with standard epidemiologic figures. Results: Only 4.3% of all PC inpatients suffered from underlying haematologic disease, whilst leukemias and lymphomas share 8.7% of all malignant disease in epidemiological studies. Inquiries concerning HPs were based upon focal symptoms (e.g. localized pain, dyspnea, GI) in 48.4%, as compared to 77.3% in OPs, and the likelihood to receive a free PC bed was 22.5% (HP) as compared to 42.9% (OP). Those patients finally accepted for a free PC bed suffered from focal symptoms in 87.9%. Conclusions: HPs have a lower incidence of focal symptoms and a lower probability to receive a free PC bed. Patients on waiting list are further selected for focal symptoms. HPs are underrepresented in a PC unit compared to OPs, even in a specialized haematologic surrounding. This survey provides further evidence that HPs have rarely access to PC and that symptom distribution and the prioritizing attention to focal symptoms in PC might be a relevant contributing factor to this, besides aspects of attitude, technology, course of the disease, prognosis, supportive or antiproliferative therapy, as stated elsewhere.
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**Background:** Investigation of multiple symptoms and their interplay is an important area of research, as publications and guidance for the management of such symptom clusters is scant. Subsequently it is vital that all available data is utilised to aid advancement in this neglected field. With this in mind, we analysed a newly established database of 1126 cancer patients with the aim of examining the relationships between pain, fatigue, mood and function. **Methods:** Data from three large randomised controlled trials was organised into an optimal format for meta-analysis. The study population comprised lung, pancreatic and gastrointestinal cancer patients. Repeated assessments over 14 weeks were available for review, using the following tools: EORTC Quality of Life Questionnaire-C30 (EORTC QLQ-C30), the EuroQol EQ-5D questionnaire, Karnofsky and ECOG Performance Status scales and dynamometer grip strength. Univariate statistical analysis was performed and linear-by-linear chi-square test values are presented. **Results:** EORTC pain score was associated with reduced EORTC physical and emotional functioning at all assessments. A similar relationship was found between function and EQ-5D pain scores. Both physical and emotional functioning deteriorated over time for those patients with the highest pain scores. For this subgroup, performance status was reduced and also worsened with successive visits. Consistently higher EORTC fatigue scores were associated with both worsening EORTC and EQ-5D pain levels. Statistically significant associations were also found between EQ-5D usual activity and both EORTC pain (p<0.000) and EQ-5D pain (p<0.000), EQ-5D anxiety/depression and EORTC pain (p=0.000) and EQ-5D pain (p<0.000) and between Karnofsky and ECOG performance status and either EORTC or EQ-5D pain scores. **Conclusions:** Symptoms coexist and deteriorate in parallel. Common underlying pathophysiological mechanisms in symptom clusters along with clinical management needs research.

**Poster N°: 427**

**Type of presentation:** Poster
**Poster session:** Second group 30 May Friday 13.30 to 31 May Saturday 13.30
**Category:** Other symptoms
**Title:** The impact of shiatsu treatment on symptoms in palliative care patients: a pilot study
**Authors:**
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**Background:** The Shiatsu treatment is complementary to traditional care in improving the individual inner “energetic” balance. Aim of this pilot study is to evaluate the effect of the Shiatsu technique in improving symptoms and psychological well-being in terminal cancer patients. **Methods:** From November 2006 to March 2007, all consecutive hospice inpatients giving oral informed consent to participate in the study, have been treated with the Shiatsu technique. The following patient reported outcomes (PROs) have been evaluated through numerical 0 to 10 scales adapted from the Edmonton Symptom Assessment Scale (ESAS): relaxation, general well-being, nausea, pain, dyspnoea and anxiety. PROs were gathered both before and after each treatment session. For each of the PROs evaluated short (ST) and long (LT) measures of effect of the treatment were analyzed. ST effects were defined as the average variations between before and after evaluations on each patient, while LT effects were the differences between the baseline value and the average of the pre-treatment values of all the following sessions of a patient. **Results:** A total of 16 pts had undergone 66 Shiatsu treatments (4 sessions per person on average) with a maximum frequency of 3 treatments per week. At the end of each treatment an improvement of all the PROs emerged: in particularly relaxation, well-being and anxiety showed significant ST improvement with respectively average variations of 2.93 (95% CI 2.10 – 3.75), 2.91 (95% CI 1.75 – 4.05) and 1.48 (95% CI 0.68 – 2.28) points. Data gathered also showed that LT effects were generally positive although only anxiety indicate a statistically significant reduction after a course of treatments (2.15 95% CI: 0.35–3.94). **Conclusions:** This study shows the potential applicability and effects of the Shiatsu technique in reducing anxiety in hospice terminal cancer patients. Further studies aimed at appropriately proving Shiatsu efficacy are needed.

**Poster N°: 428**

**Type of presentation:** Poster
**Poster session:** Second group 30 May Friday 13.30 to 31 May Saturday 13.30
**Category:** Other Symptoms
**Title:** Advanced cancer and sexuality– a neglected area?
**Authors:**
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**Introduction:** There have been major advances in the understanding of and emphasis on symptom management in patients with advanced cancer. However, the awareness of the impact of advanced cancer on the sexuality of patients is limited. Furthermore, this is frequently an overlooked area in clinical practice. **Aim:** The aim of this study was to evaluate the impact of advanced cancer on patients’ sexuality and the coping methods used. **Method:** A purposive, random sample of patients with advanced cancer admitted throughout a specialist, palliative care service from November 2006 to April 2007 occurred. Patients were stratified by gender. Interviews were recorded and transcribed verbatim. Recruitment stopped when data saturation was reached. Data was analysed using content analysis to identify the codes, categories and themes. **Results:** 13 patients were recruited. One recording was excluded due to incomplete data. The remaining 12 interviews were included. Themes identified by patients included: a variable impact on body image, altered emotional relationships with partners including increased emotional intimacy, altered physical intimacy, differing interpretations of sexuality, re-prioritisation and the conflict between the role of the patient’s spouse as carer and lover. For patients not in relationships, reasons for not seeking new relationships varied from emotional attachments to deceased spouses to perceived barriers to seeking a new relationship secondary to having cancer or sequelae from treatment such as stomas. Supports identified included friends, family, and healthcare professionals. **Conclusions:** Advanced cancer can have a significant but variable impact on patients’ sexuality. It may impact body image, emotional and physical relationship issues. Further research is necessary to determine both the coping strategies used and appropriate therapeutic interventions with the aim of optimising patients’ quality of life.

**Poster N°: 429**

**Type of presentation:** Poster
**Poster session:** Second group 30 May Friday 13.30 to 31 May Saturday 13.30
**Category:** Other symptoms
**Title:** The association between anxiety, depression and the intensity of physical symptoms in patients with advanced cancer
Background: Mood disorders are among the most distressing psychiatric complications in advanced cancer patients. Depression (D) and/or anxiety (A) can coexist with physical symptoms in these patients. There is inconclusive evidence about the relationship between D,A, and symptom expression. Purpose: To determine the association between the intensity of physical symptoms and the presence/severity of D and A determined by Hospital Anxiety and Depression Scale (HADS) scores in advanced cancer patients (pts). Methods: We retrospectively reviewed Edmonton Symptom Assessment System (ESAS) and HADS data of 216 pts who participated in clinical trials conducted by our group. We determined the severity of physical symptoms and the association with A and D. Results: The median age(range) was 59y (20–91), 38% female. 76% were white, 15% african american, and 6% hispanic. 79 pts(37%) had D(HADS-D>= 8)(23% mild, 11% moderate, and 2% severe). 94 pts(44%) had A(HADS-A>= 8)(29% mild,12% moderate, and 3% severe). Using Wilcoxon Two-sample test (mean+/–SD), pts with D expressed higher fatigue intensity(6.3+/–2.3 vs 4.9+/–2.6, p<0.0001), drowsiness(4.3+/–2.8 vs 2.5+/–2.7, p<0.0001), and worse well being(5.8+/–2.1 vs 3.6+/–2.6, p<0.0001). Pts with A expressed higher pain intensity(3.7+/–3 vs 5.4+/–2.8, p<0.0001), nausea(2.5+/–2.7 vs 1.2+/–1.8, p<0.0001), and worse well-being(5.3+/–2.5 vs 3.7+/–2.5, p<0.0001). 56 pts(26%) with A and D, expressed higher pain intensity(5.5+/–2.5 vs 3.5+/–3.0, p<0.0001), fatigue(6.5+/–2.2 vs 4.7+/–2.6, p<0.0001), nausea(2.6+/–2.5 vs 1+/–1.7, p<0.0001), drowsiness(4.3+/–2.9 vs 2.2+/–2.5, p<0.0001), anorexia(5.4+/–2.8 vs 3.3+/–2.8, p<0.0001), and worse well-being(6+/–2.3 vs 3.3+/–2.5, p<0.0001). Spearman’s correlation between HADS and ESAS-A and D were respectively 0.50 and 0.39 (p<0.001).

Conclusions: There is significant relationship between A and D and Physical Symptoms. Pts with both D and A express higher intensity of physical symptoms, such as pain, fatigue, drowsiness, anorexia, and worse well-being.

Poster N°: 430

Type of presentation: Poster
Poster session: Second group 30 May Friday 13.30 to 31 May Saturday 13.30
Category: Other symptoms
Title: Evaluation of Complex Physical Therapy (CPT) with and without pneumatic massage in term of the limb volume changes, the range of limb movements by goniometer, physical symptoms by the Likkert type (40,3 months vs. 63,3, p=0,2) and duration of oedema (18,1 months vs. 17,9, p=1). The limb volumes were calculated by the simplified formula for the frustum obtained with the circumference measurements (every 4 cm), limb movements by goniometer, physical symptoms by the Likkert type 4-points scale, and QoL within Edmonton Symptom Assessment System (ESAS). These measurements were taken before and after the treatment. The groups initially were similar concerning all measured parameters (p=0,2–0,7).

Results: The study showed that both groups obtained a significant limb volume reduction (mean 368.3 ml [11.5 %] vs. 282.3 ml [10.7 %], p=0,4), shoulder flexion range improvement (mean 42.4 % vs. 26.3 %, p=0,2), abduction range enhancement (mean 36.0 % vs. 21 %, p=0,2), the gripping force increase (mean 0,3 dyn/cm2 vs. 0,2 dyn/cm2, p=0,7), physical complaints intensity diminishing (mean 1,5 vs. 1,6, p=0,4) and QoL improvement (mean ESAS 0,7/10 vs. 0,5/10, p=0,5).

Conclusions: These findings indicate that MLD did not contribute significantly to improve the efficacy of compression bandaging plus exercises alone. The findings suggest that bandaging and exercises should be considered as a primary treatment option in reducing oedema.

Poster N°: 431

Type of presentation: Poster
Poster session: Second group 30 May Friday 13.30 to 31 May Saturday 13.30
Category: Other symptoms
Title: Diabetes – a palliative approach
Presenting author: Clare Marlow
Authors: Emma Husband Palliative Medicine St. Michaels Hospice UNITED KINGDOM
Samantha Kay West Midlands Deanery Birmingham UNITED KINGDOM
Roger Blandford Hereford County Hospital Hereford UNITED KINGDOM
Tony Blower St. Michaels Hospice Hereford UNITED KINGDOM

Background: The incidence of diabetes is increasing worldwide. Managing diabetes in terminal illness can be challenging and often causes concerns for both staff and patients. Several clinical scenarios highlighted a lack of continuity in managing these patients and a lack of confidence amongst staff. It was felt that producing clinical guidelines would be helpful.

Methods: Literature reviews using PubMed and OVID were performed and we liaised with our local diabetes team along with hospice staff to formulate guidelines. Results: There has been limited formal research within this area. Within the guidelines the different types of diabetes are each explained and treatment plans suggested. For clinical ease, the guidance has been sub-divided into three prognostic groups – years, months and weeks or less. Management aims are then directed towards prognosis and can be individualised for each patient. By clarifying the aims of treatment at each stage of the illness, staff and patients can ensure that the focus of care remains on quality of life and that, where applicable, tight glycaemic control can be relaxed without causing concern. The key diabetic emergencies have been included with suggested management if in the hospice.

Conclusions: The guidelines have given medical and nursing staff reassurance in managing a complex condition. Our format offers easy step-wise advice and is useful within a specialist palliative centre, primary care and the acute hospital setting. By explaining the reasoning behind decisions and making general suggestions, clinical judgement can be used to tailor care to patients. The project has highlighted the value of teaming up with other specialities to share specialist knowledge for common issues. Our literature review also highlighted a lack of formal research into this area and we propose that these guidelines could form the basis of a future research project.
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Mellor Davis The Harry R. Horvitz Center For Palliative Medicine, Cleveland Clinic Cleveland U. STATES
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Nabila Bemanni-Botti The Harry R. Horvitz Center For Palliative Medicine, Cleveland Clinic Cleveland U. STATES
Ruth Lagman The Harry R. Horvitz Center For Palliative Medicine, Cleveland Clinic Cleveland U. STATES

Background: Overall QOL has rarely been a primary outcome in palliative medicine clinical trials. The purpose of this study is to determine if QOL can be a reliable primary outcome in palliative medicine. Methods: A 2 week open label trial of mirtazapine in advanced cancer had QOL as the primary outcome, and symptoms (insomnia, anorexia, nausea, fatigue, worry, depression) as a secondary outcome. Initial 15 mg dose at night with the option to be increased to 30 mg at W2, if no response, or toxicity >=Gr 3 NCT-CTCAE. Entrance criteria by EORTC QLQ C-30: QOL <= 5 (1–7 NRS) and at least 1 symptom >= 2 (1 “not at all” – 4 “very much”). Ineligible (IN) patients with QOL at baseline 6 and 7 were compared to study patients (ON) for QOL, symptom burden (number of symptoms and severity), and demographics using Chi square and two tailed T test unequal variances. Symptoms were dichotomized into any/mild (<= 2) and moderate/severe (> = 3). Results: 188 screened, 30 refused, 110 IN, 48 ON. Ineligibility was: QOL 49 (45%), antidepressants 20%, chemoradiation 14%. Comparisons of 33 IN (complete data) v 48 ON revealed no significant difference in age, gender and primary cancer site. Mean (SD) QOL: IN 6.5 (0.5) v ON 7.4 (1.2), p = 0.0001. Symptom burden IN v ON: mean (SD) prevalence 3(2) v 4 (1); at least one symptom was present 30 / 33 (90%) v 48 (100%), p = 0.009; mean (SD) severity 1.9 (0.6) v 2.3 (0.5). Only fatigue (p = 0.002) more prevalent and severe in ON. As symptom numbers increased, QOL decreased for all (p = 0.002), but not by subgroups, p = NS. When severity increased, QOL decreased for all (p = 0.0002) and ON (p = 0.003), but not for IN (p = 0.004). Conclusions: QOL in palliative medicine correlates negatively with symptom severity and number of symptoms. If QOL is a primary outcome in a clinical trial, a selective bias can occur, as the symptom burden is also a factor.

Poster N°: 433 withdrawn

Poster N°: 434

Type of presentation: Poster
Poster session: Second group 30 May Friday 13:30 to 31 May Saturday 13:30
Category: Other symptoms
Title: The assessment of psychological distress in patients with advanced Lung Cancer receiving Palliative Chemotherapy
Presenting author: Dympna Waldron
Authors: Eileen Mannion Palliative Medicine University Hospital Galway IRELAND
Dympna Waldron Department of Palliative Medicine, University Hospital Galway Galway IRELAND

Background: It is difficult to assess psychological distress in patients with advanced cancer as symptoms occur in a continuum from sadness to adjustment disorder to major affective disorders. Sometimes emotional disorder is a result of the stress caused by a physical disability but somatic symptoms may be a manifestation of anxiety or depressive states. In addition a neurosis may co-exist with a physical illness causing the patient to be more distressed by the symptoms of their illness. Methods: 33 patients with advanced lung cancer receiving palliative chemotherapy were interviewed at time of first treatment (T1) using the Hospital Anxiety and Depression Scale (HADS) and the European Organisation for Research and Treatment of cancer quality of life questionnaire (EORTC-QLQ). The assessment was repeated at three months (T3). Results: At T1 the mean HADS score for depression was 4.84 (mean 4; minimum 0, maximum 16). At T3 the mean depression score was 5; median 6. At T1 the mean anxiety score was 5; at T3 the mean anxiety score was 3.8 (minimum 0, maximum 16). All scores were within normal range. At T1 the mean Emotional Functioning (EF) score of the EORTC-QLQ was 72 (max score 100), median 75 (SD 18.5). At T3 the mean EF score increased to 89; median 91 (SD 8.7). Conclusions: These results indicate that this population does not appear to have an increased incidence of emotional distress. Findings suggest that patients are undergoing psychological adaptation to enable them to cope with their illness.

Poster N°: 436

Type of presentation: Poster
Poster session: Second group 30 May Friday 13:30 to 31 May Saturday 13:30
Category: Other symptoms
Title: Treatment of nausea and vomiting in palliative care units in Sweden – a survey of 1704 patients
Authors: Ulla Martinsson Dept of Oncology Uppsala university SWEDEN
Eva Gyllenhammar Väby-Sigtuna ASIH Upplands Väby SWEDEN
Staffan Lundström Dept of Palliative Medicine, Stockholms Sjukhem Stockholm SWEDEN
Background: Nausea and vomiting are common symptoms in palliative care, however difficult to treat. Methods: In March 2007 the palliative research network in Sweden (PANIS) sent out a web based questionnaire to the participating units in order to outline the treatment of nausea/vomiting. Registration was made by the responsible staff with no self assessment tools for the patients. The number of included patients was 1703; 60% were enrolled in advanced home care, 21% in palliative care counselling teams and 14% were treated in hospices. The median age was 70 years, 55% were women, 45% were men and 91% of the patients had a cancer diagnosis.

Results: Drugs for nausea and/or vomiting were prescribed in 928 patients (54%), 96% of whom had cancer. Eighty percent of them were on regular medication. The most frequent causes of nausea/vomiting were a large tumour burden (30%), chemotherapy treatment (29%), opioid treatment (27%), anxiety (14%) and constipation (12%). More than one aetiology was found in 443 patients. If the patients with chemotherapy/radiotherapy as the only causes of these symptoms were excluded, 780 patients remained. The most common drugs were metoclopramide (70%), corticosteroids (30%), haloperidol (17%) and serotonin antagonists (17%). A satisfying effect of the treatment of nausea was seen in 54% of the patients, the corresponding figure for patients with vomiting was 28%. For 34 of the patients, serotonin antagonists were used without neither chemotherapy nor radiotherapy, which are, beside postoperative emesis, the only registered indications for these drugs in Sweden. Still, 20 of these patients seemed to benefit from the treatment. Only 28% of the patients on antiemetic treatment had used a tool for self assessment of nausea. Conclusions: This descriptive cross-sectional study shows that medical treatment for nausea and/or vomiting is common in patients enrolled in palliative care. Nausea is more easily treated than vomiting. Individual self assessment tools are infrequently used.

Poster N°: 437

Type of presentation: Poster
Poster session: Second group 30 May Friday 13.30 to 31 May Saturday 13.30
Category: Other symptoms
Title: A pilot study evaluating the emerging theory of dry wound management in palliative wound care using the product YOUKI through the use of a multiple case study design and a clinical indicator tool (TELER)
Authors:
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Patricia Crockett Florence Nightingale School of Nursing and Midwifery King’s College London UNITED KINGDOM

Background: Current wound care can trace its roots to Winter’s seminal work on the epidermis of pigs. From this, moist wound healing theory and modern wound dressings have been developed. The wounds seen in palliative care are often challenging due to their aetiology or associated symptoms such as exudate, odour, infection, pain and problems with dressing fit. There may be a need in palliative care for alternative outcomes to be measured, and for alternative wound management strategies to be developed.

Methods: This pilot study investigates one alternative, dry wound management, using a specialised product ‘YOUKI’ to form a dry scab over the wound. This product is evaluated using the TELER (Treatment Evaluation by LE Roux’s method) clinical indicator tool, which has been successfully used in fungating wound care research. TELER provides a method of holistically assessing the patient with the wound, using the patient-focused principles of palliative care. A multiple case study design is used, which has been previously used with the TELER tool to evaluate dressings and the patient experience of wound symptoms. Youki will be evaluated using TELER with patients who have one of three types of wound: 1. Difficult to manage, exuding wounds 2. Superficial skin tears, lacerations, burns and grazes 3. Advanced, predominantly dry wounds that will not heal due to the limited patient’s life expectancy. Five patients are recruited into the study, three have pressure sores, one has lymphorrhoea and one a fungating wound.

Results: Despite the small sample number and the limitations and biases of the study, evidence is generated that dry wound management using Youki may have a role in the management of wounds in palliative care, and that the TELER clinical indicator tool is useful to measure the effects of Youki.

Conclusions: This pilot study has contributed to the generation of ‘case law’ in palliative wound care, and this pilot study should now be adapted to a larger study with statistical power to provide stronger evidence.

Poster N°: 438

Type of presentation: Poster
Poster session: Second group 30 May Friday 13.30 to 31 May Saturday 13.30
Category: Other symptoms
Title: Evaluation of constipation in patients using transdermal fentanyl with rescue opioids other than fentanyl in pain control
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Ioannis Kouvaris Radiology Dept., Aretaion Hospital, University of Athens, School of Medicine Athens Greece
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Elef Trilika Pain Relief and Palliative Care Unit, Dept. of Radiology, School of Medicine, University of Athens Greece
Lambros Vlahos Radiology Dept., Aretaion Hospital, University of Athens, School of Medicine Athens Greece

Background: A retrospective open label study to evaluate the optimum prophylactic treatment for nausea and vomiting in cancer patients receiving fractionated radical or palliative radiotherapy. Methods: 576 cancer patients were allocated in five treatment groups: 120 patients received Troepisetron, 129 Tropisetron plus Dexamethasone, 110 Metochloropramide, 119 Dexamethasone, and 107 received Metochloropramide plus Dexamethasone. To determine the optimum antiemetic prophylactic treatment, nausea and vomiting were evaluated at baseline, 24 and 72 hours before the initiation of Radiotherapy (RT), and at the end of every week during RT. Adverse effects, Eastern Cooperation Oncology Group (ECOG) performance status, and the intensity of nausea and vomiting were recorded.

Results: Statistically significant differences in incidence and intensity of nausea and vomit were found between the five antiemetic treatment groups from the 1st till the 5th week of the RT. Tropisetron + Dexamethasone had significantly reduced odds for nausea and vomit, and a significantly less severe nausea and vomit than any other treatment group. The factors statistically significantly associated with an increased ECOG were palliative RT, dose fraction <3, field size >200, treatment with Metochloropramide, Metochloropramide+Dexamethasone and Dexamethasone.

Conclusions: Patients receiving prophylactically Tropisetron+Dexamethasone antiemetic treatment completed RT with lower intensity of nausea and vomiting and lower ECOG performance status scores.

Poster N°: 439

Type of presentation: Poster
Poster session: Second group 30 May Friday 13.30 to 31 May Saturday 13.30
Category: Other symptoms
Title: Evaluation of constipation in patients using transdermal fentanyl with rescue opioids other than fentanyl in pain control
Authors:
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Ruko Hatto Palliative Care Centre, Shimane University Hospital Izumo JAPAN
Background: Several kinds of opioids are used for pain control in palliative care, and constipation is a major side effect of opioids. Fentanyl is known to have less effect on opioid receptors in the gut than morphine, and we considered it possible constipation could be minimized by the exclusive use of fentanyl. But rescue with fentanyl other than by intravenous administration is not available in Japan. In clinical situations, other opioids are needed as a rescue instead of fentanyl when using transdermal fentanyl. There is little information on the relationship between constipation and the use of a fentanyl patch together with other rescue opioids. The aim of this study was to evaluate constipation when using fentanyl patch and rescue opioids other than fentanyl. Methods: We retrospectively evaluated constipation in consulted patients over the past one-year period. For purpose of our study, we defined constipation as the failure to defaecate at least three times a week, or for the patient to have a sensation of insufficient evacuation. We divided the patients into two groups: One was a fentanyl group (FG), and the other was a non-fentanyl opioid group (NFG). Data was analyzed by chi-square test for independence. Results: Eighty-two patients were investigated. Thirty-three patients were using fentanyl patch (FG) and the other 49 patients were using other opioids (NFG). In the FG, constipation was noted in 14 patients (42%), Thirty patients in the FG used rescue opioids other than fentanyl. Constipation did not occur in three patients who did not receive rescue opioids. In the NFG, constipation was noted in 25 patients (51%). There was no significant difference between the two groups as to the incidence of constipation. Conclusions: We concluded that the transdermal fentanyl offered no relief from constipation when used with rescue opioids other than fentanyl. Further study is needed to determine whether it is possible to minimize constipation through the exclusive use of fentanyl in pain control.

Poster N°: 440

Type of presentation: Poster
Poster session: Second group 30 May Friday 13.30 to 31 May Saturday 13.30
Category: Other symptoms
Title: Factors influencing hospice thromboprophylaxis policy: a qualitative study
Authors: Simon Noble Palliative Medicine Cardiff University UNITED KINGDOM,
Anmarie Nelson Wales Cancer Trials Unit Cardiff UNITED KINGDOM,
Ilora Finlay Cardiff University Cardiff UNITED KINGDOM

Background: Despite level 1 evidence supporting the use of low molecular weight heparin thromboprophylaxis in hospitalised cancer patients only 7% of specialist palliative care units (SCPU) has such guidelines. The reasons for this are unclear. A qualitative study was undertaken to explore the reasons for not providing thromboprophylaxis in SCPCUs. Methods: Audiotaped semi structured interviews were conducted with SCPU medical directors to explore factors influencing thromboprophylaxis practice. Purposive sampling of units known not to have thromboprophylaxis guidelines was conducted (as identified from previous research). The hospice directory was used to sample from units in each region of Great Britain and Ireland to ensure representation across the specialty. Interviews were transcribed and analysed for recurring themes to saturation, which occurred at twelve interviews. Results: The following themes were identified: Major 1. Venous thromboembolism (VTE) was considered an important issue but believed to be seen less frequently than is reported in the literature. 2. Thromboprophylaxis was considered a life prolonging therapy rather than a symptom prevention therapy. 3. The reported literature supporting thromboprophylaxis used outcome measures that were considered less relevant to the palliative care environment. 4. Prescribing was not influenced by concerns regarding health resource usage or side effect profiles. 5. There was a desire for further research in the palliative care population with relevant outcome measures. Minor 1. Thromboprophylaxis was considered countercultural to the philosophy of palliative care. 2. The attention given to thromboprophylaxis reflected the sequelae of the speciality working more closely with mainstream medicine. Conclusions: There is a need for a well designed study to explore the utility of thromboprophylaxis in the palliative care inpatient setting. However, this will require meaningful outcome measures to be used within a clinically applicable population.

Poster N°: 441

Type of presentation: Poster
Poster session: Second group 30 May Friday 13.30 to 31 May Saturday 13.30
Category: Other symptoms
Title: Management of venous thromboembolism in patients with advanced cancer: a systematic review and meta-analysis by the thrombosis task group, on behalf of the APM Science Committee
Authors: Simon Noble Palliative Medicine Cardiff University UNITED KINGDOM,
Miriam Johnson St Catherines Hospice Scarborough UNITED KINGDOM,
Mike Shelley Cochrane Unit, Velindre Hospital Cardiff UNITED KINGDOM,
Bernadette Coles Cardiff University Cardiff UNITED KINGDOM,
Andrew Wilcock Nottingham University Nottingham UNITED KINGDOM,
Susan Williams Marie Curie Centre, Holme Tower Cardiff UNITED KINGDOM

Background: Venous thromboembolism (VTE) is common in patients with cancer but there are no management guidelines specific to the palliative care population. A systematic review of anticoagulation therapy in patients with cancer was undertaken to help develop recommendations for practice.

Methods: All studies published after 1966 were identified from MEDLINE, The Cochrane Library, EMBASE, CINAHL, British Nursing Index, AMED, Web of Science and SCOPUS, using word terms ‘neoplasms’ or ‘palliative care’ and ‘thromboembolism’ or ‘anticoagulants’. Studies were included if they analyzed the management of VTE in cancer patients with incurable disease. Results: The initial search produced 5884 citations, 62 of which met the inclusion criteria. The quality of all articles was assessed independently by 2 reviewers and 28 publications consisting of randomised (5), prospective (10) and retrospective (11) studies, case series (2), an audit and a survey were used in the review. Data suggests that long-term full dose LMWH is more effective than warfarin in the secondary prophylaxis of VTE in patients with cancer of any stage, performance status or prognosis; warfarin should not be used in patients with advancing progressive disease; in patients at high risk of bleeding, full dose LMWH for 7 days followed by a reduced fixed-dose long-term, e.g. dalteparin 10,000 IU daily can be considered. The optimal treatment duration is unclear, but since the pro-thrombotic tendency will persist in patients with advanced cancer, indefinite treatment is recommended. For patients with contra-indications to anticoagulation, caval filters can be considered, but their use requires careful patient selection. Conclusions: The decision to initiate, continue and stop anticoagulation should be made on an individual basis, guided by the available evidence, the patient’s circumstances and informed preferences.

Poster N°: 442

Type of presentation: Poster
Poster session: Second group 30 May Friday 13.30 to 31 May Saturday 13.30
Category: Other symptoms
Title: Prevalence of constipation and use of laxatives in patients with advanced disease cared for by Palliative Care teams
Authors: Antonio Noguera Hospitalización Cuidados Paliativos Hospital Centro de Cuidados Laguna SPAIN
Background: Depression is a common symptom in palliative care, and yet there is little research on its prevalence. Neither has been established a standard treatment, and to what extent new drugs have been incorporated.

Methods: A cross-sectional descriptive study was proposed to collect data on depression and its management in palliative care units of Navarra, La Rioja, Extremadura, Lérida and Vitoria (19 teams). The following variables, among others, were analyzed: documentary background about fecal impaction, pace and consistency of depositions and subjective perception of the patient, possible causes, consumption of opioids and prescribed treatment.

Results: We are presenting herein descriptive statistics of a group of 154 patients, average age 71 years, most with cancer diagnosis and Karnofsky less than or equal to 60 and most of them (60%) over one month of palliative care at the time of the study; they were diagnosed constipation 58%, history of fecal impaction 25%. The most common probable causes is pharmacological (64% following treatment with opioids). With regard to the disparity of approaches found is to be stressed. 102/154 (66%) had treatment for constipation. 11/102 (11%) used only rectal treatment with enemas or suppositories, 90/102 (88%) used laxatives (77/90 (85%) single treatment, 12/90 (13%) combining two laxatives, 1/90 (1%) combining three laxatives). Of the total using oral laxatives, 61% used lactulose, 20% magnesium, 14% sennosides, 12% polyethylene glycol, others laxatives 9%. Only 10/90 (11%) patients combined osmotic laxatives with sennosides. Conclusions: Among patients treated by palliative care, constipation remains being a high prevalence symptom. Many patients could be on inadequate treatment.

Poster N°: 443

Type of presentation: Poster
Poster session: Second group 30 May Friday 13.30 to 31 May Saturday 13.30
Category: Other symptoms
Title: Depression and quality of life of day hospice patients
Authors:
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Safija Kalajic University Clinical Centre Tuzla Tuzla BOSNIA & HERZEGOVIN
Samir Husic University Clinical Centre Tuzla Tuzla BOSNIA & HERZEGOVIN

Background: Research aims: 1) Current work of Day Hospice from 1.2.2006 to 30.6.2007. 2) The effects of treatment for depression and the quality of life of patients in the Day Hospice. Study population: The 154 patients, average age 71 years, most with cancer diagnosis and Karnofsky less than or equal to 60 and most of them (60%) over one month of palliative care at the time of the study; they were diagnosed constipation 58%, history of fecal impaction 25%. The most common probable causes is pharmacological (64% following treatment with opioids). With regard to the disparity of approaches found is to be stressed. 102/154 (66%) had treatment for constipation. 11/102 (11%) used only rectal treatment with enemas or suppositories, 90/102 (88%) used laxatives (77/90 (85%) single treatment, 12/90 (13%) combining two laxatives, 1/90 (1%) combining three laxatives). Of the total using oral laxatives, 61% used lactulose, 20% magnesium, 14% sennosides, 12% polyethylene glycol, others laxatives 9%. Only 10/90 (11%) patients combined osmotic laxatives with sennosides. Conclusions: Among patients treated by palliative care, constipation remains being a high prevalence symptom. Many patients could be on inadequate treatment.

Poster N°: 446 withdrawn

Poster N°: 447

Type of presentation: Poster
Poster session: Second group 30 May Friday 13.30 to 31 May Saturday 13.30
Category: Other symptoms
Title: Use of mouth care solutions in geriatric wards
Authors:
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Laure Kaestli Pharmacy, University Hospital Geneva Geneva SWITZERLAND

Background: Oral integrity plays a crucial role in communication and social interactions. Good oral hygiene should include daily assessment of symptoms and examination of the oral cavity and mouth wash with a bicarbonates solution. In practice, hexetidinum 0.1 % disinfectant solution is sometimes used for the same purpose. Objective of the study is to measure the impact of guidelines and added formal education program to improve mouth care in geriatric patients. Methods: Assessment scale was provided and the properties/indications of various mouth care solutions were made available in each ward of the Department. Three of the wards received a two hours formal education program. The consumption of hexetidinum 0.1 % and of bicarbonates solution measured 3 months before and 3 months after provision of the guidelines. Results: Consumption of hexetidinum 0.1%, 200ml solution was 208 units 3 months before and 140 units 3 months after. Consumption of bicarbonates solution 100ml solution was, 491 units 3 months before and 464 units 3 three months after. In the 3 wards that were educated, consumption of hexetidinum 0.1% 200ml solution was 21 units 3 months before and 12 units 3 months after. Consumption of bicarbonates solution 100ml solution was 66 units 3 months before and 59 units 3 months after. Conclusions: A formal education program targeting 3 wards had a better impact than the general provision of guidelines to decrease the inadequate use of Hexetidinum 0.1%. On the other hand, a corresponding significant increase of the use of bicarbonates solution could not be demonstrated. Education program must therefore be repeated on a routine basis.
Background: The European Palliative Care Research Collaboration (EPCRC) is currently developing guidelines for treatment of depression in this population. A systematic review of treatment of depression in palliative care in 2002 found only three randomized controlled trials (RCTs) assessing pharmacological treatments, and the authors highlighted a need for a larger body of evidence. A systematic review looking at treatment of depression in physically ill populations may be used to inform treatment of depression in the population of interest and aid the development of the guidelines in conjunction with a planned systematic review looking at non-pharmacological treatments for depression in physically ill populations.

Methods: The systematic review protocol has been submitted to and accepted by the Cochrane Collaboration. The authors are part of the Cochrane, ‘Depression, Anxiety and Neurosis’ review group. The study will use standardized Cochrane review methodology. Cochrane, using extensive database searches and hand searches, has identified 132 papers. Of those, the authors have identified 55 papers, which are eligible for data extraction. Two of the authors have independently scrutinized all of the papers prior to inclusion, and any not agreed upon have been assessed by a third. Continuous variables will be analyzed to show standard mean differences. Binary outcomes will be analyzed using Peto odds ratios. Tests for heterogeneity will be performed, and when present will be investigated. Results will be stratified by disease type. Results: Data are currently being extracted from eligible papers by the two authors. The study is being funded by the EPCRC. Funding for the post of Clinical Research Worker (A. Price) is being provided by St Christopher’s Hospice, Sydenham, London, UK.

Conclusions: See above.

Poster N°: 448

Type of presentation: Poster
Poster session: Second group 30 May Friday 13.30 to 31 May Saturday 13.30
Category: Other symptoms
Title: Managing fungating wounds evidence based at work place
Authors:
Stella Rithara Mwari Palliative Care/ Day Care Nairobi Hospice KENYA
Stella Rithara Mwari Nairobi Hospice Nairobi KENYA

Background: The term ‘Fungating’ means a malignant process of both ulcerating and proliferative growth, which arises when malignant tumour cells infiltrate and erode the barrier properties of the skin. [Kalinski C al et 2005] Poor wound healing impact significantly on quality of life, hence causing further symptoms such as pain, bleeding, depression, infection and unpleasant smell. Methods: Six articles from the search between 2002–2006 were evaluated and implications for practice discussed. The articles showed a significant benefit in the cost effectiveness in the usage of metronidazole products. Results: Practice at work place, Dedridement of wound first, clean with metronidazole solution or warm saline dried then dressed with metronidazole powder using open or closed method depending on exudates. Septic wounds use of diluted hydrogen peroxide 1; 2 rinsed and dried, dressed with metronidazole powder and Systemic or oral metronidazole, analgesic plus antibiotic for 5–7 days. At hospice, Use Sugar paste, honey and butter in septic wounds and bedsores are becoming widely used, 45% patients appreciate use of sugar paste, and 55% prefer use of model drugs. Wounds below waist improves better on sugar paste and butter, 55% patients are isolated by the family members due to the unpleasant smell, 35% die due to the infection, 10% die due to severe bleeding and 75% goes into depression. Common sites, Breast--------40% Neck and head-----35% Rectal/vulvae-----15% Others--------10%. Conclusions: Managing Fungating wounds has been difficult and it is considerable challenge to nurses and requires a holistic approach that addresses physical, psychological and social aspects. Proper wound management improves patient’s quality of life, promotes comfort, confidence and prevents isolation. My practical experience has shown that metronidazole products do well on Fungating wounds and there is need for further research on availability of drugs and palliative care nursing.

Poster N°: 449

Type of presentation: Poster
Poster session: Second group 30 May Friday 13.30 to 31 May Saturday 13.30
Category: Other symptoms
Title: Insomnia in advanced cancer
Presenting author: Declan Walsh
Authors:
Dilara Seyidova-Khoskhnabi Hematology/Med.Oncology, Palliative Medicine Cleveland Clinic U. STATES
Declan Walsh Cleveland Clinic Cleveland U. STATES
Jordanka Kikvila Cleveland Clinic Cleveland U. STATES
Nabila Bennani-Buti Cleveland Clinic Cleveland U. STATES
Mellar Davis Cleveland Clinic Cleveland U. STATES
Wael Lasheen Cleveland Clinic Cleveland U. STATES
Susan LeGrand Cleveland Clinic Cleveland U. STATES

Background: The purpose of this study was to evaluate the prevalence of insomnia in consecutive patients initially seen by a palliative medicine service, severity by categorical scale and interference within severity insomnia index (ISI); describe the clinical characteristics, precipitating, and predisposing factors, and explore the relationship between sleep disturbances, pain, depression, and fatigue. Methods: All patients with advanced cancer referred to palliative medicine were screened for insomnia. All eligible participants were verbally informed of the study and asked to participate. Patients were asked a screening question: Do you have problems: 1) getting to sleep, 2) staying asleep or 3) waking up early? Eligible patients had insomnia by one of the selection criteria. The insomnia severity index (ISI), family history of insomnia and mood/anxiety disorders, sleep habits, and depression, fatigue, and pain were assessed and graded by a categorical scale. Statistical analysis was performed using Student’s t-test, Pearson correlation, univariate and multivariate regression analysis. Results: 475 patients were screened, 52 were eligible. The mean age was 61 years, 28 were females. Prevalence was 29%. 17% had severe (score 22–28), 50% – moderate (score 15–21) and 22% mild (score 8–14) insomnia by ISI. All had fatigue (52/52). Depression occurred in 26/52, pain in 45/52. By univariate analysis insomnia severity strongly correlated with fatigue (P = 0.0001), depression (P = 0.01) and pain (P < 0.05) severity. In multivariate regression analysis, only fatigue severity correlated with insomnia severity (P = 0.0004). Precipitating (current medications and treatment) and predisposing factors (family history of insomnia and mood/anxiety disorders) were not associated with insomnia severity. Conclusions: Insomnia in advanced cancer correlated with fatigue, depression and pain. Severity correlated with the severity of fatigue. Prevalence occurred in almost 1/3 and 2/3 of patients had severe to moderate insomnia.

Poster N°: 450

Type of presentation: Poster
Poster session: Second group 30 May Friday 13.30 to 31 May Saturday 13.30
Category: Other symptoms
Title: Nutritional status in cancer patients compared to other elderly in home care – The Aged in H0me Care Project (AdHOC) at 11 sites in Europe
Authors:
Susan LeGrand Cleveland Clinic Cleveland U. STATES
Declan Walsh Cleveland Clinic Cleveland U. STATES
Mellar Davis Cleveland Clinic Cleveland U. STATES
Wael Lasheen Cleveland Clinic Cleveland U. STATES
Susan LeGrand Cleveland Clinic Cleveland U. STATES

Background: The purpose of this study was to evaluate the prevalence of insomnia in consecutive patients initially seen by a palliative medicine service, severity by categorical scale and interference within severity insomnia index (ISI); describe the clinical characteristics, precipitating, and predisposing factors, and explore the relationship between sleep disturbances, pain, depression, and fatigue. Methods: All patients with advanced cancer referred to palliative medicine were screened for insomnia. All eligible participants were verbally informed of the study and asked to participate. Patients were asked a screening question: Do you have problems: 1) getting to sleep, 2) staying asleep or 3) waking up early? Eligible patients had insomnia by one of the selection criteria. The insomnia severity index (ISI), family history of insomnia and mood/anxiety disorders, sleep habits, and depression, fatigue, and pain were assessed and graded by a categorical scale. Statistical analysis was performed using Student’s t-test, Pearson correlation, univariate and multivariate regression analysis. Results: 475 patients were screened, 52 were eligible. The mean age was 61 years, 28 were females. Prevalence was 29%. 17% had severe (score 22–28), 50% – moderate (score 15–21) and 22% mild (score 8–14) insomnia by ISI. All had fatigue (52/52). Depression occurred in 26/52, pain in 45/52. By univariate analysis insomnia severity strongly correlated with fatigue (P = 0.0001), depression (P = 0.01) and pain (P < 0.05) severity. In multivariate regression analysis, only fatigue severity correlated with insomnia severity (P = 0.0004). Precipitating (current medications and treatment) and predisposing factors (family history of insomnia and mood/anxiety disorders) were not associated with insomnia severity. Conclusions: Insomnia in advanced cancer correlated with fatigue, depression and pain. Severity correlated with the severity of fatigue. Prevalence occurred in almost 1/3 and 2/3 of patients had severe to moderate insomnia.

Poster N°: 449

Type of presentation: Poster
Poster session: Second group 30 May Friday 13.30 to 31 May Saturday 13.30
Category: Other symptoms
Title: Insomnia in advanced cancer
Presenting author: Declan Walsh
Authors:
Dilara Seyidova-Khoskhnabi Hematology/Med.Oncology, Palliative Medicine Cleveland Clinic U. STATES
Declan Walsh Cleveland Clinic Cleveland U. STATES
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Nabila Bennani-Buti Cleveland Clinic Cleveland U. STATES
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Wael Lasheen Cleveland Clinic Cleveland U. STATES
Susan LeGrand Cleveland Clinic Cleveland U. STATES

Background: The purpose of this study was to evaluate the prevalence of insomnia in consecutive patients initially seen by a palliative medicine service, severity by categorical scale and interference within severity insomnia index (ISI); describe the clinical characteristics, precipitating, and predisposing factors, and explore the relationship between sleep disturbances, pain, depression, and fatigue. Methods: All patients with advanced cancer referred to palliative medicine were screened for insomnia. All eligible participants were verbally informed of the study and asked to participate. Patients were asked a screening question: Do you have problems: 1) getting to sleep, 2) staying asleep or 3) waking up early? Eligible patients had insomnia by one of the selection criteria. The insomnia severity index (ISI), family history of insomnia and mood/anxiety disorders, sleep habits, and depression, fatigue, and pain were assessed and graded by a categorical scale. Statistical analysis was performed using Student’s t-test, Pearson correlation, univariate and multivariate regression analysis. Results: 475 patients were screened, 52 were eligible. The mean age was 61 years, 28 were females. Prevalence was 29%. 17% had severe (score 22–28), 50% – moderate (score 15–21) and 22% mild (score 8–14) insomnia by ISI. All had fatigue (52/52). Depression occurred in 26/52, pain in 45/52. By univariate analysis insomnia severity strongly correlated with fatigue (P = 0.0001), depression (P = 0.01) and pain (P < 0.05) severity. In multivariate regression analysis, only fatigue severity correlated with insomnia severity (P = 0.0004). Precipitating (current medications and treatment) and predisposing factors (family history of insomnia and mood/anxiety disorders) were not associated with insomnia severity. Conclusions: Insomnia in advanced cancer correlated with fatigue, depression and pain. Severity correlated with the severity of fatigue. Prevalence occurred in almost 1/3 and 2/3 of patients had severe to moderate insomnia.
and issues could lead to better management of problems related to nutrition. **Methods:** A comparative cross-sectional assessment study at 11 sites in Europe. Random samples of home care users, aged 65 years and older from urban areas, were included. **Measurement:** The Resident Assessment Instrument for Home Care, version 2.0. Epidemiological and medical characteristics of clients and service utilisation were recorded in a standardized, comparative manner. We assessed unintentional weight loss; nutritional, oral, and gastrointestinal status. **Results:** The final sample consisted of 4,010 persons; 321 (8%) had a cancer diagnosis. Descriptive analyses of baseline socio-demographic, functional and clinical parameters comparing cancer and non-cancer patients revealed small variations between these two groups. The cancer patients were on average 80.4±7.3 years, two years younger than the non-cancer group A binary logistic regression model explained differences in the use of ostomy, self-reported bad health, palliative care, loss of appetite and better cognitive functioning for the cancer versus non-cancer patients. **Conclusions:** Older patients with different types of cancer suffer more frequently from problems associated with nutrition than non-cancer patients. A comprehensive assessment would help identify early symptoms. This could lead to a better management of food and fluid supply based on basic ethical principles. Key words: Cancer, nutrition problems, artificial feeding, ethical implications, cross-sectional study, cross-national comparisons, aged, home-care population.

**Poster N°: 451**

**Type of presentation:** Poster  
**Poster session:** Second group 30 May Friday 13.30 to 31 May Saturday 13.30  
**Category:** Other symptoms  
**Title:** Venous thrombembolism disease in palliative care patients with advanced cancer: added risk factors, primary/secondary prophylaxis used and complications in normal clinical practice  
**Presenting author:** Gema Pelayo  
**Authors:** Maria José Soto-Cárdenas Palliative Care Unit (Internal Medicine) Hospital Universitario Puerta del Mar SPAIN  
Montserrat Montes de Oca-Arjona Hospital Universitario Puerta del Mar CADIZ SPAIN  
Eduardo Segura Hospital Universitario Puerta del Mar CADIZ SPAIN  
Amparo Mogollo-Galván Hospital Universitario Puerta del Mar CADIZ SPAIN  
Antonio José Chover-Gonzalez Hospital Universitario Puerta del Mar CADIZ SPAIN

**Background:** Venous thromboembolism (VTE) causes significant problems in palliative care (PC) patients and it can difficult their symptomatic control. We analyzed i) the risk factor added ii) primary and secondary prophylaxis used and ii) occurred complications. **Methods:** Palliative Inpatients with advanced cancer and VTE, were reviewed between 2003–2006. Patients information datas were obtained from clinical dossier from hospital and ambulatory Palliative Care Sections. We analyzed the principal risk factors of VTE (immobilization, recent surgery and previous VTE), prophylaxis with low-molecular weight heparine (LMWH) and complications (ie. minor or major bleeding, recurrence and deaths) **Results:** 71 palliatives inpatients with advanced cancer were VTE diagnosed, around 10% of total patients in the Palliative Care Unit. Patients with metastases were 60,6% and 88,7% were from ambulatory origin. The presence of risk factors were: immobilizations in 28 patients (39,4%), recent surgery in 5(7%) and previous VTE in 23(32,5%). Primary prophylaxis was used in 4 patients with immobilization (14,3%), no patient with recent surgery and 10 patients with previous VTE received secondary prophylaxis. After diagnosis, all patients received treatment with LMWH in therapeutic dosage. Mean survival were 64%, 20% and 15% at 1,3 and 6 months periods respectively. The complications observed were 6 recurrences (8,5%),11 related deaths VTE (15,5%) and bleeding events were observed in 8 cases (11,3%),4 of which suffered major bleeding (5,6%) and 3 of them died (4,2%). **Conclusions:** VTE is an important complication in PC patients with advanced cancer that conditions the symptomatic control and usually hospitalization is required. The presence of others risk factor, immobilization and previous VTE, is common. In clinical practise LMWH prophylaxis is low in this population. The application of prophylactic measures could avoid this complication in an important group of these patients. The anticoagulation risk-benefits needs counterbalance.

**Poster N°: 452**

**Type of presentation:** Poster  
**Poster session:** Second group 30 May Friday 13.30 to 31 May Saturday 13.30  
**Category:** Other symptoms  
**Title:** Longitudinal study into the evolution of distress over time: patterns of distress from referral to palliative care services to death  
**Authors:** Katherine Thompson Palliative Medicine South East Scotland Palliative Medicine Rotation UNITED KINGDOM  
Marie T Fallon University Of Edinburgh Edinburgh UNITED KINGDOM  
Gordon D Murray University Of Edinburgh Medical School Edinburgh UNITED KINGDOM

**Background:** The global experience of distress reflects the dynamic interactions between physical, psychological, social and spiritual factors. **Aims:** To establish over time the individual patterns of physical, psychosocial, spiritual and overall, global distress at the end of life. **Methods:** A prospective longitudinal study of 100 advanced cancer patients newly referred to a hospice community palliative care service in Central Scotland. Patients were assessed monthly until death, or for 6 months maximum. Outcome measures were: The NCCN Distress Thermometer (DT), Memorial Symptom Assessment Scale (MSAS), Edinburgh Depression Scale (EDS), FACT-Sp-12 and clinical measures. **Results:** Profile and box plots showed that physical (MSAS) and psychological (EDS) distress levels fluctuated over the first months before stabilising to a lower, chronic level with intermittent exacerbations. Spiritual distress (FACT) initially increased over the first months before stabilising at a lower, chronic level with intermittent exacerbations. Global distress levels (DT) were extremely variable, fluctuating constantly during the final months of life, yet the DT correlated significantly with each of the MSAS, EDS and FACT (p<0.001) for each. Global distress levels did not change immediately prior to death: Median DT 5 at both penultimate and final assessments, mean DT 4.0 and 4.2 respectively. **Conclusions:** Physical, psychosocial and spiritual distress levels fluctuate in the initial months after referral to palliative care services. Levels then stabilise to a chronic, individually determined level, with intermittent exacerbations. However, overall, global distress levels remain constantly variable during the final months of life. Our findings also indicate that the global distress experience, as detected by the DT, reflects changes in any one of the physical, psychosocial or spiritual components, and cannot be predicted at the end of life. There does not appear to be a sudden change in distress levels immediately prior to death.

**Poster N°: 453**

**Type of presentation:** Poster  
**Poster session:** Second group 30 May Friday 13.30 to 31 May Saturday 13.30  
**Category:** Other symptoms  
**Title:** Malignant bowel obstruction in palliative care: descriptive study  
**Authors:** Albert Tua Palliative Care Unit. 5-2 Institut Català d’Oncologia SPAIN  
Jose Espinosas Institut Català d’Oncologia Barcelona SPAIN  
Núria Codorníu Institut Català d’Oncologia Barcelona SPAIN  
Cristina Garzón Institut Català d’Oncologia Barcelona SPAIN

**Background:** Intestinal obstruction (IO) is a common complication in advanced and terminal cancer. There are a lot of studies about surgical
series of cases or drug studies, but we have not data about this complication in end-stage cancer. **Methods:** Descriptive and retrospective study based on clinical reports and specific database of a Palliative Care Hospital Support Team (PCHST), exploring prevalence, oncological diagnosis, resolution index and life expectancy. Objective: Determine clinical characteristics of IO in advanced and terminal cancer in Palliative Care. **Results:** During a period of 22 months (Jan 2006–Oct 2007) PCHST attended 885 patients. IO was diagnosed in 92 patients (prevalence 10.4%). Mean age 63 years, 35% men and 65% women. All patients presented advanced cancer (digestive 53.9%, gynaecological 30.5%, urological 5.1%, unknown origin 5.1% and lung 3.4%). Clinical situation was described as high complexity in 88%. Mean of Karnofsky score (KPS) 24 h previously to IO diagnosis was 55%. Complete or partial resolution of IO was observed in 26.8% of cases. Mortality during hospitalisation was 73.2%. Mean of KPS of patients who presented partial or complete resolution at moment of hospital discharge was 50%. Mean of pain severity measured by means VAS was 5.3 in diagnosis and 2.4 after 3 days of palliative treatment (p<0.01). Pap Score at IO diagnosis was 7.5% group A, 52.5% B and 40% C. Life expectancy since IO diagnosis was 70% first week, 42% first moth and 26% >3 months. **Conclusions:** IO is a common complication in acute palliative care (prevalence 10%). The majority of patients present digestive and gynaecological advanced cancer (84%). IO provokes a high mortality during hospitalisation (73%). There is a low index of partial or complete resolution (27%). Majority of patients died in first four weeks since diagnosis (60%). Only 26% of patients have a life expectancy upper to 3 months, most of them presented partial or complete resolution of IO.

**Poster N°: 454**

**Type of presentation:** Poster  
**Poster session:** Second group 30 May Friday 13.30 to 31 May Saturday 13.30  
**Category:** Other symptoms  
**Title:** What is the knowledge, how are attitudes and acting of nurses when caring for palliative patients with depressive symptoms?  
**Authors:**  
Bart Van den Eynden Centre for General Practice, Interdisciplinary Car University of Antwerp BELGIUM  
Suzy Van Ende University of Antwerp Antwerp BELGIUM  
Monique Elseviers University of Antwerp Antwerp BELGIUM  
Martine De Vlieger Palliatieve Hulpverlening Antwerpen Antwerp BELGIUM  

**Background:** Literature proves that depression in palliative patients is frequently missed and underdiagnosed. Nevertheless, efficient diagnosis and treatment of depression are essential to be able to offer quality of life and comfort during the last phase of life. Nurses, being the care givers who are nearest to the patient, should be able to recognize and accurately identify depressive symptoms. **Methods:** The aim of this project was to study nurses' knowledge, skills and attitude related to palliative patients with depressive symptoms. A questionnaire based on the literature was put to 269 nurses working in the hospitals of 3 regions within Flanders (Limburg, Antwerp and Vlaams-Brabant). Researchers were looking for significant differences in knowledge, skills and attitudes and for correlations between these and some characteristics of the nurses. A level of significance of p < 0.05 was handled. **Results:** Knowledge scored between 2/8 and 8/8 (mean=6/8; SD=1.18/8). Knowledge concerning medication policy scored the lowest. Concerning the nurses' attitude, 85% of the nurses considered working with depressed palliative patients as tough, leading to a negative correlation (r=-0.237, p<0.001) with feeling themselves comfortable while going on with these patients. 32% of the nurses considered the psychological problem and 54% the somatic pain problem as the most important for a careful follow up. Nurses with a specific post-graduate education in palliative care demonstrated a more positive attitude and were acting more positively. 56% expressed their need for a specific education about the care for depressed palliative patients. **Conclusions:** From these results we conclude that a post-graduate education in palliative care is a surplus value for nurses working with depressed palliative patients. Our results furthermore suggest that completing this education with information about drug policy and diagnosis using a measure tool would further increase the quality of care of a palliative patient with depressive symptoms.

**Poster N°: 456**

**Type of presentation:** Poster  
**Poster session:** Second group 30 May Friday 13.30 to 31 May Saturday 13.30  
**Category:** Other symptoms  
**Title:** Changes in treatment of nausea and vomiting in patients with cancer dying at home after consultation with a GP advisor  
**Authors:**  
Florien van Heest Palliative Care IKN Groningen NETHERLANDS  
Inke van der Ven Department of General Practice Groningen NETHERLANDS  
Betty Meyboom-de Jong Department of General Practice Groningen NETHERLANDS  
Renee Otter IKN Groningen NETHERLANDS  
Ilora Finlay Cardiff University Cardiff UNITED KINGDOM  

**Background:** General practitioners specialized in Palliative Medicine (GP-advisors) supported their colleagues through a telephone advisory service organised by the Comprehensive Cancer Centre North Netherlands as part of the Centre for Development of Palliative Care. We were interested in the type of treatment used for nausea and vomiting before and after advice was given and differences between advisors during 2003 (last year of registration and evaluation). **Methods:** In this descriptive study, registration forms recording nausea and/or vomiting as the subject for advice were selected and analysed. Characteristics of patients with nausea and/or vomiting were compared with the recorded details of those patients without these symptoms. Details of the advice was categorised and analysed for each of four GP-advisors. **Results:** Of a total of 483 episodes of GPs seeking advice on patients, 122 (25%) recorded nausea and vomiting as the main problem. In patients with a shorter prognosis nausea and vomiting was more prevalent. Prior to advice being sought, 42% of patients had no anti-emetic and 48% had been prescribed a single anti-emetic. Following the consultation, one or more anti-emetics were advised for 93% of the patients; in 38% of calls a single anti-emetic was advised, in 42% of calls a combination of 2 anti-emetic drugs was advised, 11% had 3 anti-emetics advised and 3% had a combination of 4 different anti-emetics advised. There was marked variation in number of advices and content of advice between the different GP advisors, partly due to local circumstances. In the evaluation satisfaction with the consultations over nausea and vomiting were valued equally for the GP advisors. **Conclusions:** Consultation about management of nausea and vomiting by GP advisors by telephone to GPs caring for patients dying at home resulted in marked changes in management and a positive evaluation about the consultation. A quarter of the consultations were about nausea and vomiting.
nausea, emesis and constipation. **Methods:** Patients and Methods 174 randomly selected outpatients with cancer pain being treated with one of the study medications were enrolled in a prospective, open-labeled, controlled trial. Mobility, pain and gastrointestinal symptoms were assessed directly and per selected item on the ECOG, EORTC and numerical rating scales (NRS). Data were analyzed by descriptive and confirmatory statistics (ANOVA, Chi2 test). **Results:** Results Demographic and medical data were comparable in all three treatment groups. Results of mobility scores were ambiguous. Morphine equivalent opioid doses differed (mg/d TF:183; TB:89; OH:143; p=0.001), possibly because of tolerance varying after long-term treatment. 21% of patients suffered from nausea and emesis. The mean NRS score for nausea (TF:1.3; TB:1.2; OH:1.5; p=0.6), the consumption of antiemetics (TF:42%; TB:33%; OH:36%; p=0.6) and laxatives (TF:53%; TB:66%; OH:61%; p=0.2) did not differ significantly, in contrast to the score for emesis (TF:16%; TB:13%; OH:33%; p=0.02). Only 15% of patients suffered from constipation. 59% took the prescribed laxatives. The incidence of stool free periods >72h was significantly higher with transdermal opioids (TF:22%; TB:21%; OH:2%; p=0.003). **Conclusions:** Conclusions Transdermal opioids showed no benefit over oral controlled-release hydromorphone with regard to gastrointestinal symptoms. Nevertheless, it remains unclear whether these effects are caused by the different opioid types, are related to the dose of opioid, to the mobility status, or are associated with the cancer. The calculation of conversion ratios for TF, TB, and OH should be investigated in controlled studies, as should the occurrence of opioid tolerance after long-term therapy.

### Poster N°: 457

**Type of presentation:** Poster  
**Poster session:** Second group 30 May Friday 13.30 to 31 May Saturday 13.30  
**Category:** Other symptoms  
**Title:** Less nausea, emesis, and constipation comparing hydromorphone and morphine? A prospective open-labeled investigation on cancer pain  
**Authors:** Stefan Würz Anesthesiology, Intensive Care, Pain Medicine University of Bonn GERMANY

**Background:** The purpose of this trial was to evaluate the effect of long term-treatment with either oral sustained release hydromorphone (HM) or morphine (M) on nausea, emesis, and constipation. **Methods:** In a prospective, open-labeled, controlled trial, 100 outpatients with cancer pain and treatment with HM or M were enrolled. Mobility, pain, and gastrointestinal symptoms were assessed by the ECOG performance status, selected items of the EORTC questionnaire and Numerical Rating Scales (NRS). Data were analyzed using descriptive and confirmatory statistics. **Results:** Results Demographic and medical data were comparable in both treatment groups. Taking into account different conversion factors, opioid doses (M:94.4 mg/d vs. HM:137.6 [HM:M=1:5]; p=0.05 resp. HM:206.4 [HM:M=1.75], p=0.0002) were higher under hydromorphone and NRS of pain (M:2.3 vs. HM:3.6, p=0.0002) lower under morphine. Nausea and emesis did not attenuate in 33 % of patients. NRS of nausea (M:2.5 vs. HM:1.5; p = 0.01), incidences of emesis (M:0.7/d vs. HM:0.1/d, p = 0.0001), the consumption of antiemetics (M:26 vs. HM:14, p = 0.01), and the number of constipated patients (M:8 vs. HM:2, p = 0.04) were higher in the morphine group. An extended use of substances for symptom control revealed constipating effects (M:31 vs. HM:13, p = 0.0003) and was associated with a higher incidence of constipation in the morphine group. **Conclusions:** Symptom control in outpatients with cancer pain may be complicated by a symptom controlling medication. Particularly, antiemetics revealed potentially constipating effects. Despite lower opioid doses morphine provided a better pain control, but produced more side effects. Comparing hydromorphone with morphine it remains unclear if fewer incidences of constipation and nausea in the hydromorphone group were related to pharmacodynamic effects or to a less effective pain control with significantly higher NRS for pain. However, the conversion factor of oral hydromorphone and morphine needs to be questioned.

### Poster N°: 458

**Type of presentation:** Poster  
**Poster session:** Second group 30 May Friday 13.30 to 31 May Saturday 13.30  
**Category:** Palliative care in elderly  
**Title:** Pain and pain management in older people with cancer  
**Presenting author:** Mike Bennett  
**Authors:** John Chatwin School of Healthcare University of Leeds UNITED KINGDOM  
Jose Closs School of Healthcare Leeds UNITED KINGDOM  
Mike Bennett University of Lancaster Lancaster UNITED KINGDOM

**Background:** Cancer is predominantly a disease of older people and is frequently painful. Research in older people with chronic non-cancer pain suggests that this group experiences less effective control of their pain than those in younger age groups. **Aim:** To determine whether community based older people with cancer pain experience differences in pain and pain management compared to younger people. **Methods:** Patients with cancer pain, aged over 75 years, or under 60 years, and newly referred to community based palliative care services in Leeds were invited for interview. Pain and pain related variables are assessed using five clinical measures: the Brief Pain Inventory (BPI); the Hospital Anxiety and Depression Scale (HADS); Self-complete Leeds Assessment of Neuropsyhic Symptoms and Signs (S-LANSS); EuroQol ‘thermometer’; and Karnofsky Performance Status. Barriers to pain management were assessed (Barriers questionnaire), and qualitative data relating to the use of healthcare resources, and difficulties in accessing services was also collected. **Results:** Analysis (n=90) shows that pain type and intensity, levels of satisfaction with cancer pain management, and levels of depression, are similar in younger and older patients. Younger patients experience higher levels of anxiety relating to their illness. Older patients display greater reticence about the use of strong pain killers, and are likely to have misconceptions about the need to take medication regularly to prevent pain re-occurring. **Conclusions:** Clearer information provision for older people about the use of strong painkillers is needed. This should address issues such as the need to take painkillers regularly, common fears about medication (i.e. addiction and side effects), and practical advice on the types of medication likely to be prescribed. (Funded by the Big Lottery Community Fund)

### Poster N°: 459

**Type of presentation:** Poster  
**Poster session:** Second group 30 May Friday 13.30 to 31 May Saturday 13.30  
**Category:** Palliative care in elderly  
**Title:** Is acupuncture a useful adjunct to medical treatment for painful elderly with physical or mental impairment?  
**Authors:** Marie Couliolit Sante publique Hôpital René Muret Bigottini (AP-HP) FRANCE  
Philippe Erolano GP Paris FRANCE  
Veronique DAREES Hôpital Charles Richet (AP HP) Villiers le bel FRANCE  
Mai Luu Hôpital AvicenneBobigny FRANCE  
Gerard Delahaya GP Bourges FRANCE  
Bruno Tenenbaum AP HP Paris FRANCE

**Background:** Chronic pain in an institutionalised older population is a frequent symptom, often under assessed. Unrelieved pain interferes with sleep, socialisation and the quality of life. The evidence for efficacy of acupuncture in the treatment of pain is well assessed. However little is known about acceptability and efficacy of acupuncture intervention on very old people who present physical or mental impairment. **Methods:** The aim of the study is to investigate the feasibility and efficacy of an acupuncture intervention on persistent musculoskeletal pain. The population are patients in a long-term geriatric hospital care ward. The mean age is over 85 and the prevalence of cognitive
impairment more than 60%. The first 60 patients wanting to participate are enrolled. For the impaired patients, family or legal representing is solicited. The Regional Ethic Committee agreement was granted. The intervention consists in 8 acupuncture sessions. The primary outcome measure is the proportion of patients who complete the whole treatment. The evaluation is based on pre and post treatment variations regarding pain. As a high proportion of patients have cognitive impairment, the behavioural pain scale “dolores” has been chosen after staffs training, although auto evaluation is used when possible. Evaluation takes place after 5 and 8 sessions and 2 and 4 weeks after the intervention. Results: At mid time intervention, out of 30 eligible patients, 23 patients or families agreed to participate. 20 patients were evaluated after 5 and 14 after 8 sessions. Two patients wanted to stop because of “fatigue” and the others were hospitalised in acute hospital for infection, renal failure or fall. After 5 sessions, the mean dolores score has decreased from 7.4 + 3.6 to 5.3 + 3.3 (p=0.005). The medical carers’ and families’ satisfaction is very high. Conclusion: Although this type of intervention seems quite useful to alleviate pain and anxiety, the main issue is the frail situation of these old patients.

**Poster N°: 460**

**Type of presentation:** Poster  
**Poster session:** Second group 30 May Friday 13.30 to 31 May Saturday 13.30  
**Category:** Palliative care in elderly  
**Title:** Mind your language; the complexity of interviewing older people at end of life  
**Presenting author:** Irene Higginson  
**Authors:**  
Sue Hall Palliative Care, Policy and Rehabilitation King’s College UNITED KINGDOM  
Agis Tsiourou WHO Europe Copenhagen DENMARK  
Anna Kolliakou King’s College London London UNITED KINGDOM  
Irene J Higginson King’s College London London UNITED KINGDOM  
Massimo Costantini National Cancer Institute Genoa ITALY  

**Aim:** This project aims to improve end of life care for older people by publishing a new WHO guide presenting examples of good and promising practice around Europe, along with feasible recommendations for care, research and education.  
**Methods:** Examples of better practice were obtained using two methods: a literature review and a call for examples. For the literature review, the search was run on 9 electronic databases. This was supplemented by hand searching reference lists of all relevant examples and contacting known investigators. Two reviewers independently extracted data from each example and any disagreements not resolved by discussion were resolved by a third reviewer. Thirteen international and national organisations participated in the call for examples.  
**Results:** A preliminary review of palliative care interventions in care homes has produced 16 potential examples of better practice. Although our main focus was on care home interventions, we found examples of better palliative care practice for older people in other settings. Diverse practices were identified, such as educational and training programs, care pathways, quality improvement interventions, multidisciplinary palliative care teams, support for friends and carers and regional initiatives. The results of our current review have informed the development of other systematic reviews.  
**Conclusions:** A wide range of examples of better practice in palliative care for older people have been identified. The 16 examples we have to date are being rigorously evaluated to decide which will be included in the new WHO guide.  
**Funding:** This study is funded by the Maruzza Lefebvre D’Ovidio Foundation.

**Poster N°: 461**

**Type of presentation:** Poster  
**Poster session:** Second group 30 May Friday 13.30 to 31 May Saturday 13.30  
**Category:** Palliative care in elderly  
**Title:** A study of the provision of care for older people dying in acute and community hospitals and nursing homes in Ireland. Towards a quality of life focus  
**Authors:**  
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**Background:** Data on the provision and experience of end-of-life care to older people in these settings is scarce. This national study examined the...
provision of care for older people dying in Acute and Community Hospitals and Nursing Homes in The Republic of Ireland. **Methods:** As part of a larger mixed method study, qualitative interviews were also undertaken with 30 elders within the last 6 months of life across a range of long-stay care settings, using an interview schedule adapted from previous work in the U.K.(Payne et al., 2007; Hawker et al., 2006). Topics included their reason for admission, their experiences of being cared for and their concerns for the present and future. Interviews were transcribed verbatim and thematically analysed using the ATLAS.TI programme. 

**Results:** Themes identified from older interviews included (1) importance of relationships, (2) a sense of belonging, (3) personal accounts of dying and (4) the meaning of loss. Additionally, experiences of symptom management and being cared for at end-of-life were also discussed. Most patients accepted death as an inevitable consequence of old age and a belief in reunion with others after death was a sustaining factor. Even where evidence of rapid clinical deterioration was clear, patients discussed death largely in terms of others, rather than themselves. Patients retained a strong capacity for living even in the face of their physical frailty. Experiences of care were largely positive from the patient perspective, supported by the nature and intensity of mutually sustaining relationships between patients and direct care staff. **Conclusions:** Interviewing elders at end-of-life poses methodological and practical challenges including identifying suitable patients for interview and engaging with increasingly frail patients. Finding appropriate language to discuss death is also complex. However, the need to understand the palliative care service user perspective challenges researchers to find innovative ways of working with vulnerable clients.

**Poster N°: 463**

Type of presentation: Poster
Postersession: Second group 30 May Friday 13.30 to 31 May Saturday 13.30
Category: Palliative care in elderly
Title: Palliative care in older patients: yesterday and today
Authors: Sophie Pautex Rehabilitation and geriatrics Service of palliative medicine SWITZERLAND
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Laurence Dérâmé Dpt Rehabilitation and Geriatrics. University Hospital Geneva Collonge-Bellerive SWITZERLAND
Hugues Guisado Dpt Rehabilitation and Geriatrics. University Hospital Geneva Collonge-Bellerive SWITZERLAND
Dominique Ducloux Dpt Rehabilitation and Geriatrics. University Hospital Geneva Collonge-Bellerive SWITZERLAND
Background: Introduction: A palliative care multidisciplinary consultation team was established in a 304-beds geriatric general hospital since 1999. During these last years, definition of palliative care has been extended to non oncological patients (WHO 2002). The objective is to measure the evolution of the palliative care consultation between 2001 and 2006. **Methods:** Review of the palliative care consultation team (PCCT) records of 2001 and 2006 (reason to involve PCCT; patient’s characteristics...). **Results:** Number of first consultations (F/M) (n%) were respectively in 2001 and 2006: 65 (36/29) and 100 (67/33). Mean age was 85.1±6.9 and 83.7±6.8. Main diagnosis (n%) were respectively cancer (40 (63) vs 31 (31)), cardio-cerebro vascular disease (15 (23) vs 18 (18)), hepatic or renal failure (1(2) vs 9(9)), pulmonary disease (3(5) vs 14(14)), neurological disease (0 vs 5 (5)) , dementia (0(9) vs 10(10)) and other (0 vs13 (13)). Respectively 32 (49%) and 58 (58%) patients had some cognitive impairment (MMSE<24) during consultation. Reasons to involve PCCT (n%) included pain management (36 (55) vs 41(41)), other symptoms management (19 (29) vs 26(26)), psychological difficulties (21(32) vs 28(28)), team support(6(9) vs 28(28)), ethical problems (12(18) vs 43(43)), social problems (transfer, home return) (6(9) vs 29 (29)) and Proxy support (6 (9) vs 10(10)) Number of patients that died in hospital were respectively 34 (52%) and 34 (34%). Numbers of days from admission to consultation were median 18 and 17. **Conclusions:** Conclusion: Patient’s characteristics and reasons to involve PCCT changed in five years. Palliative care for non oncological patients has been extended, in particular for patients with cardio and cerebro-vascular and pulmonary disease. PCCT is involved earlier in the disease course in particular to help for the organisation of home care and to discuss advance care planning.

**Poster N°: 464**

Type of presentation: Poster
Poster session: Second group 30 May Friday 13.30 to 31 May Saturday 13.30
Category: Palliative care in elderly
Title: The use of interpreters: the experiences of older Chinese people with cancer in the UK
Authors: Sheila Payne International Observatory on End of Life Care Lancaster University UNITED KINGDOM
Man Chung University of Plymouth Plymouth UNITED KINGDOM
Merryn Gould University of Sheffield Sheffield UNITED KINGDOM
Jane Seymour University of Nottingham Nottingham UNITED KINGDOM
Alice Chapman Lancaster University Lancaster UNITED KINGDOM
Katherine Froggatt Lancaster University Lancaster UNITED KINGDOM
Background: Minority ethnic groups appear to make less use of cancer and specialist palliative care services than anticipated and the reasons for this are unclear (NCHSPCS, 2001). This paper draws upon a wider study on ethnicity and cancer that explored the experiences of older Chinese people with cancer and their views about facing a life threatening disease. What experiences of British cancer care services are reported by non English speaking Chinese people with cancer? **Methods:** The research design was informed by a participatory model of qualitative research where the mode of research was negotiated between researchers and the Chinese community leaders. Semi-structured face to face interviews were conducted with 16 older Chinese people with a median age of 60 years recruited via the Chinese community groups from two northern cities in England **Results:**
1) The majority of the participants in this study could not speak English.
2) Language barriers had hindered adjustment to British life and access to cancer/health information and care. 3) Using family and friends as interpreters was associated with embarrassment and concerns about accuracy of the translation and privacy. 4) The provision of interpreters appears to be sporadic and they are provided where the demand is greatest. 5) There is no national policy on the standard of interpreters for the health care services **Conclusions:** While provision of interpreting services cannot overcome all the issues with communication barriers, it is clear that interpreters can act as a bridge between two cultures. There is a pressing need to improve the standards and understandings of the role of the interpreters. Training sessions are required to help interpreters, health professionals and patients work together in bridging communication barriers.

**Poster N°: 465**

Type of presentation: Poster
Poster session: Second group 30 May Friday 13.30 to 31 May Saturday 13.30
Category: Palliative care in elderly
Title: Developing models of care for older people in dying in hospitals and nursing homes in Ireland
Authors: Sheila Payne International Observatory on End of Life Care Lancaster University UNITED KINGDOM
Kathleen Murphy National University of Ireland Galway IRELAND
Eamon O’Shea National University of Ireland Galway IRELAND
Katherine Froggatt Lancaster University Lancaster UNITED KINGDOM
Philip Larkin National University of Ireland Galway IRELAND

A palliative care multidisciplinary consultation team was established in a 304-beds geriatric general hospital since 1999. During these last years, definition of palliative care has been extended to non oncological patients (WHO 2002). The objective is to measure the evolution of the palliative care consultation between 2001 and 2006. **Methods:** Review of the palliative care consultation team (PCCT) records of 2001 and 2006 (reason to involve PCCT; patient’s characteristics...). **Results:** Number of first consultations (F/M) (n%) were respectively in 2001 and 2006: 65 (36/29) and 100 (67/33). Mean age was 85.1±6.9 and 83.7±6.8. Main diagnosis (n%) were respectively cancer (40 (63) vs 31 (31)), cardio-cerebro vascular disease (15 (23) vs 18 (18)), hepatic or renal failure (1(2) vs 9(9)), pulmonary disease (3(5) vs 14(14)), neurological disease (0 vs 5 (5)) , dementia (0(9) vs 10(10)) and other (0 vs13 (13)). Respectively 32 (49%) and 58 (58%) patients had some cognitive impairment (MMSE<24) during consultation. Reasons to involve PCCT (n%) included pain management (36 (55) vs 41(41)), other symptoms management (19 (29) vs 26(26)), psychological difficulties (21(32) vs 28(28)), team support(6(9) vs 28(28)), ethical problems (12(18) vs 43(43)), social problems (transfer, home return) (6(9) vs 29 (29)) and Proxy support (6 (9) vs 10(10)) Number of patients that died in hospital were respectively 34 (52%) and 34 (34%). Numbers of days from admission to consultation were median 18 and 17. **Conclusions:** Conclusion: Patient’s characteristics and reasons to involve PCCT changed in five years. Palliative care for non oncological patients has been extended, in particular for patients with cardio and cerebro-vascular and pulmonary disease. PCCT is involved earlier in the disease course in particular to help for the organisation of home care and to discuss advance care planning.
**Background:** In Ireland, as in other parts of Europe, demographic changes mean that death typically occurs in older age. Approximately three quarters of deaths occur in those of 65 years. Two fifths of these people die in acute hospital settings, while the remainder die in public long-stay care facilities or the rapidly expanding private nursing home sector. Models of hospice care developed in the context of younger, cancer patients may not address the needs of older people dying of long term conditions, including dementia. This paper presents conceptual model of end of life care which acknowledges the diversity and characteristics of dying in late old age and is suitable for general hospital and nursing home contexts. **Methods:** Drawing upon data collected as part of a national study examining the provision of care for older people dying in acute and nursing homes in Ireland, our proposed models are based on theoretical analysis, qualitative interviews and focus group discussions, data was collected in Kenya and Uganda from: managerial and front-line staff of, and patient- and carer-clients receiving support from, rural- and urban-based organisations for the aged; managerial and front-line staff of, and patient- and carer-clients receiving support from, palliative care service providers covering approximately the same catchment areas as the aged organisations; and national coordinators from the two national palliative care associations. **Results:** The lives of many aged people are characterised by social isolation, despair, and poverty. Moreover, inadequate pain assessment and management are especially deficient in care services for the aged. Currently, integration between these two services is minimal, with referrals from aged to palliative care organisations primarily determined by disease-specific rather than age-related conditions. The primary suggested means for addressing this deficit synergy between both organisations was centred on palliative care training, and a more significant strategic working partnership ultimately based around the community. **Conclusions:** Palliative care services can be integrated into those for the aged on the continent in a number of ways. The extent to which this integration is both clinically and cost effective requires further research. Source of funding: Help the Aged, London, United Kingdom.

**Poster N°: 466**

Type of presentation: Poster
Poster session: Second group 30 May Friday 13.30 to 31 May Saturday 13.30
Category: Palliative care in elderly
Title: End-of-life care in alternative housing models for people with dementia. A qualitative study in community based services in Germany
Authors: Sabine Plescherger Palliative Care & Organisational Ethics, University of Klagenfurt, IFF, Vienna, AUSTRIA
Elisabeth Reitinger University of Klagenfurt, IFF, Dep. of Palliative Care & Organisational Ethics Vienna, AUSTRIA
Felix Schumann University of Klagenfurt, IFF, Dep. of Palliative Care & Organisational Ethics Vienna, AUSTRIA

**Background:** Alternative housing models are supposed to be best practice to care for people with dementia in Germany, especially those which are community based. However, is this true until the very end of life? Though it is obviously part of the concept, it has not been sufficiently discussed yet, how the palliative care needs of theses people are to be met. The aim of the study was to explore how care of the dying is approached by the carers in these services and how palliative care contributes. **Methods:** Beyond a literature analysis data were gathered through qualitative interviews (n=25) including a broad variety of perspectives, e.g. health care professionals or bereaved family members of residents in rural and urban areas of Germany. Qualitative content analysis aimed at revealing relevant issues. Focus groups (n=3) with experts in palliative care and dementia care supported validation of first results. 

**Results:** Literature analysis shows a problematic lack of research on End-of-Life Care in the field of Housing and Dementia Care. Interview data underline that many aspects of the care delivered in these alternative housing services are palliative, though it is neither named as such nor reflected in light of relevant conceptual issues. Limits of these services were found for people which had no family nearby, especially in regard to decision-making. Furthermore death of residents provoked reasonable bereavement and stress within the whole care team, a matter of close relationships as well as of lacking knowledge in bereavement issues. 

**Conclusions:** Though there are obvious similarities between good dementia care in the end of life and palliative care a better focus on issues like symptom management, spiritual issues or bereavement of staff seems necessary to ensure good end-of-life care in alternative housing models. The study was funded by the, Stifterverband für die Deutsche Wissenschaft.

**Poster N°: 467**

Type of presentation: Poster
Poster session: Second group 30 May Friday 13.30 to 31 May Saturday 13.30
Category: Palliative care in elderly
Title: Bridging the gap: Extending palliative care services to older people in two East African countries
Authors: Richard Antony Powel African Palliative Care Association Kampala UGANDA
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**Background:** In sub-Saharan Africa, with an overwhelming communicable and non-communicable disease burden, the palliative care needs of aged people have never been more urgent. However, services that target this group often lack the necessary skills to provide effective palliative care. 

**Aims:** This qualitative study aimed to: (i) describe the current life experiences of, and care services for, aged people and identify their unmet palliative care needs, and; (ii) provide recommendations for the integration of palliative care into existing services for the aged. **Methods:** Using in-depth interviews and focus group discussions, data was collected in Kenya and Uganda from: managerial and front-line staff of, and patient- and carer-clients receiving support from, rural- and urban-based organisations for the aged; managerial and front-line staff of, and patient- and carer-clients receiving support from, palliative care service providers covering approximately the same catchment areas as the aged organisations; and national coordinators from the two national palliative care associations. 

**Results:** The lives of many aged people are characterised by social isolation, despair, and poverty. Moreover, inadequate pain assessment and management are especially deficient in care services for the aged. Currently, integration between these two services is minimal, with referrals from aged to palliative care organisations primarily determined by disease-specific rather than age-related conditions. The primary suggested means for addressing this deficit synergy between both organisations was centred on palliative care training, and a more significant strategic working partnership ultimately based around the community. 

**Conclusions:** Palliative care services can be integrated into those for the aged on the continent in a number of ways. The extent to which this integration is both clinically and cost effective requires further research. Source of funding: Help the Aged, London, United Kingdom.

**Poster N°: 468**

Type of presentation: Poster
Poster session: Second group 30 May Friday 13.30 to 31 May Saturday 13.30
Category: Psychology & communication
Title: Importance of body image changes in palliative care
Presenting author: Albert Tuca
Authors: Nuria Codorniu Zamora Palliative Care Unit 5-2 Institut Català d’Oncologia SPAIN
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**Poster N°: 468**

**Type of presentation:** Poster
**Poster session:** Second group 30 May Friday 13.30 to 31 May Saturday 13.30
**Category:** Psychology & communication
**Title:** Importance of body image changes in palliative care
**Presenting author:** Albert Tuca
**Authors:**
- Nuria Codorniu Zamora Palliative Care Unit 5-2 Institut Català d’Oncologia Spain
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**Background:** In sub-Saharan Africa, with an overwhelming communicable and non-communicable disease burden, the palliative care needs of aged people have never been more urgent. However, services that target this group often lack the necessary skills to provide effective palliative care.

**Aims:** This qualitative study aimed to: (i) describe the current life experiences of, and care services for, aged people and identify their unmet palliative care needs, and; (ii) provide recommendations for the integration of palliative care into existing services for the aged. **Methods:** Using in-depth interviews and focus group discussions, data was collected in Kenya and Uganda from: managerial and front-line staff of, and patient- and carer-clients receiving support from, rural- and urban-based organisations for the aged; managerial and front-line staff of, and patient- and carer-clients receiving support from, palliative care service providers covering approximately the same catchment areas as the aged organisations; and national coordinators from the two national palliative care associations. **Results:** The lives of many aged people are characterised by social isolation, despair, and poverty. Moreover, inadequate pain assessment and management are especially deficient in care services for the aged. Currently, integration between these two services is minimal, with referrals from aged to palliative care organisations primarily determined by disease-specific rather than age-related conditions. The primary suggested means for addressing this deficit synergy between both organisations was centred on palliative care training, and a more significant strategic working partnership ultimately based around the community. **Conclusions:** Palliative care services can be integrated into those for the aged on the continent in a number of ways. The extent to which this integration is both clinically and cost effective requires further research. Source of funding: Help the Aged, London, United Kingdom.
Body image (BI) changes provoke frequently a high emotional impact which concerns to personal dignity. Despite the probability of this problem increases in advanced cancer patients, there are a few references in palliative care (PC) research. We have designed a project, divided in three phases to explore this alteration in PC: (1) Basic opinion of PC professionals; (2) Prevalence of BI records in clinical practice; (3) Deep interviews to patients, relatives and professionals about the value of BI alteration (qualitative methodology). We present preliminary results of first two phases.

Methods: A) Survey to PC professionals about their basic opinion. B) Cross-over study of prevalence of nursing records about BI in a hospital PC unit.

Results: Study A: Survey to 88 professionals (53% doctors, 24% nurses, 9% social workers, 11% psychologists, 2% other). Mean age was 45. Women 58% and men 42%. There were 5 possible answers (total and quiet agreement, occasionally, quiet and total desagreement) to 4 questions. The first question was: Is BI important for yourself? 88% of professionals responded total and quiet agreement. The second was: Is BI of your patients important? 85% responded total and quiet agreement. The third was: Do you explore BI of your patients? 75% responded total and quiet agreement, 23% occasionally. The fourth was: Do you treat it? 82% responded total and quiet agreement, 16% occasionally. Study B: 60 patients. Mean age 58. Men 61% and women 39%. All patients presented advanced cancer. Changes in BI were recorded in 40% of patients. BI alteration was recorded only in 13% of cases. In none of these cases was planned a specific approach.

Conclusions: The professionals consider that BI is relevant and they wish to treat it. Specific record and formal approach to BI changes are very low in clinical practice. We need qualitative study to explore this discrepancy and values of BI.
EAPC Abstracts

Authors:
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Background: Cancer is a major cause of death in Cuba. Palliative care is an emerging discipline and in current practice patients are not usually informed of their diagnosis. It is widely believed that this knowledge would cause intolerable burden to patients and families. Very little research has been conducted in Cuba. Aim: To relate patient and family outcomes to patients’ knowledge of their condition and establish whether there was an association. Methods: Cross-sectional survey of cancer patients with a prognosis of six months or less, recruited at two hospitals and a community clinic in Havana. Participants completed the Argentinian Palliative Outcome Scale (POS), demographic data, and the researcher elicited patient knowledge of their condition and prognosis. Mann Whitney U tests were used to compare POS item scores by patient awareness. Results: Of the 94 patients who participated in the study, 43% (n=40) knew they had cancer and 10% (n=9) were believed to be aware that they were dying. The most burdensome problems recorded on the POS were wasted time on appointments (70% of patients scored 3 or 4), pain (42%), patient anxiety (38%) and family anxiety (38%). Those patients who were aware of their diagnosis had statistically significantly better scores with respect to symptoms (U=760, p=0.01), patient anxiety (U=800, p=0.03), receiving support from family and friends (U=795, p=0.01), and receiving support from family and friends (U=737, p<0.01). Conclusions: This study is the first study to measure palliative patient needs in Cuba using a validated tool. An association has been demonstrated between patient knowledge and their quality of life in Cuba, a setting where disclosure is contrary to current clinical practice and goals in palliative care.

Poster N°: 472

Type of presentation: Poster
Poster session: Second group 30 May Friday 13.30 to 31 May Saturday 13.30
Category: Psychology & communication
Title: The development of a self help guide for cancer patients who have recently completed treatment
Authors:
Lorna Higgins Academic Palliative & Supportive Care Study Group University of Liverpool UNITED KINGDOM

Background: Psychological distress is common amongst cancer patients with estimates of the prevalence of depression as high as 49% and anxiety 75% (Macmillan 2006). Cancer has been identified as ‘one of several chronic illnesses that precipitates the need for and use of mental health services’ (Hewitt & Rowland 2002). Despite this evidence suggests that doctors and other healthcare professionals caring for cancer patients are poor at detecting psychological problems (Fallowfield et al 2001) or underestimate the level of depressive symptoms in depressed patients (Passik, et al 1998). Clinicians may also ‘assume that, given the circumstances, depression is simply to be expected among cancer patients and to do nothing about it’ (Sellick & Crooks 1999) resulting in many patients not being offered any form of treatment. Methods: The guide was developed by a Graduate Mental Health Worker in collaboration with a Macmillan Library Information Facilitator with substantial input from service user groups. It was designed based on evidence based psychological interventions, predominantly cognitive behavioural therapy, and is designed to be used following completion of treatment. Results: The completed guide was evaluated qualitatively by focus groups and amendments made accordingly. Feedback was largely very positive with many comments suggesting that it would be beneficial for patients. It has also been distributed online and at local and national meetings where again it has been received positively. Conclusions: As the guide is aimed at patients who have completed treatment it may also be beneficial within palliative care with long term palliative care patients. Future plans are to develop future guides aimed at other stages of the cancer journey, carers etc and to conduct randomised control trials into its effectiveness.

Poster N°: 473

Type of presentation: Poster
Poster session: Second group 30 May Friday 13.30 to 31 May Saturday 13.30
Category: Psychology & communication
Title: Pain and suffering in cancer patients at the end of their lives
Authors:
Mª Angeles Jurado Martín medical deparmet Fundación Cudeca SPAIN
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Rafael Pezo Vila Fundación Cudeca Málaga SPAIN
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Susan Hannon Fundación Cudeca Málaga SPAIN

Background: Although most societies associate pain with suffering, some studies show that not all pain causes suffering and not all suffering is provoked by pain. The cognitive evaluation of the person is marked by the subjective significance the patient gives as well as the emotional reactions arising from the evaluation. This meaning will depend mainly on the knowledge of the illness. Clarifying which is the connection between both concepts will be very useful to help the professional relieve suffering.

Methods: From a sample of 89 oncological patients with advanced disease, their general condition, knowledge of their illness, level of the suffering and its cause, intensity of sadness, anxiety and pain were evaluated during interviews. This data was analyzed by LISREL 8.30.

Results: The lower level of knowledge of the illness produced a higher level of anxiety and sadness. Anxiety increased pain which then increased sadness. Finally, the pain joined together with the general deterioration of the patient explained part of the patient’s suffering.

Conclusions: The connection between the pain and suffering could be located in the emotional aspects attributed to pain. A suitable explanation to the patient about the causes of pain will contribute to reduce the anxiety associated with pain and so, a better control of the pain would be achieved.

Poster N°: 474

Type of presentation: Poster
Poster session: Second group 30 May Friday 13.30 to 31 May Saturday 13.30
Category: Psychology & communication
Title: The meanings of religion among Black Caribbean and White British patients with advanced cancer
Authors:
Jonathan Koffman Department of Palliative Care, Policy and Rehabilitation King's College London UNITED KINGDOM
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Myfanwy Morgan Department of Public Health Sciences, King's College London London UNITED KINGDOM

Background: There is evidence that religion and spirituality affects psychosocial adjustment to cancer but little is known about this relationship.
among black and minority ethnic groups living in the UK. The aim of the study was to explore and compare how religion and spirituality influence the self-reported cancer experience among Black Caribbean and White British patients living in south London. Method: Semi-structured interviews conducted with 26 Black Caribbean and 19 White British patients with advanced cancer recruited via palliative care teams and oncology clinics. Interview transcripts were analysed using a ‘framework’ approach.

Results: Nearly all (25/26) Caribbean patients and just over half (11/19) White British cancer patients volunteered views on the place of religion or God in their life. Christianity was the only religion reported and where strength of belief appeared to be more pronounced among Black Caribbean patients. Three main themes that emerged from the interviews were (i) the ways in which religion and belief in God helped patients comprehend and make sense of their cancer; (ii) the practical and emotional support derived from church membership that helped patients live with the physical and psychological effects cancer and its progression; and (iii) the ways in which for Black Caribbean patients their experience of advanced cancer promoted religious identity and connection with God. Conclusions: Religion and belief in God were important for many patients, but less emphasis was placed on spirituality. We also observed that a single understanding of religion cannot be assumed for all patients since culture influenced its meaning and expression in patients’ lives. We therefore recommend that when health care professionals assess patients they facilitate opportunities for them to express information about their illness that may include religious and spiritual beliefs, and how these may serve to complement care provided.

Poster N°: 475

Type of presentation: Poster
Poster session: Second group 30 May Friday 13.30 to 31 May Saturday 13.30
Category: Psychology & communication
Title: Guidelines on the use of antidepressants in palliative care
Authors:
Jain Lawrie Palliative Care Leeds Teaching Hospitals NHS Trust UNITED KINGDOM
Annette Edwards Leeds Teaching Hospitals NHS Trust & Sue Ryder Care Wheatfields Hospice UNITED KINGDOM
Jason Ward The Mid Yorkshire Hospitals NHS Trust Dewsbury UNITED KINGDOM

Background: Clinical guidelines are an important component of clinical medical practice due to the expansion of evidence based medicine and concerns regarding clinical governance. Difficulties exist in the application of evidence based medicine to palliative care, including problems in measuring quality of care and in applying rigorous research methodology in this vulnerable patient group. Methods: A thorough review of the literature from 1966 was carried out. Evidence was gained from several patient groups – advanced malignant disease, comitant medical pathologies, and general population. Results: These guidelines represent a thorough review of the available evidence and, in the absence of large, randomised, double-blind, placebo-controlled studies in palliative care, are a guide to treatment of depression in this population. Conclusions: Citalopram has been chosen as a first line agent for management of depression due to strong evidence regarding its efficacy, as well as its favourable adverse effect profile, availability in liquid form and low propensity for interaction with other drugs. Mirtazapine has also been included as a first line choice, being a safe, effective antidepressant with a more favourable adverse effect profile, and useful in patients who are nauseated or when a sedative effect would not be detrimental. Reasonable evidence also exists that it may act more quickly than other preparations. Venlafaxine, another effective, well-tolerated preparation, has been included for depression not responsive to first or second line agents, but recent cautions and recommendations regarding its use should be noted. The importance of non-pharmacological interventions when managing depression, either independently or in conjunction with drug treatment cannot be emphasised more strongly. Depression is a disabling, multifactorial condition that requires a broad, multifaceted approach to management, and use of antidepressants is only one component of such management.

Poster N°: 476

Type of presentation: Poster
Poster session: Second group 30 May Friday 13.30 to 31 May Saturday 13.30
Category: Psychology & communication
Title: Quality of life among children with ALL
Authors:
Eleonora Mess Department of Palliative Care Medical University of Wroclaw POLAND
Iwona Twardak Medical University of Wroclaw Wroclaw POLAND
Alejza Tokarzyk Medical University of Wroclaw Wroclaw POLAND
Iwona Pilrogowicz Medical University of Wroclaw Wroclaw POLAND
Miroslaw Chybicki Medical University of Wroclaw Wroclaw POLAND

Background: The aim of the study was assessing quality of life and experiences of pain and anxiety among children and adolescents with Acute Lymphoblastic Leukemia (ALL). Methods: The study was conducted on 30 children and adolescents in age of 6 to 20, being under care in Clinic of Bone Marrow Transplantation, Children Hematology and Oncology of Medical University and their parents. Study population consisted of 15 boys and 15 girls. In order to fully assess quality of live following factors were measured: pain intensity – using own questionnaire, side effects of treatment – using Rotterdam Symptom Check List, physical abilities – with The Karnowsky Performance Index, the level of anxiety with State-Trait Anxiety Inventory for Children (STAIC C-1, C-2), parental behaviors – with Parent-Child Relations Questionnaire, parental satisfaction – with Parental Satisfaction With Medical Care Questionnaire, and general quality of life – with own questionnaire. Results: 50% of responders described their quality of live as good and very good, 46% as average, and 4% as bad or very bad. Pain was experienced during the treatment by 80% subjects. Most often occurring side effects of ALL therapy were weariness and tiredness (90%), head and stomach pain, worrying (80%) and nervousness (77%). Dominating parental attitudes were loving attitude (42%) and protecting attitude. 27% were normally physically able and 20% were physically unable and requiring constant care. In medical care evaluation, highest rates got organization (96%) and communication (87%), slightly lower accommodation (75%). By average satisfaction with medical care was up to 80%. Level of anxiety was rated as average by 77% of subjects and as low by the rest of responders (33%). The correlation between pain intensity, physical activity and quality of life, also found in other research, was observed. Conclusions: Pain reduction and increasing physical activity can increase quality of life.

Poster N°: 477

Type of presentation: Poster
Poster session: Second group 30 May Friday 13.30 to 31 May Saturday 13.30
Category: Psychology & communication
Title: The importance of formal and informal meetings between oncologists for their communication skills and handling of emotional stress
Authors:
Lotte Rogg Dept of Cancer and Surgery Ulleval University Hospital NORWAY
Olaf Gjerløw Aasland University of Oslo Oslo NORWAY
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Background: Background: and aim: Giving information about disease progression, therapy failure or end of curative treatment options are everyday work for oncologists. Nevertheless, these communication tasks are burdensome, and physicians report feeling inadequately prepared for them. Studies exploring the efficiency of educational communication programs have shown varying degrees of success, and the majority of practicing physicians have not gone through any formal communication training. **Aim:** To explore how physicians learn communication skills in their work place and whether the college is suited to handle stress related to the communication of sad and bad news among its members. **Methods:** Materials and methods: Three focus group interviews with 6–8 oncologists from three different teaching hospitals were undertaken and digitally recorded. Recordings were transcribed and common themes and concepts were identified. Analysis employed the constant comparison method of grounded theory in which the textual data were scrutinised for differences and similarities within themes. **Results:** The oncologists emphasised the importance of working alongside colleagues in order to observe physician-patient communication and to receive feedback on own practice. Those who had attended formal educational programs in communication reported these to be of less importance in forming their practice than the co-working with peers in their own workplace. Formal and informal support from the college was seen as potential-in forming their practice than the co-working with peers in their own work- place. **Conclusions:** Oncologists find co-working with colleagues important in order to acquire communication skills. Due to time constraint and increasing workload meeting-places within the college are few. This development is worrying as such opportunities to meet with colleagues is an important factor in reducing emotional stress related to the communica- tion of sad and bad news.

**Poster N°: 478**

**Type of presentation:** Poster  
**Poster session:** Second group 30 May Friday 13.30 to 31 May Saturday 13.30  
**Category:** Psychology & communication  
**Title:** Consent documents for a palliative chemotherapy trial – what do the patients actually perceive?  
**Presenting author:** Jon Håvard Løge  
**Authors:**  
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**Background:** The informed consent documents for clinical trials contain the most important information, and to understand the main point of the consent document. **Aim:** To explore which content elements palliative patients find relevant for deciding whether to participate in a chemotherapy trial. **Methods:** Lung cancer patients eligible for a palliative chemotherapy trial (N = 22) in 2005/2006 were randomly assigned to receive either the original consent document approved for this specific trial or a shortened version written for the present study. The shortened version was based on a consent document written for a trial with a similar design (also for patients with lung cancer) approved by the ethics review board in 1994. After reading the consent document, the patients participated in interviews. The interviews were transcribed verbatim and analysed using content analysis. **Results:** No main differences between the two groups were found with respect to satisfaction with the consent document, recall of and preferences for information. Irrespective of receiving a long or a shortened consent document, the information about disease and treatment were of most interest for the patients, while information on “research formalities” was judged to be of lesser relevance. **Conclusions:** The findings suggest that the patients primarily interpret the consent documents as information about medical treatment per se. Both the verbal and written consent information should explain more explicit that the information deals with research and that the main function is to obtain the patients’ voluntary, informed consent. This study was financed by the Central Norway Regional Health Authority and the Norwegian University of Science and Technology.

**Poster N°: 479**

**Type of presentation:** Poster  
**Poster session:** Second group 30 May Friday 13.30 to 31 May Saturday 13.30  
**Category:** Psychology & communication  
**Title:** Basic Attitudes of Professionals in Palliative Care  
**Authors:** Steffen Simon Internal Medicine Department of Palliative Care, King’s College GERMANY  
Gerlinde Geiss Department of Psychology, University of Oldenburg Oldenburg GERMANY  
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**Background:** For all professionals in palliative care (pc) it is necessary to be self-aware about how to react on patients and their relatives and why. ‘Basic attitude’ describes the way in which a person perceives himself and the world, and forms the basis for his actions and thoughts. **Methods:** Objective: We hypothesize that the basic attitude of professionals is one of the key issues in pc, beside others like professional expertise. The aim of this study is to answer the following questions: What does ‘basic attitude’ mean in pc? Is there a specific basic attitude in pc? Methods: Qualitative study by 10 semi-structured face-to-face interviews with well-known experts in pc (physicians, nurses, social workers, psychologist, chaplain). This pilot study is a part of a research program about basic attitudes followed by a survey ongoing with 400 professionals in pc. **Results:** Basic attitude in pc can be described best with the following three topics: 1) characteristics of basic attitude; 2) situations and places where basic attitude can be experienced; and 3) competence in care. Authenticity is the most important characteristic of professionals, along with honesty and mindfulness (1). All interviewees agreed with the notion that the relationship to the patient is mainly the ‘location’ where basic attitude primarily shows itself (2). Perception and listening are indispensable skills in this working field (3). Nine out of ten interviewees denied the existence of a specific basic attitude in pc. On the contrary, they emphasized the universality of the basic attitude in the care of ill people. All experts stressed the importance and relevance of teaching the issue of basic attitude in pc education. **Conclusions:** In the field of palliative care, basic attitude consists of authenticity, manifests itself in relationships, and requires a high degree of perceptiveness.

**Poster N°: 480**

**Type of presentation:** Poster  
**Poster session:** Second group 30 May Friday 13.30 to 31 May Saturday 13.30  
**Category:** Psychology & communication  
**Title:** How patients receiving palliative antineoplastic treatment understand goal of their therapy?  
**Authors:** Ondřej Slama Supportive and Palliative Oncology Masaryk Memorial Cancer Institut CZECH REP.
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Background: The results of several surveys from different countries indicate significant discrepancy in the expectations and understanding of the goals of therapy between patients and their physicians. Methods: Questionnaire survey among cancer patients receiving chemotherapy judged by their physician as non curativ (= palliative). The responses in questionnaire were formulated following way: Curativ therapy: “The aim of my therapy is cure, i.e. complete removal of all tumor cells leading to complete and lasting state of full health.” Palliative therapy: “The aim of my therapy is not the cure, but a timely shrinking of the tumor, slowing of it’s growth, prolongation of life (survival) and reduction of some tumor related symptoms.” Not enough information: “I don’t know, my oncoologist didn’t tell me such details about my illness and its therapy. Study population: 150 randomly chosen patients receiving palliative chemotherapy in a tertiary teaching oncology center. 140 patients agreed to participate, the response rate was 93%. The most represented cancer types were breast, colorectal and ovarian cancer with 73 (52%), 28 (20%) and 17 (12%) patients respectively. The numbers of patients receiving the 1st line, 2nd line, 3rd line and 4th line of palliative antineoplastic therapy were 58 (41%), 52 (37%), 22 (16%) and 8 (5%) respectively. Results: 43 (31%) patients receiving palliative chemotherapy responded the goal of their therapy was the cure (for definitions see above), 13 (9%) didn’t know and 84 (60%) were aware of palliative intent of their therapy. The expectation of cure was in 51 (36%), 32 (23%) and 47 (33%) patients for the 1st line, 2nd line and 3rd line and further lines of palliative therapy respectively. Conclusions: Nearly one third of patients receiving palliative antineoplastic therapy does expect the cure as the goal of their therapy. This proportion doesn’t decrease in patients pre-treated with several lines of palliative chemotherapy.

Poster N°: 481

Type of presentation: Poster & poster discussion session
Poster session: Second group 30 May Friday 13.30 to 31 May Saturday 13.30
Category: Psychology & communication
Title: Main Reason for not Including Patients in an IP ALEX Study
Presenting author: Javier Rocafort Gil
Authors:
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David Gamez García Palliative Care Team of Extremadura Plasencia SPAIN

Introduction: The Palliative Care Regional Observatory deemed appropriate to start a research project: “Effectiveness of psychological intervention in some adaptive disorders in palliative care.” Once was started, it was noticed the scarce inclusion of patients in the study so a data collection was initiated in the same context in order to determine the main difficulties. Goal: Determination of the main difficulties to include patients in a psychological effectiveness study. Material and Method: Transversal study in which there were collected the main difficulties arisen in a month during the patients’ inclusion in a study. The collected difficulties were selected as agreed by the psychologists leading the job and there were as follows: Did not they fulfil the study inclusion criteria? This section was composed by four criteria: No anxiety/depression disorders, They suffer from complex symptoms, They have been object of a previous psychological intervention, or They have suffered from a Neuropsychiatric disorder in less than 6 months. Is not there an agreement in the PCT to be included? Specify the cause and Patient’s refusal to sign the consent. The data collection was made in an Excel table by psychologists. Results: There were collected difficulties related to 125 patients. The results were: 110 patients (88%) did not fulfil the criteria for inclusion in the study, among them, 46 patients (36.8%) did not suffer from anxiety / depression disorders, 46 patients (36.8%) suffered from complex symptoms, 3 patients (2.4%) have been object of a previous psychological intervention and 15 patients (12%) have suffered from a neuropsychiatric disorder in less than 6 months. In 9 cases (7.2%) there was no agreement in the PCT for the patient to be included in the study. And the main reasons were: 5 patients (55.5%) could not be evaluated (bad general condition or severe cognitive deterioration), 1 patient (11.1%) died early, 1 patient (11.1%) did not one psychological attention and 1 other patient case (11.1%) there existed “silent conspiracy” and the family did not want the patient to participate. 6 patients (4.8%) refused to sign the consent. Conclusions: The vast majority of the difficulties could be the result of strict inclusion and exclusion criteria and of the peculiar characteristics of the terminally ill.
**Poster N°: 483**

**Type of presentation:** Poster & poster discussion session  
**Category:** Research methodology  
**Title:** Designing randomised control trial of the management of delirium in palliative care inpatients. What are the challenges and way forward?  
**Authors:**  
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**Background:** Antipsychotics are first line for delirium despite limited evidence in any health care setting. The few studies that exist explore post treatment efficacy in relation to total delirium score reduction; and don’t clearly measure toxicity profile. **Methods:** Inclusion criteria define specific delirium symptoms of behavioural and perceptual disturbance. Efficacy: 1. Primary endpoint is resolution of the target delirium symptoms. Time profile of delirium will be described however delirium resolution is not primary objective of antipsychotic therapy. 2. Caregiver and health professional distress, and patient distress at delirium resolution will be measured. Toxicity: Toxicity will be measured using validated scales. Consent: A proxy consent process will be used, within the Australian Guardianship Act Legislation. Placebo arm: A placebo controlled arm can be justified as (a) there is no currently approved medication (b) side effects of medications in both active arms that may outweigh any benefit, if the clinical benefits are marginal (c) non-pharmacological approaches to mild delirium that may be of equal/greater benefit. Biological markers. Serum markers for neuronal apoptosis will be measured. Economic analysis: This will analyse resource utilisation and synthesizing informed opinions from a diverse group of experts who have specialized knowledge in the area of interest. This approach has been successfully applied to palliative care research, but not yet been applied to delirium.  

**Posters N°: 485**

**Type of presentation:** Poster  
**Category:** Research methodology  
**Title:** Applying the Delphi process to palliative care tool development: lessons learned  
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Robert Kühlbach Medizinische Klinik 3, Klinikum Großhadern München GERMANY  
Irene J Higginson King’s College London, Department of Palliative Care, Policy & Rehabilitation London UNITED KINGDOM  

**Background:** When conducting studies in a palliative care (PC) population researchers face several challenges. Recruitment and attrition in this population are known to be difficult for several reasons including the limitations placed on patients by advanced disease, by unexpected complications and deterioration in patients’ conditions. Aims of study: To describe the course of breathlessness in advanced cancer (CA) and COPD and to explore the experience of these breathless patients over time. **Methods:** We conducted a longitudinal mixed-methods study. For the initial assessment a researcher met the patient personally. For follow-up, patients received monthly postal questionnaires over a 6 month period. A subgroup of patients was also interviewed. **Results:** 60 COPD (mean age 65 years, SD 9.7; mean KPS 62, SD 11), and 50 CA patients (mean age 64 years, SD 8.7; mean KPS 65, SD 11) were recruited from June 2006 to May 2007. 28 COPD and nine CA patients completed data collection whereas five COPD and 28 CA patients died during the 6 months. 26 COPD patients dropped out mainly due to questionnaire fatigue and 11 CA patients due to physical deterioration. **Conclusions:** Recruitment for this study was rapid in comparison to many PC studies. This was due to a dedicated researcher and a respiratory hospital with a large number of COPD and lung cancer patients. Attrition occurred for different reasons in the two patient groups: the CA patients deteriorated rapidly and a substantial number died. The intervals between follow up and data collection had been made short enough to capture the experience of CA patients but became fatiguing for patients with COPD in whom little had changed during the period between data collection. Careful planning of the study design related to patients’ populations is necessary to avoid high attrition in PC studies. Standard ways were developed through experience with research with cancer patients but non-cancer populations have different issues.
commonly to palliative care tool development. We have recently employed the Delphi technique in the development of three palliative care assessment tools: the Edmonton Classification System for Cancer Pain (ECS-CP), the Alberta Breakthrough Pain Assessment Tool for Research (ABPAT-R), and the Malignant Wound Assessment Tool (MWAT).

**Methods:** The purpose of this presentation is to (a) report on our experience of using the Delphi technique for gathering validity evidence for the ECS-CP, ABPAT-R and MWAT; (b) identify challenges in using this technique when considering sampling, study and survey design, consensus setting and response rates; and (c) suggest approaches that can add to its effectiveness in national and international collaborations in palliative care instrument development and research. **Results:** Use of the Delphi process resulted in broad expert input into the development of the tools, and supported completion of this step of the tool validation process in a timely and fiscally responsible fashion. Specific tactics to promote successful application of the Delphi process have been identified. **Conclusions:** Initiation of the Delphi technique can facilitate national or international tool development working groups to support research and implementation of tools applicable in palliative care clinical or research practice. International input can assure palliative care tools are relevant in diverse clinical settings and practice cultures. The use of the Delphi technique in palliative care tool development may facilitate rapid knowledge transfer and expedite uptake of novel tools across diverse palliative care settings. Funding: CIHR Grant PET69772, the Alberta Cancer Board PCRI, and the Caritas Health Group.

**Poster N°: 486**

**Type of presentation:** Poster & poster discussion session  
**Poster session:** Second group 30 May Friday 13.30 to 31 May Saturday 13.30  
**Category:** Research methodology  
**Title:** Charting palliative care development: three approaches  
**Authors:**  
Mike Wright International Observatory on End of Life Care Lancaster University, UK UNITED KINGDOM  
David Clark Lancaster University Lancaster UNITED KINGDOM

**Background:** There is increasing interest in tracking and comparing the international development of palliative care. Recent publications include a European ‘atlas’ (from a Task Force of the EAPC) and a ‘world map’ (from Lancaster University, UK). Yet both groups of researchers note methodological difficulties due to the varied use and definitions of commonly used terms like ‘hospice’, ‘palliative care’ and ‘development’ - which hamper effective comparison. **Aim:** To examine the methodological and operational issues involved in studies of international palliative care development. **Methods:** Published, grey literature and internet web sites were examined to determine how palliative care development is understood and charted. These included: 1) research-based studies focusing on Europe, India, Africa, Latin America and the Middle East; 2) single-country reports compiled by palliative care historians and members of national associations. **Results:** Three ways of approaching and recording palliative care development were identified: 1) A ‘Linear Approach’—mainly one dimensional and focusing on events and outcomes; advantages – a summary overview of a country or region, easily up-dated (eg a time-line); limitations – no issues explored. 2) A ‘Thematic Approach’—mainly two dimensional and focusing on themes (eg ethics, education, service delivery) with a template used for data collection; advantages – a deeper understanding of challenges and successes; limitations – difficult to update. 3) An ‘Analytic Approach’—multi-dimensional and focusing on process, including a categorisation of whole-country development; advantages – a summary of each country’s level of development; limitations – an emerging but unrefined typology. **Conclusions:** As innovative ways of charting palliative care development appear in the public domain, a wider debate surrounding their principles, applicability and associated definitions would bring even greater clarity to an area of growing interest.

**Poster N°: 487**

**Type of presentation:** Poster  
**Poster session:** Second group 30 May Friday 13.30 to 31 May Saturday 13.30  
**Category:** Research methodology  
**Title:** Narrative research in palliative care: reviewing methods used to analyse stories about the end of life  
**Authors:**  
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Carol Thomas Lancaster University Lancaster UNITED KINGDOM  
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Amanda Bingley Lancaster University Lancaster UNITED KINGDOM

**Background:** We aim to examine different narrative analysis methods used in supportive and palliative care research and to explore potential benefits and challenges of incorporating and developing these approaches in research protocols for end of life care. Personal stories about the experience of facing end of life have an established history relevant to palliative care professionals. The phenomenon increase of ‘illness narratives’ has stimulated great interest in health and social science. In recognition of this trend the Cancer Experiences Collaborative (CECo) is using narrative research methods as part of the initiative to build research capacity in palliative care. Narrative research, arising from qualitative methodology, includes a range of analytic methods. **Methods:** Eleven key narrative analysis methods are described. Examples of seven different methods are located in papers reporting on research in supportive and palliative care contexts. We examine aims and outcomes in relation to the use of different methods and summarise the benefits, effectiveness and difficulties of using narrative analysis in these contexts. **Results:** Practitioners and researchers in palliative care have the opportunity to build on an increasing range of narrative research methods with potential to inform and improve end of life care practice and policy. Although narrative research can be challenging in terms of researcher training requirements in specific skills, certain significant benefits are reported. These include enhanced understanding of communication patterns during case taking and other patient/professional interactions that may lead to improved planning of care and service delivery, also greater awareness of the complexity of social and emotional needs of patients and caregivers that may not emerge in conventional interviews. **Conclusions:** The challenge is how best to develop narrative analysis to maximise the potential to better understand individual and cultural experience at end of life.
Background: Reliable studies on incidence and characteristics of medical end-of-life decisions with a certain or possible life shortening effect (ELDs) are indispensable for an evidence-based medical and societal debate on this issue. However, these studies face several methodological difficulties. This presentation outlines how the protocol drafted for the 2007 ELD Study in Flanders and Brussels, Belgium, addresses these difficulties. Methods: Several methodological requirements guided the drafting of the protocol. The main aim of the study was to make reliable incidence estimates of ELDs, even of rare ELDs. Comparability with past ELD studies was favorable. Given the sensitive nature of the research topic, strict anonymity had to be guaranteed, and special attention had to be paid to a sufficient response rate. Results: Reliable incidence estimates were possible by using large at random samples of death certificates of deceased persons in Flanders and Brussels. This needed the cooperation of the appropriate authorities. To obtain reliable estimates for less prevalent ELDs, a stratified sample was used. Questionnaires were sent out to the certifying physician of each included death. The questionnaire was largely based on questions that have been validated in previous Flemish and Dutch end-of-life studies, and avoided emotionally charged terms. It was tested thoroughly and a forward-backward translation was made for French speaking physicians in Brussels. Anonymity of both patients and physicians was guaranteed through a rigorous procedure, involving a lawyer as intermediary between responding physicians and researchers. To increase response we followed the total design method with follow-up mailings. Conclusions: Strictly anonymous and thorough surveys among physicians using a large and representative death certificate sample are appropriate in nationwide studies of incidence and characteristics of ELDs. Past studies in Belgium and other countries have shown the reliability and validity of this methodology.

Poster N°: 489

Type of presentation: Poster
Poster session: Second group 30 May Friday 13.30 to 31 May Saturday 13.30
Category: Research methodology
Title: Nation-wide strategic policy research to monitor quality of end-of-life care in Flanders, Belgium. Presentation of the research program of the MELC-consortium
Authors: Joachim Cohen End-of-Life Care Research Group Vrije Universiteit Brussel BELGIUM
Luc Deliens End-of-Life Care Research Group – Vrije Universiteit Brussel Brussels BELGIUM
on behalf of the MELC-consortium *VUB, Ugent, UA, WIV, VUmcBrussels, Ghent, Antwerp, Amsterdam BELGIUM

Background: Existing end-of-life care (EOLC) research in Flanders, Belgium, is inadequate to guide policy interventions to improve quality of EOLC. For this reason the Monitoring End-of-Life Care (MELC) was conceived, with a twofold strategic aim: 1) to evaluate EOLC and possibly life-shortening end-of-life decisions (ELDs) for the overall society in Flanders; 2) to develop quality indicators of and monitoring systems for EOLC and ELDs. Methods: A consortium of leading EOLC research groups from 5 universities was composed to work out MELC and solicit for funding from the Institute for Promotion of Innovation by Science and Technology in Flanders. This presentation describes 1) which aspects were included in the working program, 2) how the strategic policy research requirements were met in order to get funding. Results: A working program for MELC was conceived, consisting of a research axis aimed at collecting data, and another aimed at policy oriented analyses. The first axis consists of: 1) a large-scale death certificate survey on ELDs; 2) a 3-year permanent registration of EOLC via GPs; 3) a survey on EOLC-policy in healthcare institutions; 4) a study of consultations for ELDs; 5) a study on the (legal) notification procedure for euthanasia cases. Six policy analyses based on the collected data will examine and evaluate: 1) laws and regulations on EOLC and ELDs, 2) end of life problems in minor patients, 3) trends in ELD-making, 4) social inequalities, 5) a systematic Flanders-Netherlands comparison of EOLC and ELDs, and 6) the development of quality indicators and monitoring systems for EOLC. An elaborate dissemination strategy was outlined to make sure results will reach relevant societal actors. The project proposal received a 3,1 million € funding (2006–2010). Conclusions: Due to its policy-oriented, multidimensional and multidisciplinary conception, the MELC study will substantially contribute to the improvement of scientific evidence on EOLC and ELDs, and hence to a more evidence based EOLC policy.

Poster N°: 490

Type of presentation: Poster
Poster session: Second group 30 May Friday 13.30 to 31 May Saturday 13.30
Category: Research methodology
Title: Acupuncture in palliative care for cancer and non-cancer patients: a systematic review
Authors: Marie Couilliot Sante publique Hopital René Muret Bigottini (AP-HP) FRANCE
Gerard Delahaye GP Bourges FRANCE

Use of complementary and Alternative Medicine (CAM) and specially acupuncture as well as palliative care increased over the last decade both emphasising the relief of symptoms. This review focuses on the use of acupuncture in the treatment of patients with incurable conditions over the last decade. Methods: We performed a systematic review on Medline and Cochrane Library searching for “acupuncture and palliative care*”. We used a best evidence approach to identify the relevant studies. Results: The frequency of the theme has dramatically increased in the last ten years (from 6 between 1977 and 1987 to 35 in the last decade). Of the 35 articles there were 9 original controlled trials (CT). Most of the papers were related to cancer patients (30/35). The updated review revealed two main types of articles. First 18 articles evaluated the efficacy on cancer symptoms: 5 were general reviews, 4 (3 CT) were on radiotherapy induced xerostomia, 2 on chemotherapy induced nausea and vomiting (guidelines), 1 on cancer related breathlessness, 1 on post chemotherapy fatigue, 5 (3 CT) addressed pain. Second, there were surveys on knowledge and use of acupuncture according to the patients (2), the oncologists (1), the nurses (1), in an hospital (1) and five articles promoted an integrated approach in oncology centres. Only six papers did not focus on cancer patients. They were regarding use of acupuncture in ALS patients (1), 4 articles (3 CT) addressed pain in palliative settings (HIV related neuropathy, fibromyalgia, myofascial pain, paediatric pain). Conclusions: Although there is a good evidence for acupuncture reducing cancer pain and other related symptoms, there is a lack of high quality trials on non cancer patients. However ethic and methodological issues that are associated with research both in CAM therapies and on terminally ill or older palliative patients are not to be ignored.

Poster N°: 491

Type of presentation: Poster
Poster session: Second group 30 May Friday 13.30 to 31 May Saturday 13.30
Category: Research methodology
Title: Bibliometric Review: Edmonton Symptom Assessment Scale (ESAS)
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Neil Hagen Tom Baker Cancer Center Calgary CANADA
Robin Fainsinger University of Alberta Edmonton CANADA
Carla Stiles Tom Baker Cancer Center Calgary CANADA

Use of complementary and Alternative Medicine (CAM) and specially acupuncture as well as palliative care increased over the last decade both emphasising the relief of symptoms. This review focuses on the use of acupuncture in the treatment of patients with incurable conditions over the last decade. Methods: We performed a systematic review on Medline and Cochrane Library searching for “acupuncture and palliative care*”. We used a best evidence approach to identify the relevant studies. Results: The frequency of the theme has dramatically increased in the last ten years (from 6 between 1977 and 1987 to 35 in the last decade). Of the 35 articles there were 9 original controlled trials (CT). Most of the papers were related to cancer patients (30/35). The updated review revealed two main types of articles. First 18 articles evaluated the efficacy on cancer symptoms: 5 were general reviews, 4 (3 CT) were on radiotherapy induced xerostomia, 2 on chemotherapy induced nausea and vomiting (guidelines), 1 on cancer related breathlessness, 1 on post chemotherapy fatigue, 5 (3 CT) addressed pain. Second, there were surveys on knowledge and use of acupuncture according to the patients (2), the oncologists (1), the nurses (1), in an hospital (1) and five articles promoted an integrated approach in oncology centres. Only six papers did not focus on cancer patients. They were regarding use of acupuncture in ALS patients (1), 4 articles (3 CT) addressed pain in palliative settings (HIV related neuropathy, fibromyalgia, myofascial pain, paediatric pain). Conclusions: Although there is a good evidence for acupuncture reducing cancer pain and other related symptoms, there is a lack of high quality trials on non cancer patients. However ethic and methodological issues that are associated with research both in CAM therapies and on terminally ill or older palliative patients are not to be ignored.
Background: Recent research has resulted in major advances in palliative care. However, study of effective means to transfer new knowledge in order to bring innovations into mainstream clinical and research practice, needs much more attention. Bibliometric methodological studies can plot uptake of new knowledge, over time, by evaluating how key articles are cited in published literature. Such studies can provide a roadmap of how knowledge is diffused, through which channels, and by whom, over time. We hypothesize that bibliometric methods can inform design of local, national and international palliative care knowledge transfer programs. Methods: The Edmonton Symptom Assessment Scale (ESAS) is a simple patient assessment tool that is routinely used in many countries around the world. We are studying the uptake of the ESAS over time, by geographical locale and by professional groups, as evidenced by citations within peer-reviewed and "grey" literature. Using ten standard databases including Medline, CINAHL and others, we identified papers where the tool was first cited. The radar graph (spider web) analysis technique includes an examination of: the pattern of citation statistics, year and frequency, subject disciplines of the citing works' journals, and other domains. Results: A preliminary analysis proved cost-effective. The intended outcome of this research is to identify communities of practice associated with the early adoption and publication of this effective symptom assessment tool in order to identify attributes of effective diffusion of innovation, to inform future programs of knowledge transfer in palliative and end of life care. Funding: CIHR grant PET69772.

Poster N°: 492

Type of presentation: Poster
Poster session: Second group 30 May Friday 13.30 to 31 May Saturday 13.30
Category: Research methodology
Title: Research, development & primary palliative care – closing the gaps
Presenting author: Teresa Young
Authors:
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Elizabeth Lank Independent specialist in collaborative working Ascot UNITED KINGDOM
Jane Maher Complexity & Management Centre, Business School, Univ. of Hertfordshire; Mt Vernon Cancer Centre Hatfield; Northwood UNITED KINGDOM

Background: Aim: Since 2004 a UK cancer charity has been testing new ways of stimulating collaborative research to help improve the quality of community palliative care. Methods: The charity set up and supported a collaborative research & evaluation group (15 individuals, 6 UK universities) over 3 years. Innovative features included member selection, research commissioning process, types of funding & facilitation of collaborative behaviour. The group prioritised clinician researchers (GPs, palliative medicine specialists, a community nurse) & included managers, a patient & a lay carer. Members were selected not just for interests & experience but also for established relationships with the charity &/or with each other. Initial aims were to (i) support/refute the value of UK spread programme for the Gold Standards Framework for community palliative care (1300 UK practices, potentially reaching 10m people) (ii) act as a collaborative learning community. Funding took 3 forms: project funding (based on iterative commissioning), person-based funding (backfill) & group funding (costs of meetings, administration & narrative tracking.) Results: (i) Emerging body of knowledge about palliative care in general practice (with 955 practices, i.e. 73%, completing questionnaires) & in care homes – 16 peer-reviewed publications, c.30 presentations, c.20 literature reviews) (ii) valuable learning about collaboration – between academics, between universities & a charity, between researchers & service developers, & between professionals & lay people (iii) professional development for group members eg 2 PhDs, 2 new chairs & a postdoctoral fellowship; (iv) growth of working relationships that will facilitate further patient-centred research. Conclusions: Instead of funding full-time academic posts, the charity stimulated collaboration between researchers in an under-researched field with results directly applicable for service improvement; the funding method proved cost-effective.

Poster N°: 493

Type of presentation: Poster
Poster session: Second group 30 May Friday 13.30 to 31 May Saturday 13.30
Category: Research methodology
Title: A case study of storytelling as an evaluation method
Authors:
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Background: The Storytelling Project helps people with cancer tell their illness and end-of-life stories in a group setting, supported by a professional storyteller. The initiative aims to help develop metanarratives available to individuals and communities about dying and death. A formative evaluation is being undertaken using storytelling as a research method. This poster describes the process of storytelling as an evaluation method; 2. Identifies challenges faced in using this evaluation approach; 3. Proposes key components of storytelling as evaluation for future research. Methods: Narrative research methods informed the data collection and analysis. Oral storytelling and creative writing were used with the individuals in the project to capture their experiences. There are also individual interviews with the three key stakeholders who developed and delivered the Storytelling Initiative. The researcher joined group meetings with participants (n= 6) from the first and second storytelling groups, writing up field notes as narrative reports. Narrative analysis was then undertaken of the stories to examine imagery in the different stages of the storytelling and group work processes. Results: The participants place a high value on telling the stories of their experiences. The narrative structures identified in stories of bereavement and end-of-life care are mirrored in the stories told about the project’s development. Challenges identified include: self-reflexivity, how to listen and finding appropriate analytical strategies. Key elements of evaluation through storytelling include: engagement with primary and secondary storytelling processes; reflexive data collection and analysis and researcher roles and skills. Conclusions: The methodology is congruent with this specific initiative. Creative storytelling allows people to communicate different levels of experience, that may otherwise be hidden. It has value as a research method in other evaluation studies.

Poster N°: 494

Type of presentation: Poster
Poster session: Second group 30 May Friday 13.30 to 31 May Saturday 13.30
Category: Research methodology
Title: Barriers to Recruitment to the Prognosis in Palliative Care Study (PiPS): a multicentre palliative care study
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Background: The PIPS study is a prospective, observational study to develop a novel prognostic index for use in patients with advanced cancer. It is a UK multicentre study running at four centres. It has been designed to include both competent and incompetent patients. Patients from inpatient hospice units, day-care, home-care and hospital support teams are included. Aim: To identify barriers to recruitment, nationally, during the first 6 months of screening. Methods: An electronic screening log was developed so that all newly referred patients to the participating centres could be systematically assessed for suitability for inclusion to the study. Data were collected on a. Numbers of eligible patients b. Number whom the researchers actually accessed c. Number consented d. Proportions of competent and incompetent patients e. Reasons why patients were not approached and f. reasons why patients refused consent. Screening data from all centres for the first 6 months of recruitment were analysed. Results: 774 / 1326 screened patients (58%) were eligible. Of these, 322 (42%) were accessed and 137 (18%) consented. Once accessed, 38% of competent and 68% of incompetent patients were recruited respectively. 46/137(33%) of all recruits were considered incompetent. The main barriers to recruitment were a. Patients dying or being discharged rapidly (20% of eligible patients) b. ‘Gatekeeping’ by clinical staff (16%). Conclusions: A total recruitment of 138 patients in 6 months demonstrates that recruitment of large numbers to a multicentre palliative care study is possible. However, recruitment remains below the target of 235. Incompetent patients have not been difficult to recruit. Screening logs help identify recruitment barriers which can then be addressed appropriately (eg. intensive education programme to reduce gatekeeping).

Poster N°: 495

Type of presentation: Poster
Poster session: Second group 30 May Friday 13.30 to 31 May Saturday 13.30
Category: Research methodology
Title: Minimum data set for palliative and end of life research in Nova Scotia, Canada
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Background: Five years of funding has been provided by the Canadian Institutes for Health Research for research capacity enhancement to identify and improve access to care for vulnerable populations at end of life. Almost 6000 persons die each year in our province, of which 41% are cancer, 6% COPD and 3% CHF deaths. Methods: We are assessing and expanding our population based palliative and end of life minimum data set by 1) comparing the palliative care program (PCP) data for two large, rural districts which we represent 50% of the population in the province, 2) completing a survey of PCP data available in the seven more rural districts, and 3) linking PCP data to available administrative data. Results: In Canada, PCP data has evolved from local leadership; consistency in data elements across PCPs is lacking. For example, one PCP database uses referral date to identify patients and start of care. Another uses clinical assessment date. Both dates are needed for access and wait time studies. Patient identifiers link PCP data to disease and death registries and person based provincial health service databases. We use ICD causes of death, but as yet lack a population wide system of identifying needs for care. Retrospective population based studies are viable; prospective population studies require validated markers of beginning of need for end of life care. Some person specific measures of vulnerable populations are available (eg older age, rural). Others are community based (eg income, cultural mix) or unavailable (eg homeless). Our new studies go beyond persons dying of cancer to include other chronic diseases, extend into more rural districts, produce surveillance reports, and provide quality care measures. Conclusions: Minimum palliative and end of life population based data are being used for surveillance reporting and research. Enhancements are in progress. Some challenges for adequate data are beyond our current capacity.

Poster N°: 496

Type of presentation: Poster
Poster session: Second group 30 May Friday 13.30 to 31 May Saturday 13.30
Category: Research methodology
Title: The ‘Pictor’ technique: Exploring collaborative working in community palliative care
Authors:
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Background: Providing palliative care in the community typically requires collaboration between many agencies, including health and social care professionals, family members and others. Understanding how these complex networks of collaboration function is vital for improving services, but studying them is methodologically difficult. This paper presents a technique to help researchers examine complex networks of collaborative working – ‘Pictor’ – and illustrates its use in a study of community nursing roles and relationships. Methods: Interviews were carried out with 42 community nurses from 3 areas, incorporating the ‘Pictor’ technique to explore collaborative working in specific cases. In this technique, participants create a visual layout (or chart) representing their perception of how different agencies were involved in a case; this then serves as the focus for a detailed examination of the case by participant and interviewer. Results: Participants universally found the Pictor technique a very useful and engaging way to reflect on the nature of collaborative working in specific cases. The charts they produced not only proved helpful for researchers within the interview situation but also clearly enriched the analysis, drawing attention to important themes in the data that might not have emerged in conventional semi-structured interviews. Consistent differences in how the Pictor charts were used by groups of participants highlighted important differences in roles and relationships. For instance, the technique drew attention to ways in which the networks drawn upon by the new Community Matrons tended to differ from those of District Nursing team members. Conclusions: The Pictor technique made a significant contribution to the task of exploring collaborative working in community palliative care, and has the potential to be useful in other similar settings. The enthusiasm with which participating nurses completed the task also suggests it may be of great value in professional and team development work.

Poster N°: 497

Type of presentation: Poster
Poster session: Second group 30 May Friday 13.30 to 31 May Saturday 13.30
Category: Research methodology
Title: What about difficulties in Palliative Care Research? Systematic Revision of Literature (2001–2007)
Background: We describe literature review method used to detect and list difficulties about problems dealing with research in Palliative Care. Methods: We conduct a systematic review about difficulties in Palliative Care research in MEDLINE database. Search criteria: palliative care, terminal care, hospices, hospices care, end of life (MESH term); combined with the following terms: “research” AND “difficulties in palliative care research” AND “clinical research”; we limited the search strategy to the last five years (2002–2007) and Spanish and English language. It was also performed a manual checking of non indexed palliative care magazines. Once we collect bibliographic references, we start with a title review in order to select and classify the problems related to research in Palliative Care. Then we conduct an abstract review. From the yielded retrievals, we filter only full text articles. We collect all information described by Palliative Care professionals in their articles. Results: 326 references to articles were obtained from which 184 were selected. This first selection was made based on title, year’s ratios and languages. After the abstracts reading, there were 149 finally selected articles in which contents 26 difficulties were determined after a first individual revision. These difficulties were summarized in 6 big groups: ethical considerations, patient and family characteristics and conditions, professionals in the research, methodology and difficulties in the working environment, cultural and social factors, lack of economic resources. The most common difficulties were associated to patients and family conditions followed by the difficulties in working environment and ethical considerations. Conclusions: A global and systematic approach allowing us to detect and list difficulties in Palliative Care research and a classification with experts will help us to establish a consensus between professionals and elaborate improvement proposals.

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Background: To determine whether the impact of “laying on hands” on well being of patients with advanced cancer is more efficient when performed by a person with “healing powers” as compared to an actor. Methods: 80 patients were registered to participate in a randomized, single-blind phase III trial to evaluate the difference in efficacy of “laying on of hands” by either a “healer” or an actor. The protocol was designed according to the healer’s suggestions. Both arms were designed to consist of a total of 40 patients, divided into 5 groups including 8 patients each. Each patient should receive treatment for 5 minutes, 3 times a week. A “Well-being scale” was used to measure differences in treatment outcomes. Results: The first run was unblinded by the “healer” by providing folders and videos to the patients. Hence, only the second run was available for comparison. There was no significant difference in sum-score values between the “healer” and the actor (p=0.34). After the second run, the “healer” quit because he felt that patients should receive more treatment sessions and because he felt that only patients with a bad performance status were randomized in his group. Despite this major obstacle, the study was completed by the actor as a descriptive, explorative study. There was a significant decrease in total sum score values after each single treatment (p=0.0001) for all patients. Although we planned to perform a randomized phase III trial, this was impossible because of lack of reliability of the healer, an incident that is very uncommon in professional designed medical investigations. Conclusions: “Laying on of hands” resulted in a significant improvement of cancer or cancer therapy associated symptoms. We made the experience that to investigate alternative healing methods can be hampered by incompliance of the persons performing the “healing act”, and it may be difficult to apply common research methods in this kind of investigations.

Poster N°: 499

Type of presentation: Poster
Poster session: Second group 30 May Friday 13.30 to 31 May Saturday 13.30
Category: Research methodology
Title: Selection Process for the best research projects in a Regional Palliative Care Program
Authors:
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Background: The IPALEX group (Multicentric Research Group from the Regional Palliative Care Program of Extremadura – RPCPEx) was created with the aim of fostering and favour research. All the professionals are annually encouraged to participate in the development of a investigational line or study. Each one suggesting a study is responsible of leading and coordinating the research as well as elaborating the project, counting on all the IPALEX group and Palliative Care Observatory resources support to develop the job. A call for selecting the best projects is announced every year. The team members participating in the call present a standardized study protocol. Methods: The studies evaluation included the revision of each of the sections and the global assessment of the project by means of scores assigned by the evaluation committee in terms of Study Interest for the RPCPEx, Technical and economic feasibility, Ethic rules observance, Design quality, Study scientific appropriateness and pertinence, and Popularity. Projects qualification: Each of the abovementioned sections were scored in an independent way in each project. They were scored from 0 to 5 following a series of criteria previously approved by the evaluation process.

Poster N°: 498

Type of presentation: Poster
Poster session: Second group 30 May Friday 13.30 to 31 May Saturday 13.30
Category: Research methodology
Title: Pitfalls and problems in evaluating complementary research: Experiences based on a “phase III-trial” evaluating “laying on of hands” on well being in patients with advanced cancer
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committe. The total qualification for each project was calculated by means of the addition and pondered average of each one of the values assigned by each member of the committee. **Results:** During 2005, the teams presented 16 projects. The evaluation committee was formed by 6 members (RPCPEx Regional Coordinator, two researchers of the Regional Observatory, one advisor coming from the Evaluation Office of the Health Service, a team physician and an external member). The pondered average value was 2.34. All the scores above the average were accepted with a final result of 9 researches to be developed. **Conclusions:** Selecting the best projects before conducting them, is an appropriate strategy. An expert group could be necessary to evaluate the projects.

**Poster N°: 500**

**Type of presentation:** Poster  
**Poster session:** Second group 30 May Friday 13.30 to 31 May Saturday 13.30  
**Category:** Research methodology  
**Title:** Conducting research with cancer patients. Why is it so difficult?  
**Authors:**  
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**Background:** Research is basic for improving palliative care (PC) in the next future. In order to contribute to increase the level of knowledge, our group in Extremadura is developing some surveys. One of them is a cost-utility study after referring cancer patients and their families during a week to a cottage where a woman cares for them using massage or aromatherapy. Research in PC is difficult, patients are frail and survival times very short. Recruiting patients become sometimes a challenge. **Aim:** To describe difficulties in recruiting cancer patients for research surveys like this one. **Methods:** Patients were selected by a Local Cancer Association. Previously to be referred to the cottage, they had to sign their consent and they answered the Euroquol5D, Palliative Outcome Scale and Zarit questionnaires. Next day, month and three-month after the stay, they had to answer the questionnaires another time. To be included, patients had to have some level of depression or anxiety (to be improved with the stay). The reasons for excluding or not including patients in the survey were classified and described. **Results:** During 1.5 years, 69 patients were selected by the Cancer Association. Only 14 of them finished the 3-month survey and 4 are currently enrolled. 51 patients were excluded or non included. Among them 19 patients didn’t sign the consent, 9 hadn’t enough depression or anxiety, 9 had visited the cottage previously, 4 were not oncologic-patients, 4 were diagnosed in the last 6 months, 3 had a worsening, 1 was under 18 years old, 1 had not caregiver, and another 1 was not localized. **Conclusions:** Is very difficult conducting surveys with cancer patients when strict conditions to be included are used. (in our study only 21.7% were finally included) Absence of consent is one of the main difficulties showed, but there are a wide range of other circumstances for excluding or not including patients.

**Poster N°: 501**

**Type of presentation:** Poster  
**Poster session:** Second group 30 May Friday 13.30 to 31 May Saturday 13.30  
**Category:** Research methodology  
**Title:** Conducting qualitative research interviews with children with life-limiting conditions: The methodological needs and nuances  
**Authors:**  
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**Background:** A great amount of what we know about children with life-limiting conditions is gained from interviews with adults who know them well, for example parents and practitioners. However, by interviewing the children themselves, it is possible to collect data that are otherwise unobtainable. This paper presents the methodological findings from a qualitative study which involved children with life-limiting conditions. **Methods:** Five phenomenological interviews were conducted with children with life-limiting conditions, ranging from five to fifteen years of age. The aim was to gather data pertaining to their lived experiences of life-limiting illness. Drawing and writing exercises were used as a means of setting the children at ease and the children were given the freewill to determine the direction of the interview. **Results:** An interview averaging forty minutes was conducted with each child in their own homes. All Interviews commenced in quiet and private settings to reduce distractions as much as possible. However, if the children expressed a desire to move locations within the home, change the subjects of conversation or go and interact with others, this was permitted. At times, keeping the interview focus was difficult. The researcher’s sensitivity and judgement was used to determine the length of the interview. A number of interesting and harrowing themes evolved from the interviews highlighting the fears and hopes of children who experience life-limiting illness. **Conclusions:** The power and superiority status ascribed to adults in society means it is difficult for children to present their ideas openly as they often think that they are expected to listen and follow. It is also difficult for children to ‘step aside’ and reflect on their own experiences. To obtain a breadth and depth of data, the researcher needs to move away from the ‘interviewer frame’ and enter the world of the child. This can be achieved by engaging in age appropriate interaction and by adopting a relaxed questioning route.

**Poster N°: 502**

**Type of presentation:** Poster  
**Poster session:** Second group 30 May Friday 13.30 to 31 May Saturday 13.30  
**Category:** Research methodology  
**Title:** Palliative Care Clinical Studies Collaborative PaCCSC  
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**Background:** The Australian Government Department of Health and Ageing, under the National Palliative Care Strategy has provided funding for a national multi-site palliative care clinical studies research collaborative (PaCCSC). The collaborative aims to improve the quality of information for clinical decision making and through this also increase access to key medicines for symptom control in the community. PaCCSC includes key opinion leaders experienced in palliative care clinical study methodology and experts in clinical research, complemented by experts in clinical pharmacology, pharmacoeconomics, biostatistics, clinical study methodology and health policy. **Methods:** Under the direction of a national Trials Management Committee protocols for six priority medicines are currently being developed for randomised double blinded phase III studies:  
- Risperidone for delirium  
- Ketamine for complex pain  
- Ketorolac for cancer pain  
- Octreotide for inoperable bowel obstruction  
- Megesterol acetate for anorexia  
- Ondansetron for cholestatic itch  
This will be complemented by additional pharmacovigilance studies and consumer impact statements
focusing on the symptoms of interest. Results: The collaborative has initiated recruitment of all six studies within the a priori defined timeframe, however the development of a multi-site research collaborative of palliative care services has been challenging. This presentation will describe the establishment, governance structure and management processes of the collaborative and achievements to date. Conclusions: PaCCSC will allow palliative care to more formally explore efficacy, effectiveness and safety of key medicines within Australia for registration and subsidy applications. At the same time, it is going to allow palliative care clinical researchers from across the country to work collaboratively on the development and implementation of clinical studies, protocols and publications of rigorous, adequately powered randomised studies.

Poster N°: 503

Type of presentation: Poster
Poster session: Second group 30 May Friday 13.30 to 31 May Saturday 13.30
Category: Research methodology
Title: The Before-After Study Design in Palliative Care Research
Authors: Steffen Simon Department of Palliative Care, Department of Palliative Care, King's College GERMANY
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Background: Randomised Control Trials (RCTs) are the gold standard for the evaluation of efficacy in clinical trials. However, there are a lot of difficulties and pitfalls to conduct a RCT in palliative care research. The quasi-experimental Before-after study design (b-a) could be an alternative method in this field. Methods: Objective: To discuss the pros and cons of the b-a study design for the evaluation of efficacy and effectiveness in palliative care research. Methods: Critical review of the literature and methodological discussion of the b-a study design. Results: The methodological aim of a study is to achieve the highest possible degree of internal validity. Internal validity is the extent to which the results of a study are likely to be true and free of bias. The advantage of the b-a design is the experimental character without randomisation. The design is feasible especially in palliative care settings, less expensive and time consuming than a RCT. But there are weaknesses of this design like secular trends (change over a period of time as a general development independently from the intervention), regression to the mean (the tendency of individuals at the extremes to have values nearer to the mean on repeated measurements) and various biases and confounding. Various strategies strengthen the validity of this study design: clear defined research questions, outcomes and valid outcome measures to minimize selection and measurement bias; using a control group to monitor secular trends; matching and restriction for potential confounders; and others. Conclusions: Although the RCT is the gold standard to evaluate efficacy, this design is not always feasible. The Before-after study design is an appropriate alternative, but has its own weaknesses and limitations. Particularly in the field of palliative care more well-designed and evidence-based studies with a sufficient validity are needed. Therefore it is recommendable to strengthen the studies methodology.

Poster N°: 504

Type of presentation: Poster
Poster session: Second group 30 May Friday 13.30 to 31 May Saturday 13.30
Category: Research methodology
Title: Guideline development methods for EPCRC
Authors: Peter Trottenberg Klinik für Palliativmedizin RWTH Aachen University GERMANY
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Background: Guideline development includes defining the scope and identifying key questions, drafting recommendations and evaluating the evidence of effectiveness of these draft recommendations with systematic literature reviews. In areas where evidence is not available consensus has to be established and the Delphi process was selected as the optimal procedure for this. The recommendations will be revised if missing areas are identified during the process. The final guideline will be marked with an expiry date when revision will be necessary to acknowledge new developments. Conclusions: The guidelines of the EPCRC are developed with a robust methodology. The process will be finalized in November 2009 and the EPCRC will be able to present clinical practice guidelines based on best available evidence.

Poster N°: 505

Type of presentation: Poster
Poster session: Second group 30 May Friday 13.30 to 31 May Saturday 13.30
Category: Research methodology
Title: An exploration of palliative care nurses’ decision-making in the use of prn sedation
Authors: Pauline Ui Dhúbhhr Education Out Lady’s Hospice IRELAND

Background: Palliative care nurses are challenged to manage complex symptoms in end of life care. It is in the context of trying to manage such symptoms that the issue of appropriate prn sedation arises. The use of sedation for symptom management in the palliative setting has been described in the literature since 1990 with both clinical and ethical aspects addressed. Problem/Objective: It is of major concern however, that little literature exists regarding pro re nata (prn) sedation from a nursing perspective. The administration of prn sedation is frequently a nurse-led activity, with nurses making decisions about when to administer sedation and how much sedation to give. Yet little is known about how nurses make these decisions or the difficulties they encounter in this complex clinical and ethical environment. There is a need for nurses to explore their practice, acknowledge the difficulties that arise for them and use this knowledge to inform practice. The aim of this study is to describe prn sedation from a nursing perspective and to identify the difficulties palliative care nurses experience with regard to their decision making in the use of prn sedation. Method: A phenomenological study using a Heidegger approach was undertaken. Semi-structured interviews were conducted to collect data. A purposive sample was used. Nine nurses at three Irish in-patient palliative care wards were invited to take
part in this study. Each nurse had at least one year of palliative nursing experience. Ethical considerations were addressed. **Results:** Nurses displayed an immense commitment to relieving the distress of patients. Routine prescribing, the absence of guidelines and poor documentation contributed to difficulties in decision-making, suggesting a review of these practices is needed. Patient preferences are not routinely sought, adding to nurses' uncertainty. Nurses grow in confidence with experience, colleague support and knowledge. The multi-disciplinary team, education and the family are major influences in the nurse's decision-making. The need for on-going support and education for nurses is identified, particularly with regard to helping nurses to speak to patients about death and their treatment choices as death approaches.
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Errata corrige

Abstract book corrections:

Page 397 (first page of abstract book)
Additional Organising Committee members
Anne Kari Knudsen, N
Linda M Holøien, N

Page 439
Oral presentation 143
Presenting Author: Ute Henze

Page 444
Poster N°: 150
Presenting Author: Alessandro Ferracioli.

Page 446
Poster N°: 158
Presenting Author: Carla Stiles

Page 486
Poster N°: 280
Presenting Author: Alessandro Ferracioli.

Page 529
Poster N°: 417
Presenting Author: Carla Stiles Mahmoud Yassein Sroor.