

# ABSTRACTS

## ICCN 2015 Abstract Book Manuscript Oral Sessions

**0-2**

### **Are you Ready to Accept Accountability? Improving Patient Safety and Satisfaction in an Acute Oncology/Haematology Unit Using a Uniform Clinical Handover Tool**

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Safe, accurate and concise exchanges of information to transfer accountability and responsibility of patient care from one clinician to the next are an essential part of quality patient care. In Australia clinical handover is one of the key domains evaluated by the Australian Council on Healthcare Standards (ACHS) during accreditation. Auditing data collected in the inpatient cancer ward at the Princess Alexandra Hospital showed only approximately 40% compliance with safe clinical handover practices. Therefore the division of cancer services committed to a clinical handover project which aims to improve uniformity of clinical handover practices and to increase patient safety and satisfaction through engagement in planning and communication of care.

In a collaborative effort the division of cancer services formed a working party to review the literature and develop an acronym that could be used in all units within the division. The inpatient oncology unit recruited one direct care nurse to lead the project with the support of an advanced practice nurse. Preparation began in August 2014. The acronym ISBARS was developed comprising of; introduction, situation, background, assessment, recommendation and safety scan phases, with specific information required to be exchanged at each phase. The education team provided staff education during the month of December and the project commenced in the clinical area in January 2015.

Evaluation of the project began immediately through independent observational auditing. Data will be collected weekly for up to 6 months and tracked on a race track and displayed in the clinical area for staff and patients to view. The first week of auditing, has shown greater than 80% compliance. Incident reports will also be reviewed to look for a decrease in incidents related to clinical handover and patient and staff satisfaction will also be evaluated through Best Practice Australia surveys.

**0-3**

### **Triage Nurses and Radiographers Working Together to Provide Quality Advice and Support to Cancer Patients in the Post Treatment Period**

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**Introduction:** During 2013–2014, 6258 patients received radiotherapy and chemotherapy was delivered to 5886 individuals at Clatterbridge Cancer Centre (CCC) and its satellite clinics. Increasingly patients received these modalities concurrently. Gap analysis identified knowledge gaps in advice and information given to patients. The knowledge already existed in the department and by connecting radiographers with triage nurses, gaps would be plugged.

**Background:** CCC managed a chemotherapy triage service since June 2009. Patients have a contact number to ring in the event of adverse reactions and triage nurses proactively ring patients detailing what to do if they feel unwell. Patients having radiotherapy have not had such a service and their first follow up has been several weeks after they finish treatment. This was not an issue when side effects were minor but led to a difficult recovery for patients more severely affected by radiotherapy.

**Implementation:** After consultations with clinicians, nurse specialists and triage nurses, a radiographer led telephone follow up service was introduced with funding from the Commissioning for Quality and Innovation. Patients are now followed up 10–14 days after finishing radiotherapy. They have a copy of the triage phone number and can call up to eight weeks after radiotherapy if concerned. This has increased the number of calls to triage and triage nurses need to recognise short term radiotherapy side effects. Radiographers work part time with triage staff and give advice on radiotherapy reactions. Patients contacted by radiographers can be booked into the new triage clinic for review. This has enabled CCC patients to be cared for where specialist help is available. It also means that they can be referred to the wider community where necessary.

**Conclusion:** There is now a valuable exchange of information between the radiographers and the triage nursing staff with both disciplines learning from each other benefitting our service users.



## O-4

### Presence of Stoma Nurse and Quality of Life of Colorectal Cancer Patients With Fecal Ostomy in the Early Postoperative Phase

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**Background:** The early postoperative phase is a crucial period for maximizing the self-efficacy of patients in preparation for hospital discharge. However, there is scarce research on the effects of the presence of the stoma nurse during this phase on the quality of life (QOL) of colorectal cancer (CRC) patients with fecal ostomy.

**Objectives:** The study aimed to determine the following: (1) QOL of CRC patients with fecal ostomy in the early postoperative phase, (2) patient-related factors associated with QOL, and (3) relationship of the presence of the stoma nurse with QOL following fecal ostomy surgery.

**Methods:** The study utilized a cross-sectional, descriptive correlational design. Purposive sampling of new cases of CRC patients ( $n = 93$ ) from two tertiary hospitals who were at least three days post-fecal ostomy surgery was performed. Patient-related factors and QOL were assessed through face-to-face interview using a patient information sheet and the validated Filipino version of the Stoma-QoL Questionnaire respectively. Data collection was done from March-August 2014.

**Results:** Mean QOL score was 55.5 (SD = 9.9) indicating a moderate level of quality of life. Sex, presence of comorbidities, and financial status were patient-related factors found to be associated with QOL. Mean duration a patient was seen by a stoma nurse post-fecal ostomy surgery was 5 days (SD = 3). CRC patients had higher QOL scores the earlier they were seen by a stoma nurse regardless of the type of postoperative intervention rendered ( $p = 0.029$ ).

**Conclusion:** The presence of stoma nurses in the early postoperative phase may have a positive impact in improving the QOL of CRC patients. This presents as an opportunity for stoma nurses in implementing timely interventions that are evidence-based and sensitive to patient-related factors. More research is needed to examine whether the early presence of stoma nurses may have long-term effects in the QOL of CRC patients after discharge.

## O-5

### Achieving Excellence in Providing Palliative Care: Perspectives of Health Care Professionals

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**Introduction/Background:** Caring for individuals at the end of life in a hospital environment is a challenging proposition. Understanding the challenges to providing quality end of life care is an important first step in order to develop appropriate approaches to support staff members and facilitate their capacity to remain “caring”.

**Purpose:** This work was undertaken to increase our understanding about the challenges health professionals experience in caring for patients at end of life and how staff members could be supported in providing care to patients and families.

**Methods:** In-depth interviews were used with cancer nurses ( $n=30$ ) to explore the challenges talking about death and dying with patients and families. Surveys were used with nurses ( $n=27$ ) and radiation therapists ( $n=30$ ) to measure quality of work life. Inter-professional focus groups were used to explore what it means “to care” (5 groups held) and what “support strategies for staff” ought to look like (6 groups held).

**Results:** Staff members confirmed that interactions concerning death and dying are challenging. Lack of preparation (knowledge and skill in palliative care) and lack of support from managers and colleagues are significant barriers. Key strategies staff members thought would be helpful included: 1) ensuring all team members were communicating and following the same plan of care, 2) providing skill-based education on palliative care, and 3) facilitating “debriefing” opportunities (either one-on-one or in a group).

**Implications:** For staff to be able to continue caring for patient at the end of life, they need to be adequately prepared and supported appropriately.

## O-6

### Nursing Wisdom: Demonstrating Phronesis in the Care of Patients With Urinary Problems at the end of Life Through Qualitative Interviews

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**Aims and objectives:** A study was conducted to examine how nurses understand urinary problems at the end of life, and to identify sources of evidence on which they base their practice through semi-structured qualitative interviews. The aim was to decide if future research or interventions (such as formulation of best practice guidelines) could improve continence care at the end of life.

**Background:** There is little evidence in nursing literature to indicate how nurses should manage urinary problems at the end of life. Evidence is particularly lacking regarding the insertion of indwelling urinary catheters, and at what point this is appropriate.

**Design:** This was an applied qualitative interview study which made use of the ‘guided interview’ approach.

**Methods:** 12 participants who worked in two hospital wards and a hospice were interviewed about management of patients with urinary problems approaching the end of life. The transcribed interviews were organised using the qualitative analysis software QSR NVivo 10. Constant comparison was used to analyse the interviews.

**Results:** The patient and their family were a key concern of all interviewees. Participants focused on processes including: giving care, making decisions, managing uncertainty and

assimilating knowledge. These processes are mediated by 'phronesis' or practical wisdom.

**Conclusions:** Participants displayed elements of phronesis. They approach each patient as an individual, using their experience, patient wishes, available resources, clinical knowledge, advice from colleagues, and other sources to provide nursing care. A generalised set of guidelines on managing urinary problems at the end of life would not be useful to nurses working in palliative care.

**Relevance to Clinical Practice:** This study shows lack of certainty in continence care at the end of life in areas such as urinary catheter insertion. Nurses would benefit from support of managers and clinical educators to choose appropriate toileting strategies.

### 0-8

#### **The Effects of a Nurse-Led Early Palliative Care Model in Patients and Their Caregivers With Newly Diagnosed Metastatic Cancer: A Feasibility Study**

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World Health Organization (WHO) posited the importance of providing palliative care at the early and all stages of illness trajectory. Often time, the provision of palliative care for cancer patients is delay referral, resulting in great negative impacts on the quality of care and its effects for patients and their caregivers with cancer. To date, the existing studies found that the early palliative care along with standard anticancer treatment had positive effects. Yet, it remains at the infancy stage in Taiwan. Thus, the purposes of this study were to describe the feasibility and to examine the short-term and long-term effects of a nurse-led early palliative care model on patients and their caregivers with metastatic cancer. This study was a 3-month, quasi-experimental, one-group pretest-posttest, with longitudinal design, to describe the feasibility, and short-term (for patient: symptom intensity, mood; for caregivers: care strain, mood, satisfaction with care) and long-terms effects (for patients: functional status, mood, quality of life; for caregiver: care strain, functional status, mood, quality of life, and satisfaction with care) of applying a nurse-led palliative care model in 35 dyads (N =70) of patients and their caregivers with newly diagnosed metastatic cancer. Results from this pilot study indicated that a nurse-led early palliative care model in patients with newly diagnosed advanced cancer was feasibility and had

short-term (for mood) and long-term positive and trend effects on patients' mood status, quality of life, and health status, and on caregivers' mood status and satisfaction of care. However, there was no significant effect on strains or quality of life for the caregivers. Future studies with rigorous design, such as, randomized clinical trial, are suggested and to increase sample size to detect statistical difference on the small effect size variables, such as quality of life and strain of caregivers in this particular population.

### 0-10

#### **Quality of Life and Its Predictors Among Children and Adolescents With Cancer**

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**Aims:** This study was to assess the quality of life of children and adolescent with cancer and to identify predictors of quality of life among children and adolescents with cancer in Taiwan.

**Background:** Quality of life is increasingly used in pediatric cancer care to assess their consequences of treatments.

**Methods:** This was a cross-sectional study design and 255 participants were recruited from two medical centers between 2012 and 2014. The eligible participants were diagnosed with cancer, without mental disease and receiving chemotherapy. Three instruments including Pediatric Quality of life inventory (PedsQL 4.0), Disturbances Behaviors Scale, and Multidimensional Fatigue scale were used to collect data.

**Results:** Participants reported school functioning was the lowest, following by physical functioning, and emotional functioning. Quality of life was negatively correlated with disturbance behaviors, and fatigue. No significant differences of quality of life were found in gender, family incomes, diagnosis, and age. Fatigue, disturbance behaviors and diagnosis to assessment time were found to predict quality of life, and accounted for 58.1% of total variance.

**Conclusions:** Fatigue, disturbance behaviors and diagnosis to assessment time all predict the levels of quality of life in pediatric cancer patients. These findings suggest that health providers should continually evaluate fatigue and disturbance behaviorsthat will benefit to assess the patient's quality of life.

### 0-11

#### **How do Young Adults (19–24 Years) Living With Cancer Experience Supportive Care?**

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**Background:** This work was motivated by the researcher's experience of working with young adults (YA) with cancer and the need for an individualized/proactive approach to supportive care (SC). Before organizational change it was felt necessary to explore what YA thought the purpose of supportive care to be.



**Aims:** Therefore a two site grounded theory study was undertaken asking the question ‘How do young adults (19–24 years) living with cancer experience supportive care?’ With the purpose to develop a substantive theory to understand how SC was identified, perceived and defined by YA. With the aims to add to the current body of knowledge of this subject and influence practice development in context.

**Methodology and Methods:** Data were collected through 12 in-depth interviews with 11 YA. Sampling strategies included purposive and theoretical techniques. Data were analyzed through open and focused coding and the constant comparative method. Theoretical coding and memoing facilitated final category construction. The methodology acknowledges the researcher’s contribution to theory, however the researcher was reflexive as to how their contribution was applied.

**Findings:** Through YA’s narrative accounts the core purpose of SC was the protection of an emerging adult identity. In 3 categories and the relationships between them, disruption, loss, control, autonomy, self-efficacy and the use of resources were interpreted. Findings challenged previous work that suggest YA were reduced by cancer, here they interpreted their situation and selected ways to play a significant role in SC. The study suggests autonomy and self-efficacy could be enacted to protect a planned biography.

**Conclusion:** This study provides a detailed interpretation of the purpose of supportive cancer care for young adults and their centrality within the process of achieving it. It extends previous findings from the perspectives of age and suggests change in age appropriate care to enable self management.

## O-12

### The Impact of School Visits on Siblings of Children With Cancer: A Feasibility Pilot Project

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It is well known that a diagnosis of childhood cancer affects not only the patient, but the entire family. Siblings can be affected by their brother or sister’s illness and live through similar stress and anxiety.

The goal of this pilot study was to examine the feasibility of studying the impact of the Ontario Oncology Nurse School Visitation Program on the wellbeing and school adjustment of siblings of pediatric cancer patients. The specific objectives of this pilot study were to assess: (1) the ability to enroll patients; (2) subject retention; (3) feasibility of collecting demographic and other data elements including the reliability and validity of measures; (4) feasibility for mode of questionnaire delivery; (5) the proportion of families that have multiple siblings that are eligible for school; and (6) the logistics of study procedures.

Fourteen siblings (aged 5–13 years) of children diagnosed with cancer were enrolled over a period of 18 months. The siblings were interviewed and asked to complete the PedsQL® before and after the class visit. School attendance 3 months pre and post intervention was examined as well. Data collection was done in person or by telephone. Families with more than one eligible sibling were included but only one sibling, chosen at random, participated.

All eligible siblings agreed to participate. It took 6 months longer than anticipated due to many siblings not fitting the eligibility criteria for age and distance from the hospital. The mode of data collection was agreeable to all and easy to plan and execute. School attendance showed a reduction of days missed (from a mean of 1.9 to 0.6 days missed,  $p=0.03$ ) but there was no remarkable impact on PedsQL® results ( $p=0.62$ ). The interviews yielded positive feedback regarding the class visit.

Overall, the class visits had a positive effect on the siblings as was reflected in school attendance and interviews. The data collected will help plan a future similar study.

## O-13

### The Impact of Laughter Yoga on Quality of Life and Immune Cells in Oncologic Patients

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**Background:** Reduced quality of life, poor mental state and states of anxiety are some of the effects that accompany oncologic patients. Many of them use alternative therapies aimed at relieving symptoms and improving quality of life. Laughter and humor have been linked to improved function of the respiratory, cardiovascular and immune systems. **Aim of the Study and Method:** Using a prospective controlled study, we examined the effect of the “Laughter Yoga” workshop intervention on measures of quality of life, mood and levels of T-LYMPHOCTES in 19 oncology patients versus 18 oncology patients in the control group. Participants in intervention and in control group answered Quality of life questionnaires (QLQ-C30), mood (PANAS) and blood test were analyzed for T-LYMPHOCTES at baseline and three weeks later, at the end of the study. During the workshop “Laughter Yoga” the participants in the intervention group entered in relaxation by practicing guided imagery, laughter meditation and breathing exercises. The workshop lasted one hour once a week for 3 weeks. The control group completed questionnaires and blood tests were taken.

**Results:** After attending the workshop, there was an increase in the overall quality of life in patients who participated in the workshop ( $t = -2.7$ ,  $p = 0.01$ ) compared with the controls. In addition, only in participants with high levels of negative mood in baseline, yoga group showed a significant decrease in CD4 and a significant increase in CD8 ( $<.05$ ) compared with non-significant changes in controls.

**Conclusions and Recommendations:** Laughter Yoga positively influences general quality of life level and positively influences immune measures only those with high levels of negative mood. It is recommended to include laughter yoga as complementary in oncologic patients in general and in particular, those with high negative mood.

### 0-15

#### Physical Prehabilitation is Feasible and Effective in Patients With Advanced Bladder Cancer

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**Background:** Physical activity offers a variety of health benefits to cancer survivors during and post treatment. However, physical pre-habilitation is not well reported in surgical oncology. The aim was to investigate the feasibility, the adherence and the efficacy of a short term (two weeks) pre-habilitation program in patients awaiting RC because of muscle invasive bladder cancer (MIBC).

**Methods:** A prospective randomized clinical trial was conducted at Aarhus University Hospital (DK) investigating the efficacy of a multidisciplinary rehabilitation program on length of stay in RC patients. A total of 158 patients referred for RC because of MIBC were assessed for eligibility in the period of May 2011 to February 2013 revealing 50 in the intervention-group (prehabilitation) and 57 in the standard care group.

A standardized exercise program was introduced and distributed by dedicated physiotherapist and clinical nurse specialists. Patients were instructed to perform six different exercises twice a day consisting of both muscle strength and endurance exercises. Moreover, patients were encouraged to perform step-training with individualized repetitions. A patient diary was distributed and patients were instructed to record the number of training sessions and number of exercise repetitions daily. The actual adherence was of interest and the efficacy was expressed as the differences in muscle power (Watt) between the treatment groups.

**Results:** A total of 67 % adhered more than 75 % to the physical program. High adherence was not associated with preoperative nutritional risk, comorbidity or high age (>70 y). A positive effect of the intervention was documented according to a significant improvement in muscle power at time for surgery ( $p > 0.001$ ).

**Conclusion:** In patients awaiting radical cystectomy a short term physical pre-habilitation intervention is feasible and effective and should be considered in survivorship strategies in advanced bladder cancer pathways.

### 0-16

#### Effects of Electric Acupoint Stimulation on Gastrointestinal Hormones and Motility Among Old Postoperative Patients With Gastrointestinal Tumors

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**Background:** Early bed-load movement was encouraged to promote recovery of gastrointestinal function. Nevertheless, due to older ages and weak physical strength, the effects remained limited.

**Objective:** It aimed to evaluate the effects of electric acupoint stimulation on gastrointestinal hormones and motility among old postoperative patients with gastrointestinal tumors and explore an efficient and noninvasive method for bowel functions in postoperative rehabilitation.

**Design:** Randomized control study was conducted in this paper.

**Participants:** 40 old patients with gastrointestinal tumors receiving surgeries was selected from January 2009 to December 2010.

**Methodology:** The patients were randomly assigned into regular nursing care group(RNC) and electric acupoint stimulation group(EAS). There were 20 participants in each group. Patients in the RNC group received regular nursing care and patients in the AES group received both regular nursing care and electric acupoint stimulation. The serum concentration of gastrin(GAS), motilin(MOT), cholecystokinin(CCK) and electrogastrogram (EGG) were evaluated on the first, third and fifth day after surgery. The time of anal exhaust and the number of cases with gastrointestinal function disorders including abdominal pain, abdominal distention and diarrhea were recorded.

**Results:** The statistically significant result was shown in AS, MOT, EGG, the time of anal exhaust, abdominal pain and abdominal distention as well as diarrhea ( $P < 0.05$ ).

**Conclusion:** Electric acupoint stimulation could increase postoperative GAS, MOT levels, promote recovery of gastrointestinal functions and decrease complications among older patients with gastrointestinal tumors.

### 0-18

#### Investigation and Analysis of Primary Liver Cancer Patients About Their Involvement in Treatment Decision-Making

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**Objectives:** To study the actual situation and their attitudes of Primary Liver Cancer (PLC) patients about involvement in treatment decision -making and exploring related factors.

**Methods:** Totally 556 PLC patients were selected in a specialized hepato-biliary surgery hospital in Shanghai from



February to September, 2014. Validated Chinese version of Decision Making Questionnaire were used to explore the extent and attitude about involvement in treatment decision-making of the PLC patients. The data were analyzed by descriptive statistics and non-parametric tests such as Mann–Whitney U-test, Kruskal–Wallis test by SPSS17.0 software. Logistic regression test were used to analyze the related factors.

**Results:** Totally 69.1% patients considered involvement in treatment decision-making quite necessary, but only 21.8% patients had been greatly involved in treatment decision making. In details, 31.3% patients had participated in the discussion about treatment decision making, while 75.2% patients totally agreed with its importance. 71.8% patients thought that final decision should be made by patients together with physicians. However, only 17.4% patients admitted their decision was made by doctors and themselves. The treatment methods were significantly related factor for patients' attitudes about involvement in treatment decision making.

**Conclusion:** PLC patients had active attitudes about involvement in treatment decision making, however the majority of patients had not been greatly involved. Medical staff played a crucial role in patients' participation in decision-making. Shared decision making had been widely accepted and applied in western foreign countries.

## 0-19

### The Landscape of Lymphedema in Canada

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Lymphedema is a progressive chronic condition needing life-long management. In oncology, the most common etiology for the development of lymphedema is the impaired or disrupted flow of lymph fluid through the draining lymphatic vessels and lymph nodes, usually as a consequence of surgery and/or radiation therapy.

Without intervention, lymphedema leads to progressive swelling, fibrosis, neurologic changes, and recurrent infection. Early identification of the signs and symptoms of lymphedema are integral to the management of all patients who have had surgery and/or radiation, and are thus at high risk. When treated in the earliest stages, complications of this condition may be minimized. It affects a significant number of people in Canada; the incidence is unknown however it is estimated that between 3 and 5 million in the US suffer from lymphedema. A survey of health care professionals in 2011, involved in managing lymphedema revealed 70 percent of lymphedema in Canada is cancer related.

It is our responsibility as oncology nurses and patient educators to be familiar with early recognition of lymphedema and the many treatment options available.

This presentation will highlight the landscape of lymphedema in Canada, the health care professionals managing this condition and the essential role of oncology nurses in

recognizing and caring for individuals coping with this often unrecognized chronic condition.

Lymphedema affects a person's quality of life. This presentation will also review the important aspects of lymphedema for clinicians in the oncology setting including basic anatomy and physiology of the, early recognition, risk reduction and general management of this condition. Participants will be provided the opportunity to learn the many options for management and the available resources in Canada that is providing patients with improved outcomes and quality of life.

## 0-20

### Integrative Review of Literature on the Determinants of Health Outcomes of Women Living With Breast or Cervical Cancer in Canada and Nigeria From 1990–2014: A Comparative Study

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**Background and Aim:** Breast and cervical cancers continue to be the leading causes of death for women in developing countries (World Health Organization [WHO]). According to GLOBOCAN for 2012, 23,420 women were diagnosed as having breast cancer in Canada while 27,304 women were diagnosed as having breast cancer in Nigeria. Out of this number in Canada, 4,924 died of the disease, while in Nigeria, 13,960 died. In Canada, GOLOBOCAN 2012 reports 1,408 women diagnosed with cervical cancer while in Nigeria, 14,089 were diagnosed. Out of this number in Canada, 503 died, while in Nigeria, 8,240 died. Survival rates in Nigeria are very low compared to that of Canada. This integrative review study set out to identify the factors that determine health outcomes of women with breast or cervical cancer in the two countries. No previous study of this nature was found.

**Design and Review of Literature:** Literature on breast and cervical cancers in Canada and Nigeria from 1990 to 2014 was retrieved from CINAHL, MEDLINE, PubMed, Web of Science, and Google Scholar. Cooper's five – stage framework was used to guide data collection, analysis and synthesis. Appraisal of retrieved studies was done and results were synthesized. The Websites of relevant organizations such as Canadian Cancer Society, WHO, Cancer Registry in Nigeria were also used.

**Results and Conclusion:** Findings from the articles that met the inclusion criteria showed that in Nigeria, late presentation of patients or presentation with advanced stages of the diseases made survival very low. This also compromises the quality of life of the patients. Factors responsible were lack of screening programs and other social factors. In order to improve the survival rates, Nigeria must address screening programs, the institutional bottlenecks, and the dearth of knowledge among primary caregivers including alternate practitioners and prayer houses.

**O-21****Vulnerability of Human Papillomavirus (HPV) Among University Students**

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**Introduction:** It is widely recognized that HPV plays an important role in the development of various types of cancer, so it is considered a public health problem. While most college students are familiar with this disease, many are unaware of the HPV risk factors as well as the modes of transmission and the methods of prevention. Besides, they underestimate the risk of infection and do not perceive themselves as responsible for the spread of the virus.

**Objective:** To identify the knowledge and prevention practices related to HPV infection, from the perspective of vulnerability, in college students in Bogotá, Colombia.

**Methods:** This was a cross-sectional study. The sample consisted of 522 students (male and female) aged between 18 and 19 old, at three universities in Bogotá, who agreed to participate and signed the Informed Consent Report. The authors applied a validated questionnaire for data collection.

**Results:** Both men and women are infected with HPV. According to the participants man transmits infection but the disease develops only in women, and the reason for no use protection during sex is that they can use the morning-after pill in order to prevent pregnancy. Although, for the participants the use of condom and the vaccine are important in preventing HPV transmission.

**Conclusion:** The students show a limited level of knowledge about transmission, development and severity of HPV infection, conditions that affect individual perception of risk and make them more vulnerable to this infection or to develop other related diseases.

**O-22****Perceived Facilitators and Barriers to Cervical Cancer Screening Among Ethnic Minority Women in Hong Kong**

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**Aim:** To examine the uptake rate of Pap smear test and identify perceived facilitators and barriers to the test among South Asian women in Hong Kong.

**Design:** A mixed-method study design was used.

**Methods:** A total of 756 South Asian women (Indians, Nepalese, and Pakistanis) who are living in Hong Kong were recruited and they were invited to complete a survey. Twenty-one of them were invited to participate in four focus group interviews.

**Results:** 63% of the women had not received the Pap smear test. Perceived barriers to take part in the Pap smear test were insufficient knowledge of cervical cancer and screening tests, language barriers, poor accessibility to cancer screening service, religious belief and individual health beliefs. Perceived facilitators were peer and doctor advice for related health information.

**Conclusion:** The findings reflect an urgent need of developing and delivering culturally and linguistically appropriate health materials and health promotion programmes to South Asian women. Nurses should take an active role to assess health needs of these women, identify their barriers and advise those in need to have cervical cancer screening and how to access such services.

**O-24****Nurses: Barriers in Using This Powerful Force in Smoking Cessation in the Czech Republic**

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The Czech Republic, a central European country, has 10 million inhabitants, 2,200,000 smokers (30 % of the population 15 years and older), 40,000 physicians and approximately 100,000 nurses.

**Methods:** Report the activities of the Czech Society for Treatment of Tobacco Dependence (STTD) Nurses' section to increase nurses involvement in tobacco control.

**Results:** Since 2007, regular one-day workshops are organized for nurses about basics in tobacco control and smoking cessation methods, mainly the brief intervention (5 A's) and the role of nurses in its application. Also, since 2012, more such activities are conducted through the collaborative project with the ISNCC, including expanding the Czech model of building capacity to other countries in the region and implementing online learning. Nurses have developed, and recently revised, a smoking cessation guideline specific to nurses. During the past 9 years, more than 500 nurses have passed this educational program. One of the barriers for additional nursing involvement is their own smoking: still about 40 % of nurses smoke, compared to 23 % of women in the general population and 16 % of physicians. Efforts are needed to support quitting among nurses. Expanded training and motivation will also assist in engaging more nurses.

**Conclusion:** If each nurse in the country would help just one smoker quit every year, it would be a substantial reduction in the number of Czech smokers. Any possibility to increase nurses' motivation to stop smoking and take better care of their smoking patients is hugely valuable and the



various activities the STTD offers, several in partnership with ISNCC, address this gap.

### O-25

#### Objective Measure of Strength in Fall Prevention for Patients Receiving Hematopoietic Stem Cell Transplant

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**Background:** Prevention of accidental falls in hospitalized patients is a major focus of medical centers around the world. Patients undergoing Hematopoietic Stem Cell Transplant (HSCT) are at increased risk of falls and are more likely to be injured if they do fall. Etiology for this increased risk is not clearly understood. Standard fall risk assessment tools (FRAT) emphasize confusion and age heavily in the overall score. HSCT patients tend to be younger than other hospitalized patients and are rarely confused. Thus, current fall risk assessments in this population may deem that patients are safe to mobilize independently when indeed they are not. Hand Grip Strength (HGS) measured by hand held dynamometry has been correlated to lower extremity strength and other measures of functional strength such as sit to stand tests. Detection of changes in strength may change the selection of fall prevention interventions such as assisted toileting.

**Purpose:** Describe existing gaps in current clinical assessments of HSCT patients relative to subjective evaluation of strength in fall prevention and make recommendations to improve safety outcomes for HSCT hospitalized patients.

**Methods:** In a large academic medical center transplanting approximately 320 myeloablative HSCTs annually, an assessment was made of fall prevention screening data for 45 patients. Charted assessments were evaluated for predictive concurrence with the incidence of actual strength measured by HGS.

**Findings:** Nurses subjective evaluation of strength recorded twice per day did not indicate weakness in the majority of the patients despite gradual declines in strength observed in daily HGS measurement. In addition, there were significant differences in strength between patients at baseline which was not captured in the FRAT.

**Conclusion:** Routine measurement of HGS may assist in identification of patients who are becoming weaker, thus leading to more targeted selection of fall prevention intervention.

### O-26

#### Development of a Framework for Assessing Quality of Cancer Care in General Cancer Patients

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Measuring and improving the quality of cancer care requires quality indicators that are reflective of the scope of cancer care, feasible to implement, and supported by experts

and evidence. We developed a conceptual framework, based on review of literature and expert inputs, to facilitate the development and implementation of quality indicators. The framework is also intended for use to guide quality improvement programs in the hospitals.

The quality framework describes five stages for developing quality indicators or assessing quality of cancer care: 1) population focus, 2) quality domains, 3) specific target areas, 4) criteria for the specified target area, and 5) quality indicators for each criterion. The framework focuses on the general cancer patients. Three major quality domains were identified in the framework: 1) patient needs, with target on physical and psychosocial needs; 2) patient safety, with targets on chemotherapy, radiotherapy, infection, and injury; 3) the workforce, with target on nursing. Through an agreed-upon process, nine evaluation criteria were identified including pain, mucositis, neutropenia, anxiety/depression, administration of chemotherapy, care of patient undergoing radiotherapy, catheter-related blood stream infection, fall prevention, suicide prevention, and staff capability. We applied the framework to reviewing the current state of cancer quality indicators development for each of domains, specific target areas and evaluation criteria. Finally thirty quality indicators were developed by using a modified Delphi method, including eleven indicators for patient needs, thirteen for patient safety, and six for workforce issue.

There are no published guidelines that we are aware of on the development of quality indicators in cancer care. By using this framework, we can continue to work toward building indicators that are acceptable, reflect changes in the environment and the evidence supporting them.

### O-27

#### Evaluating Complex Nursing Initiatives: CANO/ACIO's National Strategy for Chemotherapy Administration

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Complex nursing initiatives, such as the Canadian Association of Nurses in Oncology's (CANO/ACIO) National Strategy for Chemotherapy Administration (NSCA) require a thoughtful approach to evaluation to determine how it is being taken up by nurses and making a difference. The NSCA includes a national cancer chemotherapy administration and care position statement, standards and competencies for cancer chemotherapy nursing practice and an implementation toolkit to promote uptake. Traditional approaches to evaluation, such as clinical trials, do not take into account the dynamic and evolving health care system, the layering and synergistic effects of components of nursing initiatives,



or the social, political and historical context in which nursing initiatives such as the NSCA are enacted.

In this presentation we describe the development and implementation of a three-phased evaluation methodology designed to understand the impact of CANO/ACIO's NSCA. Using qualitative and quantitative measures, the evaluation methodology was designed to appreciate the regional, jurisdictional and contextual diversities associated with the practice of chemotherapy administration and care by oncology nurses. Data collection focused on utilization, feasibility, strengths and gaps, as well as recommendations for long term implementation of the NSCA. Findings included seven metathemes such as aspects of quality nursing indicators, marketing awareness of tools, establishing a community of practice, engaging high power stakeholders and standardizing education to maintain competencies.

Advantages, disadvantages, strengths and limitations of this approach to evaluation also will be discussed. It is anticipated that delegates will gain an appreciation for the complexity of evaluating nursing interventions, as well as some insights and practical strategies to use in their own settings in relation to evaluation of large nursing initiatives.

#### O-28

### A Qualitative Review of Cancer Websites From a Holistic Nursing Perspective

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**Background:** Most individuals newly diagnosed with cancer want information about their diagnosis and prefer to get it from their Health Care Providers (HCP). However, this is often challenging due to rushed clinic visits and limited accessibility to HCP. Many individuals now turn to the Internet to meet any shortfall in information. However, numerous studies have documented the questionable quality and relevance of much information on the Internet.

**Objective:** To determine the content of commonly viewed cancer websites from a holistic nursing perspective.

**Methods & Analysis:** Guided by Carper's patterns of knowing in nursing, a qualitative review of websites was conducted. 5 popular cancer websites were selected using a consensus-oriented search strategy, approximately 10 pages from each website were reviewed using qualitative content analysis.

**Findings:** Preliminary analysis demonstrated an abundance of cancer information of variable quality on all websites. All landing pages contained links to information about testing and diagnosis, treatment and daily life. Empiric information varied by website, with all providing sufficient information on physical and treatment-related information. Visually, elements of websites varied, and with breast/prostate cancer seemed tailored to gender. Some websites provided more information on ethically/personally challenging issues such as ending treatment and disclosing a diagnosis.

**Conclusions:** These findings generate discussion about the content and implications of commonly used websites from a holistic nursing perspective. Internet cancer information is readily available to individuals with cancer but even on the most popular sites, quality information is not a surety. HCP are well positioned to guide patients to high-quality sites to preemptively avoid exposure to questionable information. Future research should explore how the use of internet information informs patients' interactions with, and use of health services.

#### O-29

### Psychological States Among Cancer Patients, a Descriptive Cross-Sectional Study

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**Background:** Complexity of cancer prognosis results in various psychological problems in individuals with cancer. Majority suffers with distress while experiencing fear, anger, anxiety, mood disturbances as well as communication problems with family members. As the health care professionals focus mainly on the physical component of the cancer treatment, the attention for mental wellness of the patients is neglected to some extent.

**Objective:** To determine the psychological problems among cancer patients on treatment.

**Design:** This descriptive, cross-sectional study was carried out over six months, among 100 cancer patients who received treatment at Teaching Hospital, Batticaloa, Sri Lanka. Age and gender were not considered. The Patients who refused to participate and unable to speak or had altered conscious levels were excluded from the study. A validated, interviewer administered questionnaire was used to collect data from subjects. Data analysis was done using Statistical Package of Social Science (SPSS version 17).

**Results:** Among the patients 91 patients' age ranged from 40 to 69 years and 73 of the patients were females. Six main psychological problems we discovered among cancer patients; (1) 77 patients lost the interest in activities and tasks ( $r=0.363$ ,  $p=0.00$ ); (2) 71 were afraid of progression of the disease ( $r=0.160$ ,  $p=0.01$ ); (3) 73 had sleep problems ( $r=0.224$ ,  $p=0.00$ ); (4) Anxiety was increased in 63 patients ( $r=0.245$ ,  $p=0.00$ ); (5) 83 patients encountered feeling tired ( $r=0.167$ ,  $p=0.04$ ) and (6) 12 tried to isolate themselves ( $r=0.175$ ,  $p=0.00$ ).

**Conclusion:** The results of this study shows the cancer prevalence is high with age. Majority of the patients are females. Most frequently, the patients feel tired. More attention should be paid regarding the mental wellbeing of the patient by health care professionals and the relatives. Increasing the number of participants would give more accurate results. Gerontological considerations are important in caring elderly.

**O-30****Post-Curative Treatment Cancer Survivors had Lower Psychological Distress Than Non-Cancer Counterparts**

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**Background:** Studies have shown that patients with cancer showed high psychological distress during treatment. Experiences with cancer treatment may have long-term psychological impact on cancer survivors even after completion of the conventional anti-cancer treatment. The objectives of the study were to compare psychological distress among post-curative treatment cancer survivors and non-cancer counterparts and examine its' association with symptom distress.

**Methods:** We recruited 146 colorectal and breast cancer survivors who had completed the conventional curative treatment from a hospital's cancer registry database during 2009 to 2011 and 161 non-cancer individuals who received health examination at the same hospital in Taiwan. The two groups were frequency matched in distribution of age and sex. Face to face interviews were conducted with the participants during the period of December 2012 to March 2013 using structured questionnaires. Psychological distress was determined by Hospital Anxiety and Depression Scale using a cutoff score of 13. Symptom distress was measured by the Andersen Symptom Inventory-Taiwan Form.

**Results:** The non-cancer comparisons had a higher rate of psychological distress than cancer survivors (37.3% versus 16.4%,  $p < .001$ ). There were no significant differences in symptom distress between cancer and non-cancer groups. Logistic regression results showed that symptom distress was positively (OR=1.05, 95% CI: 1.04-1.07) while currently married were negatively (OR=0.40, 95% CI: 0.18-0.92) associated with psychological distress. The non-cancer comparisons revealed significantly higher risk for psychological distress than cancer survivors (OR=3.13, 95% CI: 1.61-6.06) after adjustment for socio-demographics, chronic disease, and symptom distress.

**Conclusion:** Cancer survivors revealed lower psychological distress than non-cancer counterparts. Cancer experiences may increase mental resilience and adaptive ability among survivors.

**O-31****The Trajectory of Symptoms, Distress and Quality of Life During Induction Chemotherapy in Adults Newly Diagnosed With Acute Myeloid Leukemia**

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Advancements in the treatment for adults with acute myeloid leukemia (AML) have improved and prolonged survival. However, these treatments are aggressive and associated with significant toxicity and symptoms, which are thought to negatively impact the patients' health-related quality of life (HQoL). Yet, there is limited research examining the multidimensional symptoms and HQoL during treatment in this population. The aim of this study was to examine the symptoms and HQoL during induction chemotherapy treatment in adults with a new diagnosis of AML. To accomplish this a longitudinal descriptive study evaluating symptoms, distress and HQoL was assessed in those receiving induction chemotherapy for AML. Participants completed the Memorial Symptom Assessment Scale, Functional Assessment Cancer Treatment-Leukemia, Distress Thermometer and numeric rating scale of depression and anxiety every two-weeks while hospitalized. Descriptive statistics were used to describe the data and mixed effects linear models were used to evaluate changes in symptoms and HQoL over time. A total of 19 participants with a new diagnosis of AML were included in this analysis. Moderate to severe levels of distress were present in 25-50% of participants depending on timing in treatment. Participants reported multiple physical and psychological symptoms that are both distressing and moderate to very severe throughout treatment. HQoL levels reported in this study were lower than levels found both in general population as well as in other cancer types. This study is the first to report longitudinal symptom and HQoL in adults with AML and illustrates that this population experiences multiple physical and psychological symptoms that are both distressing and moderate to severe during the induction treatment. Findings support the need for further investigation and the development of focused interventions to improve the physical and psychological symptom management needs during induction treatment.

**O-32****The Prevalence and Correlates of Symptom Distress and Quality of Life in Chinese Patients Undergoing Chemotherapy After Radical Esophagectomy**

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**Purpose:** The current study was designed to describe the symptom distress and quality of life in Chinese patients undergoing chemotherapy after radical esophagectomy and to identify influencing factors of symptom distress and the relationship between symptom distress and QoL.

**Methods:** The sample consisted of 102 esophageal cancer patients undergoing chemotherapy after radical esophagectomy from four different hospitals in Guangzhou. The patients completed Chinese versions of the MD Anderson Symptom



Inventory (MDASI, a measure of symptom distress), the Hospital Anxiety and Depression Scale (HADS), Medical Coping Modes Questionnaire (MCMQ) and Functional Assessment of Cancer Treatment-General (FACT-G, a measure of QOL). **Results:** The symptoms and symptom interference score of the patients in current research were 3.62 (SD 1.66) and 2.94 (SD 1.76) respectively. Occupation after ill, anxiety, types of surgery, whether chemotherapy is on schedule, and confrontation coping strategies were influencing factors of symptom distress. Patients non working after ill, with more serious anxiety, three incisions esophageal carcinoma resection, chemotherapy not on schedule and higher score of “confrontation coping strategies” had higher levels of symptom distress. And the total score of quality of life was 66.10 (SD 12.64), there was a negative relationship between the symptom distress and quality of life scores ( $r=-0.301$ ,  $P=0.002$ ). **Conclusion:** Esophageal cancer patients receiving chemotherapy suffer many limitations due to the symptoms distress and disruptions to their QoL. Esophageal cancer patients need to be assessed regularly and supported.

### O-33

#### Beliefs About Breast Cancer and Breast Cancer Screening Among Lebanese/Armenian Women

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Breast cancer is very common in Lebanon. Purpose: Describe beliefs related to breast cancer, breast cancer screening. Results will direct future educational programs. Design: Cross-sectional, descriptive, correlation study. Convenience sample: 94 women. Instrument: Adopted version, Champion's Revised Health Belief Model Scale. Analysis: SPSS (2005) version 15.0. Results: 64.8% participants over 41, 80.9%, 76.6% heard about BSE/mammography, 53.2% never practiced BSE, 79.6% never done mammography. Mean belief scores: susceptibility (14.32), barriers BSE (15.24), barriers mammography (14.85) seriousness (23.42), benefits BSE (22.7), confidence (36.45), health motivation (27.27), benefits mammography (24.28). Significant relationships: between barriers BSE and ever heard BSE ( $p=0.02$ ); susceptibility and ever heard/ever done mammography ( $p=0.027$ ); confidence/ever heard mammography ( $p=0.056$ ); confidence/perceived financial status ( $p=0.05$ ); benefits mammography scores ( $p=0.05$ ). Assess cultural beliefs; develop appropriate interventions.

### O-34

#### Impacting Cultural Attitudes and Religious Beliefs in Nigerian Women to Decrease Breast Cancer Mortality: Implication to Nursing

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**Background:** Breast cancer remains a disease of public health importance and concern in Nigeria in spite of reported efforts at providing interventions for its prevention, early diagnosis and treatment. Cultural factors and religious beliefs have been reported to influence screening practice in few studies carried out in developed countries. However, little is known about the role of cultural factors and religious beliefs in breast cancer screening, and treatment decisions among Nigerian women living with breast cancer. **Methods:** This pilot study included 150 women aged 30 and above from three major Nigerian tribes; namely Yoruba, Ibo and Hausa. The women were interviewed at the oncology clinics on the cultural factors and religious beliefs that influenced their breast cancer screening practices and treatment-seeking pathway after diagnosis of breast cancer. **Results:** Principal components factor analysis results suggested that a majority of the women believed they needed to combine prayers with medical treatment for cancer. We referred to this dimension as “religious intervention with scientific treatment”. Few of them believed that medical treatment was not necessary because only God can cure breast cancer. We labeled this dimension as “religious intervention in place of scientific treatment.”

**Conclusion:** Health professionals, especially community health nurses could work with faith-based organizations to promote breast health and to instill in women a belief that their faith can complement breast health and breast cancer treatment.

Findings from this study will serve as a launching pad for a larger community-based study, which will guide stakeholders to know what to change and the direction of the desired change.

### O-35

#### Peripherally Inserted Central Catheter-Associated Complications and Self-Care Agency for the First Month With PICC in Cancer Patients

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**Background:** Peripherally inserted central catheters (PICCs) are utilized increasingly in cancer patients. According to recent evidence, self-care agency has a significant effect on PICC-related complications. As a result, both the self-care agency and its influence factor should be studied to enhance patient safety. **Methods:** A cross-sectional study was conducted on consecutive cancer patients who underwent PICCs placement less than a month between 2013 and 2014. All PICC-related complications were confirmed by two vascular access experts. Exercise of Self-Care Agency Scale (ESCA) was used to measure self-care agency of cancer patients.

**Results:** A total of 160 patients were recruited, with a complication rate of 7.5%. Complications happened in the first month including wound weeping (2.5%), upper extremity swelling (1.88%), skin allergy (1.88%), and site infection (1.25%). The self-care agency was in the middle level with a total score of  $113.47 \pm 18.27$ . According to the multiple linear regression



analyses, it is suggested that the age, education and living place play an important role in self-care agency.

**Conclusions:** The self-care capacity of cancer patients with PICC can be improved among the people who are old, less educated, living-in-country. Additionally, the key observation points should be the puncture wound and upper extremity for patients with PICC in the first month.

### 0-37

#### Addressing Evidence-Practice Gaps in Lung Cancer: Using a Partnership Model

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**Background:** Implementation Science (Knowledge Translation) has emerged over the past 20 years to highlight the fundamental problem of knowledge about optimal care not being applied in real world settings. This presentation will describe an implementation science project in lung cancer.

**Methods:** A 'gap analysis' between existing knowledge and what happens in current practice across the lung cancer patient journey was completed. Data sources included clinical practice guidelines, systematic reviews and meta-analyses, research from peer reviewed publications. Data was reviewed and synthesised to create a list of evidence-practice gaps. The gaps were tested in three clinical settings in urban and regional cancer services in NSW, Australia. Health professionals completed a priority setting exercise, where they rated the relevance of gaps to the local context and agree on which gaps should first be addressed in their local setting.

**Results:** Seven evidence-practice gaps were identified across the patient journey (from initial presentation and diagnosis through to palliative care). These provided the basis for developing collaborative lung cancer specific research projects that engage clinicians and researchers. The analysis and outcomes of focus groups will be presented, along with a critical appraisal of the gap analysis methodology and show how this approach in lung cancer is relevant to other tumour groups and health conditions.

**Conclusion:** By drawing together and synthesizing data from multiple sources of evidence, identifying gaps and setting priorities with local health professionals, we believe we can address the goal of more rapidly translating evidence into practice. Consequently, researchers and clinicians work together to find ways to overcome barriers to incorporating interventions as part of standard care and contribute to implementing patient-centred care pathways.

### 0-38

#### Intervention Topical for Acute Radiodermatitis in Patients With Head and Neck Cancer: Systematic Review

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**Introduction:** Most patients with head and neck cancer undergoing radiotherapy have radiodermatitis. For prevention or treatment varied topical interventions has been used, but there is no consensus about the best intervention to be applied.

**Purpose:** Evaluate evidence available in the literature on what are the topical interventions used to prevent and treat acute radiodermatitis in patients with head and neck cancer undergoing radiotherapy.

**Methods:** Systematic review with search in electronic databases: PubMed / MEDLINE, CINAHL, LILACS, Cochrane Library and WEB OF SCIENCE, without restrictions on language and date of publication.

**Results:** The sample consisted of 23 studies that evaluated the use of products trolamine emulsion, sucralfate cream, non steroidal drugs, gentian violet, hydrogel dressing, aloe vera, hyaluronic acid cream, bepanthen cream, pantothenic acid, dead sea products, urea 3%, sandal wood oil, turmeric based cream, helium-neon laser, cortisone cream, anti-burning gel, polymeric membrane, ambiphilic dermatological cream, silver leaf dressing, Na-sucrose octasulfate and Mepilex Lite® dressing.

**Conclusion:** Most interventions addressed had beneficial results for the prevention and/or for the treatment of radiodermatitis, except the gentian violet. Regarding trolamine emulsion there is no consensus on their behalf.

### 0-39

#### Using a Web-Based Educational Program to Enhance Chinese Nurses Involvement in Tobacco Control

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China has the largest number of smokers in the world, with high prevalence of smoking among males (52.9%). Nurses, mostly non-smokers, if properly educated, could contribute to decreasing tobacco-related cancers morbidity and mortality. This project evaluated a web-based educational smoking cessation program on changes in the frequency of hospital-based nurses' interventions to help smokers quit, reduce exposure to secondhand smoke, and change attitudes about nurses' involvement in tobacco control in two cities in China.

**Methods:** prospective single group design with pre-, 3- and 6-month follow up after the web-based educational program

using a convenience sample of nurses from 8 hospitals Beijing and Hefei, using a reliable and valid questionnaire to assess nurses' frequency of interventions.

**Results:** 1,386 nurses (610 Hefei, 776 Beijing) had baseline, and/or 3 and 6 month data. Six-months post intervention, nurses were significantly more likely to usually/always Assess (OR 1.62 CI 1.33, 1.97), Assist (OR 1.45, CI 1.20, 1.76), Arrange (OR 1.61, CI 1.24, 2.09) for smoking cessation and recommend smokefree home environments (OR 2.07, CI 1.67, 2.55). Improvement in attitudes about nurses as smoke-free role models and helping smokers quit significantly improved ( $p < .001$ ).

**Conclusions:** Long-distance smoking cessation education for Chinese nurses is feasible. Nurses receiving web-based smoking cessation education significantly increased frequency of providing interventions to patients who smoke, including recommending creation of smokefree home environments to support quit attempts.

#### 0-40

##### Telephone Nursing Support Protocols for Managing Cancer Treatment-Related Symptoms: The Costars Implementation Study

Dawn Stacey<sup>2,4</sup> • Tracy L. Truant<sup>1</sup> • Meg Carley<sup>4</sup> • Doris Howell<sup>3</sup> • Greta G. Cummings<sup>5</sup> • for the Pan-Canadian Oncology Symptom Triage and Remote Support (COSTaRS) Team<sup>2</sup>, <sup>1</sup>School of Nursing, University of British Columbia, Vancouver, British Columbia, Canada, <sup>2</sup>School of Nursing, University of Ottawa, Ottawa, Ontario, Canada, <sup>3</sup>University Health Network, Toronto, Ontario, Canada, <sup>4</sup>Clinical Epidemiology Program, Ottawa Hospital Research Institute, Ottawa, Ontario, Canada, <sup>5</sup>Faculty of Nursing, University of Alberta, Edmonton, Alberta, Canada

**Background:** The pan-Canadian Oncology Symptom Triage and Remote Support (COSTaRS) team used the CAN-IMPLEMENT(c) methodology to develop 13 protocols on cancer treatment-related symptoms. Protocols were informed by clinical practice guidelines and formatted to narrow the know-do gap. The study aim was to build an effective and sustainable approach for implementing COSTaRS protocols for nurses providing telephone symptom support to cancer patients. **Methods:** A comparative case study with mixed-methods was guided by the Knowledge to Action Framework in 3 ambulatory oncology programs. Researcher-knowledge user teams: (a) assessed factors influencing nurses' use of protocols; (b) adapted protocols for local use; (c) intervened to address barriers; (d) evaluated protocol use; and (e) monitored changes in barriers. Analysis was within and across settings.

**Results:** At baseline, 50%, 39%, 3% nurses used protocols. Over 85% rated protocols positively but 20% indicated too complex. To overcome barriers, nurses were trained and received reinforcement sessions. Protocol adaptations included adding logos, documentation space, obtaining health records approval, creating pocket guides, and/or distributing with telephone messages. Twenty-two 30–60 minute

workshops with 107 nurses reached 90%, 85%, 97% of eligible nurses. Compared to pre-nurses post-training improved their confidence in supporting patients with symptom management ( $p < 0.01$ ) and using COSTaRS protocols ( $p < 0.01$ ). 94% nurses recommended the workshop. Protocol use identified by chart audit was 11%, 32%, 47% and self-reported as 79%, 67%, and 82%. Several barriers continued to interfere with protocol use.

**Conclusion:** Implementation of evidence-based protocols in nursing requires a systematic process. Interventions resulted in varied use of the protocols. Nurses were satisfied and felt more confident after attending training. Strategies are needed to address remaining barriers and support protocol use.

#### 0-41

##### Oncology Nurses' Attitudes Toward Systematic Symptom Assessment Using the Edmonton Symptom Assessment System (ESAS): Results From a Large Cancer Care Ontario Province-wide Study

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**Purpose:** Patients with cancer have a high symptom burden, and evidence suggests that the use of systematic symptom screening may be beneficial for patients. The purpose of this study was to examine the attitudes toward and perceived usage of ESAS among oncology nurses, who took part in a larger province-wide study including all cancer care professionals in oncology care settings.

**Methods:** An exploratory mixed methods study design was used. An electronic survey was sent to oncology nurses at the 14 Regional Cancer Centres across Ontario. Nurses' attitude and perceived usage of ESAS was measured using a 21-item investigator-developed questionnaire. Descriptive statistics and Kendal Tau b or c test were used for data analyses.

**Results:** A total of 353 surveys were returned and analyzed (35% response rate). Most oncology nurses had positive attitudes toward ESAS, with 85% of nurses viewing the ESAS tool as a useful starting point to assess patients' symptoms. Overall, 93% of nurses considered symptom management within their scope of clinical responsibilities. However, 32% of nurses indicated that ESAS might not sufficiently cover



the most common patient symptoms. Findings from statistical analyses revealed that oncology nurses with over 10 years of experience were more likely to view: (i) the use of standardized instruments as “best practice” ( $p=0.049$ ), (ii) ESAS improves symptom screening ( $p=0.013$ ), and (iii) ESAS enables them to better manage patients’ symptoms ( $p=0.014$ ). There was no statistically significant difference between certified RNs and RNs on attitudes or perceived usage of ESAS. Qualitative responses revealed some misperceptions about the use of a standardized screening tool.

**Conclusions:** Although nurses are screening for distress, more work is needed in the practice environments. Future research needs to explore and provide strategies to enhance person-centred symptom management and the evaluation thereof.

#### 0-42

##### **A Single Centre, Retrospective 5 Year Service Evaluation: Parenteral Nutrition in Haematology & Oncology Patients**

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Cancer patients are known to experience many obstacles preventing them maintaining an adequate nutritional intake. Weight loss and malnutrition can negatively impact quality of life, length of hospital stays and survival (1). The use of parenteral nutrition (PN) in oncology patients (especially in the home setting) is still a developing area in the UK despite research showing that it is safe and effective (2). A service evaluation at our centre was prompted by perceived increases in oncology referrals for PN and especially home PN (HPN).

Retrospective data was collected from PN logs, dietetic and electronic records for all adult oncology and haematology patients who received PN between April 2009 and March 2014 including: diagnosis, indication for PN, length of time on PN, HPN set-up time, date and reason for HPN cessation.

The use of both hospital PN and HPN has double; the average number of days on PN decreased from 17–14; the shortest HPN set-up was 8 days with an average of 14 days; gynae-oncology patients accounted for the majority of HPN patients (61%); palliative patients accounted for 80% of HPN patients.

Increases in patients receiving treatment at our centre maybe one reason behind the rising use of PN and HPN however it can also be attributable to:

- \*overcoming perceived barriers
- \*observed positive outcomes from preceding patients
- \*greater understanding of nutrition by medical teams
- \*improved involvement of the oncology dietitian
- \*increasing experience of our PN team
- \*use of a feeding issues multi-disciplinary team meeting which allows experts to examine the case, initiate and expedite plans
- greater acceptance to commence patients with shorter life-expectancy

Communications between numerous teams has been essential for effective and efficient PN with the benefits to the patient at the forefront of decision making.

#### 0-43

##### **Experience in Developing Bundled Evidence-Based Clinical Nursing Path FPR Patients With Radiotherapy-Induced Oral Mucositis**

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Radiotherapy-induced oral mucositis (RIOM) is commonly among patients accepted head and neck radiotherapy, which can seriously affect the patients’ quality of life. But there isn’t any unified standard guiding the clinical work for nurses to offer the best care for patients with RIOM in China. This article have introduced the experience in developing a bundled evidence-based clinical nursing path for patients with RIOM at oncology department in a large comprehensive hospital of Hubei Province in China, to promote the development of nursing profession. We firstly organized a professional group including doctors, nurses and nursing postgraduates, then we searched and judged the latest evidence about nursing for RIOM followed by formulating the practice handbook to guide the clinical work of nurses. At the same time we evaluated the process and the outcome of the practice. In the practice, our group developed the nursing path for patients with RIOM, including prevention and assessment of RIOM, oral care, oral pain management and nutrition management for RIOM patients, and some other comprehensive interventions. Before putting it in practice, we judged the reliability and practicability of the nursing path and trained the nurses in clinics. When applying the nursing path into busy clinical work, the process didn’t go quite well at the beginning for the following reasons. Firstly, the new work mode and evidence-based concept was not completely understood or accepted by the nurses. Secondly, this kind of work needed more time to educate the patients, to assess and to offer caring, while the truth was giving infusion took most of the nurses’ time in clinics. Though the project didn’t go smoothly at the beginning, the feedback from and the outcome of the patients were good. In order to conduct this kind of practice, the knowledge basics and the acceptance to a new work mode of the nurses, as well as the extra work load added to the nurses should be taken into consideration.

#### 0-44

##### **Keeping Things Moving: The Development of Patient Guidelines for the Management of Chemotherapy Associated Constipation**

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Mercy Cancer Care (MCC) is a private Oncology Unit based in Dunedin, New Zealand that opened in April 2011. This paper describes a project emerging from patient feedback leading to an improvement in the prevention and treatment of chemotherapy related constipation.

One of the initial set-up processes in the new service was the establishment of 24 hour cell phone contact to enable patients to contact clinical staff for advice at any time. A review of the cell phone log in August 2013 indicated that constipation had been a major reason for patient contact.

MCC oncologists routinely prescribed the normal medications required as part of the chemotherapy protocol, but laxatives were not automatically prescribed. A body of literature describes distress, an effect on quality of life and self-esteem and on-going medical problems as issues for Oncology patients.

Routine antiemetic regimens for nausea can themselves lead to constipation. The MCC team realised that education, lifestyle advice and pharmacology could all go some way to minimising the effects and distress of constipation.

A literature search on the management of constipation in oncology patients was made. Bench marking with other private Oncology Units allowed a comparison to be made of models used including collaboration with the Clinical Pharmacist, Oncologists and Dietician. This culminated in the development of an algorithm for the management of constipation for patients.

Research suggests that retention of verbal instructions during initial interactions with Oncology staff is poor, due to information overload, anxiety and stress.

The implementation of the new algorithm commenced in November 2014. A review of the phone log two months after project implementation has shown a reduction in the number of constipation related calls. This project has involved simple improvements that responded to issues of concern patients raised by fostering their control of a distressing side effect of chemotherapy treatment.

#### 0-45 Peer Navigation for Womens Cancers - The Newfoundland and Labrador Experience

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**Purpose:** This project aimed to meet a widespread need expressed by women with cancer and at risk for developing cancer for more and better support and information. Women have been asking for improved access to current information on early detection, cancer risk and risk reduction, cancer treatment, and support services. While much information and support exists, it is often limited to major cities and large population bases, leaving rural and remote citizens underserved. A Peer Navigation Program, situated in rural and remote communities in Newfoundland and Labrador was devised to offer information and support.

The purpose of Peer Navigation is to advocate and enhance at the community level, accessibility to information, support and education for women with women's cancers.

**Method:** This project developed the following tools: training manual, resource manual and a documentation binder. This project trained peer navigators suited to meet the needs of the largely rural and Aboriginal communities in Newfoundland and Labrador. Women who are leaders in their communities were supported to take on leadership roles in providing timely information and support regarding women's cancers.

Working with community groups and the health care team the Peer Navigator raises awareness about ways to make services more accessible and supports women through the cancer care system.

**Conclusions:** The evaluation was participatory and focused on both process and outcomes. The evaluation of the project, included interviews, a focus group, review of documents and exit surveys. The project was published in *Journal of Cancer Education*, March 2013. 'Moving the Agenda Forward for Cancer Patient Navigation: Understanding Volunteer & Peer Navigator Approaches.' The resources developed during this project are being promoted by Public Health Agency of Canada to inform health literacy activities, programs and policies.

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Canadian Breast Cancer Foundation Atlantic

#### 0-47 The Effect of the Online Support Caring Application for Quality of Life of Breast Cancer Survivors

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**Background:** Diagnosis of breast cancer as well as wide variety of treatments causes the different responses of physical, psychological, social, and spiritual on the survivors. Social and information support are important needs for breast cancer survivors on each phase of disease and treatments. In line with technological developments caring support can be presented in some variety of ways such as through online media that managed by nurses.

**Purpose:** To identify the effect of the online support caring application for quality of life of breast cancer survivors.

**Method:** This research is a quasi-experiment with two group pretest-posttest designs. Respondents are consisting of 40 breast cancer survivors in West Java Province in Indonesia acquired through a non-probability technique of purposive sampling and divided into a control group (n = 20) and an intervention group (n = 20). The online support caring application developed from some variety of sources and made in audio-visual form and uploaded by premeditated schedule. Quality of life was measured using the Health-Related Quality of Life - Linear Analogue Self-Assessment (HRQOL-LASA).



Data were analyzed using the Wilcoxon test and Mann-Whitney test.

**Results:** Pretest showed a quality of life respondents with a median value 35 (60 in range) of for both groups. There was no difference in the quality of life of respondents in both groups before the intervention ( $p > 0.05$ ). There were differences in quality of life before and after intervention in the intervention group ( $p = 0.001$ ) and there were a significant differences in quality of life between the two groups ( $p = 0.000$ ) on the posttest results.

**Discussions:** Caring support on breast cancer survivors can be met by a nurses with some variety ways.

**Conclusion:** The online support caring application may be an alternative intervention to improve the quality of life of breast cancer survivors.

**Key words:** Online support caring application, quality of life, breast cancer

#### 0-48

##### Effects of a Robotic Prostate Cancer Pre-Surgical Video on Anxiety and Knowledge Retention

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**Problem:** Malignant neoplasm of the prostate is a common diagnosis. Surgical candidates meet with a urologic cancer surgeon regarding the diagnosis. Despite providing education, it is common for patients to be unprepared post-operatively. Several problems exist: Anxiety from lack of understanding and lack of knowledge retention of pre-surgical teaching. Unfortunately these problems can effect outcomes and require re-education, which can significantly impact provider time.

**Aims:** This quality improvement project (QIP) evaluated the effect of video education on: Knowledge retention, pre-surgical anxiety, patient satisfaction, and provider time.

**Method:** This QIP included a pre/posttest design of 31 surgical patients. Patients received the usual care and a video disc. The Pre-Operative Education Evaluation Tool was used for measurement pre video, post video and at follow-up (F/U).

**Results:** Knowledge retention measures improved pre-video vs. post and F/U. Exercises ( $\text{Chi} = 32.904$ ,  $p = .001$ , F/U  $\text{Chi} = 48.360$ ,  $p < .001$ ), exercise initiation ( $\text{Chi} = 16.672$ ,  $p < .001$ ), blood work ( $\text{Chi} = 5.088$ ,  $p = .024$ ), and diet ( $\text{Chi} = 11.807$ ,  $p = .001$ , F/U  $\text{Chi} = 20.296$ ,  $p < .001$ ). Medication answers were incorrect but improved over time (F/U  $\text{Chi} = 12.474$ ,  $p = .002$ ). Questions of *worry* were not statistically significant; however, there was clinical significance as patients reported less worry over time. Pre-video, 21/31 patients reported that their questions were *answered satisfactorily* while post video, and F/U this increased to 30/31 ( $\text{Chi} = 8.952$ ,  $p = .003$ ). Satisfaction improved after watching the video ( $\text{Chi} = 15.343$ ,  $p < .001$ ). 90.3% of patients agreed

that they were satisfied with video education and learned new information. The average F/U appointment was 23.8 minute vs. 30 minute norm.

**Conclusion:** Consistent with current literature, the findings of this QIP demonstrated that video education improves knowledge retention, impacted anxiety and patient satisfaction, and it saved provider time.

#### 0-49

##### A Randomized Controlled Trial (RCT) of a Nurse-Led Supportive Care Package (Survivorcare) for Survivors of Colorectal Cancer

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**Background:** Colorectal cancer (CRC) and its treatments can cause distressing long-term side effects and significant functional consequences. Current models of follow-up fail to address these issues. We conducted a multi-center RCT of an innovative program (SurvivorCare (SC)); designed to have a beneficial effect on psychological distress, supportive care needs (SCN) and quality of life (QOL).

**Methods:** At the end of active treatment for stage I-III CRC, eligible patients ( $\geq 18$  years, adequate English) were randomized 1:1 to usual care (UC) or to UC+SC. SC comprised educational materials, an individualized survivorship care plan, nurse-led end-of-treatment session and 3 follow up (FU) phone calls. Distress (BSI-18), SCN (CaSUN) and QOL (EORTC QLQ-C30, CR29) were assessed at baseline, 2 (FU1) and 6 (FU2) months. Primary hypothesis: SC would have a beneficial effect on distress at FU1. Secondary hypotheses: SC would have a beneficial effect on (1) SCN and QOL at FU1; and (2) distress, SCN and QOL at FU2. 15 items assessed satisfaction with survivorship care. Sample size of 180 (90/arm) was based on 80% power, 2-sided alpha of 0.05, to detect a between groups difference of 3.6 on BSI-18 at FU1. Outcome analysis was ITT.

**Results:** Of 221 patients randomized (111 UC, 110 SC), 4 were ineligible and 1 lost to FU, leaving 110 UC, 106 SC. Groups appeared well balanced. Median age was 64, 52% male, 56% colon, 35% rectal cancer, 10% overlap. Stage I 7%,





II 22%, III 71%. Intervention fidelity was acceptable. Baseline distress and QOL were similar to population norms. Between groups differences in distress at FU1 (primary outcome), distress at FU2 and SCN and QOL at FU1 and FU2 were small and non-significant. SC patients were more satisfied with survivorship care than UC patients (significant differences on 10 of 15 items).

**Conclusions:** The addition of SC to UC did not have a beneficial effect on distress, SCN or QOL outcomes but SC patients were more satisfied with survivorship care.

## 0-50

### **Similarities in Symptom Experience in Older Posttreatment Survivors of Prostate, Breast, and Colorectal Cancer: A Report From the American Cancer Society Study of Cancer Survivors**

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**Background:** With increasing numbers of older cancer survivors, a need for evidence specific to this vulnerable group and their unique needs exists. Prior studies have linked ongoing symptoms to poorer outcomes. The purpose of this study was to describe symptoms of older survivors, and examine similarities and differences across cancer type (breast, prostate, colorectal) and cohorts (2, 5, and 10 year).

**Methods:** Survivors of breast (N=759), prostate (N=1184), and colorectal (N=908) cancer age 70+ were selected from the population-based American Cancer Society Study of Cancer Survivors II database. The 30-item modified Rotterdam Symptom Checklist measured symptom bother. Descriptive analyses and comparisons between cancer type and length of survivorship cohorts were conducted. Factor analysis examined related symptoms.

**Results:** Mean age (breast=77.4; prostate=77.3; colorectal=78), number of comorbidities (2.3; 1.8; and 2.1 respectively), and percent white (80.9%; 78.8%; and 83% respectively) were similar across diagnoses. The 8 most frequently reported symptoms were similar across diagnoses. Tiredness (73.5-82.6%) and lack of energy (64.4-71.4%) were reported most frequently in all 3 cancer types. Other top 5 symptoms included low back pain, sore muscles, difficulty sleeping, and decreased sexual interest. Minimal differences existed across 2, 5, and 10 year cohorts. A 4-factor solution accounted for 49% of the variance.

**Discussion/Implications:** Ongoing symptoms have been associated with poor physical function, an important outcome for older survivors. Oncology nurses and other healthcare professionals need to be aware of common symptoms that occur across common cancer types and persist throughout survivorship. Models of survivorship care have generally been diagnosis-specific. These data suggest commonalities that may infer a general approach to posttreatment survivorship

care may meet survivor needs and decrease costs of providing multiple survivorship clinics.

## 0-51

### **When Cancer is not a One-Time Deal: The Lived Experience of Having Multiple Primary Cancers**

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Approximately one in two people will develop some form of cancer, and some will live long enough to be diagnosed with multiple primary cancers. There is some indication that multiple primary cancer diagnoses negatively impact survivors' mental and physical status, and quality of life. Existing research studies do not fully capture the complexity of what it is like to have multiple primary cancer diagnoses. Accordingly, a qualitative study was conducted to elicit detailed descriptions of the lived experiences of having multiple primary cancer diagnoses. Participants were 14 individuals from Atlantic Canada with a history of two or more primary cancer diagnoses. Data were captured through semi-structured interviews and participant-generated photographs. Interviews were transcribed and reviewed for common meanings. The essence of having multiple primary cancer diagnoses is that cancer is not a one-time deal. For these participants, cancer is an "unwanted encore"; it is not something in demand or wanted, but it frames a part of their life. Three themes communicate the essence of this experience: (1) from backdrop to center stage, (2) it's familiar but different, and (3) feeling blessed. This study yields findings that can provide empirically-based guidance to healthcare providers to help support cancer survivors in a more holistic way throughout the extended continuum of care and ultimately improve the health of individuals who have had multiple primary cancer diagnoses.

## 0-52

### **Exploring the Discrepancy Between Objective and Subjective Cognitive Function in Adult Survivors With Primary Brain Tumors**

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**Significance:** Medical advances have increased survival for primary brain tumor (PBT) patients, emphasizing the need for surveillance of late treatment effects. Survivors frequently report cognitive complaints, yet in many, neuropsychological testing yields few objective concerns. Thus, the aim of this research was to explore the relationship between objective cognitive performance (OCP) and subjective cognitive function (SCF) in 40 adult PBT survivors. Identifying factors explaining the discrepancy between OCP and SCR may advance intervention development.



**Methods:** Eligibility requirements included MMSE  $\geq$  24, completed PBT treatment, PBT stability. Study included OCP and SCF testing, demographic, symptom assessments. Cognitive reserve (CR) was measured by premorbid intelligence, education and occupation. Descriptive statistics, plots, correlations, chi-square, ANOVA were used to examine data.

**Results:** The study sample (n=40) averaged 50 years old (SD 9.7), had high-grade PBT (n=35), was at least 1 year from completion of treatment, 1.3-2.5 years since diagnosis, and included 22 women. OCP impairment included executive control 25%, memory 35%, attention 30%. 60% subjects reported SCF changes in attention and memory. Neither age, time since diagnosis, or tumor/treatment-specific variables were associated with OCP or SRCF scores. A scatterplot of OCP/SRCF scores revealed that subjects with higher CR had congruent OCP/SRCF scores and reported less impact of PBT-specific symptoms on quality of life; those with lower CR tended to have incongruent OCP/SRCF scores, more severe symptoms impacting quality of life, and more depressive symptoms.

**Conclusions:** Generally, those with lower CR had greater cognitive impairment and reported presence of more symptoms. Those with higher CR were more likely to have congruent cognitive function and report less symptoms. These determinations may be useful to identify cognitive risk prior to treatment for early intervention management.

**Conclusions:** the evidence was insufficient to affirm about the effectiveness of traditional acupuncture compared to sham treatment. It is suggested performing such other randomized clinical trials on a large scale and longitudinal to also check the long-term outcomes.

#### 0-57

### Discussed the Clinical Significance of Death Education in Patients With Advanced Cancer

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**Objective:** In order to reduce the patient's fear of death and to establish a correct outlook on life and death, helping the dying patients with quiet, comfort, dignity and without regrets take the final journey of life thus can promote the development of the undertakings of Hospice Care, the clinical significance of conducting death education for patients with advanced cancer will be investigated.

**Methods:** Make a collection of 130 cases of patients with stage III and IV cancer as a study object, which has been proved by pathological confirmed in our hospital from October 2011 to October 2012. It is randomly divided into the control group and the intervention group (n = 65). The control group takes regular health education. And the intervention group increase the content of death education to observe the these two groups of patients' attitudes to death and the meaning of death education.

**Results:** Two groups of contrast significant difference in death attitude and the choice of the time of death ( $P < 0.05$ ). When they thought of death, both of the two groups of patients have the fear of death and the avoidance of psychological.

**Conclusion:** Making the death education through in health education, from lectures, health guidance, panel discussions and in sermons and other forms, the advanced cancer patients will understand death related knowledge, awareness of that death is a natural stage of life, enhance the psychological bearing ability of death, correctly facing the life objective law, alleviate the fear and uneasy to death, more cherish life, more cherish health, more cherish the limited time of life and peacefully, comfortably, with dignity and without regret to walk the final journey of life as far as possible. At the same time in order to play a multiplier effect, the death education should pay attention to the propaganda of culture medium, such as movies, books and periodicals, and the dissemination and promotion of mass media.

#### 0-54

### Traditional Chinese Acupuncture Versus Sham Acupuncture in the Treatment of Hot Flashes in Menopausal Women With Breast Cancer: A Systematic Review

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**Objective:** to identify and to synthesize the evidence from randomized controlled trials that tested the effectiveness of traditional Chinese acupuncture in relation to sham acupuncture for the treatment of hot flashes in women with breast cancer in menopause.

**Method:** Systematic review of literature guided by the recommendations of the Cochrane Collaboration. The search was performed in: Pubmed, Web of Science, Central Cochrane Cinahl and Lilacs databases. We use the combination of key terms: breast neoplasm, acupuncture, acupuncture therapy, acupuncture points, placebos, sham treatment, hot flashes, hot flashes, menopause, climacteric, vasomotor symptoms.

**Results:** 272 primary studies were identified, of which 5 were selected and analyzed. Slight superiority of traditional acupuncture compared to placebo was observed, but without strong statistical associations.

#### 0-59

### A Metasynthesis of Qualitative Research With Bereaved Family Caregivers of Cancer Patients

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**Purpose and Background:** Family caregivers are relied upon during end of life care, but are often left with little support. There are more than 1 million family caregivers in Canada, many of which will become bereaved following the care of a loved one with terminal cancer. A significant gap exists in end of life policy, supports and services for this population. A team of international researchers, clinicians, and policy-makers conducted a metasynthesis of qualitative research. The **purpose** of this metasynthesis was to explore the experiences of bereaved family caregivers of cancer patients who had received palliative care and to synthesize the findings.

**Methods:** Sandelowski and Barroso's metasynthesis procedures were followed. A search of data bases was completed using the inclusion criteria of: a) studies on the experiences of bereaved family caregivers (all genders, age 18 and older) providing end of life care, b) care was provided to cancer patients, c) studies published in English in any country, d) published and unpublished studies (such as theses), e) qualitative and mixed methods designs, and f) dated between 1990 and 2014.

**Results:** Of the 2376 titles retrieved, 1284 were screened after doubles removed and 53 studies met the inclusion criteria A. Of the 53 studies, 17 met the inclusion criteria b) for the final sample. Themes emerging include a life-changing experience, finding balance while feeling distressed, questioning decisions that were made on behalf of the dying patient long after death ultimately affecting bereavement and caregiver health, and a need to seek support during this difficult time. Findings provide insight into an experience of overwhelming grief, recovering from the stress of caregiving, and the vital importance of support as key to finding new meaning and purpose in bereavement.

**Conclusions:** These results provide the evidence needed to improve practice and policy to support family caregivers of cancer patients who are bereaved.

## 0-60

### Development of A Decision Support Guide For Family Palliative Caregivers: Moving Evidence Into Practice

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Much of palliative care rests on family caregivers. They are essential and integral team members. While most family palliative caregivers willingly take on the role, they do not know what they are agreeing to do and are hampered by lack of preparation, information, and support along the way. Their health suffers as a result of the caregiving demands and their deep commitment to providing care.

The purpose of this multi-phase, knowledge-to-action study was to develop an innovative decision guide for family palliative caregivers that serves both educational and decision support functions. The aim of the guide is to enhance communication between family palliative caregivers and health professionals and to engage family caregivers in planning for potential changes in care demands.

The mixed-methods approach included: review of evidence to identify family palliative caregiver needs and, since caregiving involves a series of decisions that may change with care demands, adaptation of the internationally recognized patient decision aid development process. Sequential iterations of the guide were reviewed by team members with expertise in palliative research and care with families. The guide was further modified following focus groups with bereaved family palliative caregivers (n=14) who provided feedback regarding clarity, completeness, usefulness and formatting.

This resulted in a guide that was pilot-tested and evaluated for applicability and understandability with current family palliative caregivers (n=8) via cognitive interviewing. Further revisions were made and the guide is being implemented in practice in both an urban and rural context with support from palliative nurses and hospice volunteers to determine best implementation guidelines for differing settings.

In conclusion, the tool will be presented; the process of effectively translating evidence into practice will be explained; and, implementation strategies to enable maximal uptake will be reviewed.

## 0-61

### Correlation Between Oncology Nurses Psychological Contract, Professional Identity Level and Turnover Intention

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**Background:** In recent years, facing the rapidly changing condition of cancer patients and hard work, some oncology nurses have turnover intention and a tendency of instability in oncology nurses is generated. As a psychology link between nurses and nursing managers, nurses' psychological contract, is an important factors that affect nurses' behavior and attitude. This study aims to investigate present situation of oncology nurses' psychological contract, provide scientific basis for nursing managers, improve the oncology nurses' professional identity level and reduce the turnover rate, eventually strengthen the development of oncology nursing.

**Objective:** To determine the correlation between cancer nurses' psychological contract, professional identity level and turnover intention.

**Methods:** 270 nurses in Tianjin Cancer Hospital were recruited and investigated with the psychological contract scale, professional identity rating scale and turnover intention scale. The relationship between the three was analyzed.



**Results:** Among all factors of psychological contract of oncology nurses, the factor score of hospital responsibility was higher than the score of nurses' responsibility and the difference was statistical ( $P < 0.05$ ); the score of professional identity scale was  $104.54 \pm 17.63$ ; the score of turnover intention scale was  $16.54 \pm 3.14$ ; 59.4% of nurses' turnover intention was stronger; the correlation analysis showed that oncology nurses' psychological contract and professional identity into significant negative correlation; and turnover intention into significantly positive correlation ( $P < 0.05$ ).

**Conclusion:** Nursing managers should pay attention to the psychological contract of oncology nurses, take corresponding measures to improve the nurses' psychological contract, professional identity, reduce the nurse turnover intention.

**Key words:** oncology nurses, psychological contract, professional identity, turnover intention

## 0-62

### Nurse Shift Work: A Systematic Review

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**Aim:** To analyze nurse shift work articles published during the last 10 years to summarize health issues associated with shift work, identify nurse and patient safety risks related to shift work, and to identify strategies to reduce health risks and improve quality of life and patient care.

**Design:** A systematic review of the literature.

**Method:** An electronic literature search for "Nurse Shift Work" was conducted using the Pubmed, CINAHL and Health Source: Nursing/Academic Edition databases. Inclusion criteria used was English language, full text available articles, and published dates between January 1, 2004 and December 31 2014. Abstracts for the 1019 articles identified were reviewed for relevance, resulting in a total of 169 articles being selected for inclusion.

**Results:** Shift work literature focused on three main areas: length of shift, rotation of shifts, and night shift. Identified health risk factors related to rotating shift work and night shift work included increased incidents of sleep disorders, fatigue, breast cancer, cardiac disorders, bone density reduction, infertility and hormone disorders. Increased shift length was associated with more nursing errors and negative patient outcomes. Rotating shifts was associated more with sleep disturbances. Strategies for dealing with shift work included allowing napping on night shift, stability of continued shift work without rotations, considering "night and day" preferences for shift selection, auctioning off shifts, self-scheduling for shifts and strategies to improve sleep.

**Relevance:** The review revealed that the negative effects of nurse shift work are almost universal. Studies were reviewed from 17 countries. Repeated themes of sleep deprivation, fatigue and negative quality of life for rotational night shift workers were discovered. The struggle to maintain a balance

between work and family is a common theme. Strategies are needed to improve nurse quality of life and retention.

## 0-64

### Compassion Fatigue: Assisting Nurses to Manage Grief and Loss

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Nurses in oncology care for patients who often become terminally ill. Regardless of years of experience or level of training, nurses can experience profound impacts, including grief reactions. Our Institute designed a course to assist nurses in managing grief and loss. Content include information on the types of grief experiences; self-assessment tools to recognize indicators signaling difficulties and strategies in self-care and work-place supports. The course was delivered by a combination of didactic workshop and real time videoconference sessions. Participants also joined the online components of the course including i) access to virtual library readings; ii) participating in discussion forums using clinical scenarios to facilitate reflection; iii) completion of a self-assessment on grief reaction using a validated tool; and iv) Construction of a personal plan.

**Results:** 185 nurses participated in the course. More than 35% of nurses experienced 10–29 deaths/year and 26% of them scored high on a grief inventory, indicating a level consistent with that warranting intervention. Nurses reported little opportunity for sharing of experiences or strategies to help them manage grief and address compassion fatigue. Pre and post measures demonstrated significant improvements ( $p < 0.05$ ) in knowledge on the prevalence and severity of grief reactions, assessment tools, theories of grief, predictors associated with difficulties in coping with loss, strategies to manage impacts, and recognition of work-related barriers/enablers. Self-reported confidence in personal management of grief and loss also improved ( $p < 0.05$ ). All participants completed a work plan with strategies relevant to their self-care and/or work environment.

**Conclusions:** A short term educational intervention can increase knowledge on grief impacts and enable the development of self-care plan and work place support. The implication of such intervention as a strategy to reduce compassion fatigue will be discussed.

## 0-65

### Using Theory to Inform Nursing Research

Máirín O'Mahony, School of Nursing & Midwifery, University College Cork, Cork, Ireland

**Background:** Breast cancer continues to be a major public health problem globally (Siegal 2013; World Health Organisation 2014). Current emphasis is on early detection and

treatment. Early diagnosis of symptomatic cancer is linked to longer survival and more favourable outcomes for women (Richards 1999; Richards 2009). In relation to breast cancer, this is dependent on prompt help seeking in the event of breast symptom discovery.

Review of the literature highlighted that much research was carried out on women's intentions to seek help following breast symptom discovery. In addition, most of these studies utilised samples of asymptomatic women and focused on a limited number of variables. An holistic perspective of women's Help Seeking Behaviour (HSB) appeared to be absent. A study to explore women's HSB following self-discovery of a breast symptom, was proposed.

**Methodology:** The study was guided by the Judgement to Delay Model (J-Delay Model) (Facione et al., 2002) and the Common-Sense Model of Self-Regulation (Leventhal, et al., 2003). These models, together with findings from the literature were amalgamated to form the "Help seeking behaviour and associated influencing factors" conceptual model. This model was then used to inform the design and methods of the proposed study.

A descriptive correlational design was used. Following ethical approval, data were collected from women (n=449) attending the breast clinics of two large urban hospitals. A questionnaire package, focusing on the key issues outlined in the conceptual framework was utilised. Data were analysed using descriptive and inferential statistics.

**Focus of Presentation:** This presentation will demonstrate how theory can be utilised to guide nursing research in a practical and user friendly way. The key elements of the models, how they were adapted, developed and applied to the above study will be described. Key findings of the study and their implications for evidence based practice will also be discussed.

## 0-67

### **Serious Fun: Participatory Research With Children, Challenges and Solutions When Used in Health Care Settings**

Faith Gibson, Centre for Outcomes and Experience Research in Children's Health, Illness, and Disability, Great Ormond Street Hospital for Children, London, United Kingdom

**Background:** Research with children and young people frequently involves the use of one or multiple types of visual methods. Visual methods, and in particular those involving creative or arts-based approaches, have gained popularity because in theory they make participating in research an enjoyable experience, facilitate communication by enabling young participants to express their ideas in non-verbal ways, and allow the researcher to gain new insight into their everyday lives. This presentation draws on 3 studies to best illuminate some of the methodological challenges and suggests strategies when using these approaches.

**Methods:** Photo-elicitation was used to explore what it was like when eating was difficult when receiving chemotherapy, where photographs and scrapbooks enabled children

as young as 4 years to tell us about their experiences. Play and modelling was used when developing Bloodquest, an interactive distraction 'tool' used during venepuncture. In our study to evaluate a massage service, we used play and symptom sort cards, to understand more fully the benefits of receiving massage.

**Conclusion:** There are no bounds to our imagination, and published work encourages us to be creative in how we maximize our knowledge of children, as actors in their own lives, but there is a need to individualise and contextualize participatory approaches to make them successful.

## 0-68

### **Validity and Reliability Analysis of the Planned Behaviour Theory Scale Related to the Testicular Self-Examination in Turkish Context**

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This study aims at determining the validity and reliability levels of the planned behaviour theory scale related to the testicular self-examination (TSE) developed by McClenahan et. al. The study was carried out in a health profession higher school in Ankara, Turkey, from April and June 2012. The participants of the study were 215 male students. The data of the study were collected by using questionnaire, planned behaviour theory scale related to the testicular self-examination and Champion's Health Belief Model Scale. The sub-dimensions of the planned behaviour theory scale, namely those of intention, attitude, subjective norms and self-efficacy, were found to have the Cronbach's alpha values between 0.81 and 0.89. The exploratory factor analysis showed that the items of the scale have five factors which accounted for 75% of the variance. Of them, the sub-dimension of intention was found to have the highest level of contribution (33%). A significant correlation was found between the sub-dimensions of the TSE planned behaviour theory scale and those of the Champion's Health Belief Model Scale ( $p < 0.05$ ). The findings of the study suggest that the Turkish version of the TSE Planned Behaviour Theory Scale is a valid and reliable measurement for Turkish society.

**Key Words:** testicular cancer, testicular self examination, planned behaviour theory

## 0-69

### **The Relationship of Nurse Characteristics, Unit Culture, and Hospital to Evidence-Based Pain Management Practice at Two Inpatient Oncology Units**

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**Background:** Sustaining evidence-based pain management practices can be challenging. Understanding predictors of pain management practices will inform strategies for sustaining successful pain management.

**Aim:** To explore predictors (nurse characteristics, unit culture, and hospital) of evidence-based pain management practices using a hierarchical linear modeling (HLM) approach.

**Methods:** The descriptive cross-sectional study was conducted on two inpatient units at two medical centers (one academic and one community) in the Pacific Northwest (USA). RNs who cared for patients with cancer pain ( $n=40$ ) completed a demographic questionnaire (academic degree, years of nursing practice, oncology nursing certification), EBP Beliefs Scale, EBP Implementation Scale, and the Carlson's Prior Conditions Instruments (perceived pain management implementation, perceived self-innovativeness, unit culture). Pain management medical record documentation ( $n=2-16$  per nurse) was evaluated using the modified Cancer Pain Index that measured 13 evidence-based pain management practice indicators. Questionnaire and medical record documentation data were used to develop a mixed-effect model by HLM.

**Results:** Hospital was the only significant predictor for evidence-based pain management practices ( $\beta = -0.377$ ,  $se = .042$ ,  $p < .001$ ). Documentation differed between settings:  $t(401) = 22.56$ ,  $p < .001$ , with a higher level of evidence-based pain management practice at the academic medical center. Nurse characteristics and unit culture were not significant predictors.

**Conclusion:** This study adds to nursing practice knowledge. The academic setting had unique features not considered in the model: pain management clinical nurse specialist, pain resource nurses, and Magnet recognition for nursing practice excellence. Future studies should examine these features as predictors for evidence-based pain management practices as they may be essential for sustaining successful pain management in the inpatient setting.

## 0-70

### Evolution of Knowledge and Attitudes of Resident Nurses Regarding Pain Management in Cancer: A Longitudinal Study

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**Introduction:** Pain is characterized as one of the main symptoms related to cancer and the knowledge, beliefs and attitudes of professionals on this subject directly influence their management.

**Aim:** This study assessed the evolution of knowledge and attitudes of resident nurses in terms of the management of cancer pain during one year follow-up.

**Method:** This is a longitudinal study that included all of the first year resident nurses of a Multidisciplinary Residency Program in Oncology. An instrument grounded in the guidelines of the World Health Organization to control cancer pain, which includes pain assessment, control strategies and continuous care was used. We performed four evaluations at different times. The data were analyzed descriptively and were calculated means and standard deviations of the quantitative variables. The frequency of application of the categories was analyzed in a comparative way between the four assessments.

**Results:** The results showed an unfavorable evolution of knowledge, especially regarding pain management strategies.

**Conclusion:** Despite being observed a small increase in the knowledge of nurses in pain management worldwide, it is known that to seek problem-solving is a necessity teaching strategies that are meaningful to the student and that are linked to practice in order to drive knowledge and attitudes to action.

## 0-71

### Feasibility of a Structured Symptom Intervention: Lung Cancer Pilot RCT

Marie Flannery, School of Nursing, University of Rochester, Fairport, New York, United States

Individuals with advanced lung cancer have a high symptom burden. Relief of pain and other symptoms is often not obtained. The purpose of this pilot project was to establish the feasibility of a structured pain and symptom assessment as a telephone delivered intervention to reduce distress and improve quality of life. The intervention was derived from Self-Regulation Theory.

**Methods:** A 2-arm pilot randomized clinical trial was conducted. Outcome data was collected at 4 time points on symptoms (MDASI), quality of life (0–100), and distress (0–100). Extensive feasibility data was obtained. Participants received the weekly intervention x8 via telephone. For any symptom endorsed as present, a series of 6 structured questions designed to emphasize concrete objective information were asked.

**Results:** 45 subjects enrolled, 25 male, mean age 62 years, 33 had metastatic disease and 37 had co-morbid conditions. Acceptance rate was 93%. We completed 121 intervention calls to 22 subjects and 112 outcome calls; the majority required 2–3 attempts and averaged 15–30 minutes. Eight subjects withdrew, primary reasons progressive disease. Blinding of outcome data collectors was not successful. There was virtually no missing items. No telephone call required referral to the oncology team. Fidelity assessment revealed that the protocol intervention was able to be administered as planned. Exit interviews indicated that the study was acceptable to participants. The mean number of symptoms= 9.8; quality of life mean= 66, distress mean=3.96.

**Discussion:** Individuals with advanced lung cancer reported a high number of symptoms, compromised quality of life, and moderate levels of distress yet willingly participated in

the study. The pilot study findings established that the telephone delivered self-regulation intervention is feasible, has high fidelity, minimal missing data, and patient acceptability. Further study powered to establish efficacy of the intervention is required.

### 0-73

#### **Patients' Perceptions of How Healthcare Providers Communicate With Them and Their Family Members During the Chemotherapy Treatment Period**

Bridie McCarthy, School of Nursing & Midwifery, University College Cork, Cork, Ireland

**Purpose:** Chemotherapy can result in many unpredictable and often debilitating side-effects hence patients undergoing chemotherapy treatment may have to rely on their loved ones to support them through this most challenging period. In view of this possibility then good communication skills between patients, healthcare providers and family members is of paramount importance for effective patient outcomes. The aim of this study therefore, was to explore patients' perceptions of how healthcare providers communicate with them and their family members whilst undergoing chemotherapy treatment for cancer.

**Methods:** Using a qualitative methodology and a descriptive design, data were collected using unstructured interviews with patients undergoing chemotherapy (n=14) and analysed by content analysis.

**Results:** Participants expressed that both they and their family members were treated with compassion, kindness, empathy and understanding. They appreciated the time given to them and their family members to listen and answer their questions before, during and/or after treatment. In addition they commented positively on the warm and cheerful environment and the selective use of appropriate humor by oncology healthcare providers in the chemotherapy units.

**Conclusion:** The data highlights in particular the positive communication encounters between patients with cancer and their healthcare providers and family members. Oncology nurses were identified as being particularly supportive to both patients and their family members. Despite chemotherapy units being a difficult place to be a part of, this study highlights that healthcare providers can help make this a less daunting place for patients and their family members through their appropriate use of professional communication.

### 0-74

#### **Family Needs Perception Among Critical Care Nurses in North India**

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**Context:** Nursing's global evolution from a patient centred model to a holistic family focused approach necessitates this study.

**Aims:** To explore Critical Care Nurses perception of the multidimensional needs of critically ill patient's family.

**Settings and Design:** In a premier teaching hospital in north India, Based on the Imogene King's Goal attainment theory a quantitative study approach with an exploratory correlational research design was planned and implemented on 60 critical care nurses working in adult critical care areas through convenient sampling.

**Methods and Material:** Family needs perception assessment Opinionnaire was developed, with a high validity and reliability was used for data collection using interview technique.

Statistical analysis used:

Data was analyzed using descriptive and inferential statistics using SPSS v 16. The level of significance was checked at  $p < 0.05$ .

**Results:** Majority of the critical care nurses (95%) had a non supportive perception of family needs. Cognitive and social needs of the family were perceived as very important whereas emotional and physical needs were rated as important. Critical care nurses had adequate knowledge to meet the cognitive family needs; yet recognition of their own role in supporting interaction/ transactions with family members was inadequate. Nurses highly valued the coping methods used by the family members to meet their emotional needs. Personal system factors like qualification and gender had statistically significant effect ( $p < 0.05$ ) on the perception of critical care nurses whereas none of the other interpersonal and social system factors could be significantly associated with nurses perception.

**Conclusions:** Nurses' conceptual system and factors influence their perception, showing the need for emphasis on knowledge, recognition of their role and beliefs through use of structured guidelines on Family Focused Care.

### 0-75

#### **Quality of Life and Burden of Care in Colorectal Cancer: A Study on Patients and Caregivers**

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**Aim of Study:** The aim of the study was to evaluate the quality of life, anxiety, depression and perception of body image of colorectal cancer patients undergoing chemotherapy; and to evaluate anxiety, depression, and the burden of care on their caregivers.

**Methods:** A cross-sectional study was conducted at an outpatient cancer centre in Singapore. Sixty patients diagnosed with colorectal cancer, completed at least one cycle of



chemotherapy; and sixty family caregivers of the patients were recruited for the study. Questionnaires administered to patients include the Hospital Anxiety and Depression Scale, Body Image Scale, and EORTC Quality of Life QLQ-CR29 and QLQ-C30. Questionnaires administered to caregivers include the State-Trait Anxiety Inventory, Beck Depression Inventory, and Burden Assessment Scale. **Results:** Differences in patients' quality of life were found across variables of patients' gender, age, education level, monthly household income, employment status, duration since diagnosis, stage of disease and presence of stoma. Significant associations were reported between patients' perception of body image, anxiety and depression, and quality of life. Differences in caregivers' burden of care were found across caregivers' education levels. Significant associations were reported between caregivers' anxiety and depression, and burden of care.

Decreasing levels of patients' emotional, role, physical, cognitive, social, and sexual functioning; increasing presence of symptomatology; and decreasing levels of global health status were found to be significantly associated with increasing levels of caregivers' burden of care.

**Conclusion:** It is important to raise awareness of these issues, and step up efforts to reduce the burden of colorectal cancer and its treatment. Comprehensive understanding of these outcomes is important in providing holistic care, and for guiding educational and psychosocial support interventions by healthcare professionals.

## 0-76

### Hope and Quality of Life of Women With Breast Cancer

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**Background:** The quality of life (QoL) of women with breast cancer has been extensively examined. However studies have not determined whether factors such as hope and QoL of their male partners have an influence on the QoL of women with breast cancer.

**Purpose:** The purpose of this study was to examine the relationship of QoL of women with breast cancer with the following factors: a) demographic variables b) levels of hope of women with breast cancer and their partners and c) QoL of partners.

**Design:** Using a cross-sectional design, 600 surveys were mailed to women with breast cancer (Stages 1–3) and their mail partners. One hundred and ten dyads of women with breast cancer and their male partners returned completed surveys. The mean age of the women with breast cancer was 57.73 (SD12.1) years with 37.3% receiving treatment.

**Results:** QoL of women with breast cancer was measured using the Functional Assessment of Cancer Therapy-Breast

(FACT-B) which has 4 subscales: functional, physical, emotional and spiritual well being. Participants with breast cancer with higher hope scores ( $p=0.04$ ) also had higher total QoL scores. Stage of disease ( $p<0.001$ ) and hope ( $p=0.05$ ) significantly predicted functional well-being. Stage of disease ( $p<0.001$ ) also predicted physical well being. Participants with higher spiritual well being scores also had higher hope scores ( $p=0.02$ ) and their male partners had higher QoL scores ( $p=0.1$ ). There were no significant variables for emotional well-being. No other variables were significant in the multivariate analysis.

**Implications:** Hope was a significant predictor of the QoL of women with breast cancer underscoring the need to assess and foster hope in this population. Another important factor was the QoL of their male partners, suggesting that supporting male partners should be a consideration in cancer care.

## 0-77

### Nurse-Led Programs to Improve Cervical Cancer Screening in Sub-Saharan Africa

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**Objective:** A systematic literature review presents the evidence regarding the impact nurse-led programs for cervical cancer screening and treatment in Sub-Saharan Africa (SSA) and identify factors associated with disparities in screening and outcomes.

**Background:** Cervical cancer is the leading cause of cancer mortality among women in SSA due to late diagnosis and treatment, where approximately 93,225 new cases and 57,381 deaths occurred in 2012. The five-year prevalence of cervical cancer is 27.6% in SSA compared to 2% in North America. Nurses play critical roles in implementing cancer control programs in low resource settings requiring tailored training and program initiatives.

**Methods:** Literature review was conducted using three computerized databases MEDLINE, PubMed, and CINAHL to identify relevant articles published in English between 1994-2014 and discussed nurses role in cervical cancer screening and treatment. The following search terms were used: *cervical cancer, screening, treatment, Africa, VIA, HPV, cervicography and cryotherapy, nurs\**. Eight studies (one study included midwives only and a second included a mix of nurses and physicians) met the inclusion criteria.

**Results:** Disparities exist in screening methodologies and treatment for precancerous and invasive cervical cancer in SSA. There are patient-level, provider-level, and system-level factors associated with lower uptake of screening, and lack of adherence to recommended treatment and follow-up. Factors include limited access to screening, lack of supplies and trained personnel, cultural attitudes and stigma about cervical cancer, lack of community awareness,



issues with disclosure, partner concerns, and poor accessibility to screening, diagnosis and treatment.

**Conclusion:** Nurses have key roles in cervical cancer screening and treatment programs in SSA. There are needs for further training, better communication and documentation, more community awareness and participation, and screening equipment.

### 0-79

#### Effects of A Nurse Lead Multidisciplinary Team in Infusion Therapy Outpatient Service

Jia Li Sun, Yat-sen University Cancer Center, Guangzhou, China

**Objective:** To discuss the formation of a nurse lead multidisciplinary team (MDT), and to study its effect in infusion therapy outpatient service.

**Methods:** A nurse lead MDT and its management system and working process was established, the team consists of 6 IV nurses (the central of the team), 2 doctors of department of hematology, 1 doctor of department of ultrasound, 1 doctor of department of interventional radiology, 1 Anesthesiologist, 1 doctor of department of pathology, 1 inspection practitioner. 33 patients (control group, before the application of MDT) and 31 patients (experimental group, after the application of MDT) were evaluated to compare the effects of a nurse lead MDT in infusion therapy team. The endpoints were incidence of central venous catheter related complications and patients' satisfaction to nursing technology. T-tests and chi-square tests were used to analyse the data;  $p < 0.05$  was accepted as statistically.

**Results:** Compared with the control group, the experimental group had a lower incidence of central venous catheter related vein thrombosis (3.0% VS. 16.1%,  $P = 0.033$ ), a lower incidence of contact dermatitis (15.2% VS. 41.9%,  $p = 0.017$ ). Compared with the control group, the experimental group had higher patients' satisfaction to nursing technology ( $65.55 \pm 9.32$  VS.  $58.48 \pm 5.00$ ,  $P = 0.001$ ).

**Conclusion:** The application of a nurse lead multidisciplinary team can reduce the incidence of complications, help patients get faster and more effective treatment of central venous catheter related complications; and also can improve the patients' satisfaction to nursing technology, promote continuous improvement of nursing work, which is worthy to be widely used.

### 0-80

#### Development and Implementation of an Oncology Assessment Unit: A New Model of Nursing Care

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Telephone triage and Oncology Assessment Units (OAU) are new innovative interventions in oncology care, although little research about these initiatives is currently available. The role of OAU and telephone triage in outpatient oncology

services is important given the impact on workflow that unplanned presentations and telephone consultations produce. Telephone assessment tools and guidelines have the potential to provide structured and safe practice that is underpinned by evidence based decision-making processes. Patients using these services receive appropriate advice and support in a timely manner.

The objective was to develop a nursing model to provide effective assessment and management for oncology/haematology patients promoting early discharge, early primary intervention and reduced hospital admissions.

This presentation will outline the reasons for developing a new Model of Care, followed by how we as a nursing service developed and implemented a Pilot Oncology Assessment Unit:

#### The rationale for the new model of care:

- 'Putting the patient first'
- Providing a clear and fast track for patients and supporting the bed days savings project
- Promoting the ambulatory/primary/preventive care model
- Assisting the Ministry of Health "6 hour Emergency Department", "Cancer wait time" and the "Faster cancer treatment" targets
- Establishing a Nurse-Led initiative and pathway for Senior Oncology Nurses

#### The development and implementation of the Pilot:

- Literature search and guideline development
- Medical colleague collaboration
- Resources space and staffing
- Implementation and audit outcomes

### 0-82

#### Living at Risk for Hereditary Breast Cancer: Experiences of At-Risk Unaffected Women Living in Families Where a BRCA 1/2 Gene Mutation Could not be Found

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**Background:** Given that certain mutations in the breast cancer 1 and 2 genes (BRCA1/2) and other known breast cancer susceptibility genes are thought to account for only up to 25% of familial breast cancer risk, many families at risk for hereditary breast/ovarian cancer (HBOC) live without a genetic explanation for their strong family cancer history. How risk is understood and experienced by at-risk unaffected women (those with no personal history of cancer) who live in families where genetic testing did not identify a known deleterious BRCA1/2 gene mutation is poorly understood.

**Purpose:** The purpose of this study was to gain a deeper understanding of what it is like for at-risk unaffected women to live with HBOC in the absence of a BRCA1/2 gene mutation.



**Study Design:** van Manen's hermeneutic phenomenology was used to explore and uncover what it means for at-risk unaffected women to live with HBOC. Participants were recruited through an urban HBOC clinic in a Western Canadian city. Nine at-risk unaffected women between 25 and 58 years of age participated in two audio-taped conversational interviews. The life existential themes: lived body, lived space, lived time, and lived relations were used to engage in phenomenological reflection and tease out the themes within the data.

**Preliminary Findings:** Themes gleaned from the data include: Hear my voice: Understand my fears, Leading a normal life in a vigilant age, Bracing for cancer, Mistrusting my body, Feeling like I am in a hurry, Suspended in time, and Imagining the What-If's.

**Implications:** An in-depth understanding of what risk means to at-risk unaffected women and how they cope will lead to the development of more thoughtful practices and provide a foundation for future research.

### 0-83

#### **Fear of Cancer Recurrence: A Qualitative Study of The Experience of Survivors of Ovarian Cancer**

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**Background/Purpose:** Ovarian cancer is the deadliest of the cancers that exclusively affects women, with a 5-year survival rate of 10–35%. Consequently, in ovarian cancer survivors, the fear of experiencing a recurrence is high. There is a near absence of studies that have investigated the experience of fear of cancer recurrence (FCR) in women with ovarian cancer. One model has been proposed to guide the conceptualization of FCR and understand its impact in cancer survivors. The purpose of this study is to better understand FCR through the reflections of ovarian cancer survivors by using the FCR model.

**Methods:** This study has a descriptive qualitative design aimed at capturing the rich detail of the FCR topic. Twelve participants were recruited from the gynecology oncology clinics at two University teaching hospitals in Montreal. Researchers conducted face-to-face, semi-structured interviews. Content, transcribed verbatim, underwent content analysis.

**Results:** FCR is a complex, multi-dimensional phenomenon and its impact was found to fall on a spectrum. The first four themes that emerged were moderators of the participants' FCR experience: (a) varied beliefs and sources of worry; (b) perception of risk of recurrence; (c) uncertainty surrounding different facets of recurrence; (d) management of FCR. The fifth theme spoke to the participants' opinions of the FCR model.

**Conclusions:** The findings from this study offer a glimpse into the fear of recurrence of an ovarian cancer survivor. Each

woman experienced it differently yet commonalities were found in their narratives. The insightful themes will allow nurses to intervene more effectively with their patients in the hopes of decreasing distress and improving quality of life.

### 0-84

#### **My Brush With Prostate Cancer: The Lived Experience of Surviving at Least Five Years After a Diagnosis of Prostate Cancer Received at or After the age of 65**

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**Background:** Prostate cancer is common in men and usually affects those over sixty-five years. Its commonly localised and indolent nature in conjunction with treatment has resulted in significant long term survival rates. Although there is significant research conducted into the individual quality of life related domains of life such as fatigue or erectile dysfunction there is limited research into what the whole experience means to men who have survived more than five years after diagnosis.

**Aim:** This doctoral study aimed to explore the lived experience of men who have survived at least five years after a diagnosis of prostate cancer received at or after the age of sixty-five years.

**Methodology:** Hermeneutic phenomenology based on Heideggerian principles was used to explore the experiences of ten purposefully selected men. Individual, unstructured interviews were audio-recorded and transcribed. Data was analysed applying the hermeneutic circle to uncover themes, guided by van Manen's approach.

**Findings:** A phenomenological interpretation is offered in the form of an antecedent and ten themes within four fundamental human existentials. This demonstrated that each man had unique motivation for undergoing treatment for prostate cancer and this was placed within a fluctuating hierarchy of concerns. Any treatment consequences were balanced within a personal context and a multi-faceted post cancer treatment persona evolved to suit each individual's life.

**Conclusions:** For each man to evolve into his post cancer treatment personal healthcare professionals should respect the unique understanding and motivation. Consideration should be given during the planning and delivery of care to the position that prostate cancer and its consequences occupy within the hierarchy of concerns of each individual's life.

### 0-85

#### **Planning Evidence-Based Care at the Point-Of-Care for Hospitalized Cancer Patients**

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Interdisciplinary plans of care (IPOC) are the foundation for quality, evidence-based oncology care. Our cancer center has paper-based IPOCs that are not integrated into workflow for planning or delivery of care, do not reflect interdisciplinary care nor guide evidence-based practice (EBP) at point-of-care. In alignment with a center-wide initiative to improve the electronic health record (EHR), Leadership sought to design electronic IPOCs to overcome these deficiencies.

Our center partnered with an EHR company and another specializing in online clinical practice guidelines (CPG). The design team included Information Technology Project Manager, Nursing Informatics Lead Analyst, Clinical Nurse Specialist Lead, representatives from EHR and CPG companies and subject matter experts from Nursing, Nutrition, Rehabilitation, Chaplaincy and more. The Team evaluated current state of IPOC use, identified gaps and opportunities and leveraged valuable elements of the paper-based tools, pre-existing eIPOCs and new CPG EBP content. Special attention was placed on incorporating eIPOCs into each discipline's workflow, developing triggers to suggest eIPOC and creating pathways for data flow between eIPOC and other EHR elements for documenting care.

Thirty-four eIPOCs were developed to address the unique needs of oncology inpatients and reflect the interdisciplinary team's contribution to quality patient outcomes. Goals, indicators, interventions and outcomes of each eIPOC as agreed upon by the interdisciplinary design team are consistent with EBP, integrated into EHR and include links to CPGs and policies for easy access at point-of-care.

The eIPOCs integrate into the workflow of all non-medical disciplines, support EBP, and reflect specialized oncology care delivered by the interdisciplinary team. In March, the eIPOCs will be launched. Compliance, adoption, optimization, and continued improvement to remain current with the changing field of oncology care will be monitored.

## 0-86

### **A Strategy for Transformation From Experience to Evidence Based Practice Using Deming's Plan - Do - Study - Action Cycle for a Community Palliative Care Service in Malaysia**

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**Purpose:** To describe an organization's transformation from experience to evidence based practice (EBP).

**Materials and Methods:** The Deming PDSA cycle was used to plan and carry out interventions to transform an organization's structure and function for EBP implementation. **P:** Move from experience to EBP. **D:** Chart audits and review of agency policies, procedures, and work processes. **S:** An analysis of the chart audits and review of the organization's

policies, procedures and work processes. **A:** create EBP education, patient record, guidelines, and audits. Six nurses, 1 MD and 1 massage therapist were involved in the project and had an average of over 22 years of experience in their current field.

**Results: Findings:** Patient records were inconsistent, unstructured and seldom contained a description of the patients problems or outcomes; people worked individually with little concept of a multidisciplinary team (MDT); EBP was not as an integral part of the work program; and if audits had been performed, none were reported.

**Interventions:** EBP education sessions using invited external consultants and monthly journal club; structured case records and checklists based on acuity of the clients; guideline development; and scheduled audit plans.

**Post intervention:** Implementation of a foundation PC course; a new MDT patient record inclusive of systematic initial and continual assessment, record of patient's current actual and potential problems, interventions, and outcomes; patient acuity assessment system; improved access of data for audits; development and implementation of 8 evidence-based guidelines; and scheduled and recorded audits.

**Conclusions:** PDSA cycle assisted this organization's transition from experience based practice to EBP. EBP saves time, money and manpower while improving patient outcomes. It gives the MDT confidence and validates their practice. The organization continues to use PDSA cycle for perpetual improvements to sustain EBP culture.

## 0-87

### **Innovations in RN Residency in an Ambulatory Oncology Clinic Setting**

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**Significance and Background:** In 2008 The Robert Wood Johnson Future of Nursing Campaign and the Institute of Medicine called for an initiative to respond to the anticipated nursing shortage especially in specialty areas such as oncology. Oncology care has moved increasingly into the ambulatory setting and expert nurses utilizing evidence based practice have successfully navigated these moves in complex care delivery. Traditional models of transition to practice have utilized a nurse residency within inpatient settings; therefore a need exists to formulate new models for transition to practice with complex oncology care in the Ambulatory Comprehensive Cancer Clinic (ACCC).

**Purpose:** To design a pilot residency program that could provide a successful transition to practice for new graduate nurses in an ACCC.

**Methods:** A customized residency program was instituted in 2013 for graduate nurses who had completed clinical rotations in the Dedicated Educational Unit (DEU) of an ACCC. Expert oncology nurses served as the preceptors for the residents teaching competencies, and clinical skills. Nursing



administration/education collaborated to assure educational opportunities for content knowledge acquisition were provided. Clinical competency check lists were utilized for documentation of skills as well as tests for demonstration of oncology knowledge.

**Findings/Discussion:** The pilot to evaluate an ambulatory oncology residency program is in its third year within a large National Comprehensive Cancer Center. Expert nurses have been fully engaged as the preceptors, and evaluators of the program. Resident nurses have been integrated into paid practice roles within the ACCC. Results of this new model for transition to practice suggest that the future of oncology patient care needs is being well served with the transition to practice of graduate nurses into professional nursing in an ACCC.

### 0-89

#### **Management of Complex Discharge Planning in the Setting of Cancer Nursing**

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Safe discharge planning is an essential feature of all healthcare systems. For cancer patients discharge planning can be a very complex process. The Princess Alexandra Hospital, in Brisbane Australia has a policy of two discharges before 10am each day. It was identified that the inpatient cancer unit (2E) was achieving this 5.4% of the time, while the hospital average was 15%. It was also identified that there was many people involved in discharge planning but no single person responsible for managing, coordinating or referring complex discharges to appropriate services and no continuity of care provided, causing anxiety and increased readmission rates. Therefore a quality project was undertaken to improve the discharge process on 2E.

The aim of this project was to improve quality and timeliness of complex discharges on the ward, improve communication with the multidisciplinary team to decrease hospital readmission rates and increase the level of care offered to patients post discharge. Finally this project aimed to improve both patient and staff satisfaction with the discharge process.

The project was initiated in a planning phase in November 2014. Staff were surveyed to pre-empt readiness for change, and understanding of the discharge planning role. Hospital reports and audits were reviewed. A screening tool to refer high risk patients on admission was introduced and meetings with key stakeholders were commenced to improve quality and timeliness of patient discharge. Finally education sessions for staff were commenced to help understand the new processes. The new position commenced in January 2015.

Evaluation will start immediately. Planned evaluation includes utilising the Queensland Government Standard 1 Governance audit, pre and 6 months post, reviewing of policy compliance data of two out before 10am, and

readmission rate data and performing staff and patient surveying through Best Practice Australia. Early anecdotal feedback has all been positive.

### 0-90

#### **The Pivotal Role of Nurses in Providing Cervical Cancer Prevention Services in Low-Resource Settings According to Jhpiego Experience**

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**Background:** Jhpiego, an affiliate of Johns Hopkins University, has been engaged in cervical cancer prevention for more than two decades. Programs conducted in over 15 countries include on-going activities in Kenya, Tanzania, Cote D'Ivoire, Burkina Faso, Zambia and Belize and have helped establish best practices for using Visual Inspection with Acetic Acid and Cryotherapy in a single visit approach (SVA). A key feature of SVA is well-trained frontline providers, especially nurses, at primary health centers in developing countries. In 2002, Jhpiego published in the Lancet the evidence for the safety, effectiveness and acceptability of the SVA and its provision by trained qualified nurses. Their continued high performance is documented in a follow-up published in the RHM journal in 2006.

**Case Study:** In Lesotho, there is a great unmet need for screening/treatment of cervical cancer with one of the highest rates in the world (60–90 cases per 100,000). A recent task analysis study surveyed 53 nurses and 100 nurse-midwives. Participants reported that they are performing cervical cancer prevention activities, but 22.4% self-reported as “not competent” to perform the task of cervical cancer screening and 14.3% reported “never having been trained” for the task. In addition, cervical cancer screening was fairly limited to referral hospital settings.

**Recommendations:** There is a need to expand support for the role of frontline health workers since the success of population based screening program hinges on reaching women at the community level. Given that nurses make up 85% of the global health care workforce, Jhpiego's approach to cervical cancer prevention involves sufficient training and education of the non-specialty nursing/midwives workforce to improve capacity to perform relevant screening and treatment tasks, as well as health care system infrastructure that supports a decentralized approach to screening.

### 0-91

#### **Implementation of the Aseptic Non Touch Technique (ANTT) Clinical Practice Framework for Aseptic Technique in Two London Hospitals: A Pilot Before and After Observational Study**

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**Background:** Aseptic technique historically is an under researched area; the literature describes variable practice, confused theory and an absent language paradigm. Standardisation has been shown to improve compliance with practice competencies. ANTT is a widely used example of a standard approach to aseptic technique education and practice.

**Objectives:** The primary aim of this study is to determine whether standardising aseptic technique for invasive intravenous (IV) therapy procedures or IV cannulation, using the ANTT clinical practice standard, increases staff compliance with the essential infection prevention and control measures that are pre-requisite to safe and effective aseptic technique.

**Methods:** This study describes a before and after evaluation of Aseptic Non Touch Technique (ANTT) using a two group unpaired sample of *registered* healthcare professionals competent in intravenous therapy or intravenous cannulation (n=98). A mixed methods approach utilising: a observational audit, a participant self-report questionnaire and structured recorded interviews with key-stakeholders.

**Results:** Mean compliance with competencies was 93.7%; each component of practice was improved over baseline: hand hygiene 63% improvement ( $p < 0.001$ ), glove use by 14% ( $p = 0.037$ ), Key-Part protection improved by 54% ( $p < 0.001$ ), a non-touch technique improved by 45% ( $p < 0.001$ ), improved Key-Part cleaning by 82% ( $p < 0.001$ ), and aseptic field management was improved by 80% ( $p < 0.001$ ). The majority of participants thought that their practice had 'definitely' improved (37, 76%) and the majority of staff agreed that ANTT had helped to standardise practice in aseptic technique (48, 98%).

**Conclusions:** The results show improved compliance with the essential infection prevention and control measures pre-requisite for safe and effective aseptic technique. Reported improvements in clinical practice suggest that practice improvements have led to a reduction in failures of aseptic technique.

**Background:** Advanced cancer patients have significant health needs and will be severely affected by inappropriate service provision and barriers to accessing palliative care. Factors influencing patients' access to health services need to be understood to enable nurses to facilitate care appropriate to their needs.

**Objective:** To track and quantify patients' movements through health services over their last 6 months of life and to describe factors which are associated with use of emergency services and inpatient admissions.

**Methods:** This prospective, longitudinal study recruited 50 patients from two cancer services. Patients' health service utilisation data were collected from recruitment until death from patient-held diaries and from clinical and administrative health records. Two oncologists reviewed each case of emergency service use and inpatient admission to assess whether it was potentially preventable. Data reported here relate to 38 patients for whom complete health administrative data were available.

**Results:** Patients recorded 40 emergency department presentations (EDP), 22 events of ambulance use, and 79 inpatient admissions. The main uncontrolled symptoms associated with these service events were fever and infection, pain, nausea and vomiting, and cardiac issues. Three EDP and 4 admissions were rated as 'preventable'. In these cases, patients lived alone or in difficult social circumstances and/or had uncontrolled symptoms.

**Implications:** With improved social and community supports, preventable EDP and in-patient admissions may have been avoided. Nurses are well placed to identify patients at risk of inappropriate service use and to develop preventive interventions to address identified health and social care needs. Improved linkages between specialist cancer services and community and social care services are required. Future research to improve needs based assessment and to evaluate interventions to improve service linkages are required.

## 0-92

### A Prospective, Longitudinal Study of the Use of Health Services by Advanced Cancer Patients: Implications for Cancer Nurses

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## 0-93

### The Effect of Specific Home-Based Exercise Program to Cancer Related Fatigue and Symptoms Disturbance in Late Staged Lung Cancer Patients

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**Purpose:** Cancer related fatigue (CRF) has significant adverse impact to cancer patients. Exercise is the most effective non-pharmacological intervention to manage CRF and symptoms disturbance, but few studies done for lung cancer. Lung cancer had been the first cause of cancer mortality in Taiwan. This study aimed to well design home-based exercise program in late stage lung cancer patients for evaluating CRF.



**Methods:** This was a single-blind RCT in a medical center of Taiwan. Finally, 33 patients of staged III or IV lung cancer patients were enrolled, 16 patients were randomly assigned to the experimental group (EG), and 17 patients to the control group (CG). EG received an home-based exercise program, and the CG received original home activity patterns. All the patients should be longitudinally followed up for 8 weeks. The final evaluation was done by daily activity logs, the BFI-T Form, MDASI-T Form, and 6MW test, before and after intervention for two times.

**Results and Discussion:** Before intervention, compared the two groups, there were no statistical differences in the demography and all variables. Evaluation of results by GEE, about the level of CRF, after intervention, the amount of improvement of CRF in EG was statistically significant better than CG ( $p=.029$ ). About the severity of symptoms disturbance, the amount of improvement in EG was better than CG but no statistical significance. About the symptoms disturbance interference to life, the amount of improvement in EG was statistically significant better than CG ( $p=.013$ ). About the 6-minute walk test, no statistically significant between two groups during the 8 weeks.

**Implications for Practice:** The results showed that a specifically designed home-based exercise program had effect in improvement of CRF level and the symptoms disturbance interference to life for late staged lung cancer patients. The program could be apply in other cancer patients to improve their quality of life in cancer treatment period.

#### 0-94

### Fatigue Experience and its Effect on Quality of Life of Cancer Patients Undergoing Chemotherapy: A Quantitative Study

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**Background:** Fatigue is a multidimensional symptom that is most prevalent amongst cancer patients undergoing chemotherapy. However, this symptom is often underreported by patients and neglected by clinicians, negatively impacting quality of life (QOL) of patients.

**Aims:** The study aimed to measure multidimensional levels of fatigue in cancer patients receiving chemotherapy, examine the influence of socio-demographic and disease/treatment factors on fatigue, explore the impact of fatigue on patients' QOL and identify strategies used by cancer patients to relieve fatigue.

**Methods:** A cross-sectional descriptive study using a survey design was adopted. Patients who had completed at least one cycle of chemotherapy were recruited using convenience sampling method. Fatigue levels were measured using the revised Piper Fatigue Scale while QOL was measured using the Functional Assessment of Cancer Therapy-Fatigue/Anaemia tool. English and simplified Chinese versions of validated

questionnaires were adopted. Non-parametric tests and correlation tests were used in the analysis.

**Results:** 429 patients participated in this study. Participants experienced mild-to-moderate levels of fatigue, with the most intense fatigue experienced in the sensory dimension. Factors such as age, gender, number of dependents, duration of illness, exercise and haemoglobin levels were significantly associated to fatigue experience ( $p<0.05$ ). There was a strong negative correlation between fatigue and QOL ( $r=-0.815$ ,  $p<0.001$ ). The most common coping strategies adopted by patients were energy conservation activities (88.4%) such as lying down.

**Conclusion:** Proper assessment and accurate documentation of multi-dimensional fatigue is warranted for clinicians to effectively detect fatigue in patients undergoing chemotherapy. The study also provides insights to prospective education and intervention programs that may be beneficial in managing patients' fatigue, which will in turn improve patients' QOL.

#### 0-95

### The Impact of a Home-Based Rehabilitation Program for Cancer-Related Fatigue for Post-Surgical Non-Small Cell Lung Cancer Patients

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**Aims:** Post-thoracotomy non-small cell lung cancer (NSCLC) patients report cancer-related fatigue (CRF) as a severe symptom that decreases quality of life. The purpose of this study is to examine the impact of a rehabilitative intervention on CRF, perceived self-efficacy for fatigue self-management (PSEFSM), and fatigability for post-surgical NSCLC patients.

**Methods:** A two-arm RCT was used to examine the impact of a rehabilitative CRF self-management intervention on 37 NSCLC participants compared with 35 usual care NSCLC participants from diagnosis to 6 weeks post-surgical hospital discharge.

**Results:** CRF: Intervention group's CRF levels improved versus the usual care group over the six-week intervention with the average total fatigue on a scale of 0–10 (10 = worst) showing the intervention group starting over 4, steadily decreasing to less than 1 in week 6. Alternatively, the usual care group maintained CRF levels over 4 throughout the 6-week period.

PSEFSM: Intervention group's PSEFSM inversely correlated with their level of CRF as their average PSEFSM

started at 7.3 on a scale of 0–10 (10 = greatest) dropped to 7 post-surgery and increased to 9.6 at week 6 inversely correlating with the weekly drop in levels of CRF. PSEFSM levels for the usual care group also inversely correlated with CRF level with average PSEFSM starting at 8.6 pre-surgery and dropping to 7.6 post-surgery stabilizing around 7 over the next 5 weeks.

**Fatigability:** Participants completed a 6 minute walk test (6MWT) pre-surgery and post-study measuring fatigue levels before and during the 6MWT. Over 90% of the intervention group increased distance walked in 6 minutes with decreased fatigue levels versus pre-surgery. Over 90% of the usual care group did not walk as far as they did pre-surgery with increased levels of fatigue.

**Conclusions:** This study targets fatigue and exercise in a chronically ill population with the potential to provide a rehabilitative solution.

### 0-96

#### Evidence for the Social Construction of Symptom Experience

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Cancer researchers from around the world have observed an important potential problem – while the manifestations of symptoms may be the same regardless of the country in which patients live, the meaning of these symptoms may be different. The reasons for this variation are unclear. We began exploring the links between manifestations and meaning of symptoms by conducting the same study of cancer-related fatigue in four countries (Canada, Thailand, Italy, and England). All studies were designed using ethnoscience, a design used to study language. A total of 62 individuals with advanced cancer participated in this study (Canada n=27; Italy n=16; Thailand n=10; England n=9). We confirmed that manifestations of fatigue were similar in all participants, but that the meanings of fatigue were different. In Canada, participants reported that fatigue was distressing because of its effect on functional status and its impact on work expectations and social roles. Participants in England had similar concerns regarding the impact of fatigue on functional status but perceived they were able to maintain their roles because they simply “kept going.” Participants in Italy were concerned about the impact of fatigue on social activities such as eating with their families and visiting with family and friends, while participants in Thailand were concerned about the impact of fatigue on the ability to think clearly. These findings are important because they suggest that interventions designed for one part of the world

may not be helpful if they fail to address variations in the meaning of the targeted symptom. The links between the manifestations and the meanings of symptoms are likely much more complex than originally expected, as each of us is part of many cultures and the beliefs and values related to these cultures are not static. We urge more comparative studies across cultures on the meaning of symptoms and welcome any potential collaborations.

### 0-97

#### Evidence-Based Practice of Insertion of PICC in a Venous Access Clinic of a Tertiary Hospital in Shanghai

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**Objective:** This study aimed at evaluating the feasibility and effectiveness by evidence implementation of insertion of PICCs in a venous access clinic.

**Methods:** The evidences on insertion of PICCs were searched and summarized. Based on the Ottawa model of research use, a five-month, pretest-posttest design study was designed to evaluate the feasibility and effectiveness of the evidence application. The evidence application involved four steps, assessing potential barriers and supports to develop implementation intervention strategies, adopt, monitoring and evaluation.

**Results:** A series activity of evidence introduction and implementation were carried out in PICCs management system and daily work. The environmental monitoring, PICCs insertion procedure, quality control form and information management system got progressive during the period of application. After the evidence implementation, the choice of catheterization arms and the tip location of PICC lines in patients were significantly improved ( $p < 0.05$ ).

**Conclusion:** Evidence-based practice on PICCs insertion is a continuous quality improvement cycle of identifying and resolving gaps between best evidence and current situation, with consideration of clinical situation, professionals' clinical expertise and patients' preference.

### 0-98

#### Scalp Cooling Implementation and Continuation - The Nursing Perspective

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**Background:** The use of scalp cooling to reduce chemotherapy-induced alopecia is increasing worldwide. In many hospitals it is contemplated to start scalp cooling. In other hospitals scalp cooling is available, but it is minimally offered to patients, for many reasons.



**Methods:** Evidence-based and practice-based information has been collected about barriers in implementing and continuing scalp cooling in the Netherlands and the UK.

**Results:** Most important reasons for both not implementing or continuing scalp were: time constraints, lack of knowledge – mainly about efficacy and safety, underestimation of the impact of hair loss, costs, overestimation of the burden of scalp cooling for patients, feelings of insufficient efficacy, not convinced about efficacy or problems in informing patients about eligibility or safety. Moreover, own opinions about alopecia and scalp cooling seemed to be a more important factor than hospital protocols. In the Netherlands, an implementation plan as well as a ‘standard for alopecia and scalp cooling’ has been developed and successfully introduced. In the UK a scalp cooling implementation study is planned.

**Discussion/Conclusion:** Lack of protocols and a standard for alopecia and scalp cooling induce inequality of care. Nurses report many reasons to not apply scalp cooling, which are similar for many countries. Knowledge gaps are an important aspect, which may be filled by an international standard that compiles literature and extensive practical experiences. Then the next step is sharing the knowledge.

## 0-99

### The Effect of Food Picture Visualization on Salivation and Xerostomia in Head and Neck Cancer Patients During Radiation Therapy

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Dry mouth condition is common in patients with head and neck cancer receiving radiation therapy. Caused by a large impact. The purpose of this quasi-experimental research was to study the effect of food picture visualization on salivation and xerostomia in head and neck cancer patients during radiation therapy at Udonthani Cancer Hospital. The sample consisted of 38 patients with head and neck cancer receiving radiation therapy who met the selective criteria. To avoid contamination, the first 19 patients were assigned to the control group who received routine care. The following 19 patients were assigned to the experimental group who received both routine care and food picture visualization intervention. The xerostomia questionnaire (Cronbach’s alpha coefficient 0.84) and the spitting methods were performed to assess the outcomes, at every week or 1000 centigray of radiation through 6 weeks. Descriptive statistics, independent t-test, and paired t-test were used to analyze the data. The results revealed that characteristics of sample in the control and experiment groups were similarity in term of sex, marital status, occupation and medical diagnosis, mostly nasopharyngeal cancer stage 2b. In addition, salivation of the patients in the

experimental group was significantly higher than those of the control group ( $P < 0.05$ ). Moreover, xerostomia score of patients in the experimental group was significantly lower than those of the control group ( $P < 0.05$ ) the findings can be concluded that food picture visualization can improve the secretion of saliva and decrease the perception of xerostomia in patients with head and neck cancer during radiotherapy. Therefore, nurses should implement the food picture visualization intervention into their routine care to decrease patient’s suffering from xerostomia during receiving radiotherapy at head and neck. In addition, this nursing intervention is very simple, with no cost and can be independently implemented by nurse.

## 0-100

### Building an Infection-Control-Nurse Team in a Cancer Hospital: Strategies for Implementation

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**Background:** Cancer patients are at high risk of hospital-acquired infections (HAIs) that are associated with increased morbidity, mortality. The translation of evidence-based practices to the bedside requires flexibility to change traditional ways of practice.

**Aim:** To initiate a multidisciplinary and collaborative approach to hospital-acquired infections (HAIs) reduction through oncology nurse-driven protocols in translating evidence-based practices to the bedside in a cancer hospital.

**Methods:** 40 infection control nurses selected from 40 different work units at a 1598-bed state leveled Cancer Hospital in China, have been trained monthly in the prevention of cross contamination, hand hygiene (HH), isolation precautions, device-related infections, environmental cleaning and preventing occupational exposures to antineoplastic drugs. The period of the study was between April 1, 2012, and September 30, 2013. Meanwhile, the professionals of nosocomial infection control provide weekly supervision and surveillance.

**Results:** Across the study period, mean nosocomial infection rate had decreased from 7.5% to 4.13%; 525 oncology nurses’ average correct responses to nosocomial infection control had been improved by 31% ( $P < 0.05$ ). The median compliance rate of Hand hygiene (HH) had increased from 35% to 56%. Ventilator-associated pneumonia (VAP) rate was an average monthly reduction in VAP rate of 0.15/1000 ventilator days, ( $P < 0.05$ ); central line-associated blood stream infections rate was 2.04/1000, catheter-associated urinary tract infections rate was 0.66/1000, both were reduced significantly ( $P < 0.05$ ).

**Conclusion:** Building up an Infection-control-nurse team, with consistent supervision and continuing quality improvement (CQI) has facilitated the adoption of interventions, which suggested a clinical benefit with evidence in a cancer hospital.



**0-101****Marital Adjustment Between Breast Cancer Survivor Couples: A Prospective Study**

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**Background:** The number of breast cancer survivor has increased steadily all over the world. It was proved that marriage quality was closely related to mental health and family stability, however, the marital adjustment among couples of breast cancer survivorship in China is still unclear.

**Objective:** To investigate the level and influencing factors of marital adjustment between breast cancer survivor couples.

**Methods:** A total of 243 couples were investigated with Marital Adjustment Test (MAT). Additionally, breast cancer survivors also investigated with Functional Assessment of Breast Cancer Therapy (FACT-B) and M.D. Anderson Symptom Inventory (MDASI) at the same time.

**Results:** Breast cancer survivor was satisfied with marital adjustment. The scores of MAT in breast cancer survivors and in spouses were  $104.80 \pm 21.88$  and  $106.45 \pm 23.79$  respectively. There was a positive correlation between the couples ( $r = 0.446, P < 0.01$ ). Social/family well-being, severity of symptoms and marital status have significant effect on marital adjustment of the breast cancer survivor couples. Additionally, the latest finding in this study was the evaluation consistency of marital adjustment was poor between the couples.

**Conclusion:** Marital adjustment interacted with each other between the couples by high influence. But it is not suitable to evaluate one of the couples instead of breast cancer survivors or their spouses. Strategies should be implemented on both survivors and their spouses to improve the couple quality of marriage, especially the survivors with less social/family support, high level of symptoms and the experience of remarry.

**0-102****Exploring Canadian Cancer Patients' Treatment Related Out-Of-Pocket Costs**

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**Objective:** This project was undertaken to expand our understanding of cancer patients out of pocket costs related to their treatment and the implications on quality of life. Existing quantitative work examines traditional cost items (i.e., parking, medications, assistive devices, etc.) but fails to garner insight regarding patients' perspectives on other types of items that require financial outlay during and following a diagnosis of cancer.

**Methods:** In-depth interviews were conducted with 14 individuals either in person during a clinic visit or by phone. Interviews were recorded and transcribed verbatim for analysis. Using a collaborative research team approach, the transcripts were subjected to a descriptive qualitative analysis.

**Results:** Seven individuals with breast cancer, 3 with colorectal cancer, 2 with lung cancer, and 2 with prostate cancer completed the interviews. Consistent with existing published work participants expressed concerns regarding expenses related to: medications, complementary/alternative medicines, devices, parking and travel. These were exacerbated if they did not have insurance or lost insurance coverage due to loss of work. Several noted these financial challenges had a negative impact on their personal and family's quality of life. Although many acknowledged in hindsight that additional insurance would have helped, they also recognized that at the time of their diagnoses it was not an option. Previously unidentified categorical costs identified in this study included: modifications to housing arrangements or renovations, impacts of an altered diet, and special clothing.

**Conclusion:** We confirmed results of earlier quantitative work conducted in a Canadian setting and identified additional cost categories not previously explored in quantitative work. Clearly financial burden can decrease patient and family Quality of Life.

**0-103****The Role of Nursing in the Implementation of a New Sexual Health Clinic Within a Comprehensive Supportive Care Program for Men With Prostate Cancer and Their Partners**

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Primary therapy of prostate cancer (PCa), whether by surgery or radiation, causes sexual dysfunction (SD) that reduces the quality of life (QoL) of most patients and their intimate partners. Research shows that 60% of men with SD experience significant distress that is especially increased in younger men. Sexual rehabilitation is an area of unmet need for men treated for PCa and has the potential to mitigate emotional, physical, and financial consequences for him and his partner.

The Prostate Cancer Supportive Care (PCSC) Program, initiated at the Vancouver Prostate Centre, is a modular program providing comprehensive supportive care from time of diagnosis, including sexual health. A specially trained RN Sexual Health Clinician (SHC) developed and implemented group session content with an emphasis on education before initiation of therapy and implementation of earlier sexual rehabilitation protocols overseen by an experienced Sexual Medicine Physician. The SHC also sees men/couples who are experiencing SD with a focus on unique life circumstances, general health and sexual health history. In contrast to erectile dysfunction (ED) clinics, the focus of the SHC is on intimacy and, if desired, finding ways for the individual or couple to be sexual.



From July 2013 to December 2014, 303 men (and partners if applicable) participated in the clinic, 89 during the first six months and 214 during 2014. The SHC saw 258 of these men or couples in one-on-one appointments (appt) (490 total appt, mean 1.9 appt/man, range 1–6). Ninety-nine men and 57 partners attended one of the 18 group education sessions. The clinic has held two Group Intimacy Workshops and will continue to offer these every 3 months. All participants are asked to anonymously rate their experience, and feedback has been uniformly positive and enthusiastic for this clinic. Formal assessment of treatment preferences for SD, distress, depression, QoL, and health economic analysis are being implemented.

#### 0-104

##### **Work by Breast Cancer Survivors: A Literature Review**

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**Background:** It is estimated more than 250,000 women are diagnosed with breast cancer at age 40 or younger who are in their employment years and likely to return to their jobs and social lives after the primary treatment. In order to holistically support the breast cancer survivors' rehabilitation, including their social function recovery, the related knowledge of their return to work after primary treatment needs to be studied. This review aimed to identify the influential factors and outcomes associated with return to work, and possible interventions to improve employment outcomes.

**Search Strategy:** The following databases were searched with timeframe from January 2004 to March 2014 with preference in English: CINAHL, MEDLINE, SCOP, and PUBMED. The model of work in cancer survivors conceptualized by Feuerstein, Todd et al. (2010) was used to guide the search and reviewed results were compared to the model.

**Results:** The majority of reviewed articles (N=23) addressed the outcomes: 1) rate of return-to-work (RTW) and absences; and 2) work ability and performance. The influential variables included the breast cancer survivors' individual characteristics, the health well-being, symptoms and functions, and work demands and environment. Articles specific on policy and procedures related to governmental, organizational, or legal contributions were not found. Only one interventional study for improving the employment situation was found, reporting an ineffective result.

**Conclusion:** All the studies reported reduced work engagement and work ability. The employment status and work performance depended on the combination of individual factors, work environment, social policy, and resources.

**Implications for practice:** The complexity of the interactions within each domain adds challenges to health providers' vocational rehabilitation services. A collaboration of multidisciplinary stakeholders and researchers to develop effective and feasible interventions is greatly needed.

#### 0-105

##### **Integrating Screening and Referral to Allied Health Services in a Day Only Setting: Mind Body Soul Pilot**

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Barriers to integrating supportive care and referral to allied health in the day only cancer care setting include under-recognition of patient needs, accessibility of appropriately trained health providers, out-of-pocket expenses and the stigma associated with psychological referral. The Mind Body Soul Pilot Project aimed to evaluate integration of screening for unmet needs and supportive care through coordination of referral to allied health professionals.

Phase I was conducted over 6 months with the appointment of a Personalised Care Coordinator (PCC) and development of assessment/screening tools. In Phase II, 83 new patients (intravenous chemotherapy) were screened by the PCC. 65% of patients were identified to have unmet needs for psychological support, diet and nutritional support, mobility and practical support. 29% of patients were offered referral to a counsellor. 22% of patients were offered referral to a dietician and 2 patients were referred to an exercise physiologist. 13% of patients required support with matters concerning transport, accommodation and access to financial support.

Of the 24 patients referred to a counsellor, 9 patients received counselling support; with 8 patients utilising the Cancer Council Queensland Telephone Counselling Service and 1 patient seeing a community-based counsellor. Of the 18 patients who were offered referral to a dietician, 10 patients agreed to see a dietician. 1 patient visited an exercise physiologist. 10 of the 11 patients with unmet needs of a practical nature sought support.

Screening patients for unmet needs at the early stages of treatment highlights the importance of providing access to allied health services including psychological support, diet and nutritional support and other social or practical support needs. The results of the pilot provide evidence for integrating screening for unmet needs and referral pathways to community-based allied health in the day only cancer care setting.

#### 0-106

##### **A Randomised Controlled Trial to Assess the Effectiveness of Using Patient Reported Needs and Psychological Information to Guide Care in a Breast Cancer Follow-up Clinic**

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Approximately 550,000–570,000 women are alive in the UK who have had a diagnosis of breast cancer with predictions that this will rise by 3% annually. Most receive follow-up care in a hospital setting and the value of this approach has been questioned for a number of years. There is evidence that the current out-patient provision does not meet the physical, psychological and information needs of women with breast cancer, with women leaving the clinic with unmet needs. This study examined the effectiveness of providing patient-reported needs and psychosocial information to the Nurse at the follow-up clinic in reducing cancer needs and improving quality of life compared to standard care. The primary outcome was change in needs scored at baseline (time 1) and 12 months (time 2). The secondary outcomes were changes in quality of life at baseline and 12 months and the effects of the intervention on variables such as age, severity of treatment and time since diagnosis. **Method:** A prospective single blind randomised controlled trial (RCT) was used. 93 women with breast cancer attending follow-up were randomised to standard follow-up care (control) or a nurse-delivered intervention. This intervention was structured and guided by the self-reported needs and psychosocial information provided by the woman and coupled with a person-centred conversation.

**Results:** No differences were seen between the groups in relation to the primary outcome; changes in needs. Quality of life scores fell in both groups and these showed a statistically significant difference between groups in relation to the secondary outcome, changes in quality of life over time. **Conclusion:** The intervention was as effective as standard care in reducing cancer needs, anxiety and depression, and improving quality of life. Regression analysis revealed that having anxiety and depression are independently associated with unmet needs, and a number of quality of life variables.

#### 0-107

##### Monitoring Chemotherapy-Associated Toxicity and Quality of Life at Home via the Health Buddy<sup>®</sup>

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**Background:** The increasing management of cancer patients as outpatients means patients on chemotherapy have less time to receive information and feedback to oncology nurses and doctors. There is increasing evidence to suggest that patient-reported toxicity measures are more accurate reflections of the severity of side effects than clinician-elicited

responses. A user friendly 'Health Buddy<sup>®</sup>' device (Bosch Healthcare) in the patient's home, providing education and transmitting real-time data on quality of life and side effects to the healthcare team, may improve patient care, encourage self-management and prevent any toxicities worsening. **Aim:** To evaluate a model of care in which patients self-report side effects and experiences associated with chemotherapy, via the Health Buddy<sup>®</sup>

**Objectives:** to investigate via the telehealth device:

Patient Experience

Quality of Life

Grades of toxicity over all cycles of chemotherapy, using standardised scales

Number of Hospital Admissions (to manage severe toxicity)

**Results:** 73 patients were enrolled and completed around an average of 5 months of daily diaries via the Buddy system. Compliance with the device was excellent. Alerts via the system were categorised as high risk, medium risk, low risk and no risk. Females tended to have higher number of alerts. The difference was smallest for high risk alerts. The relationships between the number of alerts and age are weak. For the high risk alerts, there does not seem to be a relationship between the number of alerts and the number of days enrolled in the study.

A full analysis of types of alerts and clinical outcomes will be presented.

**Conclusion:** This study highlights the potential for telehealth solution in the care of cancer patients, integrating fully with the current UK Governmental policy on patient self-management.

#### 0-108

##### Integration of Palliative Care Into Inpatient Cancer Care

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**Background:** International standard-bearing organizations for quality cancer care prioritize the need for integration of Palliative Care (PC) in Oncology. At our tertiary care Cancer Center, a gap analysis revealed opportunities to improve PC service delivery and adoption.

**Methods:** PC leadership partnered with Nursing and other interdisciplinary team leaders to obtain executive endorsement and administrative support to reconfigure PC services according to evidence-based best practice. A Nurse Director and other specialized staff were added to improve access to services; the PC team structure was modified; services were expanded and revised to meet quality parameters; and an interdisciplinary continuous quality improvement process was implemented. The PC department was rebranded as Supportive Care Medicine (SCM) to increase understanding and adoption of the comprehensive services provided, PC education was modified for nurses and created for providers, interdisciplinary partnerships were developed, and consultation processes were changed to improve provision of specialized whole-person supportive care.



**Outcomes:** Our Cancer Center was recognized for excellence in PC by The Joint Commission, with achievement of Advanced Certification in Palliative Care. Comprehensive SCM consultation volumes grew by 39% in one year with increased focus on symptoms beyond just pain, improvement in completion of advance directives, and inclusion of social work and chaplaincy support with each consultation. An average of 11% of all inpatients now receive specialist PC services on a daily basis and half of the inpatient units have established PC-specific Nursing activities.

**Summary:** Partnership between Supportive Care Medicine, Nursing, and other interdisciplinary Leaders has transformed the delivery of inpatient PC at our Cancer Center.

### 0-109

#### Diet Therapy and Traditional Chinese Medical Science Help Woman of Cervical Cancer Living Peacefully

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**Background:** Taiwan treatment for cervical cancer (CC) follows the Western model. However, Taiwanese women are influenced by diet therapy and traditional Chinese medical science (TCMS). Most CC patients in Taiwan follow its recommended diet therapy and lifestyle of TCMS. The mortality rate of CC patients in Taiwan has shown a decrease recently. This qualitative study was to explore the contributions of diet therapy and TCMS to the lifestyle of women with CC in Taiwan.

**Design:** A qualitative investigation was used in the study. Data was collected from purposive samples through in-depth recorded interviews using an unstructured guide and transcribed verbatim. 16 patients diagnosed with CC at a hospital in southern Taiwan participated. The content analysis method was applied to process and analyze the data.

**Results:** Most of the participants adopted a lifestyle which follows diet therapy and TCMS on coping with CC. They paid attention to their diet and avoided eating food considered “cancer promoters” They chose food considered “cancer suppressors” They also exercised, slept well and had positive attitudes. The study found that 14 participants had stable conditions and many felt they would live longer and peace. The implication for the proposed study is that medical staff should realize diet therapy and the lifestyle of CC patients who follows diet therapy and TCMS advice.

### 0-110

#### The Effect of the Aesthetic Care Program for Breast Cancer Patients Receiving Chemotherapy: QOL Report From Patients and Their Families

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**Purpose:** Treatment of breast cancer entails surgery, followed by chemotherapy. Alopecia is a major side effect with profound impacts on appearance, negative repercussions on variety aspects of QOL to patients and also to their families occur. We developed a nurse-facilitated program for patient group, targeting appearance-related symptoms. Herein we explore the effects of the program on breast cancer patients and their families.

**Methods:** The Social Beauty Care Program (SBCP) consist of reflections, lectures on skincare, nail care, use of wigs and makeup techniques, followed by group discussions. Self-report questionnaires (WHO-5, FACT-G) were collected at the first session and 1-month follow-up from the patients. Questionnaires were also sent to family members by mail. The differences in QOL scores of the patients were analyzed by paired *t*-test, and then calculated to assess directional differences in patients and families. Ethical approval was granted by the University of Tokyo IRB.

**Results:** Twenty five patients completed SBCP and 22 family-paired data were collected. Ninety six percent of patients were experiencing alopecia at 1-month follow-up. The mean age of the patients was 45.6. Family participants consisted of 17 partners, 2 offspring, 2 parents, and 1 sibling. WHO-5 score at 1-month follow-up was higher than the baseline ( $p=0.052$ ). Emotional Well-being ( $p=0.001$ ) and Functional Well-being ( $p=0.026$ ) were significantly higher than the baseline. In family-paired data, increased WHO-5 scores were observed in 11 patients and among them 7 family members also improved their scores.

**Conclusion:** Findings suggest the SBCP has increased or maintained the QOL of participants and their families. The program helped patients become prepared, empowered by the knowledge and valued the sharing experiences with those in similar circumstances. The families recognized patients' achieved anticipatory coping skill, and were relieved to see them being proactive.

### 0-111

#### Alteration of Physiological Function in the Scalp of the Patients Undergoing Chemotherapy

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**Purpose:** Patients receiving chemotherapy who have alopecia, experienced itching or pain of the scalp skin and this is serious issue for patients. Chemotherapy drugs may damage hair matrix cell and basal cell. We think that the damage may alter barrier function of the scalp skin. This study aimed to reveal the alteration of scalp skin barrier function of the patients undergoing chemotherapy.

**Method:** A prospective survey was conducted. The breast cancer women undergoing adjuvant chemotherapy were recruited. Transepidermal water loss (TEWL) and skin pH of scalp skin were measured to examine the barrier function at the beginning of the first administration (baseline), 3 weeks later, and 3 months later. The measurement sites were frontal and parietal region. Repeated measures ANOVA was used to compare with the data of each time. This study was approved by the Ethical Committee of the Graduate School of Medicine, the University of Tokyo.

**Results:** Thirteen patients were analyzed. The mean age was 45.7 years. The drugs used for chemotherapy were taxans, anthracyclines, or other. There were significantly differences in TEWL of parietal region and the skin pH of frontal region. The mean of TEWL of parietal region was significantly lower at baseline ( $7.6 \pm 3.8$ ), 3 weeks later ( $6.0 \pm 3.7$ ), and 3 months later ( $3.1 \pm 4.3$ ) ( $p=0.001$ ). The mean of skin pH of frontal region was significantly higher at baseline ( $4.4 \pm 0.2$ ), 3 weeks later ( $4.5 \pm 0.5$ ), and 3 months later ( $4.9 \pm 0.6$ ) ( $p=0.004$ ). However skin pH of frontal region was within limit of normal. The means of TEWL of frontal region as well as skin pH of parietal region were no significantly difference.

**Conclusion:** This report shows the physiological function change of scalp skin by chemotherapy drugs administration. Chemotherapy drugs may affect the scalp skin of parietal region especially and change skin metabolism. We think that it is necessary to provide nursing care due to improving skin barrier function during chemotherapy.

#### 0-112

##### Accessing the Influence of Electrical Acupuncture Stimulation on Self-Reported Anxiety in Palliative Care Among Patients With Lung Cancer

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**Objective:** The study aimed to assess the influence of electrical acupuncture stimulation on self-reported anxiety in palliative care among patients with lung cancer.

**Methods:** A total 62 patients with lung cancer were randomly assigned to three groups from December 2013 to February 2014. Group A ( $n = 21$ ) received standardized palliative care and electric acupuncture stimulation, from which Zusanli, Sanyinjiao and Hegu acupoints were applied. Group B ( $n = 20$ ) received standardized palliative care and

muscle stimulation by needling a nearby nonacupoint. Controlled group ( $n = 21$ ) received standardized palliative care. The patients maintained their assigned acupuncture stimulation in 30 days. The frequency of stimulation was every other day and lasted 9 minutes each time. Self-Rating Anxiety Scale (SAS) was used and statistical analysis for T-test was conducted in this study.

**Results:** SAS was evaluated in three groups before and after stimulation intervention in palliative care. The mean SAS scores in Group A before and after were  $34.64 \pm 5.85$  vs.  $28.21 \pm 1.75$ , ( $p=0.022$ ), which was statistically significant. On the other hand, there were no significant differences of SAS scores in Group B and Group C before and after stimulation intervention in palliative care ( $37.99 \pm 5.98$  vs.  $37.10 \pm 0.56$ ,  $p=0.142$ ;  $33.75 \pm 4.89$  vs.  $33.04 \pm 5.86$ ,  $p=0.605$ , representatively).

**Conclusion:** Electric acupoint stimulation could reduce the anxiety of patients and promote the quality of life among patients with lung cancer.

#### 0-114

##### An Evaluation of a Cancer Survivorship Online Course for Health Care Professionals

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Cancer has become increasingly a chronic condition as cancer survivors are living longer following enhanced screening, diagnosis, and treatment methods over the past decade. These individuals need ongoing survivorship care, some of which could be especially complex. To assist health care professionals in delivering effective care for cancer survivors, a new course was developed by our institute in 2014 for health care professionals. The course is offered online therefore is accessible anytime anywhere. The content includes 7 learning modules with interactive activities and discussion forum covering the physical, emotional, social and spiritual aspects of survivorship care. A final exam is used to objectively assess knowledge acquisition.

**Results:** Twenty six health care professionals participated in the pilot offering of the course in October 2014. Most of them (70%) are nurses with an average of 12 years of oncology experience in either a cancer centre or a general hospital. At the beginning of the course, participants reported lack of confidence in many survivorship care areas, for example, how to provide effective patient education to help them identify their "new normal", how to manage common long term physical side effects of cancer and its treatments, and how to identify psychosocial and spiritual distress including fear of recurrence, and return to work challenges. After the course, participants reported significant increases in knowledge and confidence in all domains



of survivorship care ( $p < 0.05$ ). The average exit exam score was 80%, demonstrating a solid knowledge acquisition and retention.

**Conclusions:** health care providers need educational support to obtain evidence based practice in survivorship care. An online interactive course incorporating the latest guidelines can be an effective method in reaching out to busy clinicians, increasing their knowledge and confidence, and as a result, improve survivorship care for patients and families.

## 0-115

### Hospices Advancing Research Priorities - 'Harp'

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**Background:** There are multiple challenges facing the UK hospice movement over the next decade and tough choices will be made to ensure sustainability and provision of excellent palliative care for all at the point of need. One approach to improve quality of care is by participating in research. Funding was competitively secured from the national UK research network for a senior research nurse to work one day per month with local hospices in 2014, to enable them to become 'research ready'. A hospital based research nursing team subsequently utilised the Delphi technique to generate opinion and derive consensus around hospice research priorities.

**Aim and Objectives:** In order to progress hospice-led research activity, a hospital supportive and palliative care research team collaborated with regional hospices and community partners by undertaking a Delphi study related to hospice service provision. This electronic Delphi study comprised three rounds: the first identified gaps in the evidence base, related to patient care. The respondents documented the research they wished to be implemented to improve care for hospice patients. In the second and third rounds, consensus was derived to elicit the research topics which the hospice staff considered most important.

**Results:** Some months after the senior research nurse support, a local hospice was able to open and participate in a national UK research study as well as developing their own study on the value of the day hospice. The Delphi electronic survey showed carers' needs, pain control and definition of outcomes as three of the research priorities. The full Delphi analysis will be presented.

**Conclusion:** A research nursing team has engaged with a hitherto research naïve community to push forward local research needs. Funding is being sought from the UK National Institute for Health Research to implement the top two hospice research priorities. The Delphi technique is being repeated for hospice patients and their carers.

## 0-116

### Relationship Between Chelation and Clinical Outcomes in Lower-Risk Patients (pts) With Myelodysplastic Syndrome (MDS): Registry Analysis at 5 Years

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**Introduction:** We prospectively collected data from lower-risk pts with MDS in an ongoing US registry to assess the association between chelation and clinical outcomes, including overall survival (OS), and report outcomes at 5 y.

**Methods:** 600 adult pts with transfusional iron overload from 107 US centers were enrolled. Pts were analyzed by iron chelation status: chelated or never chelated; a subgroup of chelated pts had  $\geq 6$  mo chelation. Pts were evaluated every 6 mo for 5 y or until death for survival, disease status, comorbidities, cause of death, and MDS therapy.

**Results:** Chelated pts ( $n=271$ ) had a greater median number of lifetime units transfused at enrollment vs nonchelated pts ( $n=328$ ): 38.5 vs 20.0. At baseline, cardiac and vascular comorbidity rates were significantly higher in nonchelated vs chelated pts (52.4% vs 34.3%,  $P < 0.0001$ ; 59.8% vs 48.0%,  $P=0.0039$ , respectively). As of 5/1/2014, 538 pts had discontinued (400 died, 66 lost to follow-up, 46 completed study, 26 discontinued for other reasons). Of the 271 chelated pts, 187 were chelated with deferasirox (DFX), 40 with DFX and deferoxamine (DFO), 32 with DFO, and 1 with EDTA; in 11, the chelator was not provided. OS from diagnosis of MDS and time to acute myeloid leukemia (AML) were significantly greater in chelated vs nonchelated pts ( $P < 0.0001$  for both). Pts with  $\geq 6$  mo chelation had fewer deaths and longer OS, time to death, and time to AML transformation vs nonchelated pts.

**Conclusions:** After 5 y of follow-up, iron chelation therapy appears to be associated with improved OS and longer time to AML transformation in lower-risk MDS pts. Causation has not been established. Limitations include variation in time from diagnosis, duration of chelation, impact of pt clinical status on decision to chelate, and optional conduct of clinical assessments.

**Disclosures:** RML—Research funding (Novartis, Amgen, Incyte, Telik), consultancy (Amgen, Incyte); CP, JE, KM—Employment (Novartis); GG—M—Research funding (Novartis)

0-117

### **A Qualitative Study of the Knowledge, Attitudes and Perceptions of Healthcare Staffs About Advance Careplanning in Patients With End-Stage in Zhejiang China**

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**Objective:** This study aimed to explore the feasibility to implement advance care planning (ACP) with patients with end-stage in mainland China. The objectives were: (i) to investigate the knowledge and attitudes of healthcare staffs about ACP; and (ii) to analyze barriers for implementing ACP.

**Methods:** Healthcare staffs who have high contact frequency with end-stage patients in different hospitals in Zhejiang province were purposively recruited and interviewed. Qualitative content analysis was performed refining key themes and subthemes emerging from the data.

**Results:** Between July 2014 and December 2014, 20 participants were interviewed. Only 2 participants had understood ACP, while the other 18 ones had low awareness of ACP but felt that ACP is important. Perceived benefits of ACP were that it respects patients' autonomy, eases families' burden of decision-making near the end-of-life, reduces the occurrence of medical dispute and saves medical public resources to a certain extent. Barriers to ACP include lack of legal support, reticence to talk openly about end-of-life care because of cultural taboo, lack of ACP related knowledge and communication skills such as uncertainty of when and how the subject should be broached. There was also a fear that talking about death will impact healthcare staffs' emotion and destroy patients' hope. While all participants would support the introduction and promotion of ACP, some were ambivalent about moral and ethical issues as well as many other factors. Involvement of the family unit in ACP was viewed as important.

**Conclusion:** Despite a perceived need for ACP in patients with end-stage, several barriers to its implementation were identified. There is a need to legislate, take into account cultural sensitivities towards ACP discussions and the importance of closely involving the family unit in the process. In short, the implementation of ACP in mainland China still needs a localization process with a period of time.

0-121

### **Sources of Stress in Healthy Chinese Siblings of Children With Cancer: Preliminary Results of a Prospective Longitudinal Study**

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Research has shown that diagnosis of childhood cancer has been identified as being significantly stressful and

disruptive to the family group. The healthy siblings often exist in an environment of long-term stress and constitute a psychologically vulnerable population. However, in Taiwan, the healthy siblings in a childhood cancer family represent an under-studied group of children. This study aimed to investigate the common sources of stress in the healthy Chinese siblings of children with cancer. Forty-five Chinese childhood cancer families in Taiwan were selected through referrals. Subjects were the healthy siblings aged 7 to 16 years in these families. Data collection involved Family Demographics from parents and a semi-structured interview with healthy siblings. The interviewed siblings answered open-ended questions regarding the changing character of the stress caused by the development of cancer in a child. Content analysis of interviews indicated that the majority of siblings (n=27, 60%) mentioned the reduction in parent-child communication and the lacked vital information of the illness as sources of stress in their living experiences with childhood cancer in a family. These primary stressors explained how the cancer was viewed as contagious by healthy siblings, and led them to perceive a threat to themselves and to their families. An educational program and a support group for Chinese families to avoid secondary stressors of childhood cancer were suggested to provide immediately. Most importantly, after this study such a preventive clinical intervention, according to the suggestion, is currently offered by the author in pediatric units on each Saturday at 2:30PM for six weeks in Taiwan. Further, the format for this family group educational program which consists of a two-hour class and small group discussion does assist the pediatric oncology nurse to facilitate Chinese family adaptation to the cancer experience.

0-123

### **Cultural Influences on Family Caregiving Roles and Relationships for Adolescents With Cancer**

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Taiwanese family caregiving experience is explored within Chinese culture which provides a context for understanding how families manage the impact and change in roles and relationships associated with caregiving when an adolescent member has cancer. Families accept a moral duty to take care of their sick children, which is grounded in the Confucian ethical system of role relationships. Accommodating for changes in family roles and relationships continues when the unwell adolescent is discharged from the hospital and the family assumes the primary caregiving role at home.

**Aim:** This study explores the processes undertaken by family members in managing familial roles and relationships within the Taiwanese society.

**Methods:** Seven families (27 participants) were recruited from a medical hospital in Taiwan. Data were collected by



qualitative interviews and analysed following Strauss and Corbin's Grounded theory methodology.

**Results:** The parents sustained their roles and responsibilities, and constantly emphasized their sick adolescent's caregiving to the family because of the parent-child relationship as well as the fatalism of their religious beliefs. The parents played multiple roles for the cohesion of the family; the healthy siblings tried to accept their life changes and help the parents and ill sibling as much as they could; the sick adolescents also experienced a rearrangement of their way of life. The sick adolescent and their family did not want to see any relapse or worsening of the disease, thus they would adjust family roles and relationships to accept the broken chain of family life.

**Conclusions:** This goal supports families to regain harmony when life threatens family life balance. The findings have implications for Taiwanese families in perceiving, adjusting to and fulfilling the altered roles and relationships associated with caring for an adolescent with cancer at home.

#### 0-125

##### **New Wave of Oncology Nursing Care: Supporting Our Patients on Oral Chemotherapy Treatment**

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Oncology nursing practice is ever changing. In oncology care, there is a shift in the delivery of chemotherapy. Presently, there are greater treatment options for individuals to receive oral chemotherapy at home. The experience of the individual receiving an oral chemotherapy regimen is multifactorial in relation to their social context and their symptomatic concerns. Oncology nurses have expert knowledge in educating and supporting individuals receiving oral chemotherapy regimens. There is a need for oncology care providers to develop a comprehensive interprofessional approach to support and to educate individuals receiving oral chemotherapy in a variety of settings to improve overall adherence and symptom management. This collective effort will improve patient outcomes and responses to illness. This presentation will highlight evaluation outcomes research including a literature review, review of current call back system form, development of evidenced based algorithms for specific symptoms, review of current evaluation form and a patient satisfaction survey for an oral chemotherapy support program within an integrated cancer program. Interprofessional collaboration with fourth year nursing students and engagement of community partners in the program development will be discussed.

#### 0-126

##### **A Trial of Targeted Messaging to Disseminate Cancer Caregiver Evidence Syntheses**

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**Problem:** the oncology nursing society's (ons) website includes syntheses of research evidence for interventions for common issues impacting people with cancer (putting evidence into practice – pep) which are underutilized.

**Purpose:** evaluate the reach and effectiveness of targeted messaging (tm) to disseminate evidence regarding cancer caregiver strain and burden.

**Research Methods:** the sample consisted of 6614 ons members (direct patient care givers) who were randomized into a tm and control group. both groups received a cancer caregiver attitude, knowledge and behavior survey before and after distribution of 12 tms over 24 weeks to the treatment group. the tm open and click through rates and survey responses were analyzed for group and individual differences between the groups using descriptive, regression, and cluster analysis methodologies. the re-aim dissemination model was used to guide the design and analyses.

**Results:** the pre/post test survey response rates (10.5% /9.9%) were comparable to ons electronic survey response rates. knowledge scores increased significantly in both groups ( $p = .001$ ). there were no differences between control and tm groups on survey results and no clear differences based on demographic variables. of those who remembered receiving tms, post-test survey responses showed 30.1% said they visited ons web based evidence resources, and 97.8% said they used the information given sometimes or always. there was an increase in number of webpage visits from 83 to 130 to 172 visits/month from before/during/after the tm distribution.

**Dissemination and Implementation Research Impact:** Health professional associations provide an excellent platform to disseminate research findings through a variety of mechanisms. This study provides information and challenges regarding the uptake and impact of email messages to targeted clinicians.

This project was supported by grant number R18HS021957 from the Agency for Healthcare Research and Quality.

#### 0-127

##### **Preparing Nurses to Help Smokers Quit in Czech Republic and Poland**

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Tobacco use is the largest cause of preventable deaths in Czech Republic (CZ) & Poland (PL) and quitting reduces risks for cancer and other diseases. Current tobacco smoking among adults is approximately 30%. Nurses can help smokers quit, but few receive education to do so. This project tested the feasibility of a web-based tobacco cessation educational program on increasing nurses' delivery of evidence-based interventions (i.e. 5As: Ask, Advise, Assess, Assist, Arrange) in CZ and PL. Methods: After setting teams in CZ and PL, we adapted and translated e-learning country-specific materials including two 30-minute webcasts: 1) smoking cessation, 2) the importance of quitting smoking after a cancer diagnosis, and obtained ethics approval. Recruitment strategies included letters and phone calls to hospitals, and ads in journals and websites disseminating a link to access project information and baseline survey. After completing the survey nurses received an email with a link to the webcasts and web-resources. At 3-months, they received a link to the follow-up survey. Consistent intervention (always/usually using the 5As) was viewed as best practice.

**Results:** 279 nurses in CZ and 145 in PL had evaluable pre- and post-data. At 3-months, nurses in both countries significantly improved consistency of Asking about smoking status, Advising to quit, and Assessing willingness to quit. Nurses in CZ (OR =1.85, 95% CI 1.26,2.71) and PL (OR = 2.05, 95% CI 1.27,3.30) were more likely to Assist in quit attempts. Nurses in PL were twice as likely to Arrange for follow-up (OR=2.15, 95% CI 1.33, 3.47).

**Conclusions:** Similar to programs in the US and China, web-based educational programs were feasible and successful in improving nurses delivery of smoking cessation interventions in CZ and PL. A similar program is being tested in other Eastern Europe countries. Efforts to increase nurses' involvement in cessation intervention could lead to a significant decrease in tobacco-related cancers.

## 0-128

### Hope in Clinical Trial Participation: Need for Ethical Equipoise

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**Background:** Hope for increased survival time is a key factor for those with life limiting disease in decision making

for clinical trial (CT) participation. Patients with acute myelogenous leukemia (AML) after conventional therapies fail to ameliorate the disease are often offered CTs. Synder, et al. posit *hope theory* is defined as **Hope=Agency+ Pathways** In the case of AML patients **Hope** (Increased survival) = **Agency** (the decision to participate) + **Pathways** (CTs). Providers give data on extension of life possible with CTs and decisions are made with an ultimate goal of increased survival. Survival and hope are integrally linked.

**Methods:** Survival in two groups of patients who each received therapy without obtaining a complete remission (CR) is compared. One group subsequently elected to enroll in a clinical trial and did not achieve a remission (Trial group), and the other group subsequently decided to receive no further specific anti-leukemic therapy (Non-Trial group).

**Results:** Analyses of 289 patients not achieving CR after initial therapy for newly diagnosed or relapsed/refractory AML; 60% opted to pursue CT enrollment. Survival was calculated using the Kaplan-Meier method and the Kruskal-Wallis test was used to test differences between numeric factors across groups. Median survival was 4.2 months in the CT group and 1.6 months in the NCT group (p=0.016).

**Conclusions:** Patients who opted for CTs had a statistically significant increase in survival. This improved survival corresponds with "*hope theory*" playing an operative role in decision making for those with life limiting illness. It is incumbent upon providers to exercise ethical equipoise when assessing the quality of life, functional status, disease response, and individual agency when enrolling patients into CTs. Further study is needed to evaluate the quality of time and the meaningfulness of the incremental increase of time spent survival.

## 0-129

### Symptom Control of Patients With Superficial Bladder Tumors Before And After TUR-BT and Intravesical Instillation

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**Introduction:** Bladder cancer is an important health problem with increasing incidence worldwide, which is substantially influenced by environmental factors. The goal of this study is to determine the cancer symptoms in patients with superficial bladder cancer before and after TUR-BT (Transurethral Resection of Bladder Tumor) with concomitant intravesical instillation.

**Materials and Methods:** This is a descriptive prospective study. The study was conducted on 30 inpatients having superficial bladder cancer and were hospitalized in the urological ward of an Education and Research Hospital between December of 2013 and October of 2014. The subject study group was applied TUR-BT and concomitant intravesical chemotherapy instillation. The data was collected



with Patient Information Form and Edmonton Symptom Assessment Scale. The data was obtained one day before or in the same day of TUR-BT application and also after three days of TUR-BT and intravesical chemotherapeutic agent instillation.

**Results:** 46,7% of patients were above 60 years old and 80% of the patients were male. 46,7% of patients had a history of smoking. 56,7% of patients did not report a history of cancer in their family. No statistical difference was found ( $p=0,698$ ) between mean values of the total Edmonton score before and after TUR-BT and intravesical instillation.

**Conclusion:** According to our current study, it was revealed that the concomitant application of intravesical chemotherapeutic agent instillation following TUR-BT did not affect the symptoms outcome in bladder cancer patients.

**Keywords:** TUR-BT, intravesical instillation, symptom control

### 0-130

#### **The Analysis of Symptom Cluster, Adverse Effects and its Influencing Factors in Patients With Lung Cancer During Radiotherapy**

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**Objective:** To analyze the adverse effects of patients with lung cancer during radiotherapy and identify the influencing factors of adverse effects and establish symptom clusters for lung cancer patients during radiotherapy.

**Methods:** We included lung cancer patients during radiotherapy at Tianjin Medical University Cancer Institute and Hospital. Before radiotherapy, a questionnaire designed by the investigators was administrated to evaluate the patients' demographic characteristics and clinical data. We assessed the 12 adverse effects of patients with lung cancer during radiotherapy. A multivariate logistic regression analysis was performed to identify the potential factors leading to adverse effects. MDASI-C was used to assess the frequency and intensity of clinical symptoms in the past 24h to analyze the influencing factors of symptom clusters. Descriptive analysis is used to describe MDASI-C scale score and Spearman correlation analysis for MDASI-C symptoms.

**Results:** A total of 182 lung cancer patients were enrolled. Univariate analysis showed that there were significant differences in fatigue, fever, astriction, and vomiting. By logistic regression analysis, surgical history, high blood pressure, nutritional support, depression and pain were significant risk factors that contributed independently to adverse effects. The analysis of three principal component of MDASI-C showed that there were three symptom clusters. The three symptom clusters had high internal reliability. The coefficient of Cronbach's alpha is 0.82, 0.83 and 0.82 respectively.

**Conclusion:** Based on the symptom clusters established in our study, health care providers can propose adverse effects risk screening and intervention program for lung cancer patients during radiotherapy and chemotherapy.

**Key Words:** lung cancer, radiotherapy, adverse effect, influencing factors, symptom clusters

### 0-131

#### **An Exploratory Study of Sleep-Wake Disturbances in Advanced Lung Cancer Patients**

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Sleep-wake disturbances are a common problem for people with cancer. Prior research has focused predominantly on patients with early-stage disease. Consequently, little is known about sleep-wake disturbances in patients with advanced cancer. The significance of sleep-wake disturbances in advanced cancer patients and the factors associated with them is also not well understood. The purpose of this study was to identify the sleep-wake disturbances in individuals with advanced lung cancer and to explore the relationships amongst sleep, fatigue and quality of life in this population.

All patients with newly diagnosed advanced non-small cell lung cancer attending outpatient clinics at the Cape Breton Cancer Centre were invited to participate. Seventy-two patients agreed to participate. Data were collected during the pre-treatment period. Questionnaires were used to collect symptoms, sleep quality, fatigue and quality of life data. Demographic and clinical data were collected from patients' medical charts. Data were analyzed using SPSS-21. Descriptive statistics were computed to describe the characteristics of the study sample and study variables. Bivariate correlations amongst all study variables were conducted. Multiple regression analyses were performed to examine the associations between the predictor variables.

Findings showed patients with advanced lung cancer experience very poor sleep quality and severe fatigue during the pre-treatment period. Poor sleep quality and severe fatigue affect the quality of life of advanced lung cancer patients. The relationship between sleep quality, fatigue and quality of life in advanced lung cancer patients is complex.

Patients with advanced lung cancer require a comprehensive assessment for sleep disturbances, fatigue and quality of life when initially diagnosed. Both pharmacological and non-pharmacological evidence-based interventions should be considered to manage poor sleep quality, fatigue and to optimize quality of life

### 0-133

#### **Investigating the Factors That Influence the Quality of Nursing Care Delivery at the Oncology Unit in Mauritius - A Phenomenological Study**

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**Background:** The population of users attending the oncology unit of the Island of Mauritius has markedly increased. It is



due to rising incidences of cancer as well as advancements in screening, treatments and cares that have contributed to higher rates of survival. Seemingly, the demand for a quality oncology service has grown. Nurses are singularly solicited to address holistically the needs of patients and families that inherently emerge within the context of cancer.

**Objectives:** The study sets out to explore the factors that influence the quality of cancer nursing cares being provided locally in view of helping to develop improvement strategies. Thus, it is crucial to sort out the factors that render nurses' cares meaningful and identify those that compromise on their quality.

**Methodology:** The research was grounded on Husserlian Phenomenology. The researcher used data source triangulation in view to gain an un-biased and complete insight of the phenomena. Three purposive non-probability samples of patients, nurses and administrators were selected. Data were collected through semi-structured interviews that ranged from 35 to 45 minutes. Interviews were tape-recorded and transcribed verbatim. Data saturation was met. The Collaizi (1978) framework guided the process of data analysis.

**Findings:** The themes that emerged included, namely, the essence of caring in oncology, going beyond the call of duty, difficult working conditions, obstacles to communication, dealing with emotions, lack of knowledge, and managerial shortcomings. Collectively participants conceded that although nurses were dedicated and well-meant, users' needs for prompt and quality cancer nursing cares were insufficiently addressed. It is due to improper working environments, major organizational flaws and 'self' issues.

**Recommendations:** It is proposed that educational, and structural adjustments be initiated amongst others. Practice strategies will require the concerted efforts of all stakeholders.

### 0-134

#### Effective use of Advanced Practice Nursing Roles in Cancer Control: Results of a Systematic Review

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**Background:** Evidence-based approaches are required to optimize healthcare planning and decision-making about how to best utilize advanced practice nursing (APN) roles to improve the delivery of cancer services.

**Aim:** A systematic review was conducted to answer the question: In which patient populations and situations (need types, settings, phase of cancer continuum) have APN roles

demonstrated equivalence, improved outcomes or reduced harms in studies of cancer care?

**Methods:** Key terms (e.g., APN, clinical nurse specialist (CNS), nurse practitioner (NP), oncology) were used to search Medline, Embase, Healthstar and CINAHL databases (1980–2012). The search was limited to English studies and randomized controlled trials or comparative studies with a control group. Eligible studies had a sample size of  $\geq 30$  and evaluated cancer services provided by a master's prepared CNS or graduate from an accredited NP education program. A modified Cochrane risk of bias tool was used to assess study quality. Data was extracted to summarize study results for CNSs and NPs in complementary or alternative roles for each stage of the cancer continuum from diagnosis to end-of-life care.

**Results:** The search identified 29 eligible studies. Most studies were from the US or the UK and focused on screening, treatment or follow-up care for patients with breast, gynecological, urological or colorectal cancer. There were more studies of CNSs (18) in complementary or alternative roles. NPs were evaluated in alternative roles. The quality of studies was poor with 26 of 29 studies having moderate to high risk of bias.

**Conclusions:** There were consistent findings that CNSs and NPs are safe and effective providers achieving similar or improved patient and health system outcomes when compared to usual care. Specific high risk cancer populations may benefit the most from APN care. Future research should evaluate the cost-effectiveness of APN roles for addressing contemporary cancer care issues.

### 0-136

#### The Evaluation of the Japanese Version of the Caring Assessment Report Evaluation, (CARE-Q), 2nd Report

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**Aim:** CARE-Q is a caring measurement tool consisting of a 50-item caring assessment questionnaire developed by P. Larson in 1984. It was translated into Swedish and Chinese with its credibility and validity examined. In Japan, Mizuno et al. obtained permission from the authors, and translated the instrument into Japanese. This study was performed to analyze and determine the credibility and validity of the Japanese version of CARE-Q as translated by Mizuno.

**Methods:** A survey by mail was conducted in which 590 participant nurses working at the designated cancer hospitals in Japan participated. The item of CARE-Q was evaluated using a 7-point scale, ranging from "quite important" to "no importance."

**Results and Discussion:** Ten items with ceiling effect and floor effect were excluded from the analysis. Factor analysis by principal component analysis and varimax rotations were performed. This confirmed the Japanese version of CARE-Q with 5 factors and 35 items in total, which



differed from the English version with a Cronbach's  $\alpha$  ranging from 0.55 – 0.88; cumulative contribution ratio was 62%. This means that the items with ceiling effect and floor effect extended into 9 items, and it was thereby considered that the structure with 6 factors turned to be understandable for five factors. It was presumed that Japanese cultural background, and a unique definition and understanding of “caring” may be implied as possible reasons for the difference between the English and Japanese version. Also, it seemed necessary to consider translation problems including linguistic structural analysis of the statements within the questionnaire. Further study is therefore recommended.

### 0-137

#### **Are Nurses Without Oncology Preparation Ready to Care for Cancer Survivors on Their Clinical Units? Recommendations for Evidence-Based Professional Development**

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**Background:** Despite the global scope of cancer, the literature lacks sufficient evidence about the knowledge needs of non-oncology nurses regarding the care of cancer survivors in non-oncology settings. This study, an extension of previous research investigating cancer content in RN nursing curricula, examined potential gaps in cancer knowledge of US medical-surgical RNs caring for cancer survivors in non-oncology settings.

**Method:** A non-experimental survey design was conducted in three phases. Phase 1 established content validity of a modified Cancer Nursing Curriculum Survey (ONS Project Team, 2010) used to rate the depth & importance of 32 cancer concepts using a Likert scale from 1 (low) to 5 (high). Phases 2 & 3 gained input from national pools of 331 oncology and 320 medical-surgical RNs. Descriptive statistics were used to calculate mean cancer concept scores with Kruskal-Wallis test to determine group differences.

**Results:** Cancer concept means were surprisingly similar between RN groups regarding *depth* and *importance* and were interpreted as *moderate* & *good depth* and *moderately important* & *important*. Significant differences were noted for 4 concepts regarding *depth* (cancer diagnosis, surgery, radiation, emergencies) and 8 concepts regarding *importance* (cancer development, biology, statistics, surgery, chemotherapy, radiation, major cancers, emergencies). Medical-surgical RNs rated all but 2 concepts (chemotherapy & emergencies) higher than oncology RNs and cited top

barriers: lack of time (67%), knowledge (66%), and access to oncology resources (50%).

**Discussion:** Results help inform our understanding of gaps in survivor care knowledge to design evidence-based resources for non-oncology nurses. In the near future, most long-term survivors are likely to transition to care provided by clinicians with little experience in oncology. Previous research validates survivors expect and want involvement from nurses in planning, communicating, and executing their care.

### 0-139

#### **Using an Innovative Strategy to Engage Nursing Students to Learn About the Psychosocial Needs of Cancer Patients**

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**Objective:** To prepare students to address the psychosocial needs of patients with cancer and to have an understanding of the challenges faced when identifying resources within the community.

**Significance and Background:** Cancer centers are working to meet the American College of Surgeons 2015 recommendation of psychosocial assessment and appropriate referrals. Nurses and nursing students should be in a position to deliver comprehensive services such as screening, risk assessment, prevention strategies, diagnosis, treatment, rehabilitation, and resources for patients from all backgrounds. Nursing professionals have an opportunity to help these patients connect with local resources. Through engaging oncology nurses from the surrounding areas, and nursing students with an interest in oncology, over 500 resources were identified and combined into a mobile application.

**Purpose:** The activity was designed to increase the nursing students' awareness of the challenges a patient with cancer may face when trying to find community resources for their psychosocial needs. Resources that were identified were then used to develop a mobile application for cancer resources.

**Evaluation:** As a result of this activity nursing students were able to identify over 500 cancer resources within the immediate community and surrounding areas. Resources were combined and categorized based on type of service, county and patient population served. Faculty then worked with students from the Computer Sciences Department to develop the mobile application.

**Discussion:** The use of smart phones or similar devices will allow the healthcare provider to provide health information to cancer patients without leaving the chair or bed side and will allow more time for education and interaction with patients. This platform gives the nurse and provider an opportunity to meet patient needs, meet ACOS recommendations, and remain efficient in their day to day practice.



0-140

### The Experience of Individuals Who Live With, Through and Beyond Cancer in Ireland

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**Background:** The need for planned and resourced care for cancer survivors is now of heightened importance in Ireland given the ageing population and the increasing number of cancer survivors.

**Methods:** The aim of the study was to outline the supportive care needs of individuals living with or beyond cancer. Ethical approval was attained for the study. Participants (n=238) completed a survey which included: A health related quality of life- EQ-5D measure, Cancer-Specific Health related Quality of Life FACT-G measure and The National Cancer Control Network's Distress Thermometer.

**Results:** Analysis of the data revealed that one third of participant's had problems with performing usual activities, just under half of participants were moderately anxious/depressed and over half had moderate pain/ discomfort. The symptoms that caused the most distress included: fear of cancer recurrence, fatigue, sadness, pain, issues with memory/concentration, hot flushes, issues with appearance, sexual problems, and ability to partake in education/ do work.

Individuals required the most assistance in dealing with the psychological consequences of the disease, specific symptoms (e.g. pain, fatigue, and issues with memory/ concentration) and financial issues. Interestingly the level of support required was very high in terms of specific practical issues such as treatment decisions, transportation, substance abuse and ability to have children. Analyses of data also revealed that much more needs to be done in terms of meeting the longer-term survivorship needs of patients beyond the completion of treatment.

**Conclusion:** The survivorship experience is multifaceted thus having a clearer insight into the patient experience of the long term effects of cancer will mean that the health and social services can be better prepared to assist individuals during cancer survivorship. An over-view of the format such survivorship care could take will also be provided.

0-141

### Colorectal Cancer Screening Behaviours Among South Asian Immigrants in Canada: An Exploratory Mixed Methods Study

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Colorectal cancer is among the top three cancers diagnosed and the second leading cause of cancer deaths in western populations. Guideline recommended screening of the average risk population has the potential to reduce

morbidity and mortality. Colorectal cancer screening is low among South Asian immigrants in the United Kingdom and the United States. Yet, there is limited understanding of colorectal cancer screening uptake or factors that influence screening among South Asian immigrants residing in Canada. The aim of this study was to explore colorectal cancer screening behaviours among South Asian immigrants residing in Ontario. An exploratory sequential mixed methods design was utilized. In phase one, a scoping study mapped evidence on cancer screening among South Asian immigrants. In phase two, focus groups explored South Asian immigrants' perspectives of colorectal cancer and screening. Phase three used phase one and two findings for development of an instrument to assess beliefs and barriers towards colorectal cancer screening. Scoping study findings represented: beliefs of family, holistic health care, fatalism, and emotion-laden perceptions; a lack of knowledge; barriers; and gender differences. However, there was limited colorectal cancer screening literature to understand gender-related factors that influence screening. Qualitative findings uncovered: beliefs of the benefits of or lack of need for screening, cancer as scary, loss of previously established bowel practices; different levels of knowledge and awareness; and, support and access from the physician. The resulting instrument includes concepts relevant to South Asian immigrants. Findings provide insights on socio-cultural context of South Asian immigrants, and opportunities for developing community-based strategies to minimize barriers and increase colorectal cancer screening. The instrument will advance understanding of colorectal cancer screening behaviours among South Asian immigrants in Canada.

0-142

### Relational Autonomy: A Feminist Critique of Kant's Interpretation of Autonomy Shaping Informed Consent Used in Clinical Research Studies Conducted In Developing Countries

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In global health research involving human subjects, informed consent shaped by western ethical discourse is being employed to consent study participants living in developing countries. Scholars have questioned the quality of the informed consent process for these individuals given the emergence of evidence indicating minimal comprehension of the content written in the informed consent form (ICF). Inherently, the ICF is based on the notion that the study participant is making a completely autonomous decision, where researchers conducting clinical studies in the west ascribe to the belief that the ICF ensures a respect for autonomy and safeguards the study participant from being treated as merely as a means, a central component in Kant's moral theory. However, Kant's conception of autonomy does not support a family-centered or communal decision-making processes, which is frequently used by



individuals living in developing countries. Truly informed consent requires the study participant to fully understand all aspects of the study, which is not occurring when western derived ICF are being used in these countries. I argue that the informed consent process may be (re)shaped by drawing from relational autonomy discourse to ensure a full understanding of the clinical research study by study participants living in developing countries.

### 0-143

#### Are Web-Based Interventions Effective for Middle-Aged Overweight and Obese Adults? A Systematic Review and Meta-Analysis

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**Introduction:** Excess weight accounts for about 20% of all cancer cases (Wolin et al., 2010). Web-based interventions have great potential to treat large number of individuals with overweight and obesity. This study is to 1) examine the association between the quality and features, and effectiveness of web-based interventions (WBIs) on weight loss and maintenance in middle-aged adults, and 2) compare the effectiveness between WBIs and non-web-based interventions (NWBIs). **Methods:** We performed a systematic review by searching PubMed, Medline, Cochrane, CENTRAL, CINAHL, and PsycINFO databases over the past ten years. We included 12 randomized controlled trials that met our inclusion criteria (e.g., age, follow-up length, and follow-up rates). We assessed studies based on 11 criteria for methodological quality (Miller et al., 2003) and 11 features (Neve et al., 2010). Meta-analysis was performed to synthesize the data and compare outcomes between WBIs and NWBIs. Fixed effect models were used because heterogeneity tests were not significant. Preferred Reporting Items for Systematic Reviews and Meta-Analyses were employed as standards for reporting the study.

**Results:** In our review, studies with higher scores of quality and features were significantly more effective in weight loss and maintenance than those studies with lower scores. Results of meta-analysis showed that 1) WBIs were more effective than self-directed methods and usual care; 2) in-person interventions were more effective than WBIs; and 3) there were no significant differences in the effectiveness between WBIs and combined methods of WBIs and in-person interventions. **Discussion:** The multiple aspects of quality and features should be incorporated into improving the effectiveness of existing WBIs in middle-aged adults. Although WBIs

are less effective than in-person interventions, they are more effective than self-directed and usual care, and likely to be cost-effective compared to in-person interventions.

### 0-144

#### Zambian Womens Experiences of Advanced Breast Cancer

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Breast cancer is the most common cancer in women worldwide and the second most common cancer in women treated at the Cancer Diseases Hospital in Zambia. Unfortunately most women present with advanced disease, too late to be cured. The purpose of the study was to explore the experiences of Zambian women living with advanced breast cancer. We used a descriptive qualitative design and purposive sampling to select the participants. Ten in depth interviews were conducted and thematic analyses analysed the data. Data saturation determined the sample size. The average age of the participants was 48.2 years and most (7 of 10) had Stage IV breast cancer. Four themes arose from the data: experiencing the signs and symptoms of breast cancer, learning about the diagnosis and treatment, undergoing the treatment and living with advanced breast cancer. Living with advanced breast cancer encompassed severe suffering which started before diagnosis with the inability to recognize the signs of breast cancer. In addition, participants experienced various losses such as femininity, roles and support which changed the lives they lived before becoming ill. Being admitted to hospital and receiving treatment and nursing care brought hope.

### 0-145

#### Case Scenario-Concept Mapping: An Innovative Teaching/Learning Strategy to Stimulate Critical Thinking and Problem Solving In Oncology Clinical Trial Nurses

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Oncology nursing care provided to clinical trial patients (CTPs) is multifaceted and requires strong critical thinking and problem solving skills to elicit optimal patient care and safety. Feedback obtained from novice to expert clinical trials nurses (CTNs) at The Princess Margaret (PM) regarding the quality of the research-training program has highlighted the need to enrich their comprehension of the research protocol.

Drawing from Huang et al., (2012) and information present in the research protocol assigned to the CTN, a realistic, multi-stage, case scenario combined with concept mapping (CSCM) was developed by the advance practice nurse educator (APNE). Upon completion of the CSCM exercise, the CTN is required to provide an oral description of their nursing assessments, identify causality of adverse



reactions, rationale for priority nursing diagnoses and interventions, written nursing documentation and identify patient teaching. The APNE provides immediate feedback to the CTN on any gaps in knowledge, positive reinforcement and continued learning. One-month post completing the activity, CTNs completed a questionnaire evaluating the effectiveness of CSCM in enhancing their critical thinking and problem solving skills in the clinical setting.

To date 13 CTNs have completed this activity. All participants strongly agreed that CSCM enabled them to synthesize relevant information and apply the critical thinking and reflection skills, used during the exercise, to ask and seek out additional information to better understand how to manage the patients according to the research protocol and evidence based practice in their clinical practice areas.

CSCM is an innovative teaching/learning strategy that stimulates critical thinking in oncology CTNs. The result from this pilot project support continued use of this activity with newly hired CTNs in oncology research and has potential implications to apply this strategy in other nursing practice settings.

#### 0-146

##### **Attitude, Belief, Barriers of Oncology Indonesian Nurses Providing Assistance to Overcome Sexuality Problem**

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**Abstract: Purpose:** This study aimed to describe the attitudes and beliefs of the oncology Indonesian nurses towards providing sexual care for the patients with cancer using the Sexual Attitudes and Beliefs Survey (SABS).

**Methods:** The study had a descriptive-correlative design. Using convenient sampling method, 135 oncology nurses from three hospitals in Jakarta, Indonesia participated in this study.

**Results:** Over 85% of the nurses believed that discussing sexuality with patients is a taboo and a private issue. More than 90% of nurses understood that giving a patient permission to talk about sexual concerns is a nursing responsibility. About 73.3% nurses had beliefs that most hospitalized patients are too sick to be interested in sexuality and agreed that sexuality should be discussed only if it is initiated by the patient. However, more than 70% of the nurses believed that the patients expect nurses to ask about their sexual concerns.

**Conclusions:** Educational programs are needed to help the nurses to overcome their barriers and to improve the nurses' ability to give a holistic care including addressing patients' sexuality. Those programs may increase the nurses' attitude and beliefs so that they may have more confidence in helping patients to manage their sexuality problem. Awareness should be raised among Indonesian nurses that cancer patients do have sexual problem due to cancer disease and the treatment and sexuality is not a taboo to be discussed with their patients.

**Key words:** sexuality, SABS, cancer care, Indonesian nurses.

#### 0-147

##### **Difficulty Sharing: The Importance of Educational Support for Couples to Endure Hormonal Therapy Together**

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Partners' support contributes to successful adaptation to cancer and improvement of patients' psychological well-being. Partners are especially expected to play a key role during hormonal therapy (HT) for breast cancer as social support is a major support source for women receiving HT. Our study aims to explore patients' experience of side effects induced by HT and perception of their partners' support during this experience.

Semi-structured interviews were conducted with 10 women who received adjuvant HT for at least 3 months and recognized their partners as a main source of social support. The interview guide included side effects of HT and its impact on their daily lives, the partners' support, partners' support needs, and the couple's relationship. The data were analyzed using content analysis based on Krippendorff's technique. This study was approved by the institutional ethical committee.

The HT period ranged from 3 to 19 months. Half the participants took tamoxifen, and the rest took aromatase inhibitors. All partners were spouses. Three categories emerged: elusive experience of side effects, weakened spousal support, and deteriorating intimate dyadic relationship. The participants experienced a huge wave of emotion and emotional distress caused by experiencing side effects as well as various physical symptoms. They could not make a sufficiently accurate evaluation to manage these symptoms. In addition, they could not easily share the symptoms with their spouses and obtain their support due to the strong subjective nature of HT-related symptoms. The couples' lack of knowledge made it more difficult to share the experience of side effects. Consequently, the participants struggled to manage symptoms by themselves.

Patients receiving HT face an elusive experience of side effects. In contrast, partners' support weakens, leading to a lone struggle to manage symptoms. Educational support for couples can enable better symptom management to pull through HT together.

#### 0-148

##### **Oncology Advanced Practice Providers: A U.S. Cancer Institute Case Study Addressing the Educational Training Needs of Advanced Practice Providers**

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**Background/Purpose:** During the establishment of a US Cancer Institute, the need for oncology advanced practice providers (APPs) was identified. Subsequently, approximately 40 Nurse Practitioners/Physician Assistants were hired (80% having no oncology experience/background). The APPs, physicians, and administrators recognized the unique challenges associated with highly-specialized oncology care and began development of a standardized, oncology-specific onboarding program to address educational needs and support transition into oncology care. During a 4 month period, an onboarding program was developed, reviewed, and approved for use throughout the Cancer Institute.

**Method:** Case study; gap analysis included discussions with the APPs, APP leaders, physicians, and administrators, and review of discipline-specific practice standards to evaluate experiences/educational preparation vs. desired state including didactic and practice opportunities.

**Outcome:** A standardized, multi-track onboarding curriculum was developed utilizing didactic courses from internationally recognized oncology professional organizations, providing discipline-appropriate continuing education credits. Additional, institute-specific elements included protected clinical rotation time in pharmacy, lab, radiology, radiation oncology, survivorship, genetic counseling, and provider shadowing during clinic visits and inpatient rounding. The final curriculum draft was submitted for comments to the original stakeholder group and the program was pilot tested at one of the Institute practices.

**Conclusion:** While still in its infancy, the new onboarding plan received positive initial feedback and increased APP confidence in oncology care provision for participants, including the management of multiple body systems during all modalities of treatment and an understanding of the effects of therapy. Curriculum effectiveness, including patient outcomes, will continue to be evaluated as the Institute grows.

### 0-150

#### Identifying the Spiritual Needs of Hospitalized Indonesian Muslims With Cancer

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**Background:** Patients' spiritual wellbeing is neglected in the Indonesian healthcare system, and the spiritual needs of hospitalized Muslims with cancer have not been well studied.

**Objective:** We aimed to identify the different spiritual needs of hospitalized Indonesian Muslim patients with cancer based on gender, age, cancer type, and how long since the cancer was diagnosed.

**Methods:** This cross-sectional descriptive study used a convenience sample of 122 patients hospitalized in a teaching hospital in Western Indonesia. The 19-item Spiritual Needs Questionnaire (SpNQ) was administered in face-to-

face interviews. The SpNQ has 4 domains: Religious, Inner Peace, Existential, and Actively Giving. Demographic and cancer-related factors were also collected from medical charts. **Results:** The Religious Needs domain and the item "Pray 5 Times a Day" were most important for patients. The subgroups of women > 40 years old, with lung or breast cancer, and diagnosed more than 1 year before had significantly greater spiritual needs than did others.

**Conclusion:** Unlike the Western priority of Inner Peace, the Religious Needs domain was most important for Indonesian Muslim patients with cancer. Moreover, there were several differences in our subgroups.

**Implications for practice:** Our findings will help Indonesian nurses to be more aware of the spiritual needs of their Muslim patients with cancer and to develop specific methods for spiritual care.

**Keywords:** spiritual needs, cancer, Muslim, Indonesia

### 0-151

#### "Tell me Everything About Cancer" - Community Intervention to Clarify Myths and Truths of Cancer

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**Background:** Cancer control had been strengthened by the implementation of "hope plan" ("plan esperanza"), public policy that allows free access of the poor people to prevention services and oncology specialized treatment, however the population has myths which limits its inclusion and adherence to interventions considered in "hope plan". Cancer is a social multicausal disease that expressions of cultural manifestations of the disease as well as the symbolic interactionism are important to control, especially for the multiethnic feature of Peru. The evidence shows that the population has a fatalistic view of cancer: "death", "pain", "suffering", "impossible to be prevented", "difficult to be detected", feeling of being isolated or not treated as well as the perception of a change radical in their life, for this reason inen, national cancer institute of Peru, developed the communication strategy "tell me everything...about cancer".

**Objective:** To improve knowledge of the population in cancer prevention, to strengthen the adherence to screening programs to early detection.

**Methods:** We implemented "tell me everything...about Cancer" with cultural adaptation and community participation. Components:

1. "I like it"; I like being active, eating fruits and vegetables, not smoke and have a responsible sexual life.
2. "Detect it early" importance of screening.
3. "With cancer can also live well"; participation of patients in different activities and demystify cancer.
4. "We are not alone, we have the Hope Plan": communicates the benefits of the National Comprehensive Cancer Plan.



**Results:** since 2011 we have been developed workshops with 250 stakeholders, achieving to developed communication strategies culturally accepted on mass media communication, the screening covertures have been increase; the community mobilization has successfully placed into political agenda the cancer control and 16 million of people know of cancer prevention and detection.

## 0-152

### Think Family Project

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The think family project explores the needs of specialist staff working in acute cancer services and their experience and confidence in supporting families with dependent children. About 24% of adults suffering from cancer are parents to children under 18 years of age and about a third of patients with breast cancer are reported to have young children (Rauch et al., 2003). Children with a parent with a life limiting illness can manifest significant distress and the remaining parent may have conflicting needs such that recognising the needs of children is very difficult (Thibo Karns, 2002). A descriptive qualitative study was carried out with four focus groups conducted in two acute oncology settings (n=26) with specialist oncology and palliative care staff. The findings from the study identify how the awareness of family needs and the needs of dependent children of a parent with advanced cancer can be low on the list of staff priorities. Specialist staff described how they can identify with their patients as a parent and this adds to the emotionally charged context of care. Paradoxically participants described how it was easier to support terminally ill patients and their children rather than those newly diagnosed due to the relative certainty regarding the outcome of the terminally ill parent and the support that could be accessed by referral to palliative care services. Specialist staff mostly report a reactive approach to family centred care taking their cue from patients to initiate or request support for dependent children. Two specific training needs were identified for specialist staff:

- i) The need for guidance on children's developmental stages and how to communicate with children of different ages.
- ii) Further guidance on sensitive assessment of family needs and the needs of dependent children and timely access to support and referral.

## 0-153

### Relationships Among Self-Care Behaviors and Professional Quality of Life in Oncology Nurses

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Oncology nurses distinguish themselves as providing strength and support for their patients who are receiving treatments to combat the diagnoses of cancer. Nurses are affected by the act of their honest caring and the compassion they provide to their patients. This caring and compassion can unintentionally lead to positive or negative outcomes for the nurse. Caring for oneself is often not a priority of oncology nurses. Introducing and incorporating self-care behaviors may have a direct impact on the well-being of oncology nurses.

The purpose of this study was to explore the relationships among the components of self-care behaviors and the components of professional quality of life of oncology nurses. Self-care behaviors are comprised of six dimensions, which include health responsibility, physical activity, nutrition, spiritual growth, interpersonal relations, and stress management. Professional quality of life is comprised of three components that include compassion satisfaction, burnout and secondary traumatic stress. Pender's dimensions of health-promoting lifestyles and Figley's compassion satisfaction - compassion fatigue model were blended to provide the theoretical basis for this study

A descriptive correlation design was used. The sample included 121 RNs who held active membership in the Oncology Nursing Society. Data collection was via online survey using SurveyMonkey®. The three instruments used in this study included: 1) the Health Promotion Lifestyle Profile-II (HPLP-II), 2) the Professional Quality of Life (ProQOL 5), and 3) a Demographic Data Questionnaire (DDQ). Data were analyzed using descriptive statistics, canonical correlation, t-tests, and ANOVA.

Summary of findings included that nurses with high spiritual growth and compassion satisfaction scores had lower burnout. A new variable or canonical variate that was the linear combinations of spiritual growth, compassion satisfaction and burnout was termed, onco-spiritualism by this researcher.

## 0-154

### Consideration of Combined Cultural Diversity-Related Personality Traits and Generational Influences to Enhance Multidisciplinary Cancer Center Teamwork

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**Background/Purpose:** Effective understanding of cultural diversity includes awareness of personality traits that influence interactions between both nursing and non-nursing teammates. In addition to personality traits, interactions are often positively or negatively impacted by generational diversity. Consideration of both personality traits and generational diversity and their combined effects on teammate interactions and communication in a multi-state cancer institute expands on previous workplace research.



**Method:** This case study describes the inclusion of personality testing into existing and new teammate cancer center orientation sessions with name badge color coding for visual identification of personality type among teammates. Following personality type testing and visual cue inclusion, a survey was disseminated to evaluate subjective reports of perceived communication behavior modifications resulting from the testing and/or the visual cues worn by teammates. The follow-up survey included a request for teammate age.

**Results/Findings:** Personality testing contributed to increased perceived levels of self-actualization and improved communication between cancer center teammates. When considered in combination with generational influences, variations were observed between the four categories of Traditionalists (1922–1943), Baby Boomers (1943–1960), Gen-Xers (1960–1980), and Millennials (1980–2000).

**Conclusions/Future Considerations:** Additional research is needed to evaluate long-term effectiveness of perceived improved communication among different generations. Additional opportunities include evaluation of the effectiveness of oncology patient and family member/caregiver personality testing at point of entry into the cancer care system to enhance communication strategies and improve quality of life.

#### 0-155

##### **Surviving Breast Cancer: Physical, Emotional and Health Status of Hispanic Women**

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**Background and Aim:** Cancer and treatment side effects produce increased risk for poorer quality of life and outcomes for Hispanic breast cancer (BC) survivors in the US as compared to their Non-Hispanic counterparts. We conducted a cross-sectional survey to describe the physical, emotional and general health status of Hispanic breast cancer survivors.

**Methods:** The sampling frame included 135 Hispanic BC survivors who were receiving services from a community-based program. Measures included: Emotional Thermometers, My Own Health Report measures of depression and anxiety, PROMIS Global Health Scale, Short Acculturation Scale for Hispanics, and a demographic survey. Surveys were mailed or distributed in person at a support group meeting. A follow-up phone call was made to non-respondents. A \$5 gift card was provided to respondents.

**Results:** 48 surveys were returned for a 35.5% response rate. Women ranged in age from 35 to 74 with a mean of 52.6 years; 58.3% were married. 45.9% rated their overall health as poor or fair. The mean T-score for the Physical

Health Subscale of the PROMIS tool was 44.09 and the Mental Health Subscale was 46.08. There was a high prevalence of fatigue with 50.1% reporting severity that was moderate or severe. Nearly 80% reported having pain (score >0); the level was moderate or severe for 38.3% of all women. On average the women reported mild levels of anxiety, and depression, although many women experienced emotional distress some of the time. There was a subset of up to 10 women (21.3%) who indicated a level of emotional distress that would likely warrant intervention. Stress had the highest mean (M=4.14; SD=3.02) on a 0 to 10 scale.

**Implications:** Surveys such as these can inform both design and evaluation of supportive care programs for Hispanic BC survivors. Findings support the need for programs to address stress management, fatigue, and pain. Screening for emotional distress can inform referrals for counseling or crisis management.PH

#### 0-156

##### **Experience of the Iranian Nursing Students in the Pediatric Oncology Unit**

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**Introduction and aim:** The first experience of the nursing students in each unit might have a long lasting effect on their point of view regarding their profession. The main objective of this study was to investigate nursing students' experiences on their first presence in pediatric oncology units. Taking care of young cancer patients might be a considerable challenge for the nursing students, as they must face different special situations such as caring of terminally ill kids, paying attention to the needs and fears of children and their families.

**Methodology:** Unstructured interviews and anecdotal notes were used to obtain students' opinion and experiences about taking care of children who are suffering from cancer. Qualitative data analysis revealed seven different categories: State of shock, getting lost and finding the way, swinging moods of joy and sorrow, learning from the kids, forgetting personal problems, understanding the power of therapeutic play and palliative care, the sense of being useful and doing something meaningful.

**Conclusion:** The first experience of the Nursing students in the pediatric- oncology unit has moved them dramatically and resulted in having a sense of satisfaction and usefulness. This new experience has led them feel that they were doing something really meaningful and made some of them ponder of pediatric nursing as their future profession to bring smile on the face of the children fighting for their lives.

## O-157

**The Effectiveness of the Neck Exercises Following Total Thyroidectomy on Reducing Neck Pain and Disability: Randomized Controlled Trial**

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**Background:** Neck exercises made immediately after the thyroidectomy reduces the symptoms of neck discomfort.

**Aim:** To analyse effects of the neck exercises following total thyroidectomy on reducing neck pain and disability.

**Design:** Randomized controlled trial. The study was carried out at the general surgery clinic of a training and research hospital in Turkey. The participants were randomly assigned either to the study group (n=40) or to the control group (n=40). The study group was taught the neck exercises immediately after the operation. The effects of the exercises on patients' neck pain and disability as well as on wound healing were measured at the periods of the first week and at the one month. Participants: A total of 80 volunteer patients who experienced total thyroidectomy and who were older than 18. Most of patients (62.5%) had undergone thyroidectomy due to papillary thyroid cancer.

**Results:** The results of the analysis for the evaluation made at the first week showed that the scores of the study group were significantly lower than those of the control group: the scale of neck pain and disability (Mean [SD]= 8.82 [12.23] versus 30.28 [12.09]; p<0.001, respectively), neck sensitivity (Median [Min-Max] = 0 [0-3] versus 2.00 [0-10]; p=0.001, respectively) and pain with neck movements (Mean [Min-Max] = 0 [0-7] versus 3.5 [0-11]; p<0.001, respectively). However, there was no significant difference between the groups in regard to the scores of the analysis for the one month period evaluation (p>0.05). The other finding of the study was that the neck exercises did not have any effect on wound healing.

**Conclusion:** Planned and regular neck exercises done immediately after the total thyroidectomy reduces neck pain and disability symptoms. And such exercises do not have any negative effect on wound healing.

## O-158

**Medication Adherence: Development of a Nursing Tool to Assess Patient Compliance With Oral Oncolytics**

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**Introduction: Background:** In the outpatient setting, up to 30% of chemotherapeutic agents prescribed and managed

by healthcare professionals are oral oncolytics. Given patient preference this trend will likely continue. The best therapeutic value is realized when patients get the correct dose at the correct time. Medications administered outside of a controlled setting often lack proof of adherence such as log, pill count or metabolic testing. There are multiple reasons patients are not compliant with oncolytic meds which should be addressed and documented in the EMR (electronic medical record) along with a plan to address the myriad issues that may interfere with correct dosing:

*Socioeconomic:* financial barriers to obtaining the medication

*Physical:* ability to obtain the medication and mechanics of taking it.

*Emotional:* knows who call for side effects or if a dose is missed.

*Psychosocial:* identify barriers for patient compliance

**Methods:** In 2013 ASCO/ONS updated the safety standards for the safe administration and management of oral oncolytic therapy. This presentation aims to share the documentation tool we developed to track patient compliance with oral oncolytic therapies and standardize a process for documentation of the chemotherapy plan, including drugs, doses, duration and goals of therapy.

**Discussion:** The development of a nursing tool for assessment of oral oncolytic compliance is an essential element in a nursing care plan in order for cancer researchers and practitioners to identify and mitigate any issues that present as barriers to compliance. In research and therapeutic settings it is critical to know that oral oncolytics have been taken as prescribed in order to accurately assess their overall effectiveness and side effect profile.

**Conclusion:** As more oral oncology agents are approved oncology nurses must prepare for the growing use of oral oncolytics and develop proactive, team focused protocols to promote adherence to current and new therapies.

## O-160

**Hospitalized Cancer Patients' Perceptions of Individualized Nursing Care in Four European Countries**

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As patients are different, only one way of delivering care is neither appropriate nor efficient. Care needs to be tailored according to individual characteristics in more general and extents to include individualized nursing care. Individualized



care has a positive impact on patient outcomes and is therefore worth of studies and implementation in clinical practice. The aim of this study was to describe and compare hospitalized cancer patients' perceptions of individualized care, controlled by their socio-demographic characteristics, in four European countries. The quality of individualized nursing care was represented by hospitalized patients' perceptions of the (1) nurses' support of individuality and (2) receipt of individuality as measured by the two-part Individualized Care Scale (ICS). Patients' socio-demographic characteristics included education, age, gender, type of hospital admission, previous hospitalization, and hospital length of stay. Data (n=599) were collected in Cyprus (n=150), Finland (n=158), Greece (n=150) and Sweden (n=141). Multivariate analysis of variance models were constructed. The main effect of country on perceptions of individualized care was analyzed using socio-demographic characteristics as covariates. The level of support of individuality was reported as moderate and receipt of individuality on care as good. The assessments were generally the highest by the respondents in Sweden and the lowest in Greece. Shortcomings in the individualized nursing care were found based on patients' assessments. This study revealed some between-country differences in patients' perceptions of care individualization, controlled by the sample characteristics, and allows the researcher to further analyze the possible reasons for these differences whether conceptual, differences due to the education, clinical practice or organization of nursing care and services.

### O-162

#### **Responding With Multi-Faceted Teaching Plan and Interprofessional Team to Teach Identification, Risks and Responses for Addressing Febrile Neutropenia to Unit-Based Team Caring For Acute Hematology/Oncology Patient Population**

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The goal was to reduce time between identification of a febrile neutropenic episode and appropriate treatment. Knowledge deficit was identified regarding 1) timely notification of fever in neutropenic patients and 2) immediate actions for patient safety. Confusion existed related to timing of events and necessary actions, including: 1) definition of fever and identification of febrile neutropenia; 2) when to notify physician, and 3) when to initiate treatment response for febrile neutropenic patients in acute hematology/oncology setting. Initial steps included formation of an interprofessional team to examine current evidence and practice. Response included: 1) development of a Clinical Practice Guideline; 2) development of Case-Based Learning Scenarios for Simulation Education and 3) development of Computer Based Learning Modules.

Interventions included: defining fever, teaching and identifying response and process. National Clinical Guidelines were implemented (Freifeld, A.g., Bow, E.J., Sepkowitz, K. A., Boeckh, M.J., Ito, J.I., Mullen, C.A., Raad, I.I., Rolston, K.V., Young, J.H., Wingard, J.R. (2010)). ISDA guidelines: Clinical Practice Guideline for the Use of Antimicrobial Agents in Neutropenic Patients with Cancer: 2010 Update by the Infectious Diseases Society of America. Outcomes included: 1) decreased delays initiating antibiotics for febrile neutropenic patients in acute adult oncology population; 2) increased compliance with practice standards, and 3) decreased failure to rescue cases related to delayed treatment of febrile neutropenia. Participants provided positive feedback reporting that simulation increased understanding of importance of prompt management of febrile neutropenic patient by providing a safe learning environment to practice technical skills and professional communication. The development of a Clinical Practice Guideline standardized practice related to care of patients with febrile neutropenia in the acute adult oncology population.

### O-163

#### **Cultural Considerations in Palliative Care/Oncology Healthcare Decision Making: An Observational Study of Familial Influence in India and Other Cultures**

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**Background/Purpose:** Healthcare decision making by both the patient/family and care provider is influenced by multiple factors, including location-related cultural variances and ethical considerations such as favoring patient autonomy (U.S.) or familial autonomy (India). Philosophical differences, such as individualism vs. collectivism are also considerations when providing palliative and oncology care to individuals from a culture other than the providers own. Cultural, ethical, and philosophical influences in the U.S. and India, and among Latin and Korean patients/family members and care providers, are evident in the healthcare decision-making process.

**Method:** Direct observational field research in India and the U.S. and literature review of Latin and Korean cultures.

**Results/Findings:** Palliative and oncologic healthcare-related decisions are directly influenced by the culture in which the individual resides. Knowledge and understanding of the individual's beliefs, as well as those of care providers, contribute to provision of culturally-sensitive patient/family care. Direct observation of Indian and U.S. decision-making demonstrated cultural variation, including those of individualism vs. collectivism. Literature review variations reveal similarities between cultures such as Latin and Korean tendency toward collectivism, although some research suggests movement of Korean culture to one more similar to the U.S. individualism.



**Conclusion:** Palliative and oncology healthcare decision-making observations in the U.S. and India and literature review of other cultures demonstrates variations in acceptable levels of individual and family involvement. These cultural variations in acceptable approaches to healthcare decision-making present challenges to care providers who are unfamiliar with these differences. Further study will enable the nurse/provider to better assist the patient/family with navigation of palliative care/oncology treatment and decision making.

#### O-164

##### **Learning Needs and Difficulties of Family Caregiver Caring for End-Stage Cancer Patients in Thailand**

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**Abstract: Aim:** To clarify the difficulties and learning needs of family caregiver caring for end-stage cancer patients in Thailand.

**Methods:** Eight family caregiver who caring for end-stage cancer patients at home were invited to take part in the study. All of them accepted and were included in the study after giving informed consent. Qualitative research drew on the experiences described by 8 informants through a series of unstructured interviews. Data were collected by means of unstructured interviews regarding difficulties and learning needs in caring of end-stage cancer patients at home. Analysis, data reduction, using coding and segmentation into categories, led to identification of patterns and themes of difficulties and learning needs in caring were categorized using content analysis and transcribed verbatim.

**Results:** The difficulties in caring were classified into category names including; "Telling the truth to the patient" "Hesitant about judgment in a Dilemma", "Difficulty in Promoting Preparation for the End", "Come to a Standstill in Symptom Management", The learning needs were classified into 2 category names including; "How to Promote Preparation for the End" and "How to Manage Symptom of End-Stage."

**Conclusions:** Family members look to the physician and nurse to help them know what to expect when a loved one is dying. No matter what the underlying causes, there is a common final pathway that most patients travel. It is also difficult for them to decide whether they perform the care inducing the more pain to the patients or not. A situation where they face an indeterminable problem that needs to be judged alone makes them perceive the difficulty to be stronger. They also faced difficulties in complicated

situations, for e.g., end-stage symptom management. Consequently, we suggest that an educational program for family caregiver should be one that assists them tackle ethical dilemmas, teaches how to promote preparation for the end and manage symptom of end-stage.

#### O-165

##### **The Informal Carer Experience of Supporting Someone Living With Dementia and Undergoing Cancer Treatment**

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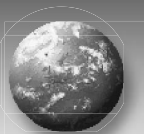
**Aims and Objectives:** To examine the experiences of carers' in supporting someone receiving cancer treatment and also living with dementia/memory loss.

**Background:** With a much poorer survival rate after a cancer diagnosis for patients' living with dementia the burden of care has a significant impact on the caregiver. Diagnosing dementia can be a protracted process for both patient and caregiver and diagnosing cancer even more challenging in the presence of cognitive impairment. The needs of caregivers were often secondary to the procedural aspects of cancer management with caregivers often excluded from the decision-making process.

**Design and Methods:** A qualitative design was used with five in-depth semi-structured interviews conducted with carers using a narrative analytical approach examining the performative work undertaken by carers to account for their 'identity work' (Riessman 2008). The carers included the perspectives of partners, daughters, sisters and in-laws.

**Results:** The predominate narratives focused on managing and co-ordinating care, especially surrounding the often complex decision making processes required in supporting people with dementia throughout the cancer treatment journey. Working to support their relative involved coordinating or challenging often fragmented formalised care provision in ways that promoted a more person centred approach. Carers appeared pivotal in navigating healthcare systems and addressing obstacles to effective care management but this could be impeded with issues like confidentiality that often excluded carer involvement in cancer treatment to the detriment of the person living with dementia.

**Discussion/Conclusion:** Health professionals need to work more creatively in providing meaningful and targeted support for informal carers throughout the cancer journey and maintain the flexibility to challenge and change structures that do not support a person centred approach to care.



# ABSTRACTS

## ICCN 2015 Abstract Book Manuscript Poster Sessions

### P-1

#### Evaluating of Effectiveness on Case Management Model in Gastric Cancer

Wen-Li Lin • Shu Chan Chang • Wen-Tsung Huang • Chao-Jung Taso, Cancer Center, Chi Mei Medical Center, Liouying, Tainan, Taiwan

This study examines and evaluates the effect that adopting a case management model (CMM) has on the care and survival rates of gastric cancer patients.

In this retrospective study, 165 gastric cancer patients were recruited between January 2007 and December 2010. The experimental group comprised 80 patients who had received care from a case management model. The case manager coordinated the recruitment, liaison, and care plan implementation, and conducted disease education, telephone consultations, follow-ups, and evaluations. The control group comprised 85 gastric cancer patients. The patients in the control group had similar characteristics to those in the experimental group, and received routine care.

Adopting a case management model in gastric cancer care increased patient follow-up appointment compliance rates at 1 month, and 3 months ( $p=0.02$ ,  $p<.001$ ). The model also effectively reduced the patients' 14-day readmission rate ( $p<.001$ ). Furthermore, these improvements were statistically significant. The results also indicated that the survival rate for patients receiving care from the gastric cancer. A case management model was superior to that of the control group receiving traditional care. More than 90% satisfaction with all aspects of patients was found. The average survival time of the CMM group (65 months) was longer than that of the control group (58 months) ( $p<0.001$ ).

Adopting a CMM in gastric cancer care effectively enhanced clinical treatment adherence, increased survival rates, and reduced the 14-day readmission rate. The results of this study may be valuable for medical institutions promoting a CMM in gastric cancer care, improve cancer patient care, and ultimately enhance the quality of health care.

**Keywords:** Gastric cancer, Case management model, Survival

### P-2

#### Reasons for Refusal of Treatment and Survival Rate in Colorectal Cancer Patients

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**Purpose:** Colorectal cancer (CRC) is the most prevalent form of cancer in Taiwan and its fatality rate is the third highest among all cancers. Patients who begin treatment within the first year have a survival rate of over 80%, compared to the approximately 50% for those who do not undergo treatment. The purpose of this study was to analyze the rate of and reasons for CRC patients' refusal of treatment in order to understand related factors.

**Methods:** This was a retrospective study of CRC patient histories at a teaching hospital in southern Taiwan. Analysis was performed on data for 523 CRC patients who had gone to the hospital from 2006 to 2013 in order to understand their treatments, reasons for refusal of treatment, and survival rates.

**Results:** 145 patients stopped or refused treatment (27.7%). Among these, the most common types of treatment were chemotherapy ( $n=57$ , 39.3%) and surgery ( $n=46$ , 31.7%). The most common reasons for discontinuation and refusal of treatment were family burden ( $n=25$ , 17.2%) and quality of life after treatment ( $n=18$ , 12.5%). This study found that age and sources of support were factors that influenced patients' treatment compliance rate. The survival rate for patients who accepted treatment was higher than that for patients who refused treatment.

**Conclusion:** 27.7% of CRC patients refused or quit treatment. The survival rate of CRC patients who receive treatment is high. The CRC patients reported being afraid of the operation and chemotherapy. They worried about becoming a burden on their families. We suggest that enhancing patient social support and adequacy strategies are suitable methods for improving the quality of care for CRC cancer patients.

**Keywords:** colorectal cancer, treatment compliance, refusal treatment, survival rate

### P-3 Effectiveness of Nurse Case Management Model Compared With Usual Care in Lymphoma Patients

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**Purpose:** This study examines and evaluates the effect that adopting a “Nurse Case Management” (NCM) model has on the care and survival rates of lymphoma patients.

**Methods:** In this retrospective study, 242 lymphoma patients were recruited between January 2010 and August 2014. The experimental group comprised 161 patients who had received care from a lymphoma “NCM”. The team members comprised numerous professionals, including a physician, case manager, dietician, and social worker, who formulated the care plan and the patient treatment and care processes. The case manager coordinated the recruitment, liaison, and care plan implementation, and conducted disease education, telephone consultations, follow-ups, and evaluations. The control group comprised 81 lymphoma patients. The patients in the control group had similar characteristics to those in the experimental group, and received traditional care.

**Results:** Adopting a “NCM” model in lymphoma care increased patient follow-up appointment adherence rates at 1 week, 1 month, and 3 months ( $p = .011$ ,  $p = .006$ ,  $p = .001$ ). The model also effectively reduced the patients’ 14-day readmission rate. Furthermore, these improvements were statistically significant. The results also indicated that the survival rate for patients receiving care from the lymphoma “NCM” was superior to that of the control group receiving traditional care. The average survival time of the NCM group (37.5 months) was longer than that of the control group (28.2 months) ( $p < 0.001$ ).

**Conclusion:** Adopting a “NCM” model in lymphoma care effectively enhanced clinical treatment adherence, increased survival rates, and reduced the 14-day readmission rate. The results of this study may be valuable for medical institutions promoting a “NCM” model in lymphoma care, improve cancer patient care, and ultimately enhance the quality of health care.

**Keywords:** lymphoma, case management model, outcome evaluation

### P-4 Support Needs of Telephone Helpline Service in Lymphoma Patients

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**Purpose:** Telephone helpline services is an useful in gaining rapid access to oncology facilities. The objective of this study

was to develop a telephone helpline called “Cancer Telephone Helpline Services” (CTHS) to provide lymphoma patients support needs in time, and evaluation the support needs of callers of CTHS.

**Methods:** This was a retrospective study of telephone services during 2007~2011, to describe the support needs to a CTHS and caller characteristics, reason for call, and satisfaction of CTHS.

**Results:** A total of 207 calls were made to the CTHS during 2007~2011, with the majority of callers being men (62.3%), general than the younger callers (58.9%). Callers included patients (64.7%), care giver (19.3%); 72.7% occurred at 8am-1pm; 69.9% of called to obtain information about cancer treatment problems and chemotherapy side effects how to management; 28.6% of calls transfer to emergency room for assessment. The overall satisfaction rate for CTHS was 96%.

**Conclusion:** Through the CTHS, lymphoma patients and care givers could receive higher quality of care during the treatment and management their problems in time. We suggest such telephone helpline services can be used in other disease to help the patients in time. The finding may provide hospital additional information regarding to an optimal skills that will perform education strategies.

**Key Words:** support needs, telephone helpline, lymphoma

### P-5 Sexual Experience of Taiwanese Women After Treatment for Gynecological Cancer

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The aim of this study was to explore the sexual experience of Taiwanese women after treatment for gynecological cancer. Data for this phenomenological study were collected during in-depth, semi-structured interviews with 11 women purposively recruited from outpatients of the gynecological clinic of a medical center in northern Taiwan. Interview data were analyzed using Colaizzi’s method. Data analysis yielded four themes: 1) suffering from sexual changes and difficulties, 2) judgments and uncertainty about the appropriateness of sexual behavior, 3) maintenance and transformation of sexual expression, and 4) transformation of sexual being. All themes had subthemes, but those of theme 2 included some culturally unique subthemes: awareness and uncertainty about the stability of the couple relationship, working to fulfill their sex role and ongoing sex life, looking for a reasonably acceptable way to fulfill the sex role, allowing a sex surrogate to help compensate for inability to fulfill the marital role, and symbolic behaviors to replace intimacy of sexual relationship. This woman-centered view of the sexual experience of Taiwanese gynecological cancer survivors can help healthcare professionals understand and educate their clients about women’s sexual expression during and after cancer treatment.



**Key words:** gynecological cancer, sexuality, sexual experience, sexual expression, qualitative research, Taiwanese

## P-6

### Improving Psychological Care Performance of Oral Cancer Patients Through Interdisciplinary Collaboration

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**Purpose:** Oral cancer surgery often causes huge psychological impact on patients. From 2010 to 2011, up to 60% of patients who commit self-inflicted injury or suicide events in the hospital patient safety reporting system are cancer patients. Therefore, The Brief Symptom Rating Scale (BSRS) has been employed since March 2012 to establish the operation system and practice guidelines of psychological assessment. The aim of this study is to improve the accuracy of psychological assessment toward oral cancer patients and to activate intervention and care from interdisciplinary team.

**Method:** Patients can put “emotion card” on their bedside, and change it per day or anytime their feelings change. BSRS scores  $\geq 6$  means that patients have mild emotional disturbance and psychologists should be consulted. BSRS scores  $\geq 10$  means that patients have medium emotional disturbance and nurses should plan and conduct nursing solution. Information system will automatically consult social services and alert related attending physicians with message of “intervention of mental health department is suggested” for patients with scores  $\geq 15$  or history of suicide.

**Results:** This study includes 98 hospitalized oral cancer patients. BSRS capable rate was elevated from 87.9% to 100% with measures interventions. 43% cases were repeatedly assessed for more than 3 times due to their changing emotions. 29.6% patients had emotional disturbance. 79.3% patients had BSRS scores between 6 and 9. 13.8% patients had BSRS scores between 10 and 14. 6.9% patients had BSRS scores greater than 15. The percentage of patients who still had emotion disturbance when discharging from hospitals was decreased to 14.3%. Patients’ satisfaction was raised from 80.2% to 92.2%.

**Conclusion:** Emotion cards can help oral cancer patients actively and promptly express their emotions, and can be used with psychological care information system to activate interdisciplinary consultation for emotion treatment and better satisfaction.

## P-7

### Search for Meaning of Hematopoietic Stem Cell Transplantation in Japanese Elderly

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**Purpose:** Reduced-intensity stem cell transplantation (RIST) has become a standard treatment for hematological malignancies in patients aged  $\geq 60$  years. The number of transplantation aged  $\geq 60$  has increased fivefold during the past decade. The study aims to explore the experiential process of aged patients who underwent RIST.

**Methods:** Each subject submitted informed consent to participate in this study. Subjects were aged  $\geq 60$  years diagnosed with either acute myeloid leukemia or myelodysplastic syndrome who had undergone RIST at a university hospital. Semi-structured interviews were conducted to understand their treatment experience, and the descriptive data were analyzed using a modified grounded theory approach.

**Results:** Ten subjects (nine males and one female) were included in this study. Average age at transplantation was  $66.3 \pm 3.5$  years. The average duration from RIST to initiation of the study was 16.8 months. The search for meaning of RIST for Japanese elderly survivors were classified into four core categories: (1) confrontation with the severity of hematological malignancies and adverse events following transplantation, (2) challenges associated with RIST, (3) wisdom and resilience nurtured through life experiences, and (4) expectations of improved quality of life.

**Conclusions:** While Japanese elderly survivors accept hematological malignancies as fate, they also possess the resilience and determination to exert all their power as their occupation, to overcome the transplantation. They acquire toughness and new belief in order to adapt to their environment, and they achieved internal maturation through the process of overcoming the severe transplantation. This study suggested the necessity of nursing to enhance their wisdom and toughness in learning their life experiences and support for them to be able to share their distress or increase their motivation for life.

## P-8

### Facing the Other: Transformation of Palliative in Reflective Group

Tso-Ying Lee, Nursing Department, Cheng-Hsin General Hospital, Taipei, Taiwan

**Reserch Aim:** The purpose of this study was to explore the personal and professional trans–formation of the nursing group members during the process of group dialogues.

**Research Method:** Qualitative research method was adopted. Data collection was through the participatory observation of the non-structured experiential group of the 15 nurses. 12 times of verbatim transcribed group process recording was analyzed by “thematic analysis” method.

**Research Finding:** 3 themes were found: (A) The reality beyond imaginations —impeacefulness in hospice care and uncaring in taking care; (B) Facing the other—among the nursing colleagues and among patients/families; (C) Cultivating self to comfort the other — letting-go self and being “co-existence” with the other.



**Research Implications:** Mirroring from the research finding, Nurses can reflect, gain more self-awareness, respect and empathize the others, self-adapt and then enhance the quality of palliative care for patients and also families. On the other hand, it offers some possible clue for nursing faculties' in-service growth for nursing educators and administrators.

### **P-10 Predictors of Bile Leakage After T-Tube Removal For Hepatocellular Patients in Living Donor Liver Transplant Recipients**

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**Objectives:** Bile leak (BL) after T-tube removal is a frequent cause of morbidity in liver transplant recipients. The aim of this study was to determine factors that predict the development of BL after T-tube removal for Hepatocellular carcinoma patients in living donor liver transplant (LDLT) recipients. **Methods:** A total of 129 Hepatocellular carcinoma patients who underwent LDLT with right lobe graft during the period January 2007 to May 2013 at a single medical center. Among them 31 patients received biliary anastomosis with T-tube placed were enrolled. According to abdominal symptoms associated with signs of peritoneal irritation after T-tube removal, patients were divided into two sub-groups; BL and non BL group. Potential risk factors for BL after T-tube removal included preoperative recipient-related factors, donor-related factors, operative time, and postoperative factors. Logistic regression was used to assess possible risk factors association with BL after T-tube removal.

**Results:** BL was developed in 7 (22.5%) patients after T-tube removal. Risk factors associated with BL included the operative time of abdominal surgery [odds ratio (OR) = 18.6, 95% confidence interval (CI): 2.1–24.4], the time of T-tube placement [OR = 9.7, 95% CI: 1.2–14.7].

**Conclusion:** BL after T-tube removal represent a significant cause of morbidity in our LDLT recipients. Thus, we suggest that the T-tube placement should be minimized in LDLT recipients. In our study, the time of safety for T tube placement should be longer than 8 months, especially for recipients who receive one-time abdominal surgery.

**Key Words:** T-tube, Complication management, Living donor liver transplantation

### **P-11 Effect of Baduanjin Exercise With Stress and Quality of Life for Non-Hodgkin Lymphoma**

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The lymphoma survivors mostly receive chemotherapy as their main treatment and get the unpleasant side effects from the therapy. Baduanjin, one of the Chinese medical

qigong which combines exercise and meditation, may reduce the physical and emotional distress resulting from the chemotherapy, and improve overall health and quality of life. However, lack of the related study which focused on the effectiveness of Basuanjin for lymphoma patients was noted.

The purposes of this study were 1) test the effectiveness of Baduanjin on the quality of life for lymphoma patients after chemotherapy; and 2) test the effectiveness of Baduanjin on the psychological stress for lymphoma patients after chemotherapy.

Quasi-experimental and prospective design were tried to test the effectiveness of Baduanjin on the quality of life and psychological stress for lymphoma patients. Totally twenty nine post-chemotherapy Non-Hodgkin's lymphoma patients were recruited by purposive sampling. Patients were randomly assigned into two groups, fourteen patients in the experimental group, needed to complete 12 weeks of Baduanjin and fifteen patients in the control group, kept the routine daily living activities. 3 self-reported questionnaires (i.e. demographic data/medical record, PSS-14 and EORTC QLQ C30) were fulfilled before and 12 weeks after Baduanjin. Mann-Whitney U test had been used to analyze the effect of Baduanjin on the stress and quality of life.

The results indicated 1) Baduanjin may significantly reduced psychological stress for lymphoma patients ( $P < .005$ ); 2) Baduanjin may relatively improved the overall health for lymphoma patients ( $P < 0.05$ ); 3) Baduanjin has no significant impact on the quality of life; 4) Baduanjin has no significant effect on the improvement of physical side effects ( $P > 0.05$ ). The results of study may suggest the lymphoma patients practicing Baduanjin as daily exercise and as part of recovery activities to improve their overall health and to reduce their stress level.

### **P-12 Mediating Effects of Learned Resourcefulness on Health in Males With Prostate Cancer**

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**Objective:** To identify determinants of health-related quality of life after primary treatment of prostate cancer and to compare the differences of prostate cancer related interventions on health in males with prostate cancer. In addition, mediation effects of factors or learned resourcefulness (LR) on health were also examined.

**Methods:** A descriptive, correlational design covered a sample of 133 individuals over 20 years of age and was diagnosed with prostate cancer (PC). Participants completed self-report including demographics, disease characteristics, erectile function, self-control schedule, and SF-36 health



survey. Correlation, T-test, ANOVA, and regression statistical methods were applied to examine the factors mediating participants' health.

**Results:** Participants' mean age was 75. The majority of males with PC had adjuvant hormone therapy and radiotherapy, almost half of participants had urinary irritation and all had sexual dysfunction. About 31% adults with PC had depressive symptoms. Prostate cancer-specific quality of life, erectile function, and learned resourcefulness (LR) were positively related to physical and mental health related quality of life, but negatively related to depressive symptoms of participants. Age, erectile function, pain, prostate-specific antigen (PSA), and LR predicted physical quality of life (PQoL) 47% of variances. In addition, LR had a mediating effect on increasing PQoL and mental quality of life for patients with PC.

**Conclusions:** Males with prostate cancer had high prevalence of urinary irritation, erectile dysfunction, and a high prostate-specific antigen score. Our study revealed learned resourcefulness may help patients with prostate cancer to build a positive attitude and thus enhancing their physical or mental quality of life. Healthcare professionals can substantially contribute to decrease depressive symptoms and enhance the health related quality of life in males with prostate cancer.

### P-13

#### **The Relationship Among Physical Activity, QOL and Self-Efficacy of Perioperative Patients With Gastric Cancer**

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**Background:** Surgery increases life expectancy in gastric cancer patients, however it takes several months to recover from the very common postoperative dysfunction. This study aims to clarify alterations in postoperative physical activity, Quality of Life (QOL), and self-efficacy of gastric cancer patients.

**Method:** The study included 17 subjects (12 male and 5 female) aged 56 to 81 years, with gastric cancer (10 cases with TNM-staging I). We assessed the subjects at the time of pre-operation, discharge, 1 month, and 3 months post-discharge using EORTC QLQ-C30, the Self-efficacy Scale for Advanced Cancer (SEAC), the International Physical Activity Questionnaire and an activity monitor.

**Results:** Dietary intake and step count significantly decreased up to 1 month after discharge, and more than 3METs of physical activity and exercise-expended energy were significantly lower at discharge. Subsequent improvement was seen in all these areas. BMI showed no significant

difference at discharge, significant decrease 1 month after discharge and more significant decrease 3 months after discharge. Regarding health-related QOL, physical and role functions decreased significantly up to 1 month postoperatively, and severity of fatigue, anorexia and diarrhea were significantly high up to 1 month after discharge. However, global health status/QOL showed no difference at any point. SEAC score in terms of symptoms, ADL, and disease were significantly lower at discharge, but later improved.

**Conclusion:** Gastric cancer patients experienced a decrease in dietary intake and BMI up to 1 month and 3 months after discharge, respectively. However, physical activity and self-efficacy, which were at their lowest level at the time of discharge, later improved. This may boost self-confidence and in turn health-related QOL symptoms and physical functions. Therefore, postoperative gastric cancer patients should be helped to cope with physical changes and symptoms, and recovery of physical activity.

### P-15

#### **The Study of Personnel Qualification, Roles and Functions on Oncology Case Manager in Taiwan: A National Survey**

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The personnel qualification, and roles and functions of oncology case manager are considered to be one of the most significant factors contributing to the outcome of cancer patient care. The aim of this study is to investigate the perception of requirement of personnel qualification, and roles and functions on oncology case manager between case manager and their manager. The study adopted a cross-sectional design using questionnaires. A stratified convenience sampling was applied to the recruitment of oncology case manager and hospital manager from cancer treatment hospitals in Taiwan. A total of 91 hospital managers and 200 oncology case managers participated. The overall response rate was 79.91% and 77.19% respectively. The results indicated that two groups (case manager and manager) on the academic requirements of case manager were significant differences. Both groups were considered the case manager already have demonstrated the role functions of communication and coordinator, patient care management and professional consultants. However, reached the role function of research and quality management were relatively low. Furthermore, the inference factors of role and function of oncology case manager were the scare of hospital, the number of newly diagnosis cancer patient, case load of case manager, as well as the academic qualification and year of cancer care experience of case manager. The results of this study provide a reference for government to establish the policy of oncology case manager.

**P-16****Factors Related to Refusal Treatment in Cancer Patients**

Tingyu Chiang<sup>2</sup> • Mei-Hsiang Lin<sup>1</sup> • Yu-Fen Lin<sup>2</sup> • Shu-Lan Chou<sup>2</sup> • Ching-Ting Wang<sup>2</sup> • Chao-Hui Wang<sup>2</sup>, <sup>1</sup>Graduate Institute of Health care, Chang Gung University of Science and Technology, Taoyuan, Taiwan, <sup>2</sup>Cancer center, Chang Gung Memorial Hospital, Taoyuan, Taiwan

**Abstract: Background:** Incidence and mortality rates for cancer have increased dramatically in the recent 30 years in Taiwan. However, not all patients received treatment. Refusal of treatments might impair patients' survival and life quality. In order to improve cancer patients' survival and care quality, we propose this study to evaluate the factors that are related to refusal of treatment in cancer patients via cancer case manager system.

**Methods:** This study was investigated under the analysis of data from Case Management System during period from 2010 to 2012 at a medical center in Northern Taiwan. We enrolled a total of 14974 patients whom were diagnosed cancer. Using the PRECEDE Model as a framework, we did logistic regression analysis to identify independent variables that are significantly associated with refusal of therapy in cancer patients. A multivariate logistic regression model was also applied to estimate an adjusted the odds ratio (OR) with its 95% confidence intervals (95% CI).

**Results:** A total of 253 patients (1.69%) had refuse treatment. The multivariate logistic regression result showed that the high risk factors for refusal of treatment in cancer patient include: fear about treatment side effect ( $p < .001$ ), poor performance ( $p < .001$ ), disease progression ( $p < .001$ ), when the case managers approach patients ( $p = .026$ ), the ways which case managers approach patients ( $p < .001$ ) and the more times that, case managers approach patients ( $\geq 10$ times) ( $p = .016$ ).

**Conclusions:** Cancer patients who refuse treatment have poor survival. The present study provides the factors that are related to refusal of therapy and might be helpful for further application and improvement of cancer care.

**P-17****Improving Quality of Life, Lymphedema and Range of Motion in Patients With Breast Cancer**

Marzieh Moattari, Cancer Research Center, Shiraz University of Medical Sciences, Toronto, Ontario, Canada

Breast cancer survivors increasingly experience long-term side effects including physical, emotional and psychosocial stress that influence their quality of life. However quality of life improvement at different stages of illness needs specifically planned program. Patients experiencing Lymphedema secondary to breast cancer treatment needs special treatment plan for management of associated problems. In this speech I would like to present the results of

2 separate researches conducted on patients with breast cancer. The first experimental research aimed at finding the effects of a model based educational plan on quality of life and life style of these patients using EORTC QLQ-C30 and a self reported life style questionnaire before and after the educational intervention offered to experimental group. Analysis of data revealed a significant change in the quality of life and life style of intervention group.

The second research was a randomized control trial aiming at evaluation of the effect of combined decongestive therapy (CDT) and pneumatic compression pump on lymphedema indicators in patients with breast cancer related lymphedema (BCRL). 42 eligible women were randomly divided into experimental and control group. The volume difference of upper limbs, the circumference at 9 areas and shoulder joint range of motion were measured in all patients. The experimental group underwent the intervention of the study consisting of CDT and pneumatic pump. The mean volume difference of the upper limbs and mean difference in circumference in all areas at different phases decreased significantly. Mean flexion, extension, abduction and external rotation at different phases increased significantly confirming the optimal effect of CDT.

**P-18****The Related Factors of Interrupt Treatment With Cancer Patients**

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**Background:** Cancer is the leading cause of death in Taiwan. Early diagnosis and treatment adherence may affect cure care outcomes The outcome of treatment interruption is that it would affect the prognosis of treatment, resulting in increased risk of recurrence and metastasis, as well as additional costs to social health care.

**Purpose:** The PRECEDE model was used as a framework to explore the factors that caused cancer patients interruption of treatment during the case management.

**Methods:** Analyzed data from a case management information system concerning cancer patients from 2010 to 2012. And used multiple logistical regression models to analyze factors associated with interruption of treatment.

**Results:** This study retrospective review A total of 14974 cancer patients were valid for analyses. In total among them, 812 patients (5.4%) interruption of treatment. The study results revealed that factors such as the predisposing factors are age ( $P = 0.042$ ), marriage ( $P = 0.05$ ), and cancer stage ( $P < 0.001$ ); The reinforcing factors: fear of treatment side effects ( $P < 0.001$ ), ECOG score ( $P < 0.001$ ), and disease status ( $P < 0.001$ ); The enabling factors: transportation inconvenient ( $P < 0.001$ ), poor economy ( $P < 0.001$ )



and poor family support systems ( $P < 0.001$ ), and changing hospitals during treatment ( $P < 0.001$ ) are factors significantly associated with interruption of treatment.

**Implication:** The patients who are at highest risk for interruption of treatment during the case management. Case manager should provide enough appropriate information, community resource and try to solve or ameliorate the factors that caused the patient interruption of treatment by active tracking, timely understanding of patient needs, and integration of resources, which increases the patients complete treatment.

**Key Words:** Case management, PRECEDE Model, Interruption of treatment

### P-19

#### **The Effects of Taiwan Version of Energy Conservation and Activity Management (T-ECAM) on Fatigue in Patients With Breast Cancer Undergoing Chemotherapy: Development and Test**

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**Background:** Fatigue has been described as the most frequent and distressing problem of breast cancer patients who undergoing chemotherapy. It is important health issue for health care providers to improve fatigue symptom of breast cancer patients who undergoing chemotherapy.

**Objectives:** The purpose of the study was to evaluate the effectiveness of Taiwan version of energy conservation and activity management (T-ECAM) intervention on fatigue among patients with breast cancer.

**Methods:** This study had divided into two stages. The aim of the first year study was to conduct a pilot study, which is used to examine potential problems encountered when the T-ECAM intervention is implemented and to test instruments. The study's aim in the second year was to evaluate the effectiveness of T-ECAM intervention, which is a randomized controlled trial. Qualified subjects who have been recruited from one medical center are randomly assigned into an experimental group (64 subjects) or control group (64 subjects). T-ECAM intervention is a 3-week intervention developed for breast cancer patients. All participants had evaluated with instruments of fatigue, after T-ECAM intervention, and follow three times. The statistical methods include repeat measure analysis,

**Results:** The findings of the study were (1) The T-ECAM group had lower fatigue scores in the second cycle of chemotherapy than the control group, the difference was statistically significant; (2) As for the long-term pattern of fatigue in breast cancer patients who underwent chemotherapy, the fatigue associated with chemotherapy peaked after treatment and remained elevated one week after each cycle of chemotherapy, and was observed to gradually diminish over time but never reached baseline values.

**Conclusion:** These findings will help health care providers to understand fatigue patterns over time. They also can improve quality of care and fatigue management strategies for breast cancer patients undergoing chemotherapy.

### P-21

#### **A Study of Acute Pressure Ulcer Assessment In Tumor Patients With Surgery**

Hui Song, Tianjin Medical University Cancer Institute and Hospital, Tianjin, China

**Objective:** The objectives of this study are to compare the predictive value of the RAS scale of the cancer patients with Waterlow's scale, provide evidence for the measurements of preventing acute pressure ulcer.

**Method:** According to collect 290 patients data from a major hospital related to both the new scale and Waterlow's scale from January 2012 to December 2013. During the preoperative visit, two trained registered nurses independently evaluated each patient under the natural light. Meanwhile, the new scale and Waterlow's scale were scored respectively. The incidence of pressure ulcer was recorded immediately after operation. Two additional nurses input data into SPSS 19.0. The sensitivity and specificity of these two scales were tested through Logistic regression for binary data and ROC under curve area.

**Result:** The Receiver operating characteristic (ROC) showed a larger Area under Curve (AUC) in new scale (AUC = 0.701) than in Waterlow scale (AUC = 0.615). A score of 18 was identified as the critical value of predicting the incidence of acute pressure ulcer after surgery by using the new scale.

**Conclusion:** The result supported the new scale has a better prediction of pressure ulcer than Waterlow's scale. The implement of this new scale is also simple and convenient. By using this new scale for the assessment of high risk of pressure ulcer, clinicians could find the risk factors of patients then formulate optimal measures to prevent and reduce the occurrence of pressure ulcer.

### P-25

#### **The Effectiveness of Cervical Cancer Prevention Programmes for Ethnic Minority Women: A Systematic Review of Randomised Controlled Trials**

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**Introduction:** Cervical cancer is one of the gender-specific cancers among women that can be prevented by Pap test. Despite its effectiveness, the utilisation rate is low among ethnic minority women. To increase ethnic minority women's cervical cancer awareness and Pap test uptake, a number of cervical cancer prevention programmes were organised for this population.

**Objective:** To examine the effectiveness of cervical cancer prevention programmes for ethnic minority women without

a history of cancer on their screening intentions and uptake, knowledge of and health beliefs about cervical cancer and screening.

**Method:** A systematic search of literatures was conducted in October 2014 using five electronic databases (Ovid Medline, CINAHL Plus, PsycINFO, Scopus, PubMed) and by manual method. The identified works to be studied were assessed against inclusion criteria. Two reviewers independently extracted the data from these studies and assessed their quality. Findings were then summarised and synthesised narratively.

**Results:** A total of four randomised controlled trials conducted for ethnic minority women in the United States and Canada were included for review. The findings showed that screening uptake and knowledge scores were significantly better in the intervention groups after attending cervical cancer prevention programmes. Inconsistent findings appeared in changes in health beliefs. The characteristics of the programmes included: theory-and language-based, culturally relevant materials, the content with cervical cancer and Pap test information, with multiple intervention strategies and took place in a community setting.

**Conclusion:** As screening uptake and knowledge of cervical cancer and screening are improved, it is desirable to continue the cultural-relevant cancer prevention programmes among this population while continuing to refine the content. Further studies may be conducted in other countries and among other ethnic minorities.

## P-26

### Effectiveness of Colorectal Cancer Preventive Measures Among Ethnic Minorities - An Integrative Review

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**Background:** Colorectal cancer (CRC) is one of the most common carcinoma worldwide. Screening acts as an important role for early detection. Although different countries have their CRC recommended screening programmes, the screening rate is low in general population. It is even lower among ethnic minorities as they are underserved, low health literacy and have different cultural barriers. Ethnic minorities lived in Hong Kong have been growing up in the past 10 years. Hence, explore an effective health promotion intervention to improve CRC screening uptake for these underserve population.

**Aim:** To explore an effective health promotion intervention from existing evidence to improve CRC screening uptake among ethnic minorities.

**Methods:** Search strategies were divided into 3 parts, include preliminary search, extensive search using MEDLINE, EMBASE, CINAHL Plus, Pubmed, PsycINFO and references list from the identified literatures from inception to 2014.

Inclusion criteria were aged over 50, identified as ethnic minorities, randomized controlled trails and English literatures. Those articles were not in English and abstract only were excluded.

**Result:** Eleven randomized controlled trails and 1 systematic review were included. Three interventions were identified from randomized controlled trails, including patient (n=4), profession or peer navigation (n=6) and provider-related (n=1). Culturally-tailored health promotion navigation intervention was the most effective way in promoting CRC screening among low health literacy ethnic diverse group.

**Conclusion:** Culturally-tailored navigation intervention may be effective on increasing CRC screening rate among ethnic groups. As all studies identified were conducted in Western countries, generalizability in Hong Kong is questionable. It is important to develop an evidence-based protocol and evaluate the effectiveness of a culturally-tailored navigation intervention on increasing the CRC uptake rate among ethnic minority in Hong Kong.

## P-27

### Profile of the Admitted Cancer Patients in B.P.Koirala Institute of Health Sciences Nepal

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**Background:** The number of new cancer cases annually is estimated to rise from 10.9 million in 2002 to more than 16 million by 2020, if current trends continue. In Nepal in 2003 total 3257 cancer patients were admitted.

**Aims:** To find out the Demographic Profile of the Admitted Cancer Patients in B.P. Koirala Institute of Health Sciences, Dharan, Nepal.

**Research Setting & Design:** Study was conducted at BPKIHS & it was descriptive exploratory.

**Methods & Materials:** It was hospital based study conducted using all the files/records of admitted diagnosed cancer patients in BPKIHS from 2004 TO 2006. Using total enumerative sampling technique all 1379 diagnosed cancer patients record were reviewed after obtaining the permission from concerned authorities. Using SPSS-10 software package data was analyzed.

**Statistical Analysis:** Frequency, Mean, Percentage & SD were used.

**Results & Conclusion:** It was found that majority (71%) of cancer patients were of age more than 40 years and equal of both sexes. Most of the clients were from Sunsari, Morang and Jhapa districts. The Mean hospitalization day is 8.3259 and very few patients (5.2 %) were only cured.

The numbers of cancer patients are markedly increases in BPKIHS, especially in advanced age and in late stage. It is mandatory to start the cancer information and education programme at BPKIHS for cancer information, Prevention, early detection and proper management of cancer cases.

**P-30**
**Musculoskeletal Pain and Quality of Life Among Breast Cancer Survivors Receiving Aromatase Inhibitors Treatment in China**

Wen Cuiju, Department of Breast Cancer Prevention and Treatment, Beijing Cancer Hospital, Beijing, China

**Objective:** To investigate the musculoskeletal pain and quality of life in breast cancer survivors treated with Aromatase inhibitors (AIs) in China.

**Methods:** The study adopted a cross-sectional design and lasted from March to October in 2014. Finally 131 breast cancer survivors receiving AIs treatment for more than 3 months were chosen during follow-up visit. Musculoskeletal pain was evaluated by the 10cm visual analog scale and quality of life was assessed by the Short Form 36 Health Survey Questionnaire (SF-36).

**Results:** The average pain score of the patients was  $3.78 \pm 2.64$ . Approximately 77% of the patients reported musculoskeletal pain. The proportion of the low level pain, moderate level pain, and severe level pain was 31%, 36%, 33%, respectively. The scores of the role-physical, bodily pain, general health, role-emotional, vitality, mental health, physical functioning, social functioning in patients with musculoskeletal pain were  $17.57 \pm 34.38$ ,  $42.97 \pm 18.48$ ,  $47.01 \pm 23.51$ ,  $48.51 \pm 45.59$ ,  $51.93 \pm 19.52$ ,  $56.16 \pm 20.69$ ,  $56.44 \pm 18.75$ ,  $62.62 \pm 26.60$ . The scores of all the 8 aspects in patients with no pain were  $35.00 \pm 42.34$ ,  $88.93 \pm 13.69$ ,  $53.77 \pm 30.00$ ,  $60.00 \pm 46.65$ ,  $63.17 \pm 17.54$ ,  $72.80 \pm 20.68$ ,  $73.83 \pm 17.30$ ,  $79.58 \pm 27.75$ , respectively. In addition to general health and role-emotional the differences of all the other dimensions between the two groups had statistical significance ( $p < 0.05$ ).

**Conclusions:** The incidence of the musculoskeletal pain in breast cancer survivors is high and it can obviously decrease patients' quality of life. It's necessary to explore effective interventions to management the symptom so as to improve survivors' outcomes.

**P-31**
**Could Patients Endure the Early Enteral Nutrition (EEN) After Esophagectomy? The Incidence, Influential Factors and Nursing in Early Enteral Nutrition Intolerance**

Yi-Yuan Zhao, Beijing Cancer Hospital, Beijing, China

**Object:** To explore the incidence, influential factors and nursing in Early Enteral Nutrition (EEN) intolerance.

**Methods:** A study since 2012 September to 2014 July was conducted in 107 esophageal cancer patients, who were given early enteral nutrition (EEN) within 48 hours after esophagectomy. We monitored the incidence of intolerance (including abdominal distension and bellyache, and/or diarrhea) during EEN, taking nursing interventions to alleviate it. In the mean while, we record the time and different amount (200ml, 400ml, 500ml) given at the very beginning EEN, as well

as the length of transition period to total amount enteral nutrition, all of which were decided by doctors according to their clinical experience. The above factors and demographic characteristics were explored whether or not impacting factors of intolerance.

**Results:** All the patients were given EEN within 48h, and a period of  $5.47 \pm 2.57$  days to total amount enteral nutrition. 41.1 percent of those polled patients experienced various degree intolerance, including 25.3 percent of abdominal distension and bellyache, as well as 27.1 percent of diarrhea. The intolerance in a great majority of patients was alleviated though nursing interventions (slowing down the infusion speed, cutting down the infusion amount, and encouraging patients for more activities, besides drug administration). Even though, 6.5 percent of the polled patients were too hard to go on with enteral nutrition. Sex, age and the length of transition period were found to have no bearing on intolerance. However, incidence of intolerance increased with the amount of nutrition to be given in the first day.

**Inclusion:** Although some patients experienced EEN intolerance after Esophagectomy, most of them were able to go on with enteral nutrition by careful nursing. Shorten the transition period to total amount are supposed to not increase intolerance. Consequently, a shorten period to total amount is recommended for better nutrition.

**P-32**
**Early Feeding on Urology Tract Tumor Surgery Recovery Effect Research**

Hua Guan, Peking University First Hospital, Beijing, China

**Objective:** to study the urology urinary surgery on the effects of early feeding on postoperative recovery methods: selection of upper tract surgery in our hospital uropoiesis surgical department, 126 patients (including open surgery and laparoscopic surgery), prospective randomized for postoperative early feeding group and normal control group: to start eating group are 6 hours after surgery early postoperative into liquid diets, normal control group after recovery exhaust after two days of (mostly) back into the liquid diets. Observation record time, postoperative recovery of gastrointestinal tract, down such confinement, information flow and stop infusion time, etc.

**Results:** postoperative early feeding group of patients in early exhaust, and the fields, defecate early, early stop infusion and resume normal eating the indicators such as recover faster than the conventional food group, postoperative such confinement also significantly shorter. In flow rate and postoperative indwelling drainage tube time, postoperative pain, and no obvious difference was found between discomfort after eating, etc. Laparoscopic surgery compared with open surgery to restore faster, more apparent in the early feeding group.

**Conclusion:** in urology tract surgery, postoperative early eating is to speed up the recovery of intestinal function, reduce the effect of infusion time and hospitalization time, can be used

as one of the important promoting patients postoperative rehabilitation measures.

### P-34

#### Psychological Distress Investigation and Its Relevant Factors Analysis of Breast Cancer Patients Postoperative Chemotherapy

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**Objectives:** To investigate the application of distress thermometer (DT) on psychological pain in breast cancer patients postoperative chemotherapy, and to better understand the present status and related factors of psychological pain in these patients, thus to provide a scientific basis for clinical treatment and care.

**Methods:** Questionnaire survey of DT and related problem lists were carried out in 218 breast cancer patients postoperative chemotherapy from June 2013–December 2014 in our hospital. The statistical description was used to analyze positive psychological pain ( $DT \geq 4$ ). Square test and Logistic regression were used to analyze influence factors of significant psychological distress. Pearson correlation analysis was used to assess the correlation between psychological distress and related problems.

**Results:** Psychological pain score of breast cancer patients postoperative chemotherapy were  $4.46 \pm 2.06$ . Positive psychological pain ( $DT \geq 4$ ) accounted for 71.5% in breast cancer patients postoperative chemotherapy. The top ten factors related to distress were worry, appearance / body, fatigue, nausea, memory loss / concentration, economy, no energy to take care of the children and the old people, no energy to do housework, bathing / dressing, decreased libido. The DT score was not significantly correlated with occupation ( $r=0.034$ ,  $P=0.631$ ), negatively correlated with age ( $r=-0.230$ ,  $P=0.001$ ), positively correlated with educational qualification ( $r=0.211$ ,  $P=0.003$ ).

**Conclusion:** The Distress Thermometer can find out the extent and cause of psychological distress of breast cancer patients postoperative chemotherapy, which is a brief and rapid screening tool for psychosocial distress in cancer patients. Our study provides evidence for the possibility of future personalized intervention to treat medical mental problems. Resolving the related problems is propitious for palliation of the psychosocial distress in breast cancer patients postoperative chemotherapy.

### P-35

#### The Study on the Status and Factors Affecting Perimenopausal Symptoms for Female Patients With Breast Cancer Undergoing Chemotherapy

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**Aim:** To investigate the status and factors affecting peripheral menopause syndrome (PMS) for female patients with breast cancer undergoing chemotherapy.

**Methods:** A cross-sectional study was performed on the clinicopathological data of 150 female breast cancer patients in Department of Surgical Oncology, First Affiliated Hospital, School of Medicine, Xi'an Jiaotong University, ranging from December, 2013 to November, 2014. Kupperman Index ( $KI > 6$  score) was used as a questionnaire tool to assess the severity of PMS.

**Results:** Among the 136 successfully recovered questionnaires, a total of 118 patients were diagnosed as PMS ( $KI > 6$  score), with a total rate of PMS 86.76%. Based the grading system of KI, the occurrence of cases mild (6–15 score), moderate (16–30 score) and severe ( $> 30$  score) grade, was 50.74%, 29.85%, 2.94%, respectively. After univariate and multivariate binary-logistic regression, we found that PMS were independently associated the surgical method and menstrual changes.

**Conclusion:** Surgical method and menstrual changes were important predictors in the incidence of PMS, which were common clinical symptoms for female breast cancer patients undergoing chemotherapy. Individualized and comprehensive therapy and health education may reduce risk of PMS and benefit female patients with breast cancer.

### P-36

#### The Practical Research of Joint Teaching Model Between Colleges and Universities on Strengthening the Practical Training of High Vocational Nursing Students

Luo Huiyu, Fujian Provincial Cancer Hospital, Fuzhou, China

**Objective:** To discuss the application method and effect of joint teaching pattern between colleges and universities on Strengthening the practical training of high vocational nursing students.

**Methods:** Intern courses in Clinical Excellent Wards were added to the second year of high vocational education, which were 7 class hours per week and total 174 class hours in one year. Twenty practical items were then chosen from the exclusive professional nursing trainings and their clinical operational abilities were examined in the wards.

**Results:** Although there was no statistical significance for the theoretic grades after the experiment ( $P > 0.05$ ), significant improvement was founded in skill operational grades after the experiment ( $P < 0.05$ ). The evaluation of their comprehensive capabilities from their educational teachers in hospitals was apparently much better ( $P < 0.01$ ).

**Conclusion:** The joint teaching pattern can make full use of the clinical resources in affiliated hospitals to help cultivate the practical clinical skills of the talented nursing students in high vocational school.

### P-37

#### Cross-Sectional Study and Symptom Management of Symptom Clusters In Cancer Patients

Wan-Ying Wu, Zhejiang Cancer Hospital, Hangzhou, China



**Objectives:** To derive the cancer-related symptoms by identifying the consistent symptom clusters and develop an efficient symptom management strategy for cancer therapy.

**Methods:** An exploratory analysis of symptom clusters in a large sample ( $N=474$ ). Patients' symptoms were measured by the Chinese version of the M.D. Anderson symptom inventory (MDASI-C).

**Results:** Fatigue got the highest score of severity and prevalence (median=4, prevalence=85.2%), followed by sleep disturbance (median=4, prevalence=82.5%) and dry mouth (median=3, prevalence=79.1%). All these symptoms can be classified into three symptom clusters which explained 63.36% of the variance. We named them sickness symptom cluster (Cluster 1), emotional symptom cluster (Cluster 2) and gastrointestinal symptom cluster (Cluster 3). Pain, fatigue, and sleep disturbance loaded on Cluster 1, accounting for 25.05% of the variance. Distress, sadness, and memory problems loaded on Cluster 2, accounting for 21.50% of the variance. Nausea and vomiting loaded on Cluster 3, accounting for 16.80% of the variance. The degree of symptom interference, work aspect got the most interfered (median=5) and prevalent (75.1%) score, followed by mood (median=3, prevalence=74.9%) and Enjoyment of life (median=4, prevalence=72.2%).

**Conclusion:** For this study we got three symptom clusters among the cancer patients and identified the detail consistencies of them, which can help us to explore a more efficient symptom management strategy to relief the patients' suffering.

### P-38

#### Quality of Life of the Patients Who Suffered From Total Thyroidectomy: A Qualitative Research

Hai-Qin Hu, Zhejiang Cancer Hospital, Hangzhou, China

**Objective:** To explore the status of the patients' quality of life who suffered from total thyroidectomy.

**Method:** The phenomenology research method was adopted in this study. By convenience sampling, twelve patients after total thyroidectomy participated in an in-depth interview. Data was analyzed by using Colaizzi's methods.

**Results:** Most patients who suffered from total thyroidectomy had poor experiences in their daily life. The main physical discomfort after surgery were hoarse voice or low tones, extremities numbness, feeble or weak frequently caused by hypothyroidism, and the discomfort from the surgery wound. The changes of self-image and the uncertainty or the anxiety about the disease prognosis caused some psychological problems, which lead to a vicious cycle during the patients' daily life. Most patients had a large change of their lifestyle, and had tremendous pressure for the future life.

**Conclusion:** Patients' poor experiences suggested that we should take measures to intensify the propaganda of thyroid disease knowledge, improve the patients' negative emotions, deal with the complications timely, give full play to the patients' support system, and pay attention on the patients' psychological health, so as to improve their quality of life.

### P-39

#### A Study of the Nutritional Status in 106 Esophageal Cancer Patients During Radiotherapy

Shu-Ping Xie, Zhejiang Cancer Hospital, Hangzhou, China

**Objectives:** To study the nutritional risk and status in patients with esophageal carcinoma during radiotherapy, and provide a basis for intervention.

**Methods:** From July 2012 to December 2013, 106 inpatients with esophageal cancer were reviewed. Patients received intensity modulated radiation therapy to a dose of 60 Gy–68 Gy. We collected the data by the Nutritional Risk Screening scale 2002(NRS2002) and measuring a series of body parameters and biochemical indicators each week.

**Results:** 102 patients were available for analysis. Malnutrition was presented in the patients on admission. Compared with admission, the time point that the nutritional risks and indexes became significantly deteriorate were at 2nd week (NRS2002,  $2.34 \pm 1.24$  vs.  $2.09 \pm 1.28$ ,  $Z=3.234$ ,  $P=0.001$ ), 2nd week (body mass index, BMI,  $20.33 \pm 2.92$  vs.  $20.77 \pm 3.00$ ,  $t=5.160$ ,  $P=0.000$ ), 1st week (arm circumference, AC,  $24.85 \pm 2.70$  vs.  $25.18 \pm 2.72$ ,  $t=2.456$ ,  $P=0.0017$ ), 3rd week (total protein, TP,  $65.82 \pm 5.304$  vs.  $71.530 \pm 5.771$ ,  $t=8.323$ ,  $P=0.000$ ). The differences of triceps skin-fold thickness (TFS), lymphocyte% (LYM%) and total lymphocyte count (TLC) have statistical significance at each time point ( $P=0.00$ ). Nutritional supporting rate during radiotherapy was 82.35% (84/102), among them, completely nasogastric tube enteral nutrition rate was 3.92% (4/102), oral enteral nutrition plus parenteral nutrition rate was 96.08% (98/102).

**Conclusions:** Malnutrition is common in esophageal cancer patients, as radiotherapy being in progress, the risks of malnutrition gradually increase and poor nutritional status is becoming more and more serious. NRS2002 can effectively identify patients with a risk of malnutrition and provide a reasonable basis for intervention. We must pay more attention on the nutritional screening and intervention on the patients with esophageal carcinoma who receive radiotherapy, and take effective measures to promote their recovery.

### P-40

#### A Survey of the Depression Status and the Influencing Factors of the Hospitalized Breast Cancer Patients' Primary Relatives

Shu-ying Liu<sup>1</sup>, <sup>1</sup>Zhejiang Cancer Hospital, Hangzhou, China

**Objective:** To investigate the depression level and influence factors of the daughters or sisters of the hospitalized breast cancer patients.

**Methods:** We finally investigated 100 female person, who was the daughter or sister of the hospitalized breast cancer patients, with the Self-rating Depression Scale(SDS).





**Results:** The depression of the daughters or sisters of the breast cancer patients was in a high level. The main depression score of these 100 person was  $44.61 \pm 11.29$ , which compared with the domestic norm ( $41.88 \pm 10.57/41.54 \pm 10.54$ ) had statistical significance ( $p=0.017, p=0.008$ ); Binary Logistic regression indicated that age, the patient's treatment stage were the risk factors, and the regression equation can explain 14.7% of the variance.

**Conclusion:** The depression of the breast cancer patients' primary relatives have the poor status. The nurse or the community nursing care workers should pay more attention on the psychological health of such a target group.

#### P-41

### Investigation on Attitude of Advanced Cancer Patients and Their Family Members to Advance Directives and Influencing Factors

Miao-Miao Tian, Tumor Hospital of Jilin Province, Changchun, China

**Objective:** To explore attitudes of advanced cancer patients and their family members toward advance directives (AD), to analyze its influence factors, and to provide guidance for palliative care.

**Methods:** A total of 94 patients with advanced cancer and 90 relatives of cancer patients were recruited from a 3A cancer hospital in Changchun. They were investigated with a questionnaire about the attitudes toward advance directives.

**Results:** The cognitive degree of advanced cancer patients and their families to advance directives is relatively low. The attitudes toward advance directives between patients and families were significantly different. The influence factors for patients were educational level, religious belief, the disease duration and the concerns of legal security.

**Conclusion:** Most of advanced cancer patients and their families can accept advance directives. The regional restrictions probably lead to the different cognition on advance directives which can be implemented with the concerns of social morality and legal problem.

#### P-42

### The Influence of Spiritual Care on Cancer Patients With Depression Commit Suicide Ideation

Xiao-Qiu Wang, Tumor Hospital of Jilin Province, Changchun, China

**Objective:** To explore the influence of the suicide ideation about cancer patients with depression for spiritual care.

**Methods:** The inclusive criteria include 108 cancer patients with depression for suicidal ideation. There were randomly divided into intervention and control groups each group of 54 examples. The control group treated with antidepressants. Intervention group patients taking antidepressants at the same time give spiritual nursing intervention. Use the method HAMD and QSA to evaluate cancer patients with depression

for suicidal ideation at the time into group and the end of study.

**Results:** After intervention 3,5,7 weeks, scores of HAMD and Cognitive impairment factors of suicide in intervention group were lower than control ( $P < 0.01$ ). The differences were statistically significant ( $P < 0.05$ ). At the same time, After intervention 7 weeks, scores of the understanding of the nature of suicidal ideation, suicide and families' attitudes in intervention group were higher than control ( $P < 0.01$ ). The differences were statistically significant ( $P < 0.01$ ).

**Conclusion:** Spiritual nursing intervention can improve suicidal ideation of cancer patients with depression, save the patient's life.

#### P-43

### The Study on Application of Systemic Training Model in Prevention of Radiotherapy-Induced Trismus in Patients With Masopharyngeal Carcinoma

Li-Juan Xia, Tumor Hospital of General Hospital of Ningxia Medical University, Yinchuan, China

**Objective:** To explore the application of systemic training model in prevention of Radiotherapy-induced trismus in patients with NPC, and evaluate its effect.

**Methods:** 114 subjects with NPC who admitted from February 2013 to August 2014 to a three A hospital of Ningxia were selected. All patients were treated with concurrent radiotherapy and chemotherapy. The subjects were divided into two groups using random number table: the intervention group and the control group, with 57 patients respectively. The systemic training model was applied for the intervention group. The model including: the development of NPC patients health education clinical path way, training for all nurses, patients psychological care, training for patient compliance, the self-evaluation and nurse evaluation, continuity of care. The comparison were made of the distance of incisors, trismus at the end of radiotherapy, 6 months and 1 year after radiotherapy, as well as the satisfaction surveys upon discharge of the two groups.

**Results:** In 6 month and 1 year follow up after radiotherapy, the distance of incisors of the intervention group were larger than the control group, the number and extent of trismus of the intervention group were less than the control group. The following entries: service attitude, emotional support, nurse-patient communication, etc of the patients satisfaction questionnaire upon discharge of the intervention group were higher than the control group. All the difference were statistically significant ( $P < 0.05$ ).

**Conclusions:** The systemic training model improves the patient compliance on mouth opening exercise, improves patients' satisfaction on nurse services, and prevents the radiotherapy-induced trismus in NPC patients, especially for long-term prevention effects.

**P-44****Evaluation of Quality of Life in Cervical Cancer Patients After Radiotherapy**

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**Objective:** To evaluate the quality of life (QOL) of postradiotherapy cervical cancer patients, to investigate the possible factors that affect the QOL and giving the consults for improving the patients' QOL.

**Method:** 792 cervical cancer patients within one year after radiotherapy were surveyed and analyzed by using the assessment scale of cervical cancer QOL (FACT-Cx) and a self-design questionnaire.

**Results:** The total score of the patients' QOL was  $119.55 \pm 18.21$ , among them, the physiological status score was  $22.08 \pm 4.56$ , social/family status score was  $18.29 \pm 4.47$ , emotion status score was  $17.89 \pm 4.74$ , function status score was  $16.78 \pm 4.68$  and the score of peculiar module of cervical cancer was  $44.51 \pm 5.05$ . The three major factors that affect the QOL were the radioactivity proctitis, the period postradiotherapy and the pattern of payment of hospitalization costs. The secondary causes were monthly income of the family, sexual life, clinical stages, edema of lower extremity and religious faith.

**Conclusion:** Generally, the QOL of postradiotherapy cervical cancer patients was in the level above middle within a year and it was affected by multi-factors. In order to improve the QOL of postradiotherapy cervical cancer patients, it should be enhanced the intervention of complication related to the radiotherapy and sexual life of patients in convalescence.

**Key words:** quality of life, cervical cancer, radiotherapy

**P-46****Health Behavior Self-Efficacy and Health Promotion Lifestyle in Adolescent Cancer Survivors and Controls**

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This study was to explore the differences on 「health behavior self-efficacy」 and 「health promotion lifestyle」 between adolescent cancer survivors and non-cancer teenagers.

It was case-matched, cross-sectional study, including 「health behavior self-efficacy」 and 「health promotion lifestyle」.

The results indicted: (1) 11–14 years old cancer survivors had the lowest scores in 「well-being」 of the health behavior self-efficacy, lowest scores in 「exercise」 for control group. 15–19 years old group, the lowest score was in 「exercise」 and 「well-being」 for cancer survivors and control group. 15–19 years old cancer survivors had significantly higher scores in 「health behavior self-efficacy」 and 「health

promotion lifestyle」 than 11–14 years old cancer survivors. (2) For 「health promotion lifestyle」, the lowest score in 「health practices」 for 11–14 years old cancer survivors and the lowest score in 「exercise」 for control group. However, the lowest score was determined in 「exercise」 and 「health practices」 for 15–19 years old cancer survivors and control group, respectively. (3) For 11–14 years old, there was significant difference in both 「health behavior self-efficacy」 and 「health promotion lifestyle」 scores between cancer survivors and control group. Cancer survivors had lower scores in 「nutrition」, 「health practice」, 「well-being」 of 「health behavior self-efficacy」, and 「health practice」 and 「interpersonal support」 of 「health promotion lifestyle」 than control group. (4) health behavior self-efficacy of 「well-being」, 「health practice」 and habitual use of drug-over-the-counter accounted for 51.5% variability of 「health promotion lifestyle」 in cancer survivors.

**Conclusions:** The clinical care need to pay attention on age at 11–14 cancer survivors, especially for nutrition, health practice, well-being, and interpersonal support. In the future, well-being, health practice, habitual use of drug could be used as strategies to enhance health promotion lifestyle in childhood cancer survivors.

**P-47****The Association of Pain With Interference Of Social and Family Life Among Cancer Patients in Gaborone, Botswana**

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**Aim:** Opiates are not widely available in sub-Saharan Africa, and even where available, most cancer patients report inadequate pain control that interferes with daily living. The study aimed to describe cancer patients' pain and its interference with daily living, and to test-retest validated scales for pain and symptom assessment.

**Methods:** This cross-sectional study was conducted at baseline (T1) and 7 days after baseline (T2) on cancer patients  $\geq 21$  years in Botswana. English and Setswana versions of the Memorial Symptom Assessment Scale-Short Form (MSAS), PROMIS Pain Interference-SF8a Scale (PI), Visual Analog Scales, and an investigator-developed questionnaire were used. Pearson and Spearman correlations, Intraclass Correlation Coefficient, and Cronbach's alpha were calculated.

**Results:** Twenty-five patients participated; 18 (72%) were female, most common cancers were gynecologic ( $n=7$ , 28%) and breast ( $n=7$ , 28%). Average age was 44.7 (12.4) years. About half participants reported pain  $\geq 4/10$  over the last 24 hours and 7 days at both times. Pearson correlations between pain ratings (0=none, 10=worst) and PI were strongly



correlated ( $p < .001$ ) at T1 and T2. Cronbach's alpha for PI at both times was 0.99 ( $p < .001$ ). Test-retest results for the MSAS showed significant correlations on all subscales (0.48 to 0.58), and with added items (0.64) and for the PI (0.42–0.52). The most frequent and distressing symptoms were pain, neuropathies, constipation, and hunger. Sixteen (64%) reported to have received adequate pain control medication. However this was not significantly associated with pain ratings. **Conclusion:** Patients report distressing cancer pain and its interference on their lives, although some report to receive adequate pain control medication. Other distressing symptoms include constipation, and hunger. Nurses in Botswana may use the translated MSAS and PI tools for in-depth symptom and functional assessment, as they were found reliable to assess cancer patients.

#### P-48

##### **Oncology Nurses in Chemotherapy Occupation Protection Status and Countermeasures**

Shou-Hua Peng, Tumor Hospital of Xinjiang Medical University, Urumqi, China

**Objective:** To understand the oncology nurses chemotherapy occupation protective of cognitive status and compliance.

**Methods:** Self-designed questionnaire was applied to 542 oncology nursing staff conducted a questionnaire survey.

**Results:** The tumor hospital and general hospital oncology nurses to chemotherapeutic drugs harm way, inadvertent exposure to chemotherapeutic drugs in how to deal with the understanding of the differences were statistically significant ( $P < 0.05$ ), hospital and a general hospital oncology nurses in chemotherapy occupation protection measures, the chemotherapy agents are marked for safekeeping, dispensing, open the ampoule should wash their hands before pad with gauze, pollutants should be placed in the bag for protective measures the difference was statistically significant ( $P < 0.05$ ), tumor hospital and general hospital oncology nurses in chemotherapy waste protective measures when the differences were not statistically significant.

**Conclusions:** Nurses chemotherapy occupation protection compliance is low, the hospital should strengthen the oncology nurses in chemotherapy occupation protection knowledge education, improving nurses' occupation protection in chemotherapy compliance, put forward a sound of nurses in chemotherapy occupation protection countermeasure.

#### P-49

##### **Utilization of ECG Monitor With Ultrasound to Locate PICC Tip Position**

Hua-Ping Wang, Tumor Hospital of Jiangxi Province, Nanchang, China

**Objective:** To explore a effective and reliable methods for PICC tip position.

**Methods:** 1913 cases of cancer patient with PICC insertion from January to December in our hospital were randomly divided into group A and group B by hospitalized number. For patients in group A, we determined the tip position by the ECG monitor via intracardiac electrogram location when the tube reached the target length. For those who ECG did not showed the characteristic of high peaked P wave, we looked for PICC tip in the same side internal jugular vein, external jugular vein and axillary vein using bedside ultrasound. While for group B, we directly used ultrasound investigate in the same side internal jugular vein, external jugular vein and axillary vein when the tube reached the target length. The catheter was properly fixed as soon as we sure there was no tip allotopia. At last, the X-ray radiography was operated for comparing the tip arrival rates of PICC cannulation of two group patients.

**Results:** The tip arrival rates and accurate tip arrival rates was 98.33% and 95.17% respectively in group A. While in group B these two rates were 91.52% and 69.08%. Significant difference was observed between the two groups ( $P < 0.05$ ).

**Conclusion:** Application of intracavitary electrocardiogram combined with ultrasound is an effective and reliable PICC tip position methods. It is worth to be promoted in the clinical.

#### P-50

##### **Application of Health Belief Model Education in the Breast Cancer Patients Rehabilitation**

Sun Mengqing, Department Of General Surgery, Cancer Hospital of Jiangsu Province, Nanjing, China

This study intends to use the health belief model health education into the breast cancer patients education. The aim was to provide a theoretical basis for the reference implementation of better health education in breast cancer patients. We report a comparison study between breast cancer patients the with or without health belief model education in Jiangsu Cancer Hospital. The general information of this hospital has been introduced elsewhere (Jiang et al., 2010; Yan et al., 2010; Gao et al., 2011; Huang et al., 2011).

Totally, 120 breast cancer patients hospitalized in Jiangsu Cancer Hospital were divided into experimental and control groups. The control group received routine care given by their responsible nurses, the routine care including diet, activity, functional exercise and so on. The health education programs obeyed to Health belief model (HBM) were implemented to the experimental group. Specific implementations involved a comprehensive assessment of patient's needs and attitudes, bedside implementation of individualized guidance, fixed class two times a week, playing video, a collective rehabilitation exercises for limb function rehabilitation led by a nurse, the collective and the individual's psychological guidance, phase combination of mutual exchanges between teams and other patients. Activity, arm circumference,



upper limb function self-assessment, questionnaire breast cancer-related knowledge, self-efficacy assessment of the quality of breast cancer patients and breast cancer Scale (Chinese breast disease) for patients (QLICP-BR, V1.0) are the main evaluation tools. The time evaluating the effect of the intervention is 14 days, one month, three months, six months after surgery respectively.

### P-51

#### The Survey and Analysis on Attitudes to Security Culture Among Cancer Hospital Nurses

GY Dong, Jiangsu Cancer Hospital, the Affiliated Hospital of Nanjing Medical University, Nanjing, China

**Background:** Nursing work is an important part of the medical institutions work, nurse play an important part in patient safety management. Our hospital is cancer hospital. To describe the status of security culture attitudes among the Cancer Hospital Nurses. Results were used to provide a theoretical basis on developing security interventions.

**Method:** The Chinese version of the revised security attitudes questionnaire was used to investigate the attitudes to security culture of 331 nurses among a third-grade class-A cancer hospital.

**Results:** The cancer hospital nurses have a positive perception on patients' safety with a total mean score of  $125.52 \pm 17.96$ . The attitudes to security culture of nurses were different in different gender, professional title, education and marital status ( $P < 0.05$ ). Male nurse has a higher score in safe atmosphere, team work and job satisfaction. Supervisor nurse has the lowest score ( $19.13 \pm 5.12$ ) in job satisfaction, while nurse in bachelor degree has the lowest score ( $16.98 \pm 3.30$ ) in management perception, perceived stress of nurses were different between married one and single one.

**Conclusions:** The attitude of security culture in cancer hospital nurses is positive. Tumor patients especially in patients with malignant tumor may have special security risks. Nurses must be aware of the importance of patient safety, which can be a positive response to the hidden trouble of safety department existed or happened error. Managers of nurses should be concerned about the job satisfaction of intermediate grade nurses. They should strengthen communication and guidance to bachelor degree nurses. Married nurses should also be helped to deal with multi-role conflict. These measures are effective to improve nurses' positivity on security culture, to form a habit of security nursing and to promote patients' safety.

### P-52

#### Investigation and Analysis of the Psychological Status Among Patients with Permanent Colostomies

Qin Huiying, The Oncology Nursing Committee of Chinese Nursing Association, Guangzhou, China

**Objective:** To investigate and analyze the current situation of the psychological status among patients with permanent colostomies.

**Method:** A total of 113 eligible patients with permanent colostomy were recruited from the stoma outpatient department of a Class A tertiary hospital and went to the stoma fraternity from Sep 2012 to Mar 2014. Self-designed demographic questionnaire, Symptom Check-list 90 questionnaires (SCL-90) were assessed among the patients.

**Results:** All patients' mean score of the SCL-90 was 133.86 ( $SD=35.99$ ), higher than the Chinese normal adult group, but showed no statistical difference ( $P > 0.05$ ). Whereas the mean score of the SCL-90 of patients who had the stoma within one year was 149.82 ( $SD=40.38$ ), statistically higher than the Chinese normal adult group. Somatization, Obsessive and Depression, three factor of SCL-90 were statistically higher than China normal adult group ( $P < 0.05$ ) and were the main psychological problems.

**Conclusion:** Patients with permanent colostomies experienced some psychological problems, especially in the first year after stoma formation when comparing to the Chinese normal adult group particularly showed the symptom of somatization, obsessive and depression. It suggests that we should carry out some intervention to help them for better stoma adjustment.

They are concerned about the job satisfaction of intermediate grade nurses. They should strengthen communication and guidance to bachelor degree nurses. Married nurses should also be helped to deal with multi-role conflict. These measures are effective to improve nurses' positivity on security culture, to form a habit of security nursing and to promote patients' safety.

### P-53

#### A Delineation Study for Chinese Oncology Nurses' Knowledge and Activities in Cancer Pain Management

Yu Liu, Sun Yat-sen University Cancer Center, Guangzhou, China

**Aim:** To investigate oncology nurses' knowledge level activities status, to explore the correlation between the knowledge and activities and to explore the factors of nursing activities.

**Background:** Chinese ministry of Health promulgated the standards of diagnosis and treatment of cancer pain and has been proposing an activity named Good Pain Management Ward since 2011.

**Design:** A descriptive and correlative study.

**Methods:** A self-administered survey including demographics, the Nursing Activities in Pain Control Questionnaire and the Knowledge and Attitude Survey Regard Pain (KASRP) was completed by 323 oncology nurses in four grade A tertiary hospitals in Guangdong. Descriptive statistics and factor analysis were used in the data analysis.

**Result:** For 40 items KASRP, the mean number of correctly answered questions was ( $19.33 \pm 3.96$ ) and the pass rate was 0.62%. For four dimensions of nursing activities in pain



control, the pain assessment score was  $3.64 \pm 0.80$ , the pharmacologic pain management score was  $3.02 \pm 0.76$ , the non-pharmacologic pain management score was  $2.91 \pm 0.66$ , the therapeutic communication and education score was  $3.63 \pm 0.79$ . The score of KASRP had a positive correlation with pain assessment and therapeutic communication and education. The multiple liner regression revealed that oncology nurses' times of participating in related study, self-rated cooperation situation with physicians and perception situation of patients, departments and department's bed-nurse ratio, self-rated pain clinical follow-up status and self-rated overall valued level of cancer pain management of department were factors influencing nursing activities in cancer pain management.

**Conclusion:** Oncology nurses did not grasp cancer pain-related knowledge well and showed discrepancy in mastery of knowledge and activities. Strengthen knowledge training can promote nursing activities; Responding positively to the Good Pain Management Ward can promote hospitals' cancer pain management level.

#### P-54

##### The Characteristics and Main Influencing Factors of Hope Among Chinese Patients With Initial Diagnosis of Gastric Cancer

Xiao-Dan Wu, Sun Yat-sen University Cancer Center, Guangzhou, China

**Purpose:** The aim of this study was to identify the characteristics of hope level among Chinese patients with initial diagnosis of gastric cancer and its changing trend in 1 months, 6 month after surgery. Then explore the main influencing factors of hope.

**Methods:** A longitudinal, descriptive, correlational design was used. The patients completed Chinese versions of Herth Hope Index (HHI) before surgery, 1 month and 6 months after surgery.

**Results:** Of 111 gastric cancer patients, 103 completed all questionnaires (92.79%). The hope level of patients in current research was 3.05 (SD 0.28) before surgery and 3.25 (SD 0.31) and 3.38 (0.35) in 1 months and 6 month respectively. There were significant differences among hope level in three different times. The degree of education, the family monthly income, the people to live with were influencing factors of hope level. Patients with university education, higher income, and living with a lot of people had higher level of hope compared with those with junior middle school, lower income and living with spouse or children.

**Conclusion:** The level of hope is going up after surgery and we should pay attention to improving the level of hope of the patients with initial diagnosis of gastric cancer before surgery to improve the compliance of treatment. And we should take measures to increase the level of hope of patients with junior middle school, lower income and living with spouse or children.

#### P-55

##### Shoulder Movement in Women After Breast Cancer Surgery

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**Purpose:** Breast cancer ranks the highest in the incidence of malignancy among females in Taiwan, and restriction of shoulder movement is the complication most commonly seen after surgical treatment. The purposes of this study were to explore the incidence and change pattern of restriction in shoulder movement and to identify the risk factors in women after breast cancer surgery.

**Methods:** The study used longitudinal design to measure the shoulder range of motion at 12 intervals of time, including preoperative, postoperative 1st, 2nd, 3rd, 4th, 5th, 6th, 8th, 10th, 12th, 18th and 24th month. The parameters assessed included abduction, flexion, internal rotation, and external rotation. There were 188 cases being recruited in the study, Descriptive statistics, and hierarchical linear model were used for data analysis.

**Results:** The study revealed as followings. 1) The incidence of restriction of shoulder movement during two years after surgery was 72.8%. The majority of this problem was occurred at the first or second month after surgery and 40% of them could recover later. Only 4.2–12.2% patients still had restriction of shoulder movement after six months post surgery. 2) In terms of change pattern, the trend of degree of shoulder movement demonstrated a reversed U shape. (3) Handedness being the surgical side, type of surgery, and the number of lymph node removed had significant effect on the change of shoulder movement degree. **Conclusion:** This study provides the caregiver a deeper insight to the post-surgical shoulder motion after treatment for breast cancer, and it can also serve as a reference for timing of intervention to improve shoulder range of motion. Furthermore, meticulous cancer staging is recommended to avoid unnecessary invasive treatments, in order to prevent post-surgical restriction of shoulder movement.

#### P-56

##### Comparison of the Characteristics of Blood Stream Infection Patients With and Without Cancer

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**Background:** Blood Stream Infection (BSI) is an important cause of morbidity and mortality in hospital. We found that BSI incidence in cancer patient is much higher than non-cancer patient in a teaching hospital (2.18 ~ 2.86%, 0.81 ~ 1.17%, respectively).



**Aims:** This study was designed to compare characteristics of BSI patients with and without cancer.

**Methods:** A retrospective study was conducted at a regional teaching hospital in northern Taiwan from January 1, 2008 to December 31, 2012. A standardized case record form was used to collect demographic, clinical, and microbiologic data. SPSS for Windows 19.0 version was applied to the statistics analysis. The p-value of less than or equal to 0.05 was considered to have statistical differences.

**Results:** During the study period, 1033 episodes of BSI occurred in studying hospital. Analysis samples were 964 because there are 69 episodes were excluded due to repeat BSI during the same hospitalization. Cancer group were significantly older (mean, 69.2 vs. 63.8 years,  $p < 0.001$ ). There were significant differences with respect to host characteristics, such as co-morbidities, level of ADL and tubing usage ( $p < 0.05$ ). The distribution of the proportion of pathogens is significantly different ( $p < 0.001$ ). G (+), G (-) and yeast was 17.3%, 72.8% and 10.0% respectively in cancer group, 30.8%, 57.5% and 11.8% respectively in non-cancer group. The distribution of the proportion of catheter associated BSI is 76.0% and 62.9% in cancer and non-cancer group, respectively ( $p < 0.001$ ). Central Venous Access Port (Port-A) is the most common infectious cause (68.6%) of BSI in cancer patient, and Central Venous Catheter (CVC) is the most common infectious cause (61.9%) of BSI in non-cancer patient.

**Conclusion:** We found that characteristics of BSI included host, pathogen and transmission are many different between cancer and non-cancer. This study demonstrates that we need to focus on and improve infection prevention for BSI in cancer patient.

### P-57

#### **Nursing Care for Patients Developing Marked Anxiety on Being Diagnosed With Cancer Progression After Surgery**

Hisako Kobayashi, Nursing Faculty of Health Science, Aino University, Osaka, Japan

**Purpose:** This study aimed to investigate the status of patients developing marked anxiety on being diagnosed with the progression of lung cancer after surgery, and examine nursing support for them.

**Methods:** We conducted a questionnaire survey involving nurses with more than 3 years of experience in Thoracic Surgery Departments in the Kinki area. We investigated feelings and behaviors of patients who developed marked anxiety after the post-surgical diagnosis, and nursing support provided for such patients. The study was conducted between August and October 2014. Close-ended responses were calculated, and free text responses were analyzed using a qualitative and inductive approach.

**Ethical Considerations:** This study was approved by the research ethics committee of the research director's institution.

**Results:** Subjects were 21 nurses from 8 facilities, and their average length of clinical experience was 11.7 years. Most patients who developed marked anxiety after the post-

surgical diagnosis exhibited a feeling of resignation, crying, and depressive symptoms associated with 3 emotional aspects: *confusion about dying, not knowing what to do, and loss of strength to live*. As nursing care for these symptoms, 8 types of care were provided: sympathetic nursing care, nursing care that makes patients' lives feel brighter, care that helps patients express their feelings, nursing care that involves patients' families, alleviation of pain and discomfort, playing the role of a bridge between a patient and physician, providing necessary information, and cooperation with other health care workers.

**Discussion:** The nurses dedicated themselves to the care of patients developing marked anxiety on being diagnosed with the progression of lung cancer after surgery, and provided support to help them regain their motivation to live. The structure of high-quality nursing support, provided according to the level of mental strength of patients, must be optimized in clinical settings.

### P-58

#### **The Influencing Effect of Hope and Self-Care Ability on Self-Efficacy Among Convalescent Colostomy Patients**

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**Objective:** To explore the level of hope, self-care ability, and stoma self-efficacy among convalescent colostomy patients, and to explore the influencing factors of stoma self-efficacy.

**Methods:** Totally 86 colostomy patients were recruited from 3 Class A tertiary hospitals from July 2012 to February 2013 and investigated by demographic questionnaire, Stoma Self-Efficacy Scale, Herth Hope Index, and Stoma Self-care Scale-general version.

**Results:** The total scores of stoma self-efficacy, hope were  $76.00 \pm 18.90$ ,  $36.73 \pm 3.40$ , and  $38.49 \pm 5.79$ , respectively. Multiple linear regression analysis showed that the influencing factors of stoma self efficacy were stoma self-care, stoma acceptance by oneself and hope ( $P < 0.05$ ).

**Conclusions:** Medical staff should could provide convalescent colostomy patients hope and strength, enhance their stoma acceptance, and improve their self-care ability. These measures could improve their confidence in adjustment to their stoma and enhance their rehabilitation.

### P-59

#### **Palliative and End of Life Care Nursing in Nigeria: Barriers and the Way Forward**

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**Background:** Palliative and End-of-Life (EoL) care nursing are very important and relevant nursing practice and education.

In developing countries studies have shown that nurses are not adequately prepared to provide palliative and EoL care for patients that are in need of it. Few studies have focused mainly on nurses in Nigeria.

**Aim:** To explore the knowledge and practice of palliative and EoL care by Nigerian nurses and inform where gap in knowledge or barriers to practice may exist.

**Design:** A cross-sectional survey of 650 nurses participating in continuing education programs of their respective hospitals.

**Methods:** With the aid of a validated semi-structured questionnaire information was elicited from participants on demographic variables, education and training profile, contents of nursing curricula and years of working experience. On a 5-point Likert scale their knowledge and principles of palliative care were assessed.

**Results:** The sample of 650 nurses was made up of 155 graduates and 495 diploma-prepared nurses. 32% of them had component of palliative care nursing in their curricula while 50.3% had components of pain management and palliative care nursing, 4.7% had formal palliative care training post-qualification.

81.2% claimed they apply the knowledge and principles of palliative care in their practice. Reasons given by 14.9% for non-application include: "No knowledge about palliative care nursing", "Emotional, can't stand patient dying", "No hospital policy on palliative care". 59.2% had good knowledge of palliative care. However, the practice of some was poor and 29.2% had poor attitude towards provision of palliative care.

**Conclusion:** This study identified gaps in nursing knowledge as it relates to palliative care in the management of life-limiting diseases and its associated symptoms. It has provided us with baseline data useful to generate additional studies for advocacy for the need to integrate palliative care components into nursing education curricula.

## P-60

### Assessment of the Physical and Psychological Pain for the Cancer Pain of Standardized Treatment Inpatient: Practice and Experience

Qin Huang, Wuhan Tongji Hospital, Hubei Province, WuHan, HuBei, China

From April in 2011, on the basis of disease treatment, our center carried out the standardized treatment for patients with cancer pain. Two kinds of cancer pain assessment scale and psychological distress screening scale were applied for assessment and evaluation of the effect. The implementation of effective medical care, nursing intervention was carried out to reduce the patient's pain and psychological distress.

1. Standardized treatment for the pain caused by cancer

Pain is a subjective feeling for the patient. The routine assessment should be emphasized on comprehensive, dynamic, quantitative methodology used for cancer pain treatment. This method assessed by quantitative assessment (an assessment with the methodology of digital quantization refers to the degree of pain) classified pain.

2. Application of scale form assessment

The evaluation method provides a simple assessment for cancer pain. For those who had severe pain, detailed pain assessments were carried out. Before and after the temporary pain hanging lanterns methods were adopted. nurses recorded the assessment scale each day, to observe the adverse reaction.

3. Psychological pain assessments

**Evaluator qualifications:** The psychological pain assessment team consists of 4 full-time nurses. Head nurse assigned as the leading member, and professional psychologist is responsible for language training to the professional nurse.

**Effect evaluation**

This study provides a primary pain assessment, using 3 kinds of home-made assessment scale form for timely and accurate pain treatment. Through active prevention and treatment of drug adverse reaction, health education, the pain control rate has been improved. Psychological distress screenings carried out with DT and PL for new patients to achieve early discovery, early diagnosis and early intervention to improve the life quality of patients with cancer.

## P-61

### An Evidence-Based Study on the Patient Classification System in Taiwan

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Nursing staffing and costing have been concerned by the hospital managers due to concepts of business management. Literature showed the effective and measurable nurse staffing and patient classification system (PCS) played the crucial role in strategies for success in hospital management. However, no scientific and quantitative measurement in Taiwan hospital was well-described to assess nursing work and calculate nursing manpower for staffing. This study urgently aimed to employ two methods (time-sampling and work-sampling approaches on nursing care activities) to collect data, in order to design the scale for establishing PCS in a university hospital. Nurses and patients in 20 medical-surgical units were selected as research subjects. During 6 months, data obtained included measuring the required time of each standardized direct nursing care activities by direct observation and recording the work type of nurse staff by snap-shot observation. Findings from statistical analysis of qualitative and quantitative data revealed: 1) CPR, postmortem care, group teaching, cleansing enema, CVP line insertion, bed bath, endo-tracheal tube insertion, retention enema, trans-in care and morning care were the predominant time-consuming activities. 2) In work-sampling findings, 29.5% nursing activities were direct care activities, 63.8% was indirect care activities, 6.7% was personal time; The frequency of nursing activities at day shift were 45.8%, 35.1% at evening shift, 19.1% at night shift. 3) 12 indicators and 68 items of nursing activities were significantly developed and divided into certain points appeared in the scale of patient classification to calculate nursing



hours spending on each patient. Obviously, this evidence-based nursing research achieved objectives and proposed an applicable patient classification system and might continuously be validated in clinical setting for managing staffing and costing in both nursing administration and hospital management.

### P-63

#### Effects of Cognition-Behavioral Intervention for Chemotherapy-Related Cognition Impairment in Women With Breast Cancer

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**Purposes:** Chemotherapy-related cognitive impairment is among the negative side effects of adjuvant chemotherapy for breast cancer. Adjuvant chemotherapy can produce mild cognitive decline among breast cancer patients which adversely affects function and quality of life. Cognition-Behavioral Intervention (CBI) is the Memory and Attention/Concentration Adaptation Training to improve cognition function and quality of life among breast cancer patients undergoing chemotherapy. The purpose of this study was to evaluate the efficacy of CBI that is being developed for management of chemotherapy-related cognitive impairment among breast cancer.

**Methods:** The sample consisted of 61 patients with breast cancer patients prior to chemotherapy allocated to a CBI group (n=30) and control group (n=31). Subjects were assessed at baseline, end of adjuvant chemotherapy and at approximately six months after completion of adjuvant chemotherapy with the neuropsychological battery. They also completed the self-report Functional Assessment of Cancer Therapy-Cognition (FACT-C) and Beck depression Inventory, evaluating subjective cognitive function and depression.

**Results:** With age and depression as covariates, subjects in the CBI group made significant improvements relative to control group on the attention/concentration and verbal and visual memory. Also breast cancer patients in the CBI group experienced higher subjective cognitive function and quality of life compared than the control group.

**Conclusions:** Although this is a small study, CBI participants appear to improve on attention/concentration, memory and subjective cognition function relative to no treatment controls. These data are encouraging and support the continued development and evaluation of CBI for chemotherapy-induced cognitive impairment efficacy.

### P-64

#### Knowledge About and Attitudes Toward Cancer Pain Management Among Japanese Acute Care Hospital Nurses

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**Background:** Cancer pain management in acute care hospitals is important because cancer patients are often admitted there and require pain relief. Relief of cancer pain is still not handled well in Japan, however, and some of the barriers to achieving it are related to nursing. Identifying these barriers would help the development of educational curricula to improve pain management.

**Aim:** The aim of this study was to determine nurses' knowledge about and attitudes toward cancer pain management in acute care hospitals and the barriers that they encounter in this regard.

**Methods:** A questionnaire was constructed and distributed to 721 nurses at an acute care hospital in Japan. The data were analyzed to show average and correct responses to pain management and to identify deviations from the norm through reported personal experiences.

**Results:** Three hundred thirty-nine nurses (47.0%) responded to the questionnaires. The average correct response rate was 35.1% (range, 3.5%–72.0%) for different survey questions. Accurate responses were positively correlated with duration of work experience in oncology units and number of cancer patients cared for ( $p < 0.05$ ). The responses with low accuracy were that the patient was a drug addict and that he/she was exaggerating the pain intensity.

**Conclusions:** Our study results support the universal concern about inadequate knowledge and attitudes of nurses toward cancer pain management. Nurses working in acute care hospitals need more education to develop their knowledge and attitudes, especially regarding opioid usage and pain evaluation. Further studies are warranted with a larger cohort of nurses to verify the generalizability of these findings.

### P-65

#### Embedding Sexual Health in the Head and Neck Cancer Program: A Quality Improvement Project

Emmanuel Tenazas, Head and Neck Surgery, UHN - Toronto General Hospital, Mississauga, Ontario, Canada

**Problem:** There is no program in place within the Head and Neck Cancer program at Toronto General Hospital that addresses the sexual health needs of patients. A review of the literature and environmental scan reveals that there is no sexual health education program available in any head and neck program in the world. Patients often identify their sexuality and sexual functioning to be one of their most important quality of life issues. This leads to a substantial gap in practice that has been made a priority for the Head and Neck Program to address.

**Initiative:** A quality improvement project was undertaken which involved a needs assessment questionnaire of staff and patients to identify current attitudes and practices towards sexual health, preferred methods of interventions and types of surgery that patients have undergone. Educational material was created and staff educational in-services were



conducted to disseminate the information through the use of the P-LI-SS-IT Model. Shadowing experiences were completed with various clinicians across the head and neck program to gain an understanding of the patient journey and to identify where key points of contact to discuss sexual health could be made.

**Impact:** Educational material and in-services have been made available to clinicians and patients throughout the Head and Neck Surgical Program. There is now a process in place and educational materials for staff and patients that pertains to sexual health. Staff are reporting that they are engaging in sexual health discussions with patients and have reported increased comfort and confidence when engaging patients in sexual health conversations. Patient feedback was positive with patients reporting decreased concerns about their sexual health.

**Conclusion:** The current gap in practice is being filled, while there is a long way to go - the foundation is there for the Head and Neck program to imbed sexual health throughout the cancer journey.

### P-67

#### Safe Handling and Agents for Disposal Oral Cancer Treatment: An Integrative Review

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**Background:** There are over 100 agents that can be used in cancer control or treatment. It is estimated that 25% of drugs in study consist of oral administration agents. Although the risk of accidental exposure to these agents can be considered minimized, regarding the potential for damage and toxicity, they present the same risks as intravenous agents due to its narrow therapeutic index. The handling of such agents involves occupational hazards, especially when the safety recommendations are not followed and working conditions are inadequate. Aim: Provide data on safe handling and disposal of oral agents.

**Methods:** Literature review through articles published in MEDLINE database in the years 2010 to 2014 with human subjects and in English, Portuguese and Spanish. Exclusion criteria: articles that approached other subjects or routes of administration. Were used the key words and their combinations: safe handling, oral agents, disposal.

**Results:** The final sample was of 10 articles distributed as: 05 articles (50%) on educational purposes, 02 (20%) on fault detection and 01 (10%) experience report. The articles on education addressed manufacturing and distribution, storage and transportation, administration and patient education. All stages emphasized the need for staff training and access competencies at least annually. Fault detection articles described failures in family educational process and vulnerabilities in prescription, dispensing, compliance and report of adverse events.

**Conclusion:** The review discussed widely the multifactorial and multidisciplinary aspect of the subject, bringing out important issues as sale of these drugs out of cancer units, the need to train professionals and access their skills, the absence of liquid compounds on the market. The lack of literature in Portuguese or Spanish may express a knowledge gap in Latin America countries.

**Key words:** oral agents, safe handle, disposal

### P-70

#### A Confusion of Caregivers in Western China: Quality of and Satisfaction With Care From the Cancer Inpatients' Point of View—A Cross Sectional Study

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**Objectives:** To investigate the quality, satisfaction, and expectation of cancer inpatients in Western China about caregivers, and explore the best care model for cancer inpatients in Western China.

**Methods and Sample:** The study was performed in the tumor hospital of Sichuan province. The study was conducted on 500 cancer inpatients undergoing chemotherapy or radiotherapy, using a questionnaire, which was based on modified Barthel index and Watson human caring theory, including physical, social, and psychological care. The questionnaire had good validity, CVI of which by experts to assess the content validity index was 0.91, internal consistency Cronbach coefficient of which was 0.87.

#### Results:

- (1) There were only 3.25%(15 of 462) of cancer inpatients without any family or employed informal caregivers, 17.75%(82 of 462) of them with employed informal caregivers, 94%(434 of 462) of them with family caregivers.
- (2) There were 68.90%(308 of 447) of the cancer inpatients with family or informal caregivers accepted the care day and night, 23.05%(103 of 447) during the day, and 8.05%(36 of 447) during the night.
- (3) The status quo of care in making the bed, ward environment, check accompany, pills taken, social and psychological care was lower than expectation of cancer inpatients in Western China( $p < 0.05$ ).

**Conclusion:** The facility and settings in hospital and ward need to be improved,. Employed informal caregivers need more professional care training to supplement clinicians' care. And clinicians were lack of human care to cancer inpatients. So we should enhance human care training to clinicians, give definitions of caregivers about what to do and how to do, in order to reduce reliance on family caregivers and meet cancer inpatients' expectations.

**Key words:** Cancer inpatient; caregiver; survey; expectation

### P-71

#### Body - Soul and Cancer: From Theory to Practice Biological Mechanisms Through Which the Body is Influenced by Soul and Soul Corrects the Body

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**Background:** Immune system plays a crucial role in the incidence, progression of the disease and quality of life of cancer patients. Stress significantly affects the immune system. A review of 165 articles points to the relationship between psychological variables and the incidence of cancer. For example, women who reported negative life events, such as divorce or death of a mate during a period of 5 years follow-up, had a higher risk of breast cancer 15 years later, compared to those who did not experience these events.

**Objective:** Description of a possible mechanism that could explain the association between psychological variables and cancer.

**Method:** Review of studies on relationship between psychological and social variables and cancer and the impact of psychosocial interventions on disease progress and quality of life.

**Results:** One possible mechanism is immune system dysfunction; stress can suppress cellular immune function and increase inflammation. The autonomic nervous system (ANS) and Hypothalamus-Pituitary-Adrenal Axis (HPA Axis) are the two main paths through which stress affects the immune function. Immune cells have receptors for substances secreted by the ANS and HPA axes. Threat of cancer increases when metastases occur, which is possible through the creation of blood vessels associated with tumor angiogenesis. Psychological variables such as social support among ovarian cancer patients influence vascular endothelial growth factor. Psycho-social interventions, such as cognitive therapy, stress management, support groups and psychological education programs can improve disease progression and quality of life among cancer patients.

**Conclusions:** Immune system dysfunction is an important factor in cancer. Strides made in the field of research psychoneuroimmunology indicate beneficial effects of behavioral and psycho-social interventions on the course of cancer and quality of life of cancer patients.

## P-72

### Global Nursing Collaborations Between A Seattle, Washington Based Cancer Center and A Ugandan Cancer Center

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**Focus Area:** Clinical/Evidence Based Practice

**Significance and Background:** According to the WHO (2014), cancer accounts for 8.2 million deaths worldwide a year. Of those, more than 60% of the world's total new cases occur in Africa, Asia, and Central America. The Fred Hutchinson Cancer Research Center (FHCRC), Seattle Cancer Care Alliance (SCCA), and the Uganda Cancer Institute (UCI) have established a cancer collaborative effort to cross train Ugandan physicians in oncology.

This effort has been most successful in the education of physicians, but had gaps in programs related to the nursing care of patients with cancer in Uganda.

**Purpose:** To assess areas of need for education for the nurses caring for patients at the UCI, and to improve safe handling and delivery of chemotherapeutic agents.

**Methods:** After IRB approval, a study was implemented at UCI. Travel to the Uganda and the UCI included an 18 day stay in 2010. Using identified key informants, personal interviews, surveys, observation, and hands on nursing care were used to gather data. Leiningers' Sunrise Model was utilized as a foundation for the assessment. The interview guide used both structured and semi structured questions to obtain data at the UCI, The School of Nursing at Makerere University, and Mulago Hospital.

**Findings:** Results of the data collected supported a need for basic principles of oncology education and safe handling/administration of chemotherapeutic agents. A handbook was created detailing basic oncology as well as best practice techniques for delivering chemotherapy based upon standards provided by the Oncology Nurses Society.

**Discussion:** Communication has continued between the FHCRC, SCCA, and UCI for collaborative program building. The handbook is an initial step, but further efforts are needed to support the UCI for best practices and standardization in the delivery of oncology care.

## P-73

### An Innovative Idea to Provide Palliative Care in Rural India

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**Purpose:** Due to financial incapability and absence of manpower poor families often fail to carry their advanced cancer patients to the nodal centres. This pilot study will explore whether communication by mobile phone can lessen this burden.

**Methodology:** Initially a plan was generated regarding management of an advanced cancer patient in a nodal centre at District Head Quarter. Subsequently every two week a trained social worker attached to nodal centre will follow up and give necessary advice and emotional support to the patients and their families through their registered mobile phone number. Patient's family were also encouraged to communicate with the team by phone in case of fresh complain and urgency in between.

**Results:** Since initiation cancer patients were contacted by mobile phone every two weeks to enquire about their difficulties. In 76% of the situation trained social workers could give necessary advice by phone regarding management of their physical symptoms. Moreover patient's family were really overwhelmed by the emotional support offered by the team over phone. Only 24% of cancer patients has to attend the nodal centre for expert advice from Palliative Care specialists.

**Conclusion:** This novel approach helped

In providing regular physical and emotional support to the patients and their families.

In significantly reducing the financial and manpower problems of carrying patients to the nodal units.

In improve the quality of life of patients by continuous guidance.

More and more team members can take help of this new strategy for better communication and uninterrupted care.

#### P-74

##### **Development of a Home Recuperation Support System Incorporating STAS-J Electronic Edition**

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**Purpose:** The Support Team Assessment Schedule Japanese version (STAS-J) is used as a method of appraisal in the evaluation of cancer patients at home. At present, STAS-J is a paper-based assessment tool, and the medical staff determines the condition of home cancer patients from the responses to each item on the forms. We have developed an electronic home care support system for home cancer patients. Using this system and the WWW, information sharing is possible between the patient's home, hospital, or home nursing station, thus allowing cancer patients to recuperate at home in comfort. The goal of this research was to develop an electronic STAS-J and incorporate it into this home care support system. **Methods:** We added a new radio button to the menu display of our system to provide access to STAS-J electronic version. The STAS-J electronic version has the same nine question items as paper-based SATA-J, and each question can be given a score of 0–4. For each answer, home cancer patients select a radio button using the mouse. The experiments were conducted by visit nurses via the WWW.

**Results and Discussion:** Incorporation of STAS-J electronic version into the home care support system greatly facilitated the input and correction of responses by radio button selection, and the rate of incorrect input was zero. Moreover, patient responses to SATA-J indicated on a radar chart allows the staff to understand the condition of home patients with regard to each of the nine items. Furthermore, the variation per hour could also be determined. In addition, patients' medical information can be shared with the medical staff of related institutions.

**Conclusions:** The development of STAS-J electronic version and its incorporation into a home care support system allowed staff to easily understand the condition of their patients with regard to each item of STAS-J. Moreover, the patients' medical information could also be shared between medical staff of related institutions.

#### P-78

##### **Evaluation of Cancer Patients Survival Predictive Factors Using Precede Model**

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**Background:** Since 1982, cancer is the leading cause of death in Taiwan, leading resulting that cancer patient care is an important issue to the medical team and health department.

**Purpose:** This study aimed to investigate the relating factors of cancer patients' survival and the correlations between the survival rate and the decisions of cancer patients to discontinue and refused the treatment protocol.

**Methods:** Cancer patient data were collected from the hospital information system (HIS) from 2010 to 2012, and analyzed with PRECEDE model for the logistic regression analysis.

**Results:** A total of 14,974 patients were enrolled in this study. Survival hazard ratio included age over 81 years old, female, education and tumor stage. In enhancement factors evaluation, good ECOG was 2.85 times higher than bad ECOG. In enabling factors evaluation, the patient group with trust in the quality of medical hospital had 0.27 times more than that in non-trusted group. Termination and refusal of treatment were not statistically significant in cancer patients' survival after other viable factors were controlled.

**Conclusions:** The study reveals cancer patients with age 81 or older, and good ECOG had higher survival rate. Therefore cancer patients with age 81 or older with good ECOG have to be encouraged to accept and complete the treatment in order to increase their survival.

**Key words:** survival; PRECEDE MODEL

#### P-79

##### **Compassion Fatigue: Are You at Risk?**

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Growing attention has recently been targeted to nurses' self-care. This is in part due to concerns about retaining experienced staff nurses and recognizing the negative corollaries of stress-related nursing outcomes that can impact the quality of nursing care. Compassion fatigue, sometimes referred to as 'the cost of caring for others in pain', in oncology nurses is a particularly relevant construct within our specialty. Consistently exposed to ongoing tragedy and premature death, oncology nurses are potentially endangered by the cumulative consequences of loss and grief. Yet minimal intervention is implemented to counter these negative implications of



oncology nursing work. Led by two oncology advanced practice nurses who have published and presented extensively on this topic, this session will focus on compassion fatigue in oncology nurses with an emphasis on delineating interventions to counter this phenomenon. Oncology nursing practice implications will be addressed with a review of key characteristics of compassion fatigue and their manifestations in both internal (work) and external (personal) venues. Interactive exercises will assist attendees in recognizing multiple indices of compassion fatigue that require attention. At the completion of this session, attendees will leave with ideas for work setting interventions to share with colleagues. Participation in this session will increase awareness of this highly relevant construct in oncology nursings and foster intervention planning in both the prevention and management of this to date, under-recognized yet important corollary of oncology nursing practice.

### P-80

#### **Uncertainty, Perceived Social Support, Posttraumatic Stress Symptoms, and Psychological Growth in Patients With Hematologic Cancer in Korea**

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**Purpose:** The purpose of this study was to examine the relationships among uncertainty, perceived social support, posttraumatic stress symptoms and psychological growth in patients with hematologic cancers, and to identify factors influencing posttraumatic stress symptoms and psychological growth.

**Methods:** A predictive correlational design was used. Data were collected by survey interview using questionnaires during 2014 from 166 participants diagnosed with hematologic cancer at a university hospital located in Seoul. Uncertainty was measured by Mishel's Uncertainty in Illness Scale – Community Form, perceived social support was measured by Multidimensional Scale of Perceived Social Support, posttraumatic stress symptoms was measured by PTSD Checklist – Civilian Version and psychological growth was measured by Growth Through Uncertainty Scale. Data were analyzed using Windows SPSS 21.0 program.

**Results:** Significant correlations were identified among all four variables. As a result of multiple regression analysis, uncertainty and perceived social support were discovered to account for 31.2% of the variance in posttraumatic stress symptoms. Perceived social support, bone marrow transplantation or relapse, psychological treatment, and economic status were discovered to account for 23.1% of the variance in psychological growth. The variable that most affected a posttraumatic stress symptom was uncertainty and the variable that most affected a psychological growth was perceived social support.

**Conclusion:** The results of the study demonstrate the importance of uncertainty and social support in explaining posttraumatic stress symptoms and psychological growth.

Thus, uncertainty and social support needs to be integrated in developing psychosocial interventions to relieve psychological stress and to promote psychological growth in patients with hematologic cancers.

### P-82

#### **Quality of Life and Its Related Factors in Lung Cancer Patients Undergoing Chemotherapy**

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**Aim:** This study was to investigate the quality of life and its related factors in lung cancer patients undergoing chemotherapy.

**Methods:** This was a descriptive, convenience sampling study. Participants, diagnosed with lung cancer undergoing chemotherapy, were selected in three hospitals in the southern Taiwan. 159 patients were included. Four questionnaires including quality of life (QLQ-C30), Anderson Symptom Inventory (MDASI), Memorial symptom assessment scale (MSAS-SF), and self-care scales were used to collect data.

**Results:** (1) The mean score of MDASI was 1.87 (SD=1.58), which was categorized as mild degree of symptoms, and fatigue was the most severe and common symptom; the standardized score of the self-care questionnaire was 80, which indicated good level of self-care; (2) Spouses as caregivers and self-care showed significantly a positive correlation with quality of life; (3) Age, cancer stage, symptoms of physical and psychological symptoms showed a negative correlation with quality of life; (4) Degree of interference with life, the psychological symptoms, regular exercise and sleep, medical compliance, and food choice and nutrition maintenance of the subscales of self-care were important predictors for the functional quality of life in lung cancer patients undergoing chemotherapy, which explained 69.1% of the total variances.

**Conclusion:** This study identified 5 important predictors of quality of life. Younger age and spouses as caregivers were associated with better quality of life. Moreover, early detection and management of fatigue were important. To promote quality of life, lung cancer patients undergoing chemotherapy, especially the elderly and those with non-spouses as caregivers, should be encouraged to do regular exercise and have good sleep.

### P-83

#### **Effectiveness of Case Management on Patient Adherence to Cancer Treatment**

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**Background:** Cancer has been the leading cause of death in Taiwan for over three decades. In 2001 the first cancer case management program was established at a cancer center in Taiwan with the aim to ensure the continuity and integrity of care as well as the efficiency and cost-effectiveness of the

healthcare services. A nursing case manager plays the role of an oncology nursing expert, care coordinator, consultant, education instructor, and care manager.

**Objective:** Studies have shown that treatment adherence plays an integral part in cancer survival. The better the adherence is, the better the survival. This study examined the effect of case management on the cancer patient adherence to treatments.

**Methods:** Cancer treatment adherence data from case management database for four cancer types – breast cancer, head and neck, lung, and colorectal cancer at a cancer center in Taiwan were analyzed during January 2012 to December 2014.

**Results:** McNemar's test was used to examine the impact of case management on cancer patient adherence to treatments. With interventions of case managers, treatment adherence was seen improved significantly from 95% (1168/1231) to 97.5% (1201/1231) for surgery, 90.8% (859/946) to 95.6% (904/946) for chemotherapy, and 91.5% (664/726) to 96% for radiotherapy (697/726) (all  $p < 0.0001$ ).

**Conclusion:** Case management program streamlines individualized care delivery and improves cancer patient adherence to therapy. Increased access to health care, discussions of health benefits of the cancer therapy, addressing patient concerns upon a new therapy, and frequent phone follow-up are some of the contributing factors observed.

#### P-84

##### Information Needs and Information-Seeking Behaviors of Uterine Cancer Survivors After Treatment

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**Purpose:** This study aimed to explore the information needs and information-seeking behaviors of uterine cancer survivors in Japan.

**Method:** A qualitative approach, consisting of in-depth interviews, was used. We recruited 10 uterine cancer survivors who completed initial treatment more than six months ago, through the Internet.

**Results:** 7 information needs and 5 information-seeking behaviors emerged from the data. Furthermore, their information needs were classified into 3 types: “things one wants to know”, “requests as recipients of information”, “requests as providers of information”. Survivors were mostly concerned with metastasis and recurrence of cancer, and with self-care management of their physical condition from complications of treatment. They have been looking for further information to improve their health and quality of life for the long term after their initial treatment ended. However, there were several difficulties in meeting their information needs including problems with the information providers and in the survivors' low level of health literacy. Survivors were usually viewed as recipients of information, but they want to provide information based on their experiences to other survivors, health care professional, and to society. Information-seeking behaviors were: “accessing information sources”, “receiving information passively”, “examining information value”, “controlling

information”, “adding more information”. These series of behaviors were repeated. It seemed to be a never ending cycle with ongoing discovery and new information needs. **Conclusion:** Uterine cancer survivors continued to look for information after treatment. The following supports are necessary: 1) to meet their different individual needs in a timely manner, 2) to construct the system for long-term follow-up after treatment, 3) to develop survivors' health literacy.

#### P-85

##### Chinese Version of the Assessment of Survivor Concerns Scales for Gynecological Cancer Survivors in Taiwan: A Psychometric Study

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**Purpose:** This study aimed to validate a Chinese version of the Assessment of Survivor Concerns (ASC) for assessing the FCR among gynecological cancer survivors.

**Method:** The first stage involved the translation of the English version of the ASC scale to Chinese by employing the translation model recommended by Guillemain, which included forward and backward translation, consensus meetings, and a trial test with potential users. In the second stage, a pilot study with 37 gynecological cancer survivors was completed followed by a psychometric properties study on with 287 gynecological cancer survivors. Confirmatory factor analysis (CFA) was used to test construct validity, and the European Organization for Research and Treatment of Cancer's Quality-of-Life Questionnaire-Core 30-item questionnaire was used to test convergent validity. The four variables of age, education, disease severity, and sleep quality were used in discriminant validity testing. Reliability testing involved internal consistency reliability and test-retest reliability.

**Results:** Forward and backward translation verified the conceptual equivalence of the Chinese version of the ASC to the English version. For CFA,  $\chi^2 = 8.93$  ( $p > .05$ ); RMSEA = 0.02 < .05,  $P = 0.76 > 0.5$ ; GFI = 0.99, CFI = 1, NNFI = 1, all > 0.9, indicating a good fit. FCR was negatively associated with overall QOL and with the dimensions of physical, role, cognition, emotions, and social function, whereas FCR was correlated with age, education, disease severity, and sleep quality, indicating the convergent validity and discriminant validity were adequate. Regarding reliability, Cronbach's alpha was 0.91, and test-retest reliability was 0.82.

**Conclusions:** The Chinese version of the ASC is a valid and reliable questionnaire suitable for the assessment of FCR among gynecological cancer survivors in clinical or research settings.

#### P-86

##### Nursing Actions in Cancer Chemotherapy Units in the State of Minas Gerais, Brazil

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Chemotherapy is an anticancer therapy that favors the control and cure of cancer. The nurse takes vital role in this scenario, it is the professional responsible for its administration. **Objective:** To identify the actions of nurses to patients in treatment with antineoplastic chemotherapy.

**Method:** An epidemiological survey. The research participants were nurses working in institutions of chemotherapy clinics accredited in the public health system in the state of Minas Gerais-Brazil. Data collection took place between October 2013 and March 2014. The project was approved by the Ethics Committee of the Federal University of Minas Gerais.

**Results:** The sample consisted of 15 nurses with an average age of 30.26 years and completed undergraduate average of 6 years. The administration of chemotherapy is performed primarily by nursing technicians (53.3%). The nursing consultation is carried out by all subjects. The home care is carried out by only a nurse by telephone. For control of allergic reactions, 93.3% checks prior history of the patient will receive a potentially allergen chemotherapy. 46.7% do not check any laboratory test. To control the bladder and renal toxicity, 33.3% observe the characteristics of the urine, and only 6.7% measures water balance and urine pH.

**Conclusion:** The interventions are restricted to the chemotherapy clinic and there are gaps for care: home care, evaluation of laboratory tests and clinical evaluations.

### P-87

#### **Efficacy and Effectiveness of Ondansetron Compared With Other Serotonin Antagonists in Patients Undergoing Chemotherapy**

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Nausea and vomiting constitute the most prevalent adverse effect from the gastrointestinal toxicities in cancer patients undergoing chemotherapy. This study propose to evaluate the efficacy and effectiveness of antiemetics serotonin antagonists ondansetron compared with the other drugs in the same class. This is a systematic review of literature. Search was performed in databases: Cochrane Library, PubMed / MEDLINEe LILACS. Inclusion criteria: studies published in English, Spanish and Portuguese, patients aged 18 years or superior, observational studies of the cohort and clinical trials. The initial search retrieved 1425 studies. After removal of duplicate studies, studies had their titles, abstracts and evaluated by two independent evaluators. To tie a third evaluator reading these two steps. The reading of 69 full articles was performed by the same raters also independently and randomly. The final sample included 20 articles. The studies addressed different types

of cancer, and chemotherapy with different potential emetics. It stands out as a result that there was no statistically significant difference in the control of nausea and vomiting between ondansetron and granisetron drugs in studies evaluating the effectiveness of the control of nausea and vomiting anticipatory, early and late. Ondansetron compared with palonosetron presented diminished efficacy and effectiveness in total control of nausea and ondansetron vômitos. A, compared to dolansetrona and tropisetron was efficient and effective, however the number of daily applications to obtain efficacy and similar effectiveness is greater, which can bring lower patient comfort. It follows the importance of antiemetic and in particular antagonists. We need effectiveness studies, and cost-effectiveness study to expand the discussion of this adverse effect.

### P-89

#### **Development of Medical Educational Program to Deal With Grief Care of Children Whose Parent has Cancer in Japan**

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**Purpose:** This study aims to develop medical educational program corresponding grief care of children whose parents are cancer patients and clarify the effectiveness of it.

**Method:** We implemented intervention study. Target group are medical staffs that have 3 years of clinical experiences and are interested in grief care. They were asked to complete survey before and after training. The outline of program aims to raise awareness of medical staffs towards grief of children whose parents are cancer patients, and understand and implement needs of care. The program constituted for two days. At the first day, we focused on lecture and practice which themes were “thought of medical staffs towards children whose parents are cancer patients.” “Understanding and relation to children”, and “Explanation of sickness to children whose parents are cancer patients.” For second day, we evaluated looking back of practice after some months. We got approval from ethical committee which research representative belongs to.

**Result and Discursion:** We implemented four times in three facilities. Participants for first time were 47 people, and 36 people for second time. They answered that they were interested grief care of children, but 50% of them answered “Almost never” and “only few” for implementation of grief care. After the program, most participants raised awareness towards grief care of children, and commented that it is useful for practice. Especially for explanation of sickness to children whose parents are cancer patients, we showed them DVD and Roll play. As a result, they had good image to deal with this program.

**Conclusion:** Trough all program, the degree of medical staffs’ interest of grief care of children whose parents are cancer patients raised, and received comment that it is useful for practice. Therefore, the program was effective. We aim to

develop advanced program to apply for real situation in the future. This work was supported by JSPS KAKENHI Grant Number 23593335.

### P-90

#### Great Retention From Innovation of Clinically Oriented Program for New Employees

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**Background:** The job adaptation will affect the nursing shortage. It is a tough challenge for those just graduated from nursing school to adapt to the working environment, especially in cancer care. A good orientation program in the institution will help every newcomer fit in the job well.

**Aim:** It is aimed to nurture the clinical competence of new employees, and then to maintain the man power stability at beside in the institution.

**Design:** The innovation of clinically oriented program for new employees is conducted. It consists of two stages. The first stage includes three parts: (1) The newcomers go through job orientation and practice skills for two weeks before attending to the work place. (2) One preceptor is appointed to instruct them how to take care of the patient and demonstrate in person at bedside for one month. (3) Upon starting working, all new employees are divided into nine cancer groups, and each group alternately discusses every cancer disease for two years. In the second stage, based on the nurse to patient ratio, the FTE is gradually increased from 0.33, 0.67, 0.83, to 1, starting from the 2nd month to the 5th month. Then they should take care of the patient independently.

**Results:** Obviously, the retention of new employees is much better than before implementing the new program. There were 66 new employees to join the Institution in 2014. The turn-over rate is 0% in the first 3 months. The two-year turn-over rate in 2014 is 7.58% compared to 27.08%, 10.39%, and 16.13% from 2011 to 2013, respectively. The retention improvement is remarkable for those junior staffs. It is worth mentioning that the overall turn-over rate of the Institution was decreased from 9.6% in 2013 to 5.5% in 2014.

**Conclusion:** The innovation of clinically oriented program has been shown to enhance the new employees' adaptation to work especially in oncology care settings. Therefore, the good retention of staffs will impact on the positive atmosphere among staffs and workplace.

### P-91

#### Anxiety of Young Women With Breast Cancer

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The purpose of this study was to examine the anxiety of young women with breast cancer. The interviews were conducted in 11 young women with breast cancer under the age of 40, whose first episode of breast cancer was diagnosed in August and September, 2014. The transcripts were analyzed

using the qualitative inductive method. The findings covered seven main themes; onset of the anxiety; complaints of medical care; loss of femininity; not wanting to be hurt anymore; fear of cancer treatment; uncertainty of the future; and concern regarding children. The results indicated that young women with breast cancer have specific areas of anxiety and benefit from tailored support from nurses.

### P-92

#### Accessibility of Do Not Attempt Cardiopulmonary Resuscitation (DNACPR) Forms

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**Introduction:** UK patients who are not for resuscitation are given a Do Not Attempt Cardio-Pulmonary Resuscitation (DNACPR) form to keep with them. Electronic co-ordination systems are available in some areas of the UK but many healthcare professionals rely on the presence of DNACPR forms when making urgent decisions. Repeated anecdotal evidence suggests emergency crews are attempting CPR on patients who have a DNACPR because they are unaware of its existence. We carried out a spot-check audit to see how many of our DNACPR patients were able to find their form, where they kept them and whether they were complete.

**Methods:** Every patient seen by the Hospice team over one week in December 2014 had their resuscitation status checked on our electronic notes. For DNACPR patients we asked to see their DNACPR form, regardless of whether the patient was on the ward, at home or in our Day Hospice.

**Results:** 179 patients were seen during the week of whom 105 (59%) were DNACPR. Seventy five (71%) of all DNACPR forms were seen by the healthcare professional (on the ward, 100%; patients at home, 89%, and Day Hospice, 15%). Although only 4 patients actually brought their form with them to the Day Hospice a further 18 knew where their form was kept at home, meaning that all together 84% of Day Hospice patients would be able to find their form (making the total 89% across all services). Seen forms were considered completed correctly by the healthcare professional in 100% cases. The location of forms in patients' homes was very variable.

**Conclusion:** It was possible to locate patients DNACPR forms in 89% cases with only 12 forms not located. In the absence of a electronic co-ordination system, this seems like an acceptable result. However the lack of consensus about where the form should be kept at home means they can be hard to find in an emergency and the need for robust electronic systems across all of the country to prevent inappropriate CPR is pressing.

### P-93

#### Education Program for Facilitator of the Palliative Daycare in Japan

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**Background:** Cancer is the first cause of death in Japanese that 360,000 people dead of cancer in 2013. The cancer morbidity became one of two people, but the transit and systematic approach of the palliative care were delayed, because the palliative care bed is less than 5,000's. In this condition, numbers of the cancer patient are increasing but home palliative care system is so limited. There are 10 facility set up the palliative daycare in urban area. We develop an education program for palliative daycare facilitator in the Campus.

**Purpose:** Introduction of the education program for palliative daycare facilitator.

**Method:** Held 2-days palliative daycare educational program from 2010 to 2014. The subject are attendee of the program, examine the setup with a palliative daycare seminar participant of medical/nursing university.

**Results:** The seminar held eight times enforcement in total. A participant was 574. The job license was oncology nurse, doctor, pharmacist, PT, OT, Medical Social Worker, Nursing teacher and student of graduate school.

The program contents constituted it by a palliative daycare concept.

Five suggestions were obtained about becoming it a focus of the palliative daycare administration.

The priority needs was practical use of policy, 1) the symptom management of mind and body, 2) placement of the palliative daycare employment, 3) setup / the administration of appointment, 4) induction of CAM and the creative therapy, 5) the inflection of community resources.

**Discussion:** The unique expanse of the palliative daycare that targeted cancer practice cooperation Hospital and community organization by this seminar was found. The palliative daycare built the throughout many types of job collaboration system about cancer survivor from an early stage, and the promotion of the system that utilized patients empowerment, facilitator was submitted as indispensability.

#### P-94

##### The Impacts of Care Manager on Multidisciplinary Team Work in Cancer Service

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**Background:** Cancer treatment is a great complexity journey for patient. Care manager is a key factor to guarantee all things would be done well. She plays the most important coordinate role among the multidisciplinary team members.

**Objective:** The purpose of this survey is to explore and describe the cancer care manager contributions from the multidisciplinary team perspective.

**Methods:** An exploratory and descriptive survey was used for this study at a cancer center in Taiwan. Total of 12 physicians in five cancer multidisciplinary teams participated in this survey. Information was collected via semi-structured interviews or questionnaire with open-ended questions. The questionnaire was developed through a general literature review

of case management and multidisciplinary team. The information was analyzed by thematic content analysis which separates the answers to each question into mutually exclusive categories of similar content.

**Results:** Three main categories were developed from the data: care manager contributions to patient care, to multidisciplinary teamwork, and to quality of cancer care. Several themes emerged from each category were 'providing support and information to patient', 'increasing patients adherence to treatments', 'improving patient navigation' and 'increasing accessibility and continuity of care' for the category of care manager contributions to patient care; 'enhancing team coordination and collaboration', 'providing timely patient information', and 'helping patient understand treatment plan' for the category of care manager contributions to multidisciplinary teamwork; 'collecting quality indicator data' and 'increasing physician adherence to guidelines' for the category of care manager contributions to quality of cancer care.

**Conclusion:** The findings displayed how the multidisciplinary team members recognize their care manager's contributions in patient service as well as the team cooperation among different specialties.

#### P-96

##### Understanding the Influence of Companion Animals on Self-management Among Cancer Survivors

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**Background:** Addressing the complex and diverse needs of cancer survivors requires a concerted effort among healthcare practitioners to improve patient-engagement in self-management (SM). Two limitations of current SM approaches that require further research are interventions that overlook: 1) The beliefs and values of patients (e.g. spiritual beliefs), and 2) Key psychological characteristics that promote resilience and self-efficacy (e.g. emotional ties such as the human-companion animal relationship).

**Objective:** The purpose of this review was to develop a conceptual framework to explore the role of companion animals in promoting self-efficacy among cancer survivors through spiritual guidance.

**Method:** We identified relevant literature through a search of four databases: PubMed, CINAHL, PsycINFO, and Academic Search Premier. We included the following search terms to capture a range of papers relating to the topic: cancer, companion animal, spiritual, meaning, and self-efficacy.

**Results:** When experiencing distress, some people seek out companion animals as a source of meaning, healing, and spiritual guidance. Attending to this relationship enriches our understanding of patients' needs and supports the integration of spiritual caring into SM approaches. As patients,





in treatment and post, return to social roles, having a companion animal can mobilize psychological and spiritual resources leading to enhanced coping, self-efficacy, and resilience. Such informal supports complement nursing care, empowering patients to develop lifestyle behaviours that support healthy functioning.

**Conclusion:** The study of the human-companion animal relationship within the context of spirituality can enhance psychological theories underlying SM interventions by acknowledging a person's capacity for SM and limits to self-efficacy and agency.

### P-97

#### Validation of the Chinese Version of the Revised Illness Perception Questionnaire in Taiwanese Lung Cancer Patients

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**Background:** There is no instrument to assess illness perception of lung cancer patients. The purposes of this study were the translation and psychometric testing of the Revised Illness Perception Questionnaire (IPQ-R) for patients with lung cancer in Taiwan.

**Methods:** Qualitative interviews of 10 lung cancer patients were conducted to obtain information for modifying the identity and causal dimensions. Translation and back translation were performed on the 38-item 7-dimension (timeline (acute/chronic), consequences, personal control, treatment control, illness coherence, timeline (cyclical), emotional representation) IPQ-R. A total of 210 lung cancer patients completed the traditional-Chinese version of IPQ-R and the Hospital Anxiety and Depression Scale. The factor structures of the translated IPQ-R (except identity subscale) were tested by 2 principle component analyses (PCA). Internal consistency, test-retest reliability, predictive and discriminant validity were examined.

**Results:** The PCA result of the forced 7-factor solution for 38 items were similar to the original IPQ-R. The main differences were presented in the structures of the treatment control and timeline (acute/chronic) factors. The forced 4-factor solution for causal items identified factors named psychosocial, lifestyle, immune/environment and chance factors. Cronbach's alphas and test-retest correlations ranged from 0.60 to 0.84 and 0.43 to 0.80, respectively. Regression analyses showed that emotional representation, personal control, consequence, and psychosocial causes predicted levels of anxiety and depression. Discriminant validity was demonstrated by different patient groups (I/II/IIIa vs. IIIb/IV stage).

**Conclusions:** The traditional-Chinese version of the IPQ-R has suitable factor structures and psychometric properties for

assessing illness perception among lung cancer patients. The different structures from other versions of IPQ-R may be due to the relatively high mortality of lung cancer.

### P-98

#### Strengthening Transition in Cancer Survivorship: The After Cancer Treatment Transition Clinic Model

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Cancer is a major health problem in Canada and worldwide. Early detection and improved treatment modalities have contributed to longer survival and turned cancer into a chronic condition in Canada. The post-treatment phase of cancer survivorship has its own challenges for cancer survivors and the health care system. Cancer survivors may feel reluctant to leave the cancer care settings due to concerns over recurrence screening, effects from cancer treatment, and gaps in coordination and transition of care. While the distress associated with transition points in cancer care has been well documented in the literature, questions still remain about the most effective ways of transitioning cancer survivors back to primary care.

The After Cancer Treatment Transition Clinic (ACTT) has been established at Women's College Hospital in Toronto in collaboration with Princess Margaret Cancer Centre to transition cancer survivors back to their primary care practitioners with a supportive structure in place. Based on a shared model including a General Practitioner in Oncology and an Advanced Practice Nurse, ACTT has promoted innovation in cancer survivorship care. The ACTT specialists provide invaluable support through surveillance for recurrence and secondary cancers, health promotion and cancer prevention teaching, identifying secondary referral needs, ongoing assessment and interventions for late and persisting effects from cancer, and linking patients to hospital and community resources.

This presentation will provide an overview of the ACTT model including disease site specific practice guidelines for surveillance visits. Research results describing the ACTT patient population and satisfaction with care will be presented. Current challenges in survivorship care and further directions will be identified. ACTT has a great potential to contribute to the formulation of practice standards in cancer survivorship transition given the experience and the success of the clinic.

### P-100

#### Orientation to Clinical Trials Unit: An Extension of Informed Consent

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**Background:** Oncology nurses of Phase I Clinical Trials Units (CTU) are the front lines of delivering care to clinical trial patients. Patients understand standard processes of clinical oncology care however early phase oncology clinical trials have very different processes and procedures. Oncology clinical trials focus on safety and efficacy with precision timed multiple monitoring parameters, physical assessments, vital signs, cardiac tracings, labs and protocol specifications for administration of the agent. For the best care of patients these precise metrics mandate enhanced patient education and orientation.

**Purpose:** Assure principles of patient informed consent are met in the administration of clinical trial agents.

**Methods:** An orientation check list was created to provide standardized teaching to clinical trial (CT) patients-orienting for research specific activities. A visit type (code for scheduling) was created to facilitate scheduling for teaching prior to CT agent administration. Charge nurses confirm signed consents and then patients are scheduled for protocol specific orientation with standardized process for orienting first time CTU patients.

**Findings:** All first time CTU patients now receive orientation and report decreased anxiety for CT procedures. Orientation components include meeting staff who will provide care and familiarity with the CTU. The visit type/scheduling code is a needed mechanism to capture the dedicated staff time for patient teaching.

**Conclusion:** Beyond the informed consent conference, CT patients are now more fully informed with a standardized orientation and scheduled CT orientation visit. The outcomes of care are enhanced with the ability to prepare patients and family for research protocol activities. Next steps will be to develop mechanisms of standardized documentation which will allow for potential billing for unit compensation.

## P-101

### Evidence Based Intensity Tool for Staffing Ambulatory Oncology Infusion Suite

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**Background:** The Magnuson model, a nursing staffing model, developed by Warren Grant Magnuson Center at the National Institutes of Health (NIH) in 2004 identified the complexities inherent in caring for research patients in an ambulatory clinic setting. Staffing for maximum safety, efficiency and cost effectiveness requires knowledge of clinical content, understanding of clinical skills mandated for care delivery, and integration of competent clinical operations. These parameters were guiding influences in the design of an intensity tool for use in a 45 bed unit, averaging 6000 infusion hours monthly at a National Comprehensive Cancer Center (NCCN).

**Methods:** In 2006 an initial analysis of patient intensity and staffing ratios provided a baseline for identification of current state of staffing needs and future recommendations were formulated. Initial results demonstrated insufficient staffing ratios for optimal staffing considerations. Assessment of role distribution revealed nursing was performing tasks that did not require their skills or time, and additional supportive staff positions were created to maximize the use of professional nursing expertise. Treatments and the integral professional nurse practice requirements were separated and other duties delegated to ancillary staff. The tool was refined and used during the period of 2007–2014 to assist in evaluating staffing requirements related to treatment specific care needs.

**Conclusions:** The tool has proven to be instrumental in assuring that quality as well as safety, efficiency and cost effectiveness is assured within the practice of the oncology infusion suite. The ever changing front-lines of integrating early phase research means that the clinical demands are not static and necessitate constant reassessment and evaluation of current state needs.

## P-102

### Impact of Post-Chemotherapy Cognitive Impairment on Quality of Life in Breast Cancer Patients

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**Purpose:** Post-chemotherapy cognitive impairment (PCCI) has been shown to be one of the most common symptoms following breast cancer treatment, yet little is known regarding its impact on quality of life (QOL). The aim of this study was to examine the impact of PCCI on quality of life in women with breast cancer, who received adjuvant chemotherapy.

**Methods:** Neuropsychological performance covering attention, memory and executive functions, self-perceived cognitive impairments (FACT-COG) and the quality of life (FACT-B) of 62 women with breast cancer (age M = 44.95; SD = 7.29; range = 26–60) was assessed 6-month post-chemotherapy (4 cycle of doxorubicin and cyclophosphamide). The Reliable Change Index corrected for practice (RCIp) identified women whose performance significantly declined, while independent t-test was used the differences of QOL according to PCCI. Cognitive impairment defined as a reliable decline on two or more cognitive measures.

**Results:** A total of 17.7% of patients exhibited an objective cognitive impairment and 29.0% of patients complained a subjective cognitive impairment. According to the results of independent t-test, there were no significant differences of QOL between objective cognitive impairment groups. However, patients who had a subjective cognitive impairment reported significantly lower level of the FACT-B ( $p=.006$ ),

emotional wellbeing ( $p=.001$ ), and breast cancer specific wellbeing ( $p=.002$ ).

**Conclusion:** These results suggest that subjective cognitive impairments may be associated with poor quality of life after chemotherapy for breast cancer survivors. Significant associations reported in this study may be useful in the identification and treatment of at-risk individuals. Nursing intervention for prevention and intervention of cognitive impairments should be developed and tested.

### P-105

#### Subjective and Objective Changes of Hyperthermia Therapy in Cancer Patients

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**Background:** Hyperthermia therapy (HTT), which is combined with chemotherapy and/or radiotherapy in some cases, is one of cancer treatments. The underlying mechanism of the effectiveness is expected to damage cancer cells by high temperature exposure, and its efficacy has been reported in some clinical studies. However, it is little known about the subjective and objective physical changes throughout HTT. We examined the subjective and objective changes caused by HTT, and investigated some appropriate nursing interventions during HTT.

**Methods:** A non-invasive heating device (Thermotron RF-8, YAMAMOTO VINITA CO., Japan) was used in this study. It partially heats up tumor tissue using electromagnetic wave to reach 42 °C for 40–60 minutes. Rectal temperature (RT), blood pressure (BP), pulse rate (PR), body weight as objective parameters, and thermal sensation, thermal comfort and fatigue as subjective parameters were measured before and after HTT in 31 patients. We analyzed correlations between lost body fluid volume (LBFV) and changes of vital-signs before and after HTT. We also evaluated the effects of position changes (upright and supine) on vital-signs.

**Results:** The mean age was 61±12 years old, and 26 were male. All the participants had metastasis, and 23 patients received chemotherapy or radiotherapy before HTT. In patients with decreased systolic BP (SBP) after HTT ( $n=17$ ), there were significant correlations between LBFV and change of SBP ( $R=-.59$ ,  $p<.05$ ) or PR ( $R=.51$ ,  $p<.05$ ). In all patients, BP was significantly decreased at upright position as compared with supine position after HTT ( $p<.01$ ). There were no significant correlations between LBFV and subjective parameters.

**Conclusion:** Although no subjective parameters showed significant correlations to LBFV, increase of LBFV caused

serious changes of vital-signs. Therefore, during HTT, nurses should assess vital-signs of patients and encourage them to increase fluid intake in order to perform HTT safely.

### P-107

#### Experience of Patients with Esophageal Cancer Who Underwent Reconstruction Via Subcutaneous Route

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**Study Objective:** To elucidate the experiences of the post-operative recovery process of esophageal cancer patients who underwent reconstruction via subcutaneous route.

**Study Methods:** The study participants were patients who underwent reconstruction via subcutaneous route for esophageal cancer at least 6 months before and have since been visiting the hospital on an outpatient basis. A semi-structured interview with open-ended questions was conducted. Transcripts of the interview content were used as qualitative data for analysis by Krippendorff's method of content analysis. This study was approved by the Ethics Review Board of the authors' research institution.

**Results:** The study participants were 7 patients (5 men, 2 women; mean age, 67.6 years). The following 6 experiences were revealed in patients with esophageal cancer who underwent reconstruction via subcutaneous route: [keen awareness that the patient does not have the energy to face the changes that exceed the imagination], [confusion about the symptoms involving the reconstructed site], [relief of knowing that it is not my alone experience], [earnest endeavor to increase caloric intake], [effort to somehow cope with the subjective symptoms associated with surgery], and [aiming for social reintegration from the realization of postoperative recovery that is dependent on time passing].

**Discussion:** For patients who encounter postoperative changes that exceed the imagination and who are keenly aware that they do not have the energy to face such a situation, it is important to provide preferential support to alleviate the symptoms. Moreover, with regards to the various effects caused by bulging of the reconstructed site, it is necessary to continually provide support to facilitate the process of restructuring life postoperatively by offering information on the experience of patients who underwent a similar operation.

### P-109

#### The Trajectory and Associated Factors of Oral Mucositis of Patients Receiving Allogeneic Hematopoietic Stem-Cell Transplantation

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Over 60% incidence rate of oral mucositis among allo-HSCT patients who receiving conditional regimen and total body irradiation were noted. Oral mucositis may cause pain, impaired chewing and swallowing, and subsequently have an impact on the nutritional status, quality of life and may develop life-threatening sepsis. The lack of database of oral mucositis undergoing allo-HSCT in Taiwan has been indicated. The purposes of this study are: 1) to describe the trajectory of oral mucositis during allo-HSCT; 2) to find the relationships between patient's demographics/medical records and oral mucositis; and 3) to identify significantly associated factors of oral mucositis.

Retrospectively longitudinal study for using existing demographic/medical information and oral mucositis scores that have been recorded and to repeatedly observe of the oral mucositis during allo-HSCT. By reviewing charts, 50 patients received allo-HSCT were selected. Descriptive statistics and Generalized estimating equations (GEE) had been used for data analysis.

The results indicated 1) the trajectory of oral mucositis can be significantly changes over time ( $P < .0001$ ) with the highest scores on 10th day after allo-HSCT; 2) oral mucositis may be associated with age, educational status, medical diagnosis, alcohol usage, TBI, conditional regimen, body weight, body mass index, absolute neutrophil count, and platelet count; 3) the significant associated factors of oral mucositis during allo-HSCT were age, body weight and platelet count. The findings would contribute to the knowledge of trajectory of oral mucositis and provide the guidelines for setting the criteria for detecting patients at high risk for having oral mucositis in Taiwan.

### P-110

#### **Efficacy of Problem Solving Intervention for Psychological Status in Adult Diagnosed With Cancer: A System Review**

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**Aims:** To investigate the efficacy of problem solving intervention for psychological status in adults cancer patient.

**Background:** The diagnosis and treatment of cancer have physical and psychological influence on patient. Problem solving intervention is a short-term, structured psychological method of cognitive behavioral therapy. It can improve psychological conditions for adults cancer patient. Nevertheless, no system review totally included randomized controlled trials to analysis this intervention.

**Methods:** MEDLINE, EMBASE, CINAHL, BIOSIS Previews databases were systematically searched. Full-text is reviewed of the resulting articles for the following eligibility criteria: 1) adult participants,  $\geq 18$  years old with a cancer pathologic; 2) mainly using problem solving intervention or using it with other intervention together; 3) random assignment to one or more treatment versus a usual care, or waiting-list control condition; 4) psychological conditions were involved in outcome measures.

**Results:** Eight studies published in English which were taking problem solving intervention were included in this system review. Study quality was assessed using the Joanna Briggs Institute Reviewer's Manual, 2008. Four studies used problem solving intervention alone as a treatment and four studies combined it with other interventions, such as physical training, behavioral activation. Six researches suggested that the problem solving interventions were effective in improving psychological status and two studies showed no statistically significant changes in psychological status. The quality and protocols of the studies varied greatly and the details of problem solving intervention were described.

**Conclusion:** This system review shows the potential of problem solving intervention in improvement of cancer patients' psychological status. Further rigorous research from great number of cancer patients' regions, for example Asia, is warranted to design and evaluate the economic benefit of it.

### P-111

#### **Exploration of Body Image and Sexual Satisfaction Among Breast Cancer Women With Mastectomies and Their Spouses in Taiwan**

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The main purposes of to compare the body image of breast cancer women with mastectomies and their spouses' image of the women' bodies; to compare sexual satisfaction among these women and their spouses; to investigate the relationship of body image and sexual satisfaction in these women and in their spouses.

Cross-sectional study, 67 dyads of breast cancer women with mastectomies and their spouses. Inclusion criteria for the women were: one year after mastectomy, married, age below 65, and breast cancer diagnosed as I, IIa, or IIb by pathological report. Inclusion criteria for spouse were the woman's legal husband and living in the same household. Two structural questionnaires were used: the 30-item Body Image Scale and 27-item Sexual Satisfactory Scale for both wife and husband.

Paired-t test showed that breast cancer women have significantly worse self body image than the spouses' image of their body ( $t = 5.449$ ,  $p < .01$ ). Women also reported significantly lower sexual satisfaction than their spouses ( $t = -2.376$ ,  $p < .05$ ). Body image was significantly correlated with sexual satisfaction both in breast cancer

women ( $r = -.251$ ,  $p < .05$ ) and spouses ( $r = -.332$ ,  $p < .01$ ). The worse the body image, the lower the sexual satisfaction.

Intervention may be developed to help health care providers learn more about body image and sex lives so they can be more comfortable discussing these issues with breast cancer women and their spouses. Marriage counseling should be included in the follow-up care of breast cancer women.

## P-112

### Exploring the Care Needs of Lung Cancer Patients in Taiwan

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**Background:** Cancer patients need various treatments and care during different stage. However the medical team members didn't really know what the patients needs.

**Purpose:** This research aims at systematically organizing the researches for the care needs from lung cancer patients, for the planning develop the clinical practice guidelines in Taiwan.

**Methods:** We conducted a systematic literature review to identify what the lung cancer patients demands. A review of literature published over the past 10 years base on the following reference: PubMed, CINAHL, Medline, ProQuest, Cochrane Library, CEPES, JBI, ONS, NGC, NCCN, Google scholar, Up to Date. To maintain a specific focus on lung cancer patients' needs, the following criteria were excluded: (1) articles focusing on needs assessment or assessment tools, (2) the participants are not cancer patients or are cancer patients without lung involved. (3) the participants are under 19 years old. Study selection, data extraction, and validations were performed by two review authors, meta-analysis will be performed for any research which was focusing on lung cancer patients' care needs and using a random-effects model.

**Results and Conclusion:** Total searching results are 140 articles, we identified and select 33 of them met our inclusion criteria, however, the purpose and study design were different not deemed suitable for further analysis. Summarizing the 33 articles which relevant lung cancer patients' needs can be classified into 5 aspects: (1) physical needs for symptom relief, (2) psychological needs, (3) social support, (4) mental support, (5) information/communication needs. The result are not only help the oncologist clinical care but also develop the local clinical practice guidelines. This application shall improve patients' well-being and enhance their quality of treatments making the admitted health care of cancer patients more efficiency.

## P-114

### The Quality of Life in Patients With Urinary Tract Cancer and the Effecting Factor

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**Aim:** To determine factors effecting quality of life in patients with urinary tract cancer.

**Materials and Methods:** The study was conducted with patients applied to urology outpatient clinic. Of patients with urinary tract cancer, socio-demographic characteristics, the type of cancer, stage of disease, treatment, whether complementary treatment is received were recorded. Patients' quality of life was assessed by applying Short Form-36 (SF-36).

It was investigated whether there is a difference in quality of life depending on socio-demographic characteristics, tumour location, treatment, stage of disease. Complementary treatment (pumpkin seed, royal jelly, kefir, carob molasse etc) rates and types of these treatments were analyzed.

**Results:** The mean age of patients with prostate cancer was 71,88 and the others was 59,10. According to urinary tract cancer types, general health subscale of quality of life was significantly lower in patients with other urinary tract cancer ( $z = -1,99$ ;  $p < ,05$ ) comparing to prostate cancer. According to metastasis status, physical functioning subscale ( $z = -2,75$ ;  $p < ,05$ ), general health subscale ( $z = -2,02$ ;  $p < ,05$ ), bodily pain subscale ( $z = -2,04$ ;  $p < ,05$ ) of quality of life were significantly lower in metastatic patients. Complementary treatment ratio in patients with prostate cancer was 28,2% and the others' was 20%. Patients were classified in two groups related to diagnosis time (shorter than 4 years and the others). Complementary treatment using ratio was higher (%31,9) in patients with diagnosis time 4 years and up.

**Conclusion:** The general health subscale of quality of life in patients with prostate cancer seems better than the others patients. Also having metastasis has affected negatively functional general health and bodily pain subscale of quality of life. Complementary treatment usage ratio get increased as period living with cancer expand.

## P-115

### Nursing Experience of a Congenital Hearing Impaired Patient With Testicular Lymphoma

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Primary Testicular lymphoma is a rare, clinically aggressive form of non-Hodgkin lymphoma. Its annual occurrence is about 0.8 to 10.5 per 100,000 population and comprises around 9% of testicular cancers and 1–2% of all non-Hodgkin lymphomas. The occurrence differ with country, race, and socioeconomic status, and is lower in Asians as compare to Caucasians. This article discussed a nursing experience of a congenitally hearing impaired patient with primary testicular lymphoma. Using observation, reading



and writing conversation, complete physical examination, and Gordon 11 Function Health Patterns, the following health problems were established: verbal communication handicap, anxiety, and risk of serious infection/sepsis. Utilizing professional nursing technique to find the nursing problems and to formulate nursing plans, individual oriented nursing care to the patient, helping patient to fulfill basic needs and maintain body comfort, relieve the patient's anxiety and worry with reading/writing communication and health education, enhance patient's compliance and confidence toward chemotherapy. We present this case not only for its rarity, we also wish to provide a reference for nursing care of such patients in the future.

### P-116

#### A Report on a Project to Raise the Acceptance of Portable Infusion Pumps Among Home-Care Chemotherapy Patients

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**Purpose:** This project was designed to reduce the vesicant leakage of chemotherapy drugs and increase patient satisfaction with medical services by improving the acceptance among home-care chemotherapy patients of portable infusion pumps.

#### Methodology:

1. A survey of 412 home-care chemotherapy patient cases conducted in our hospital between June and December 2013 identified one case of vesicant leakage. This leakage incidence rate of 0.28% exceeded by 0.27% the maximum acceptable leakage rate of 0.01% set by the hospital's Chemotherapy Safety Enhancement team.
2. Although our hospital promotes the use of portable infusion pumps, a lack of related visual health education materials and of standardized procedures impeded our unit's ability to comprehensively teach proper blood-vessel care to patients and staff implementation of health education, or of the acceptance of patient family members with regard to use of portable infusion pumps.
3. A structured questionnaire distributed (Cronbach's  $\alpha$  .80) to home-care patients who had used portable infusion pumps found that the rate of acceptance for these pumps was 67.5%.

#### Results:

1. After implementation of the project, which distributed informational brochures, installed posters, and provided demonstrations on the proper use of portable infusion pumps, the rate of acceptance for these pumps increased from 67.5% to 91.3%.
2. A phone call conducted by the project team with each chemotherapy patient to follow up on the progress of home care resulted in these patients giving a 90% rate of satisfaction in care.

#### Conclusions/Implications for Practice:

1. No cases of vesicant leakage of chemotherapy drugs were recorded between January 2015.
2. Overall, the implementation of this project raised the degree of self-care acceptance of home-care chemotherapy patients. Furthermore, the post-intervention telephone calls placed to these patients to follow up on the post-discharge condition of their treatment increased nursing quality of care.

### P-118

#### Grand Mothers' and Mothers-in-Laws' Cancer Literacy and the Intergenerational Post-migration Dialogue About Prevention: Recommendations for Cancer Programs

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This exploratory qualitative study explored women's *savoir-être* and *savoir-faire* related to cancer by the intergenerational cancer literacy and dialogue among immigrant families. The research question was *what are cancer related knowledge and conceptions held by immigrant grand-mothers and mothers-in-law that would influence family cancer preventive and early detection practices?* We used a theoretical framework inspired on the medical anthropology, and the interpretative, critical dimensions of health within their political, economical and socio-cultural dimensions. Eleven participants living in Montreal attended focus groups (December 2013). Participants born in Colombia, Cameron and Democratic Republic of Congo. Discussions were audio-recorded, transcribed, codified using Atlas ti 7.0 and analyzed using thematic analysis. Regardless of their beliefs of an external origins of cancer, participants were eager to question the interviewees about cancer genesis, progression, prevention and forms of treatment. This could be explained by the finding that the participants had the role of health mentors in the family. Participants promoted healthy eating habits to prevent cancer within their families, which exposed an intriguing paradox considering their beliefs of an uncontrollable origin of cancer. The participants identified a few of the services they used to get health information. Recommendations for nursing interventions include extending the health education to go beyond cancer-related lifestyle factors, wide dissemination of cancer early detection messages in the media, and offering educational sessions in community centres for immigrant families. The preference for oral health-information challenges the existing educative approaches. Future programs should respond to this population's interest on instrumental, oral cancer-related strategies for early detection reinforcing thus their actions to protect personal and family health, as well as educate newcomers.

**P-120****A Literature Review on Exercise as a Prevention of Fatigue in Cancer Patients**

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**Background:** Cancer-related fatigue is a disabling and distressing symptom present throughout the cancer trajectory from the time of diagnosis until the end of life. In recent years, an increasing number of evidences show that both exercise and physical activity could be safe and beneficial to the people with cancer. Exercise not only prevents and controls cancer but also it helps in improving physical function, cardio respiratory fitness, quality of life and reduces cancer-related fatigue.

**Objective:** This study aimed to identify evidence in the scientific literature related to the use of exercise to prevent fatigue in patients diagnosed with cancer.

**Materials and Methods:** We performed a search of publications indexed in electronic databases: Cochrane Library, PubMed / Medline, Cinahl, EBSCO Host. Selected literatures were randomized controlled trials published from 2010 to 2015 and contained all the following key words; cancer, fatigue, exercise, and cancer related fatigue. After completion of database searches, a final total of 44 studies published in English were identified that fitted the inclusion criteria.

**Results:** Studies have shown that majority of patients go on a walk as exercise. The large number of studies suggested that exercise had a moderate effect in reducing some symptoms such as fatigue, depression, and sleep disturbance. The effect of exercise on fatigue seemed to differ by the type of cancer, and patients with solid tumors benefit the most from exercise.

**Conclusion:** Cancer-related fatigue along with the burden of the side effects can lead to a reduction in functional ability. According to the results, the exercise is effective in the management of cancer-related fatigue. However, further studies on the subject, with strong research designs, are extremely important to evaluate the effect of new interventions and strengthen the role of oncology nursing based on scientific evidence.

**P-121****Advance Practice Nurse Led Care Coordination Model in Oncology Patient Care Transitions**

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**Focus Area:** Quality and Safety

**Background:** Transitional gaps in medically complex patients care coordination between sites may create unnecessary delays/misses in treatment which may negatively affect

patient care outcomes. Oncology patient transitions between inpatient & outpatient settings in complex health systems are similarly at risk as they require coordination between multiple modalities & disciplines at multiple care sites during therapy.

**Purpose:** A pilot Advanced Practice Nurse Care Coordinator (APNCC) model was introduced July 2013 in University of Washington Medical Center with purpose to reduce length of stay, lower readmissions, decrease delays in treatment, and improve quality and efficiency of care delivery for oncology population.

**Methods:** A comprehensive orientation to inpatient and outpatient oncology teams was conducted for the APNCC. Subsequently, standardized processes and communication mechanisms were developed between inpatient and outpatient (primary) teams to facilitate timely care planning & coordination per inpatients' changing medical needs. Daily rounding with APNCC who facilitates dialogues between providers across settings on treatment plans for inpatients were developed. Standardized guides on central line care, home infusion, fertility preservation, basic transition practices and extensive contact lists were generated to enhance care coordination.

**Findings:** A new model to support care transitions from inpatient to outpatient for oncology population at large comprehensive cancer center since July 2013 has reduced length of stay from 1.05 above expected to 0.95 below in 1 year with stable readmissions and higher patient and staff satisfactions. APNCC model demonstrates increased effectiveness in care transitions, efficiency in care delivery with better patient and provider satisfactions. Further refining and development integrating technology could enhance this model.

**P-122****Management of Signs and Symptoms in Malignant Wounds: An Integrative Review**

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**Objective:** To identify available interventions to control or reduce the signs and symptoms of malignant wounds in cancer patients.

**Method:** This is a integrative review which the search was realized on the electronic databases LILACS (Literatura Latino-Americana e do Caribe em Ciências da Saúde), COCHRANE Library, PUBMED (U. S. National Library of Medicine and The National Institutes of Health) e CINAHL (Cumulative Index to Nursing and Allied Health Literature) using the search strategy ["*fungating wounds*" (*odor OR pain OR exudate OR bleeding*)] e ["*malignant wounds*" (*odor OR pain OR exudate OR bleeding*)].

**Findings:** 119 articles were identified in the four databases consulted. After exclusion of repeated or articles that did not attended the inclusion criteria of this study were included 12 articles for synthesis. The management of the



odor was evaluated in five studies which analyzed the use of green tea “bags” as secondary dressings, topical administration of aromatherapy in cream water-based essential oils added, hydrocellular hydrogel foam, primary cover with foam with silver and without silver impregnated cover with honey. Bleeding control was approached by two studies using chemical hemostatic technique and oxymetazoline spray. For pain control, three studies were analyzed using thermoreversible gel, primary covers with silver nanocrystalline versus coverage impregnated with honey and hydrogel foam hydrocellular.

**Conclusion:** The studies analyzed showed weak evidence to establish protocols in the management malignant wounds, as they are evaluated interventions still small number of patients and without proper methodological rigor necessary for the production of strong evidence. The implemented measures commonly are not described at all, a fact that complicates the analysis of data and hence the results of this review.

#### P-124

##### **Characteristic Actions Related to ‘KIKU, Professional Listening, of Certified Specialists in Cancer Nursing in Japan**

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**Background:** Nurses in cancer nursing need to support cancer patient’s decision makings by listening their opinions and feelings. But nurses lack the opportunity to learn professional listening compared with CNS who has abundant practical experience. Their experience related to professional listening can contribute to cancer nursing.

**Objective:** To clarify characteristic actions of Certified Nurse Specialists in Cancer Nursing (CNS) related to ‘KIKU’, professional listening, for helping general nurses with difficult problems on listening to cancer patient’s stories.

**Methods:** Semi-structured interviews were conducted to 21 Certified Nurse Specialists on Cancer Nursing in Japan. Transcripts of the interviews were analyzed with a qualitative method by using continuous comparison as the basic idea of the grounded theory approach.

**Results:** Three points in characteristic actions were identified: 1) CNS had philosophy of being impenetrable to everything about cancer patient, 2) CNS valued personal day-to-day relationship with patient and gathered patient’s information before first meeting with patients, 3) CNS made efforts to accept patient’ stories without exaggeration and visibly behaved practical actions like maintaining eye contact with patient, during meeting.

**Conclusion:** It was suggested that general nurses in cancer nursing need to learn not only practical actions but also philosophies about ‘KIKU’.

#### P-125

##### **E-learning in Oncologic Emergencies for Nurses and Adherence of Nurses in Argentina**

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**Introduction:** The patient with cancer has many issues of great complexity for comprehensive assistance. In the course of their disease and treatment can present emergency situations that nurses should detect early and act with knowledge. The high demand for training in oncological nursing motivates the realization of a free online course that facilitates access to academic education.

**Objective:** To evaluate the response of adherence of nurses at online course in Oncological Emergencies in Argentina and Latin American countries.

**Methods:** Online Course Opening in May 2014, diffusion done by Internet, on paper, meetings and conferences. Open to enrolled nurses. It contains nine modules, published weekly, with topics such as: hypercalcemia, tumor lysis syndrome, spinal cord compression, intracranial hypertension metastatic, superior vena cava syndrome, febrile neutropenia. Each module has therapeutic approaches, nursing care, and presents an evaluation at the end of training. After attending all modules a final evaluation is done and if approved they receive a certificate.

**Results:** The course provided a total of 1107 volunteers registered nurses. 60% completed it. 9140 visits were recorded at the site, from 25 countries of which 15 (60%) were from Latin America. From Argentina received visits from 15 provinces and 124 cities, and had a total of 644 (58%) enrolled Argentines who completed the course. 9702 downloads were classes in PDF and 729 discharges were literature. Foreigners who completed the course: 25 (3.7%).

**Conclusion:** The results provide evidence of adherence of nurses to the online course with 60% approval. The e-learning for nurses in the area of oncology in Latin America is a useful tool that facilitates access to the training of nurses in our country and creative exchange with nurses worldwide.

#### P-126

##### **High Quality Cancer Survivorship Care for All: Are We on an Optimal Path?**

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**Background:** In developed countries, few survivorship models of care (MoC) consider health and social disparities in their development, limiting access to high quality cancer survivorship care for many. Understanding how disparities influence the development of and access to survivorship MoC is essential to ensure individuals’ needs, rather than social privileges, guide the distribution of opportunities for quality survivorship care and optimal health.

**Purpose:** To explore how the intersection of social, political, economic and personal factors, and health experiences and health management strategies shape the development





of and access to high quality survivorship care for Canadians. Moving beyond simply describing, this study considers *possibilities for action* to create high quality survivorship MoC that recognize the complexities inherent in survivorship care.

**Methods:** Using a qualitative interpretive description approach, this study involves three phases: 1) secondary analysis of a subset of the Canadian Communication in Cancer Care database, 2) critical textual analysis (e.g., survivorship guidelines, policies) and 3) cancer survivor and system stakeholder interviews.

**Findings:** Phase 1 and 2 results are presented, offering survivors' transition experiences from treatment to survivorship care within the structures and contexts that may shape survivors' experiences. Major themes include communication, experience accessing survivorship resources, and ongoing unmet needs. Phase 1 and 2 findings highlight problematic areas to be further explored within Phase 3, informing survivor and system stakeholder interviews.

**Implications:** This study offers insights into how current survivorship MoC may unwittingly reduce opportunities for survivor health and makes recommendations for improvement in how we communicate about, shape and enact equitably high quality survivorship MoCs.

#### P-127

##### **Translation and Validation of Tools for Assessing Health-Related Quality of Life, Health Status and Sexual Health for Hong Kong Chinese Cancer Survivors**

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**Background:** previous cancer survivorship studies are mostly based on Western population. Many sexuality studies are done in survivors with gynaecological and breast cancer, while male patients and other disease groups were seldom studied.

**Objective:** This study aims to translate and validate the Chinese versions of (1) Quality of Life in Adult Cancer Survivors (QLACS), (2) the sexual subscale of the Expanded Prostate Cancer Index Composite (EPIC) (male patients only), and (3) Physical and Mental Health Status Items among Hong Kong cancer survivors.

**Method:** This study adopts a quantitative design following the standard translation and back translation and validation procedure to examine the psychometric properties of the tested tools. We recruits 220 Chinese adult cancer survivors with all type of cancers in a regional hospital in Hong Kong. All eligible participants will be interviewed with the three tested tools by a trained research staff. In addition, Chinese versions of the Functional Assessment of Cancer Therapy-General (FACT-G), Body Image Scale (BIS) and International Index of Erectile Function (IIEF) (male patients only) are employed to examine the divergent and concurrent validity of these tested tools. A random sub-sample of 50 male subjects is asked to complete

three tested instruments on a 2 weeks interval to assess for test-retest reliability.

**Results:** The study will be commenced in March 2015. The results of the confirmatory factor analysis, Cronbach alpha and Interclass correlation coefficients of the Chinese QALCS, EPIC sexual subscale and Physical and Mental Health Status Items will be reported. The divergent and concurrent validities of QALCS and EPIC sexual subscale will also be reported.

**Significance:** Results from this study will provide data to support the validity and reliability of the three selected tools that will be used in a future large scale study to advance our understanding of cancer survivorship in Hong Kong.

#### P-128

##### **Enhancing Cancer Knowledge and Skills Through a Standardized Provincial Chemotherapy Education Program**

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**Introduction:** Cancer chemotherapy administration and care is high risk and complex, and as such, specialized knowledge and care is required within environmental that support quality practice. An education institute developed an innovative standardized chemotherapy and biotherapy course, and a competency maintenance program, in 2009 and 2010 respectively. The program reflects standards identified by a number of national and international bodies, and meets Cancer Care Ontario standards for chemotherapy delivery.

**Objectives:** To review all components of an education program utilized for cancer chemotherapy nursing education, including development strategies, theoretical considerations and evaluation results for a 6 year period.

**Methods:** Multiple modalities were utilized to implement the curricula and make it available across the country, including eLearning, videoconferences, workshops and an expert facilitator training program, addressing various learning styles and access issues.

**Results:** Over 2000 nurses have completed the course since its inception. Program evaluation results will be shared for each component of the program, including participant demographics, prior knowledge and experiences in cancer care, and subjective and objective competency assessment parameters. Evaluation results indicate enhanced competency for participants completing the courses.

**Conclusion:** A multimodal approach to competency development and maintenance in cancer nursing care can address diverse learning needs across broad geographical areas, enhance patient safety and quality, and promote standardized, evidence based care.

#### P-129

##### **Developing an Effective Pain Assessment Training Strategies**

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Pain assessment is an important aspect in patient care that we need to seriously undertake in order to make patients' stay comfortable. This study had implemented in a teaching hospital in southern Taiwan (800 beds). Many in-patients are cancer patients (about 35%), so how to assess pain correctly were of concern. The purpose of this training program was training nurses on pain assessment and pain management in order to implement pain as the 5th vital sign effectively.

The training program uses multidisciplinary and simulation strategies to design the training program. There were 35 clinical teachers participate in this program during March 2014 to May 2014. The training program included 5 subjects which were cognitive of pain, pain assessment, simulation practice, bedside teaching, and consensus of mini-CEX. This training program applies various training strategies and resources. It includes concept map of pain, case conference, mini-CEX tool, video...etc. Learners practice their skill and discuss the case with pain doctor, psychologist and instructor at clinical. Every clinical teacher teaches their members in their own ward and checks their implementation with mini-CEX checklist after training.

We measure the effectiveness of training program. The cognitive average score were improved (73→86). Clinical teachers feel high satisfaction (97%) and had much positive feedback. They pointed out that this training program uses simulation and multidisciplinary strategies was better than before. They can apply more skills to their patient care, teach and value members further. This training process can be used in the other training program.

### P-131

#### The Interactions Between Palliative Care Cancer Patients and Nurses

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The aim of the current study was to examine the interactions between palliative care cancer patients and nurses. Specifically, to define the interplay between outward expressions (e.g., words and actions) and internal feelings in nurse-patient interactions, as well as the influence those factors have on how they perceive each other. A qualitative interview focused on how patients and nurses negotiate their relationships was used. Information was obtained from 4 patient-nurse pairs (n=8). Data were organized and analyzed using a general induction approach. Results and conclusions will be discussed below.

Two types of interconnected relationships emerged from the data: supportive and developing. In the supportive relationship, interactions between patients and nurses seemed to be therapeutic and mutually constructed. In this relationship, nurses were able to respond appropriately to the specific needs and wants of patients. On the other hand, in the developing relationship, nurse-patient interactions did not occur as frequently. However, it appeared that this relationship

reflected a process of change towards the supportive relationship model. This study found that the recurrent use of mutually constructed collaborative communication between nurse-patient interactions seemed to facilitate the transition from a developing relationship to a supportive one.

### P-132

#### Improving Referral Management and Treatment Decision-Making Processes for Patients With Hematologic Malignancies in a Tertiary Referral Center

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**Background:** Hematologic Malignancies (HM) represent a small proportion of new cancer cases, relative to higher incidence solid tumors. Consequently, patients are often referred to tertiary or academic medical centers for diagnostic evaluation as well as ongoing management. Academic medical centers are complex health systems to navigate, which may preclude timely and efficient access to specialists and Clinical Trials (CT). Faculty sub-specialization within academic settings necessitates the need for collaborative approaches to ensure complex cases move to treatment expeditiously.

**Purpose:** The goals of this project were to: improve health system response to referrals for HM by creating a standard of interdisciplinary case review by Hematologists, Medical Oncologists and Transplantation providers, on all newly referred and existing patients.

**Methods:** A gap analysis was performed to evaluate current referral processes. Subsequently, all patients with HM were identified, and population-based goals were defined. A tracking mechanism for patients was created and a weekly forum was developed to review cases in order of acuity. Considerations such as patient quality of life, goals of treatment, socioeconomic factors, and geography are included routinely in case reviews.

**Findings:** 934 referrals occurred over a 23 month period, and 78% of referred patients were reviewed. 80% of acute leukemia patients were enrolled on study during this period. Faculty and support staff report improved time to treatment initiation. Integrated teaching relative to disease, increased CT availability, and treatment planning across clinical divisions has also been achieved. Improvement in the culture of inclusion and teamwork occurred, especially between Heme/Onc and transplantation faculty.

**Conclusion:** Development of a streamlined referral management process has improved clinical care of patients with HM.

### P-133

#### Psychological Outcome and Quality of Life in Chinese Breast Cancer Patients who Underwent BRCA1/2 Gene Testing

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**Purpose:** To describe the psychological outcome and quality of life in Chinese breast cancer patients who underwent BRCA1/2 gene testing and compare the differences between BRCA mutation-positive and negative women.

**Methods:** In a cross-sectional follow-up questionnaire design, 76 breast cancer patients attended. The questionnaire contained measures of QOL, anxiety, depression and irritation.

**Results:** For these women, mean age was 45.76 years, mean disease course was 52.97 months and the time they knew the testing results was 1 year after testing. The scores of QOL were good and scores of psychological outcomes were low. No significant differences were observed between BRCA mutation-positive and negative women in psychological outcome and quality of life.

**Conclusion:** Chinese breast cancer patients who underwent BRCA1/2 gene testing kept good QOL and psychological status. Genetic counseling neither increased psychological stress, nor decreased their quality of life. Genetic counseling for high-risk patients and healthy women should be recommended in mainland of China.

#### P-134

##### **Preventing Occupational Exposure to Antineoplastic Hazardous Drugs in Oncology Settings: Evaluation of Working Practice and Surface Contamination**

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There are potential acute and long-term adverse health effects from hazardous drug exposures in oncology settings, but not enough evidence-based and risk-reduction efforts to protect healthcare workers. Healthcare workers may be exposed to hazardous drugs in the air or on work surfaces, clothing, medical equipment, and patient urine or feces. Despite the implementation of safety measures such as the use of PPE (personal protect equipment), biological safety cabinets and employee training, the environmental contamination and worker exposure to antineoplastic drugs is not uncommon. Numerous studies have shown that measurable levels of environmental contamination are present in the healthcare settings. Currently, no occupational exposure limits have been established for monitoring contamination by antineoplastic agents. It's important to minimize the exposure to healthcare workers whenever possible, because carcinogenic, mutagenic and teratogenic effects are not dependent on a minimum dosage. The aim of this study was to evaluate working practices and safety measures during drug preparation and administration, and to assess the level of contamination by antineoplastic agents in oncology care settings. In order to obtain information about contamination sources and to derive recommendation for the safety measures, we also investigated where there were correlations between working procedures and the level of contamination. The extent of implementation

of the safety measures is very different among the hospitals; therefore, each organization should identify area of high contamination and the weak points in their working process. The study results can be used to inform working practice and make policy change in oncology settings and that will improve occupational and environmental safety.

#### P-135

##### **Willingness to Pay for Breast Cancer Screening in Government Health Facilities in Kenya**

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In Kenya breast cancer is the leading cancer among women followed by cervical cancer (Nairobi cancer registry 2014). It is estimated that worldwide over 508 000 women died in 2011 due to breast cancer (Global Health Estimates, WHO 2013). Although breast cancer is thought to be a disease of the developed world, almost 50% of breast cancer cases and 58% of deaths occur in less developed countries (GLOBOCAN 2008). Mammography screening is the only screening method that has proven to be effective. Mammography screening is very complex and resource intensive and no research of its effectiveness has been conducted in low resource settings (Global Health Estimates, WHO 2013). Following devolution of the health care system, the Kenyan government has rolled out a plan to devolve cancer services to counties. Missing, however is the how to set the pricing of these services in county levels. This study aims to inform the county government on the approximated price to charge for mammogram and clinical breast examination. Among the methodologies used to elicit individual's monetary valuations of program benefits include willingness to pay (WTP) studies. The theoretical foundations of willingness to pay as a measure of commodity and service value are rooted in consumer demand theory (Bala MV, 1999). Individual WTP values point to consumer choice behavior or preferences with regard to particular goods or services. An aggregation of individual WTP values is expected to generate aggregate consumer demand for the particular good or service.

**Study Objectives:** To determine the women characteristics in relation to willingness to pay for mammogram.

To determine the value in Kenya shillings, women are willing to pay for mammogram in government facilities in Kenya.

**Methodology and Results:** This is an ongoing study and contingent valuation has been applied.

#### P-136

##### **Trends in e-Health-Based Research Employing Randomized Controlled Trials in Cancer Care**

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**Objective:** This study aimed to explore the topics of and trends in eHealth-based research in cancer care, specifically focusing on studies employing randomized controlled trials (RCTs).

**Method:** We reviewed studies conducted over the last 10 years (2004–2015). We used PubMed, Google Scholar, and EMBASE to search for articles indexed as “randomized controlled trial” and “cancer” and with titles or abstracts that included the terms “eHealth,” “online,” “telephone\*,” “Web\*,” “internet\*,” “e-communication,” “e-feedback,” and “tele\*.” We examined the title, abstract, and methods section of each paper.

**Results:** We extracted a total of 247 published papers, out of which 151 were analyzed. We excluded the remaining 96 papers from the analysis since they were not related to eHealth-based interventions, not reporting RCTs, or not focused on cancer.

**Results:** Survivorship and cancer prevention emerged as the most common topics in the literature of the past 10 years. Survivorship care included symptom management, healthy behavior, and psychosocial support. Cancer prevention included healthy behavior and decision aids to provide balanced information on cancer screening and genetic tests. The components of eHealth ranged from the sending of simple text messages to forms of peer group support such as the sharing of experiences among survivors via social networks. One feature that emerged was that feedback or survivorship care planning had become more customized to individual users. Further, coaching emerged as a completely new method in e-health. E-health-based interventions were administered via email, telephone, websites, video, and open source software (i.e., applications). In each study, a combination of these diverse eHealth methods was used to achieve the aim of the intervention.

**Conclusion:** With the increase in cancer prevalence as well as the number of cancer-free survivors, RCTs using eHealth interventions are being actively conducted in the area of survivorship care.

### P-137

#### Family Functioning Predicts End-of-Life Care Quality in Cancer Patients

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**Background:** Terminally ill patients with cancer, family members, and health professionals place value on quality and continuity of care at the end of life. EoL care still needs quality improvement. To achieve the best quality of care (QoC) at EoL, families need to be engaged in care. We identified whether family caregiver functioning would predict end-of-life (EoL) care quality received by terminally ill cancer patients.

**Methods:** Caregivers of terminally ill patients with cancer (n = 264) at 13 hospitals were enrolled at terminal cancer diagnosis, and questioned again 4–6 weeks and 2–3 months later. **Method:** We used a self-administered questionnaire

composed of family functioning and end-of-life care quality during the 2–3 months after terminal cancer diagnosis. Family functioning consisting of adaptability, participation, growth, affection, and resolution measured by the family APGAR questionnaire. Quality of care (QoC) at EoL covering dignity-conserving care, care by healthcare professionals, individualized care, and family relationships was measured by the Quality Care Questionnaire-End of Life.

**Results:** The total EoL care quality score and the subscale score of care by healthcare professionals deteriorated. All family functioning subscales were unchanged from the time of terminal diagnosis to imminent death. Improved participation and resolution in family functioning predicted improved individualized care in QoC at EoL. Improved affection and resolution in family functioning predicted improved dignity conserving care in QoC at EoL. Improved resolution predicted improved care by health care professionals. All improved family functioning subscales such as adaptability, participation, affection, and resolution predicted improved relationships with family members in QoC at EoL.

**Conclusions:** Family functioning may contribute to improving the EoL care quality terminally ill patients with cancer experience.

### P-138

#### The Health Professional and Sexuality in Cancer Patients

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Sexuality is a part of our everyday life, an important aspect to quality of life. It is more than just the act of sex or reproduction. WHO describe sexuality as a complex, multidimensional phenomenon that incorporates biological, psychological, and behavioral parts.

The diagnosis of cancer in itself is very devastating to patients and their loved ones. During the months after diagnosis, the cancer patient must attempt to come to terms with both the uncertainty of the threat to life and an often difficult and disabling treatment regime. Roles, relationships, employment and financial security may all be threatened. Treatment of certain cancers involve losing a body part.

There is enormous evidence that cancers such as those of the breast, gynecological and prostate cancers affect sexual functioning. This is often ignored or little attention paid to it by health professionals including nurses.

In a normal counselling session for cancer patients, we found out that there was some effects of treatment on their sexual functioning and that their relationships were being affected. Although there is some expression of sexual issues in the Ghanaian populace due to media awareness, sexuality is still a no-go area. This is cultural and might affect the Health Care Professional raising the issue of sexuality.

Researchers have identified personal embarrassment, inadequate training and the fear of increasing patient’s anxiety as reasons for not dealing with patient’s sexual problems.

Health Care Professionals are however expected to take dynamic role in the area of sexual health because they have the responsibility to give information and counselling. Nurses need to equip themselves on issues concerning sexuality so as to address the concerns of patients to impact positively on their quality of life.

### P-139

#### **Lymphoedema, Mobile Platform for at Home Observation, Early-detection and Management of Lymphoedema**

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Advancements in cancer detection and treatment are leading to increasing long-term survival rates. This is especially true for breast cancer, where long-term survival rates approach 90% after five years and 80% after ten years. It is estimated over 12M cancer survivors in the US, at risk of developing lymphedema (LE), and while LE is not a curable condition, it can be managed successfully with early detection and therapy. Currently, detection and diagnostic of LE is achieved by limb volume measurement, which are obtained through: water displacement, circumference, impedance, perometry, or DEXA scan. Despite the options available to the patients and clinicians, all these technologies present at least one of the following drawbacks: They require the patient to remain still for a significant period of time, usually in an uncomfortable position; They require lifetime, costly and time-consuming maintenance and disinfecting; They are incapable of detecting small, localized swelling; They are unreliable across measures and present high inter-rater disparity; and they are too large and prohibitively expensive. In this paper, a robust process for 3D-imaging and limb volume calculation using smart phones is presented. The proposed system will revolutionize the exiting methodologies, practices, and interventions. First, for being easily operated by professionals and non-professionals without any specialized training, it will be possible to use the same technology both at home and at the clinics. Second, the system will have a very low cost, while maintaining high accuracy and low maintenance. Third, the operation will take just a couple of minutes to acquire the images, which will be uploaded to a server holding the LE national minimum dataset, where the processing will take place. But most importantly, because patients can perform the measurements at home, these measurements will be taken at much more frequent intervals - improving early detection, diagnostic, and treatment.

### P-142

#### **A Web Knowledge Exchange Portal for a Better Discharge Planning in Oncology**

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Hospital discharge planning in oncology is an important challenge in the continuum of care and services in order to improve the quality of care provided to cancer patients. Some authors highlight the importance of educating patients and their families, coordinating services, and implementing regular follow-ups as factors essential to planning the discharge. According to Ontario's (Canada) Excellent Care For All Strategy, "Reducing avoidable readmissions of patients discharged from hospital is an important area for improving the quality and safety of health care." The strategy highlights the importance of using evidence-based findings to ensure better transitions in care and avoid hospital readmissions. Even though some studies have revealed benefits on patients' health when knowledge is used others have focused on the lack of impact on health due to problems disseminating and implementing clinical practice guidelines. These findings promoted the development of strategies for knowledge transfer (KT) to integrate knowledge in the renewal of clinical practices. This presentation will present the development of an interactive clinical innovation using Web technologies, the *Knowledge Exchange Portal* (KEP). The KEP is an interdisciplinary online platform that brings together researchers, nurses, doctors, other professionals, administrators, decision-makers and patient partners in a new space in order to share scientific and experiential knowledge as well as to improve care. It is used to promote KT and facilitate the rapid circulation of information between healthcare partners and the coordination of patient care and services in order to support the implementation and adoption of exemplary clinical practices. This presentation will highlight barriers and facilitators to the use of the Knowledge Exchange Portal.

### P-143

#### **Correlations Between Immunological Biomarkers and Response to Fatigue and Psychological Stress in Children and Adolescents With Cancer Under the Intervention of the Clown Theater Art**

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**Background:** Cancer-related fatigue has been described as the most prevalent symptom in children and adolescents with cancer, with higher levels experienced by those undergoing chemotherapy. The psychological stress caused by the hospitalization process plus the cancer therapy can negatively influence the immune system. For these patients, other treatment modalities, such as non-pharmacological interventions may be needed to decrease the effects of hospitalization and treatment.



**Purpose:** This study has the objective to investigate correlations between immunological biomarkers (cortisol,  $\alpha$ -amylase) and the response to fatigue and psychological stress in children and adolescents hospitalized with cancer treated by chemotherapy underwent intervention of clowns.

**Methods:** It was a quasi-experiment, pre/post-test type, which will be conducted in Pediatrics Hospital of Ribeirão Preto Medical School of the University of São Paulo. The study population will be recruited by convenience and in sequence for a period of data collection 12 months. The intervention to be evaluated will be performed by students of members Cia Laughter. The experimental group will consist of children and adolescents 6 to 14 years of age hospitalized with cancer. We will use two instruments, the Child Stress Scale and the PedsQL Multidimensional Fatigue Scale. Every child and adolescents will donate 8 saliva samples (2ml) in two different days. Analysis of levels of cortisol and  $\alpha$ -amylase will be determined by ELISA. The analysis of the measured total daily production of biomarkers will be performed by the area under the curve method. Descriptive statistical analyzes and bivariate associations and multivariate analyzes will be performed using the SPSS v.17 and GraphPad Prism v.5 software.

**Keywords:** Fatigue; Psychological stress; Neoplasms; Laughter therapy; Child; Adolescents; Nursing

#### P-145

##### **Longitudinal Survey of the Supportive Care Needs of the Acute Leukemia Patients**

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**Objective:** To investigate the dynamic changes of the supportive care need of Acute Leukemia Patients.

**Methods:** A total of 50 patients with Acute Leukemia were investigated with a self-designed general status questionnaire and SCNS-34 scale, and the data were collected for statistical analysis.

**Results:** The supportive care needs domains except Sexuality domain showed an increased trend, the rest dimensions decreased. The Patient Support and Care domain slightly rebounded in 6th months. Furthermore, the Sexuality domain showed an increased trend in the 3rd months. The score of supportive care needs in AL patients between 1st and 2nd month or between 3rd and 6th month showed significant difference ( $p < 0.05$ ) tested by the *Kruskal Wallis H* nonparametric tests. But through the *Mann-Whitney U* test, only the Physical and Daily Living domain and the Health System and Information domain were significant different between the 3rd and 6th months and the early 2 months after diagnosis ( $P < 0.008$ ). The Psychological domain were significant different between the 6th month and the early 3 months after diagnosis ( $p < 0.008$ ). The Sexuality domain and the Patient Support and Care domain did not show significant difference ( $p > 0.008$ ).

**Conclusion:** Dimensions of the supportive care needs in newly diagnosed patients varied differently at each time point. Prospective longitudinal dimension of this survey showed that the Physical and Daily Living domain and the Health system and Information domain decreased significantly in the 3rd month, the Psychological domain decreased significantly in the 6th month and the Sexuality needs had a rising trend in the 3rd month.

#### P-148

##### **Study on the Recent Situation and Correlation of Hope and Social Support in Family Caregiver of Advanced Cancer Patient**

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**Objective:** To know about hope levels and social supports in family caregiver of advanced cancer patient in Xi'an, and analyze the correlation between them.

**Methods:** A convenient sample of advanced cancer patients and their family caregivers (Respectively 369) from five triple A hospitals in Xi'an were selected, Using Herth hope Index Scale and Social Support Scale to investigate family caregivers of advanced cancer patients' hope level and social support, and using self-questionnaire to investigate advanced cancer patients and their caregivers' general, disease conditions and care related circumstances.

**Results:** The hope level score of family caregivers of advanced cancer patient was  $36.57 \pm 4.65$ , at a moderate to high level; social support total score was  $37.27 \pm 7.38$ , higher than our norm ( $P < 0.01$ ); the hope level score was positively correlated with social support ( $r = 0.412$ ); Multiple regression analysis showed: caregiver support utilization, evaluated physical condition of the patient by caregiver, objective and subjective support, the total monthly household income and age were factors affecting their level of hope.

**Conclusion:** The medical workers should pay attention to who cared patients with poor condition, less social support, older and economic difficulties, providing knowledge and information and care support for them to improve their level of hope.

#### P-151

##### **Evaluating a New Process for Interstitial Brachytherapy Through Interprofessional Collaboration and Patient Engagement**

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**Background:** A large teaching hospital in Toronto, Canada, began to offer Interstitial Brachytherapy to gynecological patients in its ambulatory Cancer Centre. The treatment required an unprecedented process of transferring patients between in- and out-patient settings over two days. To ensure efficiency and quality patient centered care, an interprofessional working group came together and developed a process based on Deming's Total Quality Management Philosophy.

**Objective:** To evaluate whether the process was delivered as planned and to identify factors that influenced attainment of goals.

**Methods:** The Centers for Disease Control and Prevention (CDC) Framework for Program Evaluation was used to guide the evaluation process. An electronic cross-sectional survey was created to assess for fidelity, satisfaction, facilitators and barriers to the process amongst the interprofessional team. The National Research Corporation (NRC) Picker Survey was also adopted to examine patient experience of care. Some modifications to the Picker Survey were necessary to ensure the questions were relevant to the Interstitial Brachytherapy patient population.

**Results:** Administering evaluative surveys enabled stakeholders to identify opportunities for practice improvement. The surveys prompted stakeholders to critically assess whether the health service delivery process was meeting the practice needs and patient expectations.

**Conclusion:** The systematic process evaluation played a crucial role in promoting efficiency and quality patient centered care. The feedback was used to refine the process and provided input for future planning.

## P-152

### Ensemble: A Navigation Program in the Workplace

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Improved diagnostics and treatments allow nearly two-thirds of people with cancer to return to work. Cancer survivors value work to gain normalcy, social support, and purpose for the future. Not only do these individuals face threats to all facets of their well-being, but also experience unique challenges to maintain work and career goals. Whereas health professionals must address cancer and treatment-related issues, employers should address occupational wellness. The literature is lacking regarding effective solutions for cancer survivors in the workplace. A dedicated program offers a significant resource for cancer survivors. It is imperative that new approaches be created and evaluated. Effective solutions will benefit multiple stakeholders, from the affected individuals to larger systems in society. Spearheaded by the nurse clinician in Employee Health, a collaborative team from the human resources, communications, IT, medicine, nursing, and legal functions formed "Ensemble", signifying coming together

to support employees affected by cancer. This innovative workplace intervention features oncology nurse navigators. Ensemble launched May 2014 with great endorsement of the employer leadership team and enthusiasm of employees. It is a multi-faceted navigation program, providing personalized support to those in the workplace affected by cancer. Nurse navigators assess, coach, and coordinate resources available to employees journeying with cancer. An online resource hub is also available. It includes links to company human resources, benefits, policies, cancer resources, current topics, and navigator information. A quantitative study in 2015 will employ validated patient-reported outcomes measures of self-efficacy and social health. Additionally, the relational alliance with the navigator will be assessed. Nurses can create, implement, and research interventions in the workplace for cancer survivors that have traditionally been limited to healthcare settings.

## P-154

### An Examination of a Nursing Method for Supporting the Survivorship of Chronic-Phase Cancer Patients

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**Purpose:** In the 18th ICCN we presented the necessity of support to prevent mental and psychological problems and the management of physical condition as support for survivors of chronic-phase cancer based on the results of our field survey. This research examined the nursing method for supporting the survivorship of chronic-phase cancer patients.

**Methods:** The nursing method was to seek the meaning of the cancer experience by supporting physical condition management using "The Integrated Approach to Symptom Management (P.J. Larson, A. Uchinuno) combined with "Narrative Therapy in Practice(G.Monk, J. Winslade)." The targets were survivors of chronic-phase cancer in adulthood, and the intervention period was three months. The nurses involved all had a wealth of experience in cancer nursing (Cancer Nursing Certified Nurses in this research).

**Results:** No difficulties in understanding the nursing method were seen in the nurses carrying out the nursing method. However, their busy schedules meant that there were limits to how much time there was for intervention, and flexible adjustments were needed. Even so, intervention in the process of cancer patient control of their physical condition is possible, and results can be expected. In the mental aspect, too, intervention in the process of seeking meaning in the cancer experience is possible, and results can be expected.

**Consideration:** Verification of the effects of the nursing method in clinical applications remain a future issue. Specific adjustments for the nursing method in clinical applications require the judgment of clinical nurses, so confirming the prerequisite understanding of the basic theory behind the nursing method will be important.

**P-156**
**Haemato-Oncology Patients' Perceptions Of Health-Related Quality of Life (HRQOL) After Critical Illness- A Qualitative Phenomenological Study**

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**Background:** Haemato-oncology patients often require admission to critical care due to infection from treatment-related bone marrow suppression. Improvements in survival and prognosis have led to a focus on patients' experiences regarding HRQoL, yet the standardised HRQoL questionnaires fail to fully capture patients' perspectives. Limited evidence exists regarding haemato-oncology patients' HRQoL after critical illness. Therefore, understanding and addressing their needs is a priority due to their complex conditions and associated aggressive and intensive treatment regimens.

**Objective:** We sought to qualitatively explore what HRQoL means to haemato-oncology patients after surviving critical illness and understand their long-term needs.

**Method:** Haemato-oncology patients >18 years of age were invited to participate in a face-to-face, in-depth interview three to nine months after discharge from an oncological Critical Care Unit (CCU). Interviews were audio recorded and transcribed verbatim. Data analysis was conducted using Diekelmann *et al.*'s (1989) seven-stage framework.

**Results:** Three males and two females participated. Five major themes emerged.

'Means to an End' - the critical illness was a tiny blip in the treatment pathway.

'Snakes and Ladders' - the impact of the ongoing treatment in the recovery process.

'Safety and Security' - the importance of feeling cared for and supported.

'Sense of Self' - coming to terms with the critical illness and life.

'Renaissance' - a renewed focus on life and re-evaluation of priorities.

**Conclusion:** Despite the physical and psychological impact of the cancer treatment and the seriousness of the critical illness, participants experienced positive change in relation to a renewed focus on relationships, re-evaluating priorities and an appreciation of the value of life. Critical care nurses are well placed to initiate the ongoing support haemato-oncology patients require to manage their uncertain cancer journey post CCU discharge.

**P-157**
**The Effect of Long-term Follow-up Clinic for Hematopoietic Cell Transplantation Survivors in Taiwan**

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The utilization of Hematopoietic Cell Transplantation (HSCT) to treat various conditions is increasing exponentially because of expanding indications and improvements in supportive care. The majority of survivors can live beyond the first 2 years after HSCT, they are prone to a unique set of complications and late effects. To integrate and translate into clinical practice the unique HSCT survivorship issues with current preventive guidelines, a team effort is required. This can be facilitated by a dedicated long-term-follow-up (LTFU) clinic that provides lifelong care for HSCT survivors.

Our LTFU clinic model is monitored by case manager. We included 110 HSCT survivor between 2012 to 2014. The monitoring items include acute/chronic GVHD, functional status, pain scale, nutrition status, emotion thermometer, and family care burden and stress.

We find that allogeneic HSCT survivors with acute or chronic GVHD had more symptom distress, pain and emotional problems (our data is not completed). We work collaborative with the team to ensure patients receive education, psychosocial support and health promotion advice at LTFU clinic. After implement LTFU clinic, patient readmission rate is lower than before. This result indicate that LTFU clinic provide early detection of HSCT survivors symptoms, and has benefit to prevent serious complications and maintain good quality of life.

**P-159**
**Analysis of Nurses' Online Reporting of Patient Chemotherapy Medication Errors in a Medical Center of Southern Taiwan**

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**Aims:** To identify chemotherapy medication administration errors and to analyze the chemotherapy medication errors types in a medical center.

**Methods:** All the events of chemotherapy medication administration error reported to quality center were collected and reviewed by nurse managers and quality management nurse of quality committee of nursing department. Error rates were calculated by number of patient encounters and chemotherapy doses dispensed.

**Results:** There were 10 chemotherapy medication administration error events reported from 2010 to 2014. the 5-year chemotherapy medication administration errors rate was 0.0044% (10/226846). All events were occurred in different wards such as BMT (1), pediatric ward(1), GYN ward (2), surgical ward (3), oncology ward (3). Most errors occurred on the evening shift. Error types included timing error (2/10), dosing error caused by setting wrong pump rate (6/10), route error caused by intern pushed chemotherapy drug into 3-way foley balloon instead of bladder (1/10), and omission error (1/10). Results of the data showed possible reasons for medication administration error included the nurse hadn't follow medication administration standards to double check pump rate, the



doctor was lack of experience to judge the clinical condition, and excessive interruptions during order processing or dose preparation cause to omission administration.

**Conclusion:** Oncology patients are among the most complex to care for and receive the most medications at the majority of hospitals. Oncology caregivers face the challenges of increasing workloads, staff vacancies resulting nurses shortages. Prevention of chemotherapy error is very important for all nursing staffs, in this 1200-bed medical center, more than 4000 new cancer patients diagnosed per year and received chemotherapy. Therefore, the correct administration of chemotherapy for patient was very important. By standard program of the cancer care to nurses will improve patients' care quality.

### P-160

#### The Quality Improvement of Long Term Follow-up Program in Hematopoietic Stem Cell Transplantation Recipient

Yemei Hsiao, Nursing, Koo Foundation Sun Yat-Sen Cancer Center, Taipei city, Taiwan

Chronic graft-versus-host disease (cGVHD) is a multi-system chronic alloimmune and autoimmune disorder that occurs after allogeneic hematopoietic stem cell transplantation (HSCT). The incidence of cGVHD in our hospital was 60% in 2008–2010. The average day of immunosuppression therapy in these patients was 111.5 days. 13 infectious episodes in 12 patients were documented. They are 9 viral infections, 2 clinical documented infections, one case of pneumocystis jiroveci pneumonia, and one case of invasive aspergillosis. Furthermore, there is a variation of ambulatory services provided by physicians and other healthcare team providers due to lack of a systemically developed practice guideline for this group of patient. Recognizing the need for program about appropriate systemic long term follow-up of HSCT survivors, we convened a group of experts of our hospital including hematologist, infection disease specialist, nurse practitioner, dietitian, pharmacist, social worker and outpatient clinic nurse in 2012, and provided consensus recommendation of the program for close, prolonged surveillance in the outpatient environment. This program consisted of long term screening guidelines; routines administration of vaccinations; screening for chronic GVHD; symptom distress for survivors; care burden for caregivers. In 2013–2014, we implemented this program in our long term follow-up clinic. Every HSCT recipients had their survivorship care plans that included a treatment summary and a follow-up care plan. This document can serve as an instrument for reminding our transplant term members about appropriate surveillance and psychosocial issue of HSCT recipients. The 2-years results revealed decreased incidence of cGVHD, decreased use of the day of immunosuppression therapy, decreased infection rate, decreased symptom distress of HSCT recipients by early detection of cGVHD. This program can help prevent irreversible organ damage, improve survival and increase the quality of life.

### P-161

#### Use of Scalp Cooling Increases World Wide - An Update About State of the Art

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**Background:** Scalp cooling to reduce chemotherapy-induced alopecia is practiced since the seventies. It started in Europe and studies solely focused on effectiveness of scalp cooling in small groups of patients. The use of scalp cooling increased world wide, from <1000 machines in 2010 to >2000 at the end of 2014. In the recent decade, studies on many topics of scalp cooling have been published and are ongoing.

**Methods:** We performed a review of literature on scalp cooling from 2005 until now and gathered information about ongoing studies worldwide.

**Results:** We identified 31 studies published in peer reviewed journals. Topics were reviews, efficacy, cooling methods (time and temperature), safety, cost-effectiveness, quality of life, mechanism of action (basal research) and opinions about scalp cooling. Ongoing studies were those for FDA approval in the US and increasingly more in depth studies, for example in vitro studies on cell viability during chemotherapy at different temperatures and studies on patient-tailored approaches, e.g. the influence of pharmacokinetics or signaling pathways on hair preservation.

**Discussion/Conclusions:** Increased interest in alopecia and scalp cooling and collaborative international research will further improve the results of scalp cooling and thereby increase the quality of life of our patients.

### P-162

#### Parental Decision Making and Quality of Life in Children With Cancer

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**Background and Aims:** To understand how the cancer treatment decisions, and how the cultural context of eastern Taiwan affect the quality of life of parents when their children are hospitalized. It is important of these integrations into the daily lives, as well as to serve as a reference for medical care.



**Methods:** There are a total of ten parents participating in this quantitative research. By In-depth interviews and focus group discussions.

**Results:** There are four terms of the quality of life: (1) Physiologically: Their sleep is disturbed due to the treatments of the children; They are more prone to feeling tired or catching a cold. (2) Psychologically: They are concerned about (a) the side effects of the treatments on the children, and (b) the children's emotional changes under the invasive treatments; Feeling guilty when the other children in the family are being neglected; Feeling difficult reconciling the demands of work and caring for the sick children. (3) The changes in everyday lives: the diets are mainly composed of self-grown food; Timely isolations in the home environments; Living in one's tribe. (4) Using the support system: the mutual support among couples, siblings, and paramedical staff.

**Conclusions:** They hope that the health of their children can be improved given that (1) the treatments are done in nearby hospitals; (2) they can spend more time with their children; and (3) there are changes in the way of living. It is recommended that the family members and paramedical staff be the positive force supporting the healing of the children.

#### P-164

##### **Giving Something Back: A Path from Cancer Survivorship to Restoration and Renewal**

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The wish to 'give something back' is expressed by many cancer patients following treatment. Despite recognition of the needs of cancer survivors and an emphasis on the social value of volunteering, the wish to give back has received little attention within UK health policy. Neither has it been a focus of academic investigation.

Giving something back emerged as an unexpected yet recurring theme in qualitative findings from a recent study of cancer patient follow-up. This paper highlights the concept, suggests an association with patient 'benefit finding' and considers possible implications for readjustment and rehabilitation.

This was a mixed methods feasibility study of a quality of life-driven head and neck cancer follow-up clinic. Twenty three patients, with early or late oral/oropharyngeal and laryngeal cancer 2–24 months post curative treatment were randomised to doctor or nurse led clinics. Interviews were undertaken at baseline and intervention consultations.

Template analysis identified themes discussed within the benefit finding literature. Active involvement in giving something back emerged as one response to the change in orientation and values associated with benefit finding. Examples included fundraising and active volunteering. The wish to give back

was also expressed by patients who had not found benefit in their cancer experience, although lack of confidence and self-esteem inhibited engagement.

Encouragement by health care professionals and assistance in maintenance and participation in forms of giving back, may hold therapeutic potential for patients following cancer. Research is needed to identify how the therapeutic potential may be developed and which patients it may benefit.

#### P-165

##### **Impact of A Bilingual Education Intervention on the Quality of Life of Latina Breast Cancer Survivors**

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**Background:** Breast cancer (BC) is the most frequently occurring cancer and is the leading cause of cancer related deaths among Latin women in the United States. The purpose of this pilot study was test the effectiveness of an English/Spanish education intervention (EI) to improve QOL and survivorship outcomes of Latina breast cancer survivors (LBCS) after completing primary treatment.

**Methods:** A two-group, prospective longitudinal randomized controlled trial was used. A cohort of 52 LBCS was recruited. Women were randomly assigned to the experimental or attention control group. Subjects completed measures of QOL, uncertainty, distress and acculturation. The education intervention (experimental arm) consisted of four one hour face-to-face sessions, either in English or Spanish, delivered by a bilingual/bicultural nurse researcher. Patients' outcomes were assessed at baseline, at three and six month's follow-up for both groups.

**Results:** After controlling for acculturation, the four dimensions of QOL increased slightly in both groups or remained unchanged, without significant group by time interaction. The social and psychological well-being subscales had the lowest scores for both groups, followed by physical well-being and spiritual well-being. For total QOL, although the group by time interaction was not statistically significant, the post hoc difference between time 2 and time 3 in the experimental group approached significance ( $p=.052$ ), with a slight increase in total QOL.

**Conclusions:** Latina women living with BC have multiple survivorship and QOL concerns that might put them at risk for poor QOL. Findings provide preliminary insight into the impact of a bilingual EI on the QOL of LBCS.

#### P-166

##### **Comparison of Reliability and Feasibility of Four Global Pain Intensity Scales in Egyptian Cancer and Non Cancer Population**

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Using a suitable and reliable tool is important to assess pain accurately and decide on the best management.

**Objective:** 1-Compare the feasibility and reliability of Numerical rating scale (NRS 0–10), Numerical rating scale (NRS 0–20), Visual analogue scale (VAS) and Faces rating scale (FRS) for measuring pain intensity in Egyptian patients with cancer and other health problems. 2-Compare the four pain intensity scales in assessment of acute versus chronic pain. 3-Identify the risk of false evaluations for the four scales.

**Methods:** A convenient sample of patients was randomly recruited from the national cancer institute, Cairo university and a geriatric home). All Patients were interviewed for demographic data, medical diagnosis and treatment as well as presence of pain and its intensity, they were explained the purpose of pain scales and how to correctly score its level, then asked to score their pain intensity on the four pain scales one after the other. All scales were presented each in a separate printed card size white paper with clear simple Arabic language black colored font. Illiterate patients were assisted in completing the scales either by one of the nursing staff or a relative.

**Results:** Preliminary results showed differences between literates and illiterates regarding scoring the 4 pain scales. There was also significant differences in score agreement, less than 20% of the sample matched the 4 scales, illiterate patients needed assistance in completing the scales and more time as well. Most of the sample confirmed faces similarities were difficult to understand and the numeric scale has too many numbers to choose from.

**Conclusion:** Pain scales need to be modified to match culture differences, level of education and types of vulnerabilities. A new feasible and reliable pain assessment tools should be developed for underserved population around the world taking into consideration literacy, culture and limited resources.

### P-167

#### **Piloting an Innovative Care Delivery Model Utilizing an Unregulated Healthcare Worker in a Crafted Role to Support the Nurse Providing Care at the Bedside**

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**Background:** Nurses on a surgical oncology unit continue to perform tasks requiring limited clinical skills despite the complex care needs and advanced skills required in assessment, teaching and coordination. Scant research exists on the effective utilization of the role of the unregulated healthcare worker (UHW) (Suter, et al., 2014). Patient surveys conducted on the unit identified gaps in care. We believe these gaps are a result of minimal assistance given to nurses.

**Method:** Our pilot study introduced a newly crafted role of an UHW in partnership with nurses at the bedside.

The 6 month study was conducted on a 36-bed surgical oncology unit. Evaluation data were gathered using a 6-item pre-survey, a 7-item post survey, chart audits, and focus groups with nurses. Responses from the pre-survey guided the development of the role profile for the UHW. The UHW, a certified Personal Support Worker (PSW), received hospital specific training before starting in the role. Full-time and part-time nurses working permanently on the unit were invited to participate in the study and were educated about the role. The study seeks to answer the following questions: (1) what is the impact for the nurse and the patient, and (2) does the assessment and teaching provided to patients increase?

**Results:** Findings reveal that nurses overwhelmingly appreciate the work of the UHW. Nurses felt they had more time to spend with patients and to complete other activities for patients. They also expressed feeling less stress.

**Conclusion:** The study demonstrated there is a set of tasks an UHW can perform safely within a busy clinical setting. The individual in the role must be carefully selected and trained appropriately. Nurses also need to be carefully oriented for the new role. Nurses value the help provided by the UHW as they were able to spend more time with patients. The patient chart documentation did not show an increase in the amount of assessment and teaching by the nursing staff.

### P-168

#### **Recommendations from Global Nursing Workforce Assessment Apply to Efforts In Cali, Colombia to Improve Breast and Cervical Cancer Care Using Nurse Patient Navigators**

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**Abstract:** In 2012, the National Cancer Institute's Center for Global Health supported an assessment of over 20 nursing educational, professional and NGO/governmental organizations was conducted to describe the capacity of the global oncology nursing workforce. The results showed a dire need for improved education and training of nurses to address the global cancer burden, now predominantly in developing countries. Subsequently, a task force of nursing leaders (including from ISNCC) has convened to create comprehensive recommendations for increasing nurse oncology specialists in settings where they are most needed.

Cali, the second most populous city in Colombia, has breast and cervical cancer annual incidences of 48 and 20 per 100,000 respectively with mortality rates of 13.7 and 8 per 100,000. These death rates far exceed those in more developed settings due to the late diagnosis of more than 70% of breast and cervical cancers. Hospital Cañaveralejo, a renowned provider of maternal/child health care, has committed



to expanding its services by working with Partners for Cancer Care and Prevention (PFCCAP), a non-profit dedicated to improving early detection of breast and cervical cancers in Cali.

Between March 2013 and October 2014, select nurses have been prepared to provide patient navigation to improve uptake of screening and to ensure that patients who screen positive are not lost for follow up diagnostic and treatment procedures. Hundreds of breast and cervical cancer patients have been attended as a result of PFCCAP and Hospital Canaveralejo's program efforts, with increased screening visits, decreased time between diagnosis and treatment and reports of improved satisfaction with health care visits when nurse navigators accompany patients.

Come hear an update about the implications of the global oncology workforce assessment and resulting task force recommendations as they apply in Cali, Colombia's breast and cervical cancer prevention program.

### P-169

#### Patients' Perspective: Timely Discharge

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**Background:** Within our organization there is an ongoing push to decrease occupancy and increase efficiency by initiating early discharge of patients. The current focus is on timely discharge. In our busy surgical oncology unit, patients are being discharged throughout the day. Anecdotal evidence from the interprofessional team indicates that patients are not always aware of their expected date of discharge and time of their discharge. Hence, they may not be ready to leave by the specified time. Studies have shown that patients are sometimes not ready for discharge (Ross & Cargon, 2000). To help to facilitate discharge planning, Kean & McIntosh (2008) implemented discharge times of 1100 and 1400. An interprofessional team initiated a quality improvement process to explore the reasons for the delay in discharge.

**Purpose:** The purpose of this initiative is to: (1) determine if patients are aware of their discharge date, (2) determine if patients received information about their discharge time, and (3) explore the barriers to patients being discharge before 1100.

**Method:** A questionnaire was developed for telephone interviews. A five-item questionnaire was developed to guide the interviews. Patients were contacted by telephone 7–10 days following discharge home. Results were collated and themed.

**Result:** The results included the patient not being aware of discharge date and time. Delays in discharge were related to waiting for prescriptions, laboratory and radiology results, and transportation.

**Conclusion:** Obtaining patient's perspective is imperative in understanding the barriers to the effective discharge process. Patients and families should be informed early about their expected date and time of discharge. The interprofessional team collaborates and engages the patients and families in early discharge planning. It is vital that the new discharge process implemented is evaluated.

### P-170

#### Experiences of Resuming Sexual Life for Korean Women With Gynecological Cancer

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**Abstract:** Background: Women who had gynecologic treatments might experience decrease in self-esteem, difficulties with social activities and sexual changes that make it difficult for patients to have the sexual life they had before the treatments. Objective: The purpose of this study was to understand experiences of resuming sexual life and difficulties in sexual life with Korean women who were gynecological cancer after treatment. Methods: The data were collected using in-depth interviews with four open ended questions. In-depth interviews were conducted with eight women with gynecologic cancer. Transcripts were repeatedly read by NVIVO 10 and analyzed with Strauss and Corbin's qualitative paradigm model. Results: This study found the process experiences of resuming sexual life with women who had gynecological cancer treatment. First, women who were gynecologic cancer after treatment did physical effort to recover and then though expectation, worry and fear before first sexual experience. Finally their partners will to resume their sexual life, patient's attitude of sexual life, and relationship with spouse resulted in types of sexual life in the process of experiences of resuming sexual life were: 'sufficient', 'evasively passive', and 'resigning'. These types were not fixed, but could change according to couple relationship. Conclusion: This results suggested that the nurses' capabilities be enhanced so as to implement the intervention for women with gynecologic cancer was highly recommended. We need to develop systematic training program to improve nurses' sexual health care competency in oncology setting. This study might ultimately provide fundamental data for implementing tailored nursing intervention to improve sexual life and quality of life for gynecologic cancer patients.

### P-171

#### Innovations in the Management of Infusion Reactions: A New Pharmacological Approach to Improve Patient Outcomes

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Oncology nurses who deliver antineoplastics have expert knowledge in emergency management of infusional



reactions (IR). Standard of care includes: The administration of steroids, H1 and H2 blockers. During an IR, antigen stimulated mast cells release leukotrienes and prostaglandins in addition to histamine and other factors. Steroids reduce the production of leukotrienes and prostaglandins, this intervention does not prevent all reactions. There is a sub-population of individuals that develop IR's despite the standard pharmacological approach. The addition of Montelukast to block the leukotriene receptor and ASA to block the effect of the prostaglandins offers additional means to avert mast cell contribution for IR. The pharmacokinetics of this additional intervention improve outcomes in patients with prolonged IR's.

A retrospective chart review was conducted at an ambulatory community cancer centre, a review of 375 chemotherapy treatments given during a 6 week period was reviewed. Thirty-two resulted in IR's prompting the use of Montelukast alone or with ASA in addition to traditional medications. Treatments where montelukast +/- ASA was administered resulted in significant decrease of reactions resulting in patients receiving treatment in a timely fashion with no changes to chemotherapy protocols. The cost analysis of this innovative pharmacological intervention to best practice revealed decreased hospital admission rate and reduction in nursing overtime.

The interprofessional approach to this new innovation lead to the development of an infusion reaction algorithm to guide oncology nurses in early reaction identification and timely interventions of medications. This poster presentation will highlight the role oncology nursing in the implementation of this algorithm. Overall, the algorithm development and implementation represents a collective inter-professional effort to translate innovations in the management of IR's to improve patient outcomes in oncology care.

### P-172

#### Comparison of Attitudes of Resident Nurses and Oncology Nurses When Dealing With Pain in Patients With Cancer

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**Introduction:** Pain is a prevalent symptom among cancer patients and, despite the strategies to improve its management, it continues to be undertreated or treated inappropriately. Nurses' attitudes, knowledge and beliefs in relation to the management of pain are influenced by previous experience; therefore, knowing these variables in professionals who are in various stages of working life is an important strategy to identify the related gaps.

**Aim:** To describe and compare attitudes toward pain in patients with cancer among 22 nurses from a multidisciplinary residency program in oncology and 126 oncology nurses from a referral center for oncology.

**Method:** This is a cross-sectional study that used an instrument that was built based on the guidelines of the World Health Organization to control cancer pain and which covers three domains: pain assessment, control strategies and continuous care.

**Results:** There was a statistically significant difference between the groups regarding the averages of the scores of the domains pain assessment (23.3 vs. 19.9 points;  $p=0.00$ ) and control strategies (18.9 vs 16.6 points;  $p=0.05$ ), which was higher among oncology nurses. The continuous care domain had a higher score among residents (26.9 vs 25.0 points;  $p=0.20$ ), but this was the domain that showed more favorable results in both groups.

**Conclusion:** The study showed more favorable attitudes among oncology nurses; however the low scores observed reveal that the attitudes related to assessment and pain control still present deficits in both groups and signal the need for targeted interventions.

### P-173

#### The Effectiveness of Used Oral Mucositis Guidelines for Head and Neck Cancer Patients Receiving Intravenous Chemotherapy

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**Background:** 35 to 40% of patients undergoing chemotherapy have oral mucositis in Taiwan. It causes oral pain, impacts the patient's quality of life, delays the treatment planning. There has never been a study, that investigated the effectiveness of preventing and treating oral mucositis using evidence-based oral mucositis nursing guidelines.

**Methods:** This study uses Quasi-experimental design, 60 cancer patients of undergone Head and Neck cancer Chemotherapy are selected according to chosen criteria. Then divided into experimental group and control group, each with 30 cases. For the experimental group, used a Oral Mucositis Nursing Guidelines protocol. The control group receives routine nursing care. We employ the National Cancer Institute scale to measure the severity of mucositis and Numerical Rating Scale to assess the pain scale. Oral Assessment Guide to assess the oral function and EORTC Quality of Life Head and Neck Module (EORTC QLQ-H&N35) assess the Quality of life. Generalized estimating equation and Independent t-test were used for statistical testing.

**Results:** At five, ten, and fourteen days after chemotherapy, tests of oral mucositis severity showed the test group experienced less severe oral mucositis than the control group. The test group had fewer instances of oral mucositis level 2 or greater at ten days after chemotherapy compared to the



control group. At ten and fourteen days after chemotherapy, patients in the test group had higher quality of life (including pain, swallowing, sensation, speech, social dining, social contact, and sexual life) compared to those in the control group.

**Conclusion:** Introduction of “oral care guidelines” can effectively reduce the severity of oral mucositis and reduce the incidence rate for oral mucositis level 2 or greater ten days after chemotherapy, as well as lower the impact on oral function, lessen the severity of oral pain, and improve quality of life at ten and fourteen days after chemotherapy.

### P-175

#### Symptom Clusters in Patients With Nasopharyngeal Carcinoma During Radiotherapy

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**Background:** Despite the improvement in radiotherapy (RT) technology, patients with nasopharyngeal carcinoma (NPC) still experience certain distressing symptoms during RT. Further, instead of occurring alone, those symptoms often occur simultaneously in clusters.

**Objective:** To identify the symptom clusters in NPC patients undergoing RT

**Methods:** This study adopted a cross-sectional design. Patients who were newly-diagnosed with NPC and undergoing later stage (from week 4 till the end) of RT were recruited from a large cancer center in China. They completed the Chinese version of the M. D. Anderson Symptom Inventory-Head and Neck Module (MDASI-HN-C), which consists of 13 core items, 9 head and neck cancer (HNC) specific items, and 6 interference items. Principal axis factor analysis with oblimin rotation was used to identify the symptom clusters for the 13 core symptoms and 9 HNC-specific symptoms respectively.

**Results:** A convenience sample of 130 Chinese NPC patients (mean age, 43 years; 72.3 % male) participated in the study. Four symptom clusters were identified and named general symptom cluster (11 items), gastrointestinal symptom cluster (2 items), nutrition impact symptom cluster (6 items), and miscellaneous symptom cluster (3 items). Among the four symptom clusters, nutrition impact symptom cluster was the most severe one (mean  $\pm$  SD, 5.48  $\pm$  1.88).

**Conclusions:** The four identified symptom clusters revealed the underlying interrelationships among symptoms experienced by NPC patients during RT. Future intervention studies on managing these symptom clusters are warranted, especially for the nutrition impact symptom cluster.

### P-176

#### Difficulties Faced by Family Caregivers Supporting Elderly Dementia Patients With Terminal Phase Cancer

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We investigate the difficulties, due to concomitant dementia, involved in terminal cancer end-of-life care by family members who provide caregiving at home to elderly dementia patients with terminal phase cancer.

**Methods:** Subjects: 6 family members providing caregiving at home to elderly dementia patients with terminal phase cancer.

**Data Collection Method:** Semi-structured interviews were conducted. The survey contents were: “In being a caregiver at home, what are the points you feel are difficult, and the points about which you feel unsettled?”, “How have you explained cancer and dementia to the patient?”.

**Analysis Method:** The data was recorded verbatim, meaningful context segments were coded. The analysis process was undertaken by multiple researchers to ensure validity.

**Ethical Considerations:** It was explained to the subjects that their participation was based on the present research objectives and their own free will, and the handling of information was also explained.

**Results:** The participants in this research were 1 male and 5 females, for a total of 6 subjects.

As a result of the analysis, eventually, 8 categories were extracted. Caregivers who are family members felt that “The home is a good place to spend one’s days in the terminal phase”, “We experienced the frustration of being unable to communicate, and the difficulty of managing one’s health”, and “Changes in the body during the terminal phase were embarrassing”. However, they also felt keenly that “Adjusting one’s lifestyle rhythm made caregiving easier”, “Dementia was actually a blessing”, and “Through caregiving, I too was able to grow.”

**Consideration:** The emotions of “helplessness” and “mental suffering and sadness of impending death” experienced by caregivers who are family members of patients in the terminal phase of cancer have been pointed out, but in fact, it is helpful to family members that with the symptoms of dementia, the anxiety of anticipating death does not continue.

### P-177

#### Investigation of Anxiety, Depression and Body Image in Postmastectomy Women With Or Without Breast Reconstruction

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**Abstract:** The purpose of this study was to investigate the effect of breast reconstruction upon anxiety, depression



and body image in postmastectomy breast cancer patients. This is a longitudinal study design. It enrolled 71 sample; n=26, mastectomy only; n=22, immediate breast reconstruction; n=23, delayed reconstruction. All patients received evaluation preoperatively, one month and three months after operation. The questionnaires included personal clinical information, HADS and body image of Modified Breast-Q measures. Results were:

1. The mastectomy group had worse body image score in post operation one and three months. In the delayed reconstruction group, one month and three months after operation has better body image score than pre-operative status.
2. The delayed reconstruction group has worse pre-operation body image than mastectomy group and immediate reconstruction group. Immediate and delayed reconstruction groups have better body image than mastectomy group at three months after operation.
3. The immediate reconstruction group has higher anxiety at pre-operation than three months after operation. The delayed reconstruction group higher anxiety at pre-operation than at one and three months after operation. The delayed reconstruction group had lower depression at three months after operation than at pre-operation.
4. In the mastectomy group, education was associated with the body image. In immediate reconstruction group, religion was associated with the body image. In the delayed reconstruction group, adjuvant therapy was associated with the body image.

Overall, mastectomy had negative impact on body image and psychological effects. The immediate reconstruction could reduce the impact on body image and psychological reaction. The delayed reconstruction could regain self-confidence and improve negative emotions of the women after mastectomy. Therefore, more psychological support could be provided and to promote the level of body image for the mastectomy women.

#### P-178

##### Study of the Factors that Affect the Vitality of Prostate Cancer Patients

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**Introduction:** Prostate cancer has high morbidity worldwide. After prostate cancer treatment, patients are likely to have urination and sexual problems, which have a significant impact on their QOL. In particular, it is thought that urination problems would exert influence on the vitality of patients. This study aims to clarify the impact factors on the vitality of prostate cancer patients.

**Method:** We conducted a questionnaire survey targeting 300 prostate cancer patients in the outpatient department. As factors that affect vitality, we picked up the following

items for investigation: age, duration of treatment, physical condition, urinary bother, bowel bother, sexual bother, fighting spirit, helpless/hopeless, fatalism, anxiety preoccupation, avoidance. In order to clarify the factors that affect vitality, we examined the analysis data using the multiple regression analysis (stepwise) method.

**Result:** The results of multiple regression analysis, where vitality was a dependent variable, showed that two variables, which were “urinary bother” and “helpless/hopeless”, were influencing parameters. Multiple correlation coefficient (R) of the model was .547 and determination coefficient (R<sup>2</sup>) was .284. The two variables that made up the model were “urinary bother” with ( $\beta = -.393$ ,  $p < 0.001$ ) and “helpless/hopeless” with ( $\beta = -.275$ ,  $p = 0.004$ ); thus, it was shown that they significantly affected vitality.

**Conclusion:** Our study has shown that for prostate cancer patients, “urinary bother” and “helpless/hopeless” are the factors that affect their vitality. In order to increase the vitality of patients, we thought, it is necessary to reduce the urinary bother or alleviate their helpless/hopeless. It is also important that we provide specific information regarding what kind of side effects the patient will have and how long it will continue for each treatment method at the time of selection.

#### P-180

##### Evaluation of Anxiety and Depression as Measures of Psychiatric Morbidity Amongst Patients With Hematological Malignancy From North India

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**Introduction:** The process of getting diagnosed with a haematological malignancy and undergoing chemotherapy is associated with significant mood disorders. This is particularly relevant in Indian scenario as most individuals belong to low socio-economic status, lack of disease awareness, lack of social support organisations and relatively poor infrastructure of government agencies to cope with these disorders. Also psychiatric disturbances in such patients are rarely studied in India.

**Aim:** To assess the level of anxiety and depression in patients suffering from haematology malignancies was assessed from a tertiary care centre.

**Patients and Method:** This single centre cross-sectional study was done using Hamilton anxiety and depression scales (HAM-A and HAM-D scale). 150 patients both from the outpatient (n-95) and inpatient services (n-55) were interviewed. Patients with severe anxiety or depression were further referred to psychiatric services for further evaluation and management.

**Results:** The mean anxiety score was 4.84 (range:0–25, Median: 2) and depression score was 8.93 (range:0–34, Median: 8). A total of 7.5% of the patients had moderate



anxiety (HAM-A Score: 18–24), 2.5% had severe anxiety (HAM-A Score >24), whereas only 2.5% were free of anxiety. A total of 12.5% of the patients had moderate anxiety (HAM-D Score: 18–24), 7.5% had severe depression (HAM-D score >24), whereas only 10% were free of anxiety. The mean HAM-D score was higher in females as compared to males (10.41 Vs 7.65,  $p=0.226$ ) with no difference in the HAM-A score (4.96 Vs 4.74,  $p=0.832$ ). There was linear correlation between HAM-A and HAM-D score (Pearson's correlation  $-0.335$ ,  $p=0.006$ ), this effect was more significant in males as compared to females. There was no correlation with any of these scores with duration of illness or number of hospitalisations.

**Conclusion:** The study highlights high psychological morbidity of haematological cancer patients. It also highlights the influence of gender on depression.

### P-182

#### Truth Telling Preferences of Lebanese Cancer Patients and Physicians

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**Abstract:** Effective communication between health professionals and cancer patients is an international aim. However different cultures necessitates different approaches. In North American and western cultures individual rights, autonomy and self-determination prevail over the paternalistic approach and the involvement of family members with limited communication to the patient that is more paracticed in the Middle Eastern culture. The purpose of this descriptove study is to highlight truth telling from physicians and patients perspective in Lebanon. Results highlighted the change in attitude in Physicians and patients regarding truth telling. Recommendations: To conduct a national study assessing the truth telling preferences of Lebanese cancer patients; Practitioners must to rely on therapeutic communication and ask patients and patients' families what informational requirements are desired; Emphasizing communication as an important aspect of cancer care in the nursing and medical curricula in Lebanon

### P-183

#### The Evaluation of Music Intervention Program for Cancer Patients: Effects on Anxiety, Depression, Pain and Fatigue

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Our study extensively collected literature published in the past decade, the scope of which was limited to true and quasi-experimental studies. In our analysis, we assessed the quality of those studies, and the impact on effect sizes. We included assessment variables of previous studies to

elucidate effects of the intervention on different aspects. We further performed an analysis on the relationship between study characteristics and effect sizes.

The review was guided by the protocol proposed by Cochrane Collaboration Guidelines. Using Medical Subject Headings (MeSH) for topics on music therapy and cancer patients. Overall, the results of effect sizes revealed that music therapy significantly reduced anxiety, depression, pain, and fatigue in cancer patients. Studies on anxiety were included in our analysis with an overall effect size of  $-0.553$  (95% confidence interval (CI):  $-0.716$  to about  $-0.398$ ). Results from the systematic review showed that music therapy interventions moderately but significantly reduced overall anxiety. The studies on depression had an overall effect size of  $-0.510$  (95% CI:  $-0.681$  to about  $-0.340$ ). Again, music therapy moderately and significantly reduced depression in cancer patients. Studies on pain were included in our analysis. The overall effect size was Hedges'  $g = -0.656$  (95% CI:  $-1.016$  to about  $-0.295$ ). The overall effect size of the studies reporting results for fatigue was small (Hedges'  $g$ ,  $-0.422$ ; 95% CI:  $-0.669$  to about  $-0.175$ ).

Our study confirmed that music interventions can reduce anxiety, depression, pain, and fatigue in cancer patients. The implication of the study is that music interventions can be a good non-medication therapy to reduce anxiety, depression, pain, and fatigue in clinical settings. Our findings provide important information for future music group planners to improve the design and process to better benefit patients throughout these programs.

### P-184

#### Prolonged Hypocalcemia Following Denosumab Therapy in Patients With Metastatic Prostate Cancer: A Case Report

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Prostate cancer is the second leading cause of death worldwide, with an estimate of around 1.1 million cases for prostate cancer recorded in 2012. Prostate cancer occurs mainly in older men. About 6 cases in 10 are diagnosed in men aged 65 or older, and it is rare before age 40. The average age at the time of diagnosis is about 66. About 1 man in 38 will die of it. Moreover, it is mostly associated with bone metastasis. While denosumab is a treatment of choice for bone metastases with solid tumors especially in prostate and breast cancers to reduce pathological fracture and increase bone mass. Denosumab is a monoclonal antibody used to prevent skeletal related events SRE. Hypocalcemia is a rare and dangerous side effect of denosumab. We present a case with denosumab induced severe hypocalcemia, after the administration of full dose of scheduled drug. Patients Vitamin D levels were low checked after the administration of drug, which surely induced hypocalcemia in this patient. The corrected calcium level of patient was not



increasing above 0.6, with a consecutive treatment with IV and oral calcium supplements for 20 days but with no response. Since hypocalcemia is a significant but rare risk factor of denosumab it is recommended to check calcium and vitamin D levels prior to administration of full dose of drug to prevent hypocalcemia

### P-185

#### **American Lymphedema Framework Project Open-Space Stakeholder Meetings: Aiming to Shape the Future of Lymphedema Care in the United States**

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The first sentinel event for the American Lymphedema Framework Project (ALFP) was a National Stakeholders Conference (2009: Chicago, IL) held to introduce new partnerships across disciplines and among stakeholders to develop lymphedema best practice initiatives in clinical care, health policy, education, and research. At this American Cancer Society-supported meeting, 72 lymphedema stakeholders attended, including patients, advocates, therapists, researchers, educators, physicians, nurses, and industry representatives. The theme for the meeting was, "What can we do to improve the management of lymphedema and lymphatic system disorders in the US?" The open-space method, consisting of self-managed work groups where leadership is shared, diversity is encouraged, and personal empowerment is achieved, was the chosen meeting format. The take-home message was that the current state of lymphedema care is a "chaotic journey" from the time of being at risk (e.g. following cancer treatment), to diagnosis (or misdiagnosis), to identifying and accessing quality treatment, to reimbursement and life-long continued support and care. Among the priority issues explored, "creating lymphedema awareness through collaboration," "refining diagnostic standards," and "enhancing patient education, support, and self-management" were recurring themes. The full results of this meeting, which provided collaborative input and culminated in proposals, action plans, and targeted goals to drive ALFP initiatives, were published and bench-marked (Armer et al, 2010). Subsequent open-space stakeholder meetings were held (2011: Columbus, OH; 2014: Columbia, MO; Atlanta, GA) with open-space methods and polling tools to confirm and extend responses to the earlier-elicited critical issues. These data have been applied to address priority research questions identified by stakeholders through proposal development, strategically plan for collaborative multidisciplinary activities, and assess change over time.

### P-186

#### **Prophylactic and Therapeutic Interventions for the Management of Chemotherapy Extravasation: An Integrative Review**

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**Introduction:** One of the main indicators of quality on a Outpatient Chemotherapy Unit is the extravasation rate and are considered centers of excellence those that have rates near zero. It is essential to adopt measures, by the nursing staff, aimed to prevent extravasation.

**Objective:** To identify prophylactic and therapeutic interventions for the management of antineoplastic chemotherapeutic extravasation.

**Method:** this is an integrative review which searches were conducted in the databases PUBMED (US National Library of Medicine and The National Institutes of Health), Cochrane Library, CINAHL (Cumulative Index to Nursing and Allied Health Literature) and LILACS (Latin American and Caribbean Health Sciences). The studies was selected by the lecture of the title and abstract, at first. Were included all the studies that evaluated prophylactic or therapeutic interventions to manage chemotherapy extravasation that were published in English, Spanish and Portuguese. The studies that were developed in animals were excluded.

**Results:** a total of 29 studies which attended the inclusion criteria were analyzed and the evidence presented in two categories - prophylactic interventions and therapeutic interventions for the management of chemotherapy extravasation. The results emphasize the professional training, the use of protocols and patient education as importante prophylactic interventions and recommend the use of antidotes for the extravasation treatment.

**Conclusion:** The prophylactic interventions are more effective when all recommendations are put into practice. Regarding therapeutic interventions, we can only recommend the use of dexrazoxane for the management of anthracycline extravasation. The other antidotes described in this review, need to be evaluated in clinical studies conducted with more patients.

### P-187

#### **Quality of Life of Breast Cancer Patients and the Suitability of the Expectations and Realities Related to Disclosure**

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The patient has the right to decide everything related to their health condition himself, including the disclosure of



diagnosis. Indonesia, which consists of approximately 400 different cultures turned out to have a great influence for patients and families in determining the rights of patients in the disclosure. It is not rare, the patient did not know what was happening to himself and what disease he suffered. This phenomenon is feared the impact on the quality of life of patients. The aim of this study is to identify the correlation between the suitability of hope and reality of patients related to disclosure with the quality of life. Correlation quantitative studies with purposive sampling a total of 39 breast cancer patients in a largest private cancer hospital. Betty Ferrel's Quality of life questionnaire was used to measure respondent's quality of life. Incompatibility between the expectations and the reality of the diagnosis disclosure was 91.9%, and the quality of life was 83.8%. The correlation between expectation and reality with quality of life were statistically significant with p value: 0.004. It can be concluded that the expectations and the reality of patients will contribute to the disclosure of diagnosis to determine the quality of life of patients. Therefore, as a nurse, should always be sensitive to the patient's choices and decisions for optimal patient's quality of life.

**Key words:** Disclosure; Indonesia; Breast cancer; quality of life

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**P-188****Community Mobilization to Cancer Control from a Strategic Alliance With a Local Government in Peru**

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**Background:** In Peru, cancer is the second cause of death. The local government El Agustino, located in Lima, it is

considered as a poorest district; according to the Cancer Registry of Lima 2005 shows that most frequent cancers are Cervical, Breast, Stomach, Prostate and Lung Cancer. There is unknowledge of cancer prevention and early detection, inadequate lifestyles practices, poor adherence to screening programs and uncoordinated activities of the stakeholders. INEN, National Cancer Institute of Peru, in coordination with the Municipality El Agustino, established an alliance to strengthen health promotional to cancer prevention.

**Objective:** To implement actions and multidisciplinary strategies in coordination with the Municipality El Agustino, seeking the involvement and commitment of the community stakeholders to develop interventions of the "Hope Plan" ("Plan Esperanza") with the scientific support of INEN.

**Methodology:** The institutional alliance between INEN, the local government and the Ministry of Health was established to develop actions according the following components:

Education and training to health promoters and professionals.

Social participation and inclusion of social organizations.

Implementation of public politics related to cancer prevention and control.

Generation scientific evidence of community interventions

**Results:** After eight months of intervention, we trained 1,500 health promoters and 1,900 health and education professionals through workshops. There is 350 community navigators who train others promoters. The interventions of the Social Organizations, Schools, Government and Non-Governmental Organizations were coordinated and they have better results. The "Hope Plan" was strengthened; 25,500 poor people accessed to prevention, early detection and specialized treatment of cancer. All these interventions have been culturally adapted using the mass media communication, and it is allowing the development of research from different approaches.