Stage 2. A 27-item scale was constructed from stage 1 findings and factor analysis techniques were employed to analyse data. A number of pertinent factors were extracted using this statistical technique. The most important factors related to involvement in decision-making, trust in medical expertise and information sharing.

Conclusion: Involvement rather than participation may be a role that more accurately reflects patients' preferences with regard to treatment decision-making. Policy makers should acknowledge preferences for involvement rather than advocating a participatory role for all.

1139 ORAL

The emerging role of the cancer research nurse in promoting evidence based care in radiotherapy.

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Background: The management of treatment toxicity by patients and health professionals continues to play a central role in radiotherapy practice. For care to be most effective, it is vital that interventions are informed by current and appropriate knowledge. The purpose of this work is to illustrate the emerging role of the cancer research nurse in promoting evidence based practice relating to the management of radiotherapy toxicity.

Material and Methods: Studies of early and late effects of radiotherapy treatment have been carried out at the Christie Hospital. Systematic recording of treatment effects using patient questionnaires devised from the LENT SOMA scoring system have been undertaken in retrospective and prospective studies. A qualitative study of sexual health following cervical cancer treatment is being conducted. A prospective study exploring the association between acute skin reactions and perineal irradiation has also been carried out.

Results: The systematic recording of treatment toxicity in different disease groups has identified the incidence, severity, and complexity of radiotherapy treatment side effects and the presence of unmet patient and health care professional needs. These studies have demonstrated the value of using comprehensive reporting systems not only to investigate factors which influence treatment side effects such as treatment, dose and fractionation, but also each system's ability to identify patient's problems. The studies have demonstrated the need for appropriate referral, support and management by research nurses. As a result of this, work is ongoing with treatment teams relating to the quality and timeliness of patient information. This also includes information for nursing staff regarding treatment regimes, information flow between care settings and the incorporation of a comprehensive system for assessing and recording of acute and late treatment effects into routine practice.

Lastly, the research nurses are also involved in nurse education programs and staff development events promoting evidence based care in relation to radiotherapy toxicity.

Conclusions: The radiotherapy cancer research nurses' role continues to evolve. The systematic collection of detailed patient data of treatment side effects continues to provide high quality comprehensive data that health professionals require to minimise treatment side effects, and that multidisciplinary treating teams require in order to develop evidence based guidelines and care.

1140 ORAL

Barriers in implementing research findings in cancer care. The Hellenic registered nurses perceptions

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Background: This study is the final step of an educational research program organized by The Greek Oncology Nursing Society and supported by EONS ROCHE grand 2002. The study aimed at exploring Greek nurses' opinion about barriers to research utilization faced in every day practice and at comparing these barriers between nurses working in oncology and general hospitals, as well as, at central and provincial hospitals.

Materials and methods: The instrument consisted of three parts, introduction, demographic data and the Barriers Scale (S. Funk et al 1991). The data was provided by a convenience sample of 301 nurses working in 12 randomly selected hospitals all over the country. Permission was obtained from Funk to use her instrument. Permission to undertake the study was obtained by Board Directors and Scientific Committee of each selected hospitals. Data were analyzed at the Statistical package for Social Sciences (SPSS) software, version 10.

Results: The vast majority of the respondents were female (85.4%) The mean age was 37,5 years and 23,5% subjects were younger than 30 years old.Almost half of the nurses worked in oncology (47.5%) and half in general hospitals (52,5%). The majority worked in the clinical setting (89.9%), and a minority had an administrative (6,8%)or at in service education position (3,3%). Moreover (51.8%) were working in central hospitals (in Attica) and (48.2%) in provincial ones. The top two barriers were related with the availability of research findings. The question "research report and articles are not readily available" was rated as the greatest barrier The lowest barrier was "The nurse is unwilling to change/try new ideas". English language was considered as a moderate to a great barrier for the vast majority of participants (78%). Nurses who did not have internet access perceived the presentation of research as a great barrier. No significant differences were found between the types of hospital (oncology/general) and geographical area (central/provincial).

Conclusion: This paper has pointed out some areas where actions could be taken to promote research implementation. Specific plans may need to be developed in particular areas, probably taking advantage of international experience.

1141 ORAL

Use of complementary methods by Icelandic cancer patients

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Complementary method is defined as a method used by patients undergoing conventional medical treatment to complement mainstream health care. The main purpose of this study was to examine the use of complementary methods by patients undergoing cancer treatment. A survey instrument originally by Eisenberg et al. (1993) and adapted to cancer patients by Sparber et al. (2000) was translated and adapted to Icelandic cancer patients. A convenience sample of 121 patients undergoing cancer treatment was recruited from an outpatient oncology/hematology department.

The findings show that the majority of study participants (97%) used at least one complementary method with an average use of 6 methods/patient. Women used signficantly more methods (6, 95) than men (4,15). The most frequent reported methods were herbs and natural substances (70%), exercise (69%) and spiritual methods (69%). The main reasons for the use of complementary methods were: to do everything that can help (46%); responsibility for ones own health (41%) and to manage side-effects of cancer treatment. Only 41% and 29% discussed the use of complementary methods with their physcians and nurses respectively.

Significantly more use of complementary methods was observed among patients who had used such methods before being diagnosed with cancer. The use of relaxation, massage and spiritual methods was significantly higher among women than men. The use of relaxation and energy methods were significantly higher among young than old patients whereas swimming was significantly higher among older patients. The use of natural substances, herbs and spiritual methods was signficantly more frequent among those with less than high school education than among those with more education.

Icelandic cancer patients undergoing cancer treatment seem to be frequent users of various complementary methods and the prevalence is higher than has been observed in other countries. Oncology nurses need to make an effort to assess, discuss and educate about the use of complementary methods in regard to issues of well-being and safety.

1142 ORAL

How electronic nursing documentation can demonstrate oncology nursing

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Background. Nursing documentation has the ability to provide a picture of actual nursing practice. Furthermore the use of standardised language and classification systems makes it possible to cluster related concepts and to

use them to reflect on practice. In Iceland the use of the nursing process to assess, diagnose, plan and evaluate has long been established. Also, the tradition of using NANDA (North American Nursing Diagnosis Association) classification system for nursing diagnoses is nearly 30 years old, and recently the use of NIC (Nursing Interventions Classification system) has been established with recommendations from the Directorate of Health in Iceland and the nursing administration of Landspitali. The aim is to unify documentation across the whole country in order to support a nursing minimum data set.

Method. In 1999 a pilot project was initiated at the hospital's oncology ward regarding electronic nursing documentation. This included software development and the tailoring of NANDA and NIC to suit oncology nursing. The use of electronic documentation from October 2001 replaced all existing paper-based documentation. A report generated from the database reflected a whole year's nursing documentation. This made it possible to identify and quantify the type of documented diagnoses and interventions in this population along with connections between diagnoses, signs and symptoms and interventions.

Results. The use of NANDA diagnoses and NIC interventions shows that nursing in this oncology ward is holistic in nature. A large number of the 156 diagnoses in the NANDA classification and the 486 interventions in NIC are used, and from diverse aspects of nursing (physicial, phsychological, social). The connection between interventions and diagnoses also shows that nurses are practising many diverse interventions to treat the same problem, thus giving a picture of highly individualised nursing. It is possible to present distinct connections between diagnoses and interventionsfrom this data.

Conclusion. Electronic nursing documentation with classification systems has the means to show the core' of distinct nursing specialties. Oncology nursing is very diverse in nature and is practiced in a holistic matter at Landspitali-University hospital.

1143 ORAL

Nutritional action plan

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Background: Cancer patients undergoing oncological treatment often suffer from weight loss and a poor nutritional status. It is therefore important to develop routines to prevent weight loss. Through good nutritional care and support the cancer patients' possibility to cope and tolerate the treatments can be improved. The aim is also to prevent a decreased quality of life due to cacexia

Radiumhemmet, the oncology unit at the Karolinska hospital has a multiproffessional group that works to improve the nutritional care of the cancer patients.

The Nutritional action plan is the result of the work from this group. The action plan contains guidelines and tools to help the caregivers to support the cancer patient with excellent nutritional and cancer care.

Guidelines for nutritional routines:

At the first visit to the clinic all patients are asked to fill out a nutritional assessment scale. This repeats at every following appointment.

The percentage weight loss is calculated the last month.

Documentation concerning weight data such as, current weight, weight six months ago, weight one month ago and percentage weigh loss are made in the medical journal.

Documentation about nutritional symptoms from the assessment scale, if any, is made in the medical journal.

The nurse or the physician decides from the assessment scale if the patient fullfills the criteria of a risk patient.

Criteria for risk patients are,10% weight loss during six months or 5% weight loss during one month or one or more nutritional symptoms.

In order to prevent weight loss, it is necessary to calculate the energy need for risk patients. The energy need (kcal/day) is calculated as follows; energy need /day = approx. 30 kcal·weight in kg, the energy need is individual and must therefore be evaluated continuously.

When the patient is moved from the oncology unit to another caregiver it is essential that a thorough history care plan with information about the patients' nutritional status and nutritional treatment is given.

Intervention plan for riskpatients:

1. Weight is measured continuously.
2. The alarm weight is calculated*.
3. The weight data is recorded in the medical journal.
4. Caregivers give food advice from a special folder.
5. At the treatment units a nutritional journal is used.
6. The nutritional assessment scale is filled out at every appointment.
7. A dietician is consulted if the patient develops several nutritional symptoms or if the weight loss is continuous.

*Alarm weight = weight one month ago minus 5% of weight one month ago.

References

[1] Karolinska sjukhuset, Kvalitetsmål nutrition, 2001.
[2] Orrevall-Granberg Y Den viktiga maten, Cancerfondensförlagsverksamhet,1995.
[3] SPRI rapport Vikt och näring under kontroll, Stockholm;SPRI,1995.
[4] Socialstyrelsen Näringsproblem i vård och omsorg, Prevention och behandling, SoS-rapport 2000:11

1144 ORAL

The nurse management of trastuzumab infusions for patients with breast cancer

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Introduction: This presentation will examine a new monoclonal antibody drug trastuzumab for the treatment of breast cancer. It will consider the background to this work, available literature on monoclonal antibody therapy, and in particular trastuzumab. It will discuss human epidermal growth factor receptors and genes, the nature of this new drug therapy, the patient population that it is targeted toward, benefits of the drug and clinical safety. It will then discuss in more detail the nurse management of the infusion, the possible side effects and the aftercare.

Background: In December 2002, a group of 12 experienced cancer nurse specialists from around the UK were invited to a one-day nurse focus group to consider issues surrounding the use of trastuzumab. What became evident from that meeting was the need to establish core nurse guidelines for the administration and management of trastuzumab infusions.

Discussion: Treatment of cancer using monoclonal antibody therapy is an emerging technology and there are only a few licenced drugs that are in general use. Consequently, there is very little in the way of published nursing guidance. A literature search of CINAHL and the British Nursing Index since 1999 using the following search terms: Herceptin® or trastuzumab; antibodies - monoclonal; breast neoplasms; produced 31 articles of varying relevance and utility. Other sources of evidence examined were the Oncology Nursing Society, the European Oncology Nursing Society, the Cochrane Library and the National Electronic Library for Health.

A broader search of medical literature reveals a number of significant published articles that support the use of trastuzumab. These articles are cited in the first part of the presentation. This briefly discusses the development and nature of the drug, the patient population and the side effects of the treatment.

The nurse management of trastuzumab infusions is then more fully discussed including management of infusion related symptoms. Also, issues of patient education and psychological support. Moreover, the need for nurse education to support this new method of treating cancer.

It is our aim to offer these guidelines as a basis for the nurse management of trastuzumab infusions. Individual institutions may wish to adapt them to their own models and methods of nursing practice.

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