until 2005 were defined: a) the above mentioned research will be continued and enlarged with intervention studies, b) the four ontology units start with the SRUM for which the nurses from the ward select a relevant subject, review scientific literature and adapt the relevant results to their situation in practise (in relation to the quality system of the hospital/department), c) nursing research wilt be extended to other spectalizations of oncology in the Medical Center (surgery, neurology, children, urology, etc), d) in co-operation with the Integrated Cancer Centre (IKO) a platform is coordinated with all regional managers of intra- and extramural organisations with oncology patients to introduce SRUM for other institutions. The research themes of the Medical Center and National Dutch Guideliness for oncology patients defined by the National Workinggroup Oncology Consultants (LWVOC) will be used as starting point. These initiatives will lead to integration of nursing research, education and utilization of research results in practise and to a strong argument for evidence based practise for ontology nurses. The different steps of the project and the results will be presentend from examples.

1379 ORAL

What is needed to improve quality of care for patients with advanced cancer? Results of focus group discussions with staff

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During autumn 2000, a multicenter collaborative action research & development project has been initiated by two Swedish universities and three health care facilities caring for patients with palliative care needs. The project aims to improve quality of care for patients with advanced cancer through development of a knowledge exchange program. As first step in conducting the project, questionnaires with an open-ended question about what is perceived as necessary in order to provide good care to patients with advanced cancer were distributed to nursing students and faculty in three Swedish cities, as well as staff at the participating health care facilities.Focus group discussions (FGDs) were then conducted with all interested staff at the three health care facilities. The open questions used to stimulate discussion were based on responses to ca 200 questionnaires.

This presentation is based on the results of over 20 FGDs with nursing and paramedical personnel. The FGDs were audiotaped and transcribed verbatim. Analysis of the data was inspired by the process of coding and categorisation from ground theory, complemented with consideration of the interactive process in the FGDs, for example in terms of agreement, disagreement, role of the speaker, etc. Initial analysis was carried out as a group, during a three-day research retreat with the full research team consisting of four senior nurse researchers, two clinical experts, and two nursing faculty members. Further analysis was conducted by two groups separately, with regular meeting and telephone contact to maintain consensus with the full research team.

Preliminary results indicate a wide variety of staff needs, from the macro level related to societal change influencing health care, to the micro-level of individual interaction, psychosocial and biological needs. Knowledge needs were seen as rapidly changing, thus placing great demands on the nurses involved in direct patient care.The manner in which different forms of knowledge are conceptualized and prioritized varied among the participants,and will be discussed here. Perceived changes in the awareness of patients and patient access to new knowledge were seen as placing new demands on nurses' access to continuing eduction and information. Organisation of care is seen as strongly influencing quality of care. The implications of this project for clinical cancer care, nursing education and cancer nursing research will be discussed.

1380 ORAL

Reorganising chemotherapy services at the Christie Hospital

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Purpose: Chemotherapy patients experienced long delays when attending for Chemotherapy. Our project aimed to:

- Reduce waiting time and Increase patient satisfaction.
- Improve the situation of Inconsistent and unsafe practice due to day case Chemotherapy patients being admitted inappropriately as inpatients on any ward in the Hospital.
- Identify each days workload in order to effectively plan staff rosters and Improve staff working lives.

Methods: A multidisciplinary team approach to problem solving led to a process redesign. By "mapping" the patients pathway we were able to identify the main and common causes of delay. A system was developed for patients to have appointments relating to their type of Chemotherapy and for patients to be scheduled for a treatment time relating to their outpatient appointment. Day case infusional chemotherapy was concentrated Into one area with a multidisciplinary support system in place, including Chemotherapy co-ordinator and on site Pharmacist. We Increased and extended the Ward Nurses role by further training, including cannulation skills. This allows the Nurse to deliver a "whole package" to the patient.

Results: All patients for Chemotherapy have an appointment time and treatment time Identified resulting in a predictable workload.

Overtime payments have been decreased, sickness and absence levels, and staff retention improved due to a more organised approach and predictable workload.

Fewer clinical Incidents have occurred due to Nurses "specialising" in day case regimes in one concentrated area.

Conclusion: A multi disciplinary team approach, owning and sharing problems and solutions is beneficial to both patients, staff and organisation.

1381 ORAL

Cytostatic drugs: managing the occupational exposure of oncology nurses with the use of guidelines and environmental monitoring in the Netherlands Cancer Institute

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Introduction: In addition to being a powerful aid in the treatment of cancer patients, cytostatic drugs represent a health risk to nurses who are occupational exposed to these drugs. Until now, the safe working practices standard in The Netherlands was the 'Werkboek Cytostatica' (Workbook cytostatic drugs). The Ministry of Social Affairs and Employment in the Netherlands has recently issued a set of policy regulations, which contain detailed measures for controlling exposure to cytostatic drugs.

Method: In the NKI/AvL, the safe working practices standard are implemented using a quality manual. The aim is to prevent adverse effects by reducing the exposure to these substances or, if possible, to eliminate exposure them completely. In practice, drawing up these guidelines, modifying methods of administration and providing nurses with proper instruction were not sufficiently effective to counteract the dissemination of cytostatic drugs in the working environment. In the NKI/AvL, the efficacy of such measures is regularly evaluated by means of environmental monitoring.

Results: The results of this monitoring clearly show that cytostatic drugs become disseminated throughout the working environment. One cause is a spread of contamination due to the lack of separate logistical procedures for handling uncontaminated objects and objects that may be contaminated. In addition, cleaning procedures are not always adequate. The results of monitoring stimulate nurses to reconsider their own working practices for handling cytostatic drugs. They may also lead to an amendment of existing control measures, where necessary.

Conclusion: Even where control measures have already established their practical value elsewhere, the use of guidelines, methods of administration and instructions to nurses alone cannot guarantee that these measures will be effectively implemented. Monitoring has been shown to be an invaluable additional tool during the practical implementation of policy regulations.

1382 ORAL

Time's relativity and nursing workload in a clinical oncology patient population

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As part of a wider study to develop a valid and reliable pallet classification workload measurement tool for a clinical oncology patient population, the current study aims to identify nursing diagnosis and nursing interventions that are associated with oncology nursing workload.

An explorative study examined 44 nursing diagnoses and 91 nursing interventions. Assessment of the provided nursing care and associated workload was performed in 40 patients. Workload was conceptualised as nursing care time and subjectively experienced workload. Using factor analysis, univariate- and multiple regression analysis the value of nursing

diagnoses and interventions in explaining and predicting nursing workload was evaluated.

About 70% of nursing diagnoses concerned the nutritional-metabolic, the activity-exercise and the self-perception/self-concept Functional Health Pattern (Gordon). About 50% respectively 30% of nursing interventions concerned the physiological and behavioural domains (care interventions that support psychosocial functioning) of the Nursing Intervention Classification (McCloskey & Bulechek). On average 8 nursing diagnoses were made and 25 nursing interventions were performed. The subjectively experienced workload was relatively low. Nursing care time was relatively short. Experienced workload and nursing care time were only moderately correlated. Item reducing statistical techniques reduced the 135 nursing diagnoses and interventions to a limited set of 20 nursing diagnoses and 22 nursing interventions. The 20 nursing diagnoses explained 51% and 30% of the variance in nursing care time and subjectively experienced workload respectively. The 22 nursing interventions explained 70% and 58% of the variance in nursing care time and subjectively experienced workload respectively. These sets of nursing diagnoses and interventions were identified as independent predictors of nursing workload in a clinical oncology patient population.

1383 ORAL

Intravenous (IV) chemotherapy training needs for nurses in Scotland's largest NHS trust

G. Chadwick. *Beatson Oncology Centre, Specialist Nurses, Glasgow, Scotland*

North Glasgow University Hospitals NHS Trust (NGT) is the largest NHS Trust in Scotland covering a population of up to 3 million people. The area of Greater Glasgow has the highest incidence of cancer, in particular, lung cancer, in the Western world. Chemotherapy is a frequently used treatment modality for all types of cancer - haematological and solid tumours.

It has been recognised that IV chemotherapy is administered to increasing numbers of patients year on year by nurses. It was unclear however what level of education and training these nurses had in relation to this treatment. A need assessment was devised and carried out to ascertain the training requirements of nurses involved with chemotherapy.

More than 130 questionnaires were distributed to all clinical areas within the Trust to discover the level of chemotherapy activity in each area and which disciplines of staff were involved with the its administration. Supplementary questions were to find out the education and training on specific chemotherapy issues accessed, or otherwise, by nurses and what guidelines were followed.

Replies from 126 areas indicated a large number of areas administering chemotherapy, by a variety of routes. Few nurses had attended specific training for safe chemotherapy administration. A training programme for nurses involved with high usage of chemotherapy is being developed. Full details of the needs assessment findings and training/education required will be presented.

1384 ORAL

A Delphi survey of research priorities in European oncology nursing

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Purpose: A Delphi survey was begun in order to reach a consensus on the research priorities for European cancer nurses. The survey is currently being undertaken as the importance of establishing a framework of strategies for cancer nursing research, that outlines key areas for focus has been repeatedly highlighted. The study has been funded by the EONS, with the intention being to reflect the issues of importance to its members. Thus, it is part of the EONS strategy to contribute to the accumulation of evidence-based cancer nursing knowledge.

Methods: The study takes the form of a Delphi survey, comprising 3 phases. The method was selected because of its consistent use over time in studying oncology nursing research priorities. Additionally, it has allowed the efficient and effective combining of expertise from a group of geographically dispersed experts. The survey was begun at the 2nd EONS Spring Convention when European cancer nurses were approached to complete the phase 1 questionnaire. This initial sample was then widened to allow a greater diversity of European representation, by approaching the cancer nursing societies of Belgium, Denmark, France, Italy, the Netherlands, Spain and Sweden to further distribute this questionnaire.

Results: The phase 1 returned questionnaires have been analysed and a second questionnaire is currently being developed. It is anticipated that this questionnaire will be sent out to participants in May, and that results will be available by August.

Conclusion: Conclusions will be drawn regarding the priorities for future cancer nursing research focus and the level of consensus amongst oncology nurses across Europe on this issue. Additionally, recommendations will be made in terms of how these priorities may be met in the future.

Interactive Symposium

1385

Overview of EONS Educational Initiatives

N. Kearney. *Head of School, Nursing and Midwifery School, University of Glasgow, Glasgow, Scotland*

Education is arguably the key to developing cancer nursing in Europe and consequently improving patient outcomes. Given the current disparity which exists across Europe in relation to cancer nursing education there is an urgent need to consider educational initiatives that can traverse professional and cultural boundaries. The growing recognition of the need for educated nurses to deliver increasingly complex care further enforces the need for appropriate educational opportunities for cancer nurses in Europe. The European Oncology Nursing Society (EONS) has been at the forefront of developing educational initiatives in Europe and has presented a number of models for use by nurse educators and clinicians. This symposium will address the complexities related to the delivery of cancer nursing education across a diverse continent and consider potential strategies to support the emerging specialty of cancer nursing.

1386

Cancer genetics: an educational initiative for nurses

G. McPhail. *Univ. of Glasgow, Nursing & Midwifery School, Glasgow, UK*

As health care is forever changing, demands ever increasing and new techniques and technology constantly being introduced, nurses in cancer, more than most other specialties, must be aware of the need to constantly update their knowledge and skills to ensure that their practice is current and based on the best available evidence (Fawcett-Henesy,2000). Oncology nurses in all areas of practice are affected by the recent explosion of genetic information (Greco,2000).

Understanding is evolving that cancer is a genetic disease (Trahan Rieger,1997), and while much of our existing knowledge of cancer has been generated by epidemiology,vast advances have been made over the past decade in the field of molecular biology (Bradley,1999). As progress in cancer research converts the latest findings in cell biology to the clinical arena,the manner in which cancer is diagnosed and treated is beginning to change. Future therapies will target those cellular properties that differentiate a cancer cell from a normal cell (Trahan Rieger,1997),and while relatively few biological therapies are currently available for clinical use, much research is currently in progress (Kearney & McPhail,2000).

Acquiring and maintaining expertise in cancer biology will enable oncology nurses to understand complex treatment modalities (Trahan Rieger,1997).