The purpose of this study was to investigate women's wishes and need for knowledge concerning sexuality and relationships in connection with gynaecological cancer.

Methods: A total of 11 Swedish speaking women aged 35−70 years were interviewed following the completion of their primary oncological treatment for cervical, corpus or ovarian cancer. The data was analyzed using latent content analysis.

Results: Two main categories were identified: "*Absence of knowledge about the body"* with four sub-categories: emotional perception of one's own body, concerns related to changes in the body, well-being and sexuality, thoughts about the future. The second main category identified was *"Conversation with sexual relevance"* with two sub-categories: need for information, relationship with the partner.

Conclusions: Women with gynecological cancer disease want health care professionals to initiate conversations about sexuality and partner relationships. The women wished with their partners present, to be given more in-depth knowledge about their situation given by competent staff who are sensitive to what knowledge is required. Thus, it is important that nurses, who care for women with gynaecological cancer, to meet each woman's individual needs for knowledge about the effects on her sexuality due to her disease and treatment.

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4170 ORAL

The Smart Route to a NICE Future; Introducing a Smartcard for Patients at Risk of Metastatic Spinal Cord Compression Has the Potential to Improve Quality of Life and Save up to £17.5 Million Nationally

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Background: Early detection of Metastatic Spinal Cord Compression (MSCC) an Oncological emergency affecting 5−10% of all cancer patients, is one of the key priorities identified in the NICE CG075 (National Institute of Clinical Evidence Clinical Guideline75) [1] published in November 2008. The Department of Health (DOH) − Improving Outcomes − A Strategy for Cancer January 2011 [2], predict that by 2030 there will be 3 million people living with and beyond cancer in England; this leads to a potential minimum of 300,000 patients at risk of developing MSCC. This paper is a summary of local action taken to implement this key priority with the aim of improving outcomes and reducing costs.

Material and Methods: A critical review of CG75 was carried out. A retrospective audit of all the patients with MSCC treated in Taunton with radiotherapy between May 2009 and September 2010 was undertaken and the results analysed. A short questionnaire adapted from the NICE Audit Tool was completed by staff and these results were also analysed. A potential cost saving analysis using the NICE Costing Tool was completed.

Results: It was evident from the audit and questionnaire that patients at risk of developing MSCC were not being informed of the risk and what to do on symptom onset. A total of 24 patients with MSCC were treated with radiotherapy and only 5 of these were suitable for surgery due to irreversible neurological damage at presentation. Simple cost analysis showed potential local savings of £500,000 in 6 months. A Smartcard was developed outlining the symptoms and the immediate action to be taken should they occur and given to all patients at risk. This supports National Cancer Survivorship Initiative 2010(NCIS) [3] and complies with NICECG75.

Conclusions: The introduction of the Smartcard will result in earlier detection, more patients eligible for surgery and improved outcomes including the potential of retaining the ability to walk for MSCC patients. The cost saving analysis based on possible reductions in emergency admissions, reduced home care costs, community nursing, and out-of-hours access for GPs illustrates the monetary savings achievable while the improved outcomes and quality of life for the patients is measureable but clearly priceless.

4171 ORAL

Benefits and Barriers to Exercise for Women Living With a Breast Cancer Diagnosis

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Background: Exercise is a proven mechanism for improving physical fitness, increasing capacity for daily living tasks, and improving physical quality of life domains for women living with a breast cancer diagnosis. Despite this, exercise participation rates in this population remain low. A key part of encouraging exercise is understanding and targeting the benefits and barriers perceived by these women as they attempt to exercise. This study aims to determine perceived exercise benefits and barriers, and their effects on exercise levels among women living with a breast cancer diagnosis.

Material and Methods: Female breast cancer survivors completed a validated online survey delineating their treatment and demographic background, current exercise levels, and a perceived exercise benefits and barriers scale. Spearman correlations were performed on exercise metabolic equivalent minutes per week against each perceived benefit and barrier. Results were interpreted based on statistical significance ($p < 0.05$) and effect size (where a 'medium' or greater effect size was r-value $\geqslant$ 0.30).

Results: Surveys were completed by 432 female breast cancer patients and survivors aged between 23−77 years (mean 53.25±9.83 years) with 53% of respondents falling between 45 and 60 years. Only 37.4% of respondents currently met the Global Physical Activity Questionnaire recommended exercise levels.

All exercise barriers queried displayed statistically significant negative associations with exercise levels. Although 10 out of 19 barriers had an effect size of r-value $\geqslant$ 30, this effect was only found in 3 out of 15 benefits. A lack of self-discipline, procrastination and a lack of enjoyment were barriers with the largest effect on exercise levels; whereas exercise enjoyment, improved feelings of well-being, and decreased feelings of stress and tension were the three benefits with an effect size of r-value $\geqslant$0.30.

Conclusions: Over half the perceived barriers had a medium or greater effect size; a result observed in only one fifth of the perceived benefits. This indicates perceived barriers are better able to explain exercise participation than perceived benefits. Therefore, finding ways to target and reduce exercise barriers may be an effective strategy to improve exercise participation levels among women living with a breast cancer diagnosis. This study also provided a list of potential exercise barriers that should be targeted in future exercise intervention research.

4172 ORAL

Arm Morbidity in Relation to Sickness Absence and Return to Work Short After Breast Cancer Surgery

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Background: Breast cancer (BC) is the most common cancer in women in working ages. Most survive and this has raised an interest in consequences from the disease and its treatments on sick leave (SL) and return to work (RTW). The primary treatment for BC is surgery, often followed by radiation, chemo-, hormone- and/or immunotherapy. It is known that many women suffer from long lasting arm problems after surgery especially in case of total axillary clearance, often with an impact on SL and RTW. What is less known are the short term consequences of surgery on these outcomes. The Swedish National Board of Health and Welfare have recommended SL up to three weeks after normal surgery for limited BC with some exceptions; "an occupation where the shoulder joint is strained and the lymph nodes has been removed, SL for up to 6 weeks of active rehabilitation may be necessary".

The aim of this study is to reveal whether and to what extent women who experience arm morbidity and that were working $\geqslant$ 75% before the BC diagnosis were on SL or had RTW within a median of seven weeks from surgery, and to describe the relationship between arm morbidity, lymph node surgery and strenuous work posture and SL or RTW, controlled for other treatment and sociodemographic factors.

Material and Methods: In an ongoing prospective cohort study 725 women, 20−63 (m= 51.3) years of age, who had undergone surgery for a limited, primary BC, were included consecutively after surgery. Data from a first questionnaire, within a median of 7 weeks from surgery, and from medical registers will be presented. Descriptive as well as analytical statistics methods have been used.

Results: 631 (87%) of the women were working before the BC diagnosis and 91% were working $\geqslant$75%. Of these 91%; 18% experienced pain in shoulder, 13% had difficulties to raise or move hand, 15% had reduced

strength in arm and 19% had strenuous work postures. 60% were on SL and 39% had RTW. 33% had a complete and 67% a partial mastectomy, 38% had a total axillary clearance and 56% had sentinental node dissection only. Results from multivariable analysis of those, as well as potential confounding factors will also be presented.
Conclusions: Today there is an ongoing debate about the optimal individual length and grade of SL after cancer and in Sweden national guidelines are present. These results will give insight in clinical relevant factors of importance for whether women are on SL or RTW short after BC surgery.

Oral Presentations (Sat, 24 Sep, 16:00−18:00)
Nursing Oncology − Symptoms

4173 ORAL

Improving Pain Management Due to a Combination of a Pain Consult and Pain Education in Oncology Outpatients

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Background: Pain Education Programs (PEP) and a Pain Consult (PC) have been studied to overcome patient and professional barriers in cancer pain management. These interventions were only studied separately, with several methodological flaws. Only half of the studies described a significant effect on pain. Moreover, PEP studies could hardly prove an effect on daily interference or adherence. Most PEP studies did not mention the adequacy of pain treatment. We compared PEP combined with PC versus standard care (SC) to study the effect on pain, functioning, knowledge and adherence.
Methods and Analysis: This Randomised Controlled Trial was set up a 3-arm study in outpatients with cancer pain, to compare (1) SC, (2) PC by a pain specialist and (3) PC combined with PEP (PC&PEP) (NTR613). PEP consisted of tailored pain education and weekly monitoring of pain and side effects. Because of slow accrual the design was changed in a 2-arm study that compared (1) SC to (3) PC&PEP. The Brief Pain Inventory was used to measure pain and daily interference (BPI-I); knowledge was measured using Ferrell's Pain Questionnaire and electronic vials were used to measure adherence. The primary endpoint was an overall reduction in average pain intensity (API) over an 8-week period compared to baseline. Secondary endpoints were current and worst pain intensity (CPI & WPI), BPI-I, knowledge and adherence. 72 Patients were planned (α=0.029, β=0.80, one-sided t-test). Data were analyzed using non-parametric tests. The study protocol was approved by the Institutional Review Board of the Erasmus MC. All patients gave written informed consent.
Results: Group 1+3 included 72 patients, mean age 59 years (sd=11), 65% female. The groups were similar with respect to performance and underlying cancer. WPI and adequacy of pain management did not differ between groups. The overall reduction in API was SC 1.13; PC&PEP 1.95; p = 0.03. The reduction in CPI was SC 0.67; PC&PEP 1.50; p = 0.016. The reduction in BPI-I was SC 0.11; PC&PEP 0.91; p = 0.01. Pain knowledge increased significantly in PC&PEP compared to SC (p = 0.008). Patients in PC&PEP were more adherent than SC (p = 0.03).
Conclusions: The combined intervention significantly improved patients' pain, daily functioning, adherence and pain knowledge. Pain Consult and PEP should be regularly offered in oncology outpatients with pain.
Study is closed.
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4174 ORAL

Cancer's Related Anxiety "Kryptonite" − a Randomized Control Trial for the Use of Guided Imagery and Progressive Muscle Relaxation

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Trial Registry Number: AC-GIPMR-85
Trial sponsor: Cyprus University of Technology
Background: Patients' with cancer psychological well-being can be negatively influenced by the disease or the treatment, resulting in frequent hospitalizations and disruption of the patients' daily living. This paper reports a part of a study to explore the effect of Guided Imagery (GI) and Progressive Muscle Relaxation (PMR) on the anxiety experienced by patients with prostate and breast cancer undergoing chemotherapy or/and radiotherapy.
Material and Methods: A Randomized Controlled Trial was implemented with a sample size of 200 patients with breast and prostate cancer covering all the geographical regions in Cyprus. Anxiety was assessed with the Zung Self-Rating Anxiety Scale prior and post intervention.
One hundred patients were randomly assigned in the control group and one hundred in the intervention group. Based on the protocol, the patients in the intervention group received 4 supervised sessions of GI and PMR at their home within a 4-week period, additionally, to daily unsupervised interventions through audiovisual aids.
Guided Imagery is simply the use of one's imagination to promote mental and physical health. The patient was led through a relaxation and imagery exercise. The first component involved reaching a state of deep relaxation through breathing and PMR techniques. During the relaxation phase, the person closes his/her eyes and focuses on releasing the feelings of tension from his/her muscles starting with the toes and working up to the top of the head. Once complete relaxation is achieved, the second component of the intervention is the imagery, where mental images (floating on a cloud) were directed to the patient.
Results: The matched pair t-test was used to assess the statistical significance differences in the pre- and post-intervention scores. Comparisons were considered significant if $p < 0.05$. For the control group, the mean score of SAS was 58.33 ± 7.45. For the intervention group, the SAS score was 56.28 ± 6.39 and 42.72 ± 6.81 before and after the intervention, respectively. For the intervention group, the difference between pre-and post-intervention scores reached the significant level (p = 0.01).
Conclusions: Results showed that the GI and PMR had a significant effect on decreasing anxiety in cancer patients. Results indicated that complementary interventions have a place in an integrative system of home-based cancer care and can work side to side with conventional interventions to improve the patient's cancer journey and overall quality of life.

4175 ORAL

Managing Breakthrough Cancer Pain − New Nursing Guidelines

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Background: Breakthrough Cancer Pain (BTCP) is a taxing symptom that is often poorly understood and sub-optimally treated which can contribute to unnecessary patient discomfort that can impact their daily lives. Possible contributors to BTCP under-treatment include no universally accepted definition of BTCP, disagreements about what constitutes a BTCP episode, and lack of a validated BTCP assessment tool for clinical use. A European survey of oncology nurses' understanding of, and practice patterns relating to, BTCP management revealed not only an unmet educational need, but also a need for nurse-specific guidance on BTCP treatment and how to manage these episodes in cancer patients.
Material and Methods: Utilising the framework for generating existing EONS Guidelines, the EONS BTCP Working Group took on the task to develop a set of nurse-specific evidence- and practice-based guidelines on BTCP management. The BTCP Nursing Guidelines reflect the findings of the European oncology nurse survey and are the first to address BTCP management from a nurse perspective.
Results: The EONS BTCP survey amongst oncology nurses in 12 European countries revealed that nurses who have not been trained in BTCP management and/or do not have an assessment tool, not only find it more difficult to distinguish BTCP from background pain but also feel less confident in advising patients about BTCP. The BTCP Nursing Guidelines serve as an evidence- and practice-based guide to nurses working with cancer patients. The key objectives of the guidelines include: (1) to outline the nurses' role in identifying and assessing BTCP, (2) to describe how BTCP is recognised and (3) to offer a definition and a specialist aligned BTCP assessment tool to help nurses clearly distinguish between BTCP and background pain. Additionally, the guidelines describe how this type of pain influences cancer patients' everyday life by demonstrating the implications of unmanaged BTCP and provide guidance as to how to best manage these episodes.