4207 POSTER

Advanced nursing role to improve care among breast cancer patients

L. Morel[1], A.C. Griesser[2], G. Vlastos[1]. [1]*Hôpitaux Universitaires de Geneve, Gynaecology/Senology Unit, Geneva, Switzerland;* [2]*Centre Hospitalier Universitaire Vaudois, Multidisciplinary Oncology Center, Lausanne, Switzerland*

Background: Breast cancer is a devastating disease for women as it impacts on their intimate, familial, social life. We study the specificities of breast cancer nurse interventions related to demands of support, information and coordination.

Material and Methods: More than 300 patients are treated every year in our institution. From 2006 January to 2008 December, the specialist nurse has reported demands of patients and professionals:

1. Patients' needs related to support, information and coordination of care were collected from consultations with her and from their phone calls on using working days help line
2. Demands of breast cancer specialists and general practitioners related to information and coordination for specific patients were collected from their phone calls.

Results: The specialist nurse received 679 phone calls respectively 71.5% from patients and 28.5% from professionals. Data are presented in the following table.

Table 1: Evolution of number of patients and professionals demands

	Patients consultations	Patients calls	Professionals calls
2006	93	45	32
2007	210	200	40
2008	245	240	122

- Seventy percent (70%) of women asked for information about exams and treatments by phone and in nurse consultation.
- Forty percent (40%) of women asked for support after announce of diagnosis. The specialist nurse proposed consultations, 2 to 4 consultations were necessary for women to express emotional distress or psychosocial problem. With this specialised nursing support less than 15% of patients were referred to the psycho-oncologist setting.
- Forty percent (40%) of professionals asked support for patients and 60% for information and coordination of care.

Conclusion: The interventions of the specialist nurse have improved coordination and quality of care.

The increase of professionals' demands showed that it was necessary that a nurse assures continuity of information between hospital and extra-hospital structures.

The breast cancer nurse empowers patients and helps them to get well by providing support to fulfil specific needs.

4208 POSTER

Development and implementation of national extravasation guideline

M. Bernot[1]. [1]*Onkoloski Institut Ljubljana, Ljubljana, Slovenia*

Background: Recognition of the need for collaboration off all health care professionals is one of the major challenges of cancer nursing in Slovenia. Due to increasing incidence of patients with cancer it is not possible any more to offer integrated cancer care to all patients at the only oncology centre in Slovenia, Institute of Oncology Ljubljana (IOL). That is why integrated cancer care for some cancer treatments is moving to oncology wards in secondary hospitals that are rapidly developing and that will be able to offer quality integrated cancer care. During this process, the need of national standards and guidelines as the indicators of quality and effectiveness of cancer care became evident. Namely, analysis of current practice has shown that patients were cared for differently in different institutions for the same treatments and proceduresAs the same applies to the area of cancer nursing, development of national guidelines for uniform and integrated cancer nursing in Slovenia are also needed.

Material and Methods: Division of nursing at the IOL in collaboration with Oncology Nursing Section started a project to uniform cancer nursing for patients on systemic treatment. The basis for the project was first research on systemic treatment and care in Slovenia from 1998. In 2007 and 2008 the research was repeated and results were compared. In the repeated research participated 185 nurses from all institutions in Slovenia that offer cancer care to patients. The results showed the need of national standards and guidelines in the area of extravasations, administration of systemic treatments, and nursing documentation. All this areas developed into separate projects.

Results: In the area of extravasations the research showed that majority of institutions used internal guideline of IOL or did not use any guidelines. The research also showed that internal guideline of the IOL needed revision and incorporation of EONS extravasations guidelines. As a result of presented findings a working group with representatives from all institutions that treat patients with cancer was formed, and national extravasations guidelines were developed.

Conclusions: Contemporary cancer care demands uniformed and integrated patient care. In the field of extravasations we answered to this demand by the development and implementation of national guidelines. The next aim of presented project is establishment of national registry for extravasations which would enable us to research this area that still lacks evidence.

Poster presentations
Assessment and measurement in cancer care

4209 POSTER

Simulation-based education for oncology nurses – interactive workshop

N. Schneider[1], S. Ben Ami[2]. [1]*Chaim Sheba Medical Center, Hemato-Oncology, Tel Hashomer Ramat Gan, Israel;* [2]*Chaim Sheba Medical Center, Oncology, Tel Hashomer Ramat Gan, Israel*

Background: Oncology nurses deal with variety of ethical dilemmas, professional conflicts and biopsychosocial issues of their patients on a daily bases. Coping with intense situations (such as death and grief, medical mistakes, violence etc.) can lead to stress and emotional load. Simulation based medical education can contribute considerably to improving nursing care and coping skills by boosting nurse's performance and enhancing 'patient–nurse' communication.

Material & Method: Twenty four oncology nurses from the hemato-oncology department participated in a unique interactive workshop with cooperation of the Israeli Center for Medical Simulation (MSR). In this workshop nurses were pro-actively exposed to challenging clinical and humanistic encounters which trained them to use practical and feasible tools in order to improve communication skills, quality of care and teamwork.

Nurse's needs were mapped through survey prior and after the workshop. Questions were based on personal needs and ethical approach regarding those issues.

Workshop was based on experiential learning. Nurses were asked to deal with extreme situations at a virtual oncology department, in front of a live simulated patient played by professional actors who were trained especially for this workshop. Oncology nurses participated in scenes such as dying patient, newly diagnosed patient, and dealing with medical mistakes, violent patient, braking bad news and more. All scenes, 10 minute each, where audio-visually documented and simultaneously watched live through a one-way glass. Later, through a reflective learning, scenes where analyzed in an open moderator-based discussion and feedback, lead by investigators who where trained by organizational psychologist.

The audio-visual records were analyzed 1, 3 and 6 months after the workshop.

Results & Conclusions: Outcomes showed improvement in nurses' coping strategic and performance repertoire. Nurses reported workshop powerfully improved their communication skills and reduced their emotional load associated with their work as oncology nurses.

4210 POSTER

Determinants of patient satisfaction in ambulatory oncology: a prospective study based on the EORTC OUT-PATSAT35 questionnaire

T.V. Nguyen[1], J.F. Bosset[1], A. Monnier[2], V. Perrin[2], J. Fournier[1], M. Mercier[1]. [1]*CHU Jean Minjoz, Radiotherapy, Besançon, France;* [2]*CHR, Radiotherapy, Belfort Montbéliard, France*

Assessment of patient satisfaction has been recognised as a key indicator of hospital care quality monitoring. In the oncology setting, survival has been only marginally improved in many tumour types; therefore there has been an emphasis in evaluating outcomes of treatments in terms of quality of life and patient satisfaction. The aim of our study was to investigate associations between socio-demographic, clinical characteristics, quality of life and satisfaction with care in cancer out-patients.

Patients undergoing ambulatory chemotherapy or radiotherapy in 2 centers in France were invited, at the beginning of the treatment, to complete the OUT-PATSAT35 questionnaire, including 35 item organized into 13 scales, evaluating perception of doctors, nurses or technologists, as well as aspects of care organization and services. All measures range from 0 to 100, a higher score reflecting a higher level of satisfaction. Additionally, for each patient, data were collected on socio-demographic, clinical characteristics and quality of life (EORTC QLQ-C30).

692 patients were included and only 6 patients failed to return the questionnaires. Mean score were respectively 63.6 and 72.5 for the QLQ-C30 global health scale and the OUT-PATSAT35 overall satisfaction scale. In a multivariate analysis, localization of the primary cancer (breast, prostate, head and neck, rectum, or lung) and type of treatment received (radiotherapy, and/or chemotherapy) were included in two separated models because of a colinearity between these two variables. Patients treated for head and neck cancer appeared to be less satisfied with care ($p = 0.03$ for the overall satisfaction scale). The clinical determinants significantly and unfavourably associated with most scales of the OUT-PATSAT35 were poor global health status (all $p < 0.01$), and radiotherapy (at least $p = 0.03$ for the scales evaluating doctors, nurses or technologists). The socio-demographic determinants, significantly linked to bad perception of satisfaction with care, were marital status (living alone or not), associated with both doctors' and nurses' information provision, young age (<55 versus >55 years) with doctors' availability, and high income with nurses' information provision.

Based on the EORTC OUT-PATSAT35 questionnaire, we identified a number of treatment, clinical and socio-demographic factors significantly associated with different scales of satisfaction with care in cancer outpatients. Further analyses are currently performed to determine the responsiveness of this questionnaire to changes over time.

4211 POSTER

Chemotherapy-associated constipation (CAC): a neglected clinical problem

E.W. Muller[1], C.A. van Arkel[1], E. Meuleman[1]. [1] *Slingeland Hospital, Medical Oncology, Doetinchem, The Netherlandsi*

Background: Constipation is not known as a common side effect of chemotherapy. In our department, though, patients seemed to frequently report bothersome constipation. Therefore we performed a survey.

Methods: 70 consecutive patients in the outpatient chemotherapy clinic were asked to participate in the survey. Patients were asked about changes in bowel habits, the consistency of their stool, abdominal or general discomfort, and whether they had sought medical help for constipation. Also a Constipation Assessment Scale (CAS), a validated instrument for measurement of constipation, was collected.

Results: A total of 49 patients responded to the survey and completed the bowel function questionaire. Most patients were treated for breast cancer ($n = 11$), Non-Hodgkin Lymphoma ($n = 8$), lung cancer ($n = 8$), ovarian cancer ($n = 7$) and colorectal cancer ($n = 6$). Five patients (10%) were on opioids + laxative. In our hands, the CAS was not a useful instrument, since patients with diarhoea scored high on "abdominal discomfort". Nineteen patients (39%) stated they were constipated after chemotherapy. Of constipated patients 10 (53%) felt "a little" discomfort, and 9 patients (47%) felt "much" or "very much" discomfort. Of constipated patients 17 (89%) indicated diminished general wellbeing due to CAC. Seven patients (37%) sought medical assistance from the hospital or their general practitioner. Predictive factors in our patients were limited, due to small numbers, to bowel habit before chemotherapy ($p = 0.01$, X-square-test) and ovarian cancer treated with carboplatin/paclitaxel ($p = 0.04$, X-square-test). No correlation was detected with the use of 5HT3-antagonists, but only 6 patients received chemotherapy without.

Conclusion: Constipation is prevalent among cancer patients treated with chemotherapy, negatively influences general wellbeing and makes patients seek medical attention. Therefore CAC deserves special attention in the prevention and management of side effects of chemotherapy.

4212 POSTER

Taste and smell dysfunction in peadiatric oncology patients receiving chemotheraphy

N. Karaman[1], N. Sari[1], B. Aydin[1], I. Ergurhan Ilhan[1]. [1] *Ankara Oncology Teaching and Research Hospital, Pediatric Oncology, Ankara, Turkey*

Background: Taste and smell changes are much more prevalent in patients undergoing chemotheraph. The literature yields little information on taste and smell changes. In this study, the frequency and features of these changes were evaluated in peadiatric oncology patients.

Patients and Methods: Forty-four children receiving chemotheraphy in peadiatric oncology clinic were evaluated with quastionnaire about taste and smell changes.

Results: The mean age was 12.15 (4−8) and male to female ratio was 25 to 19. The most frequent histopathological diagnosis were osteosarcoma (15 patients) Ewing's sarcoma (12 patients) and Hodgkin disease (7 patients). The most frequently administired chemotheraphy regimens were high dose methotrexade (10 patients), doxorubicin + cyclophosphamide + vincristine combination (8 patients) and ABVD regimen (5 patients). Taste and smell dysfunction was reported by 33 (75%) and 34 (77%) patients, respectively. Seven patients (70%) treated with high dose methotrexade reported taste changes, while nine patients (90%) were reported smell changes. Seven patients (87.5%) treated with doxorubicin + cyclophosphamide + vincristine combination reported taste changes, while 6 patients (75%) reported smell changes. Three patients (75%) treated with ABVD regimen reported both taste and smell changes. Eleven female patients (57.8%) reported taste and 14 female patients (73.6%) reported smell changes. Twenty-two male patients (88%) reported taste and 20 male patients (80%) reported smell changes. Increased sensitivity to odors was reported by 20 patients (58.8%) and 14 patients reported decreased sensitivity. Taste changes were described as bitter (11 patients), metallic (10 patients), sour (8 patients) and salty (4 patients). Twenty patients (60.6%) informed their families and health professionals about these changes. Meat and fish products were the most common undesired foods for 14 patients. Twenty-two patients had not taken any measures against these changes. But eleven patients had taken some measures like increased water intake, some spices and souces.

Twenty-nine patients (87.8%) reported that taste and smell changes were the most severe during chemotheraphy administration.

Conclusions: Much more research is needed to understand the nature, frequency, severity and duration of taste and smell alterations and their significance for the quality of life of cancer patients. Objective testing methods should be developed to detect these changes.

4213 POSTER

The effect of a digital instruction program on the safe handling of cytostatica drugs of homecare professionals

M. Kroeze-Verdonk[1], J. Groeneveld[2]. [1] *Comprehensive Cancer Centre (IKW), Nursing, Leiden, The Netherlands;* [2] *University Hospital Leiden, Works Council, Leiden, The Netherlands*

Background: Many professional carers working in a homecare environment are often unaware of potential exposure to cytostatic drugs, protective measures are rarely taken. This, combined with the fact that there are limited protocols or guidelines available, can lead to high dermal exposure levels through contact with patient excreta or with contaminated materials. To encourage professionals in the homecare setting to work safely with patients receiving cytostatic drugs, a digital instruction program was developed. Each procedure is illustrated with realistic pictures, accompanied by (printable) written text and narration to cater to the different learning strategies of individuals (hearing, seeing and reading).

The CD is part of a complete package:

- Management guidelines on how to implement the program
- Cost implications
- An overview of protective clothing, requirements and suppliers.

Aim of the pilot study was to see if:

- The knowledge of the different home care professionals increased due to the digital instruction program
- The different home care professionals were able to put their knowledge into their daily practice
- The knowledge persists over a certain length of time (3 and 6 months after introduction of the program).

Material and Methods: Professionals employed by four homecare institutions across the Netherlands were asked to participate in the study. Written questionnaires were used. They were asked to fill in the first questionnaire before the digital instruction program was introduced. And again three and six months after the introduction of the program.

Results: The knowledge of all homecare professionals of the safe handling of cytostatic drugs was slight before and after the introduction of the program. However a small increase in knowledge was visible after the introduction of the program (especially after three months). There was also an increase in the knowledge of how to take protective measure before and after the introduction of the program. According to the respondents they take more protective measures after the introduction.

The knowledge achieved during the project seemed to enable the homecare professionals to take the proper protective measures.

The use of the digital instruction program is an effective measure to enhance knowledge. It had a positive outcome on the existing knowledge which increased after the introduction.

In December 2008 the program was broadly introduced to all homecare institutions in the whole of the Netherlands were it is now being implemented.