a sense of loss of control, there are a multitude of relationships involved which may help or cause distress to the person dealing with cancer, the health care team while often supportive sometimes failed to see the needs of those they cared for, while people with cancer value the expertise and knowledge of the health care team they also want the team to demonstrate compassion and sensitivity while delivering care and information, while a few people had found particular meaning to aspects of their experience all recognised that the ongoing process of searching to find meaning continues after treatment finishes. It is hoped that by listening to the experiences of these individual people living with cancer the insights gained will support the health care team in their efforts to help those undergoing treatment for cancer.

Frankl, V.E. (1959) Man's Search for Meaning. London. Hodder & Stoughton

1508 INVITED

The sense or nonsense of isolation

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Infectious complications are a major cause of morbidity and mortality after haematopoietic stem cell transplantation (HSCT). Protective isolation (PI), especially in laminar airflow (LAF)- and/or high-efficiency particulate air (HEPA)- rooms remains still a controversial issue.

Numerous studies have assessed the effect of these measures with conflicting data. Most are descriptive, with only 9 prospective randomised studies, or tested several prophylactic interventions simultaneously making it difficult to determine the impact of PI alone.

The established guidelines concerning isolation practices are based on opinions of respected authorities or expert committees without evidence on the usefulness of PI. Only some airborne infections like nosocomial Aspergillosis can effectively be prevented by the use of LAF or HEPA filtration. But what about the preventive effect of these measures against endogenous bacterial or viral outbreaks? These cannot be prevented by strict isolation and led together with other factors; like financial costs, psychological burden, and the change in supportive care, newer concepts of HSCT and a remarkable change in the epidemiology of infections; to the reconsideration of isolation practices.

In addition, several reports, although non-randomised, describes the feasibility of outpatient care after high-dose therapy and HSCT. The pooled statistics suggest that protective environments provided no benefit in decreasing mortality for the transplant patient.

Furthermore the risk of opportunistic infections is not limited to the period of neutropenia but continues during the whole phase of immunodepression until about 1 year after HSCT and while the patient is not hospitalised.

Despite lack of sufficient evidence regarding the sense of PI it could be recommended for inpatient care of high risk allograft patients, especially if there is a history of high incidence of Aspergillosis or if there are frequently (re) construction activities in the hospital. It is of great importance to incorporate in the hospital an infection control program with ongoing assessments to identify risks for the acquisition and transmission of nosocomial infections.

For other patients there is less or no sense of PI but several isolation measures remain primordial to be respected like strict hand disinfection.

Only the results of a prospective, randomised study of sufficient power will enable definitive conclusions to be drawn regarding the sense or nonsense of PI.

Special Lecture

1509 INVITED

Centering care: patient's perspective

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In the lecture we want to highlight the patient as an important role in the organization and planning of care. Nowadays more and more diseases become increasingly chronic and we are faced with different problems: issues of patient compliance to treatment, of patient participation in decision making, of patient being a member of the multidisciplinary team, the doctor-patient relationship, as well as the patient advocacy movement, are becoming increasingly the center of our attention. On the other hand, there is striving for professional excellence in health care management, and systems of quality assessment demand feed-back from the customers, in this case the patients. Patients find themselves also in the increasingly powerful role of consumers and there are consumer rights that need to be taken into account, warranted by customer protection charters. Most countries have endorsed patient's rights, too, but how to implement them is something yet to be discovered.

We no longer take it for granted that what the caretakers think is best for the patient is the best that can be done. We ought to know what the patients really want. A research has shown that patients want three main things: competent care, person-centered care, organized around patient's needs and holistic care that extends beyond basic clinical care to address wider patient needs and wishes. Within these themes are ten things that patients want: practical support-knowing how their everyday lives will be affected, and how they can cope; emotional support, provided in a systematic fashion; being treated as people, not as patients, numbers, or diagnoses; involvement in decision making, services as close to home as possible, provided that clinical quality is not compromised; less waiting for diagnosis, during treatment procedures, and in outpatients; follow-up to be as well planned and patient centered as the initial treatment; but they also want easier access to complementary therapies as a supplement to conventional therapies; skilful staff and specialist nurse support; as well as appropriate "hotel services".

Patients are often the last to be consulted when services are being designed, assuming that they are unable to cope with that role while in the middle of their struggle for recovery. When searching for a competent partner, one should take into account the long term survivors who are well informed, organized, able and ready to act as patient advocates in the planning activities.

Joint EONS/AFIC symposium
Evidence based management of adverse events

1510 Abstract not received

1511 INVITED

Hand–foot syndrome – evidence based management

C. Courtiol. *Cadre de Santé, Centre Alexis Vautrin, Nancy, France*

The hand–foot syndrome was described for the first time in 1974 in relation to a treatment with Mitotane. After Burgdorf (1982), observed the hand–foot syndrome during a high dose chemotherapy for acute myeloid leukemia, several cases followed and were named differently, like acroerythema, hand–foot syndrome, palmar plantar erythrodysesthesia syndrome, Burgdorf reaction, palmar plantar toxic erythema. It is a painful erythema located on the palmar and soles. In 1984, 5 fluorouracil (5FU) was reported as implicated agent : from 400 patients, 18 presented this syndrome, and 17 of them were treated with 5 FU; later other chemotherapeutic agents were related to this syndrome just like Caelyx.

In my presentation I will address various questions such as how many patients suffer from this syndrome ? How to prevent it? What advice should be given to the patient? What is the implication for nurses?

1512 INVITED

Skin problems – evidence based management

L. Lemmens, H. Marsé, E. Van Cutsem. *University Hospital Leuven, Digestive Oncology Unit, Leuven, Belgium*

New therapies targeting the epidermal growth factor receptor (EGFR) are active in the treatment of several types of cancer. Amongst the agents targeting the EGFR are monoclonal antibodies (e.g. cetuximab, panitimumab) against the extracellular ligand-binding domain of the receptor and small molecules (e.g. gefitinib, erlotinib) that inhibit activation of the receptor tyrosine kinase. Targeted therapies have a specific mode of action and as they are focused they usually affect fewer normal cells than cytotoxic drugs do. This gives a better side effect profile than that of cytotoxic drugs. However, EGFR-inhibitors often cause signs of skin toxicity, most often acneiform eruption. After an acute phase of acneiform eruption, patients can gradually develop dry skin, sometimes resembling atopic eczema. After several months of treatment, in 10–15% of the patients, nail changes can be seen: paronychia can be painful and mimics an ingrown nail. There are also some other minor effects, such as the growth of long curly and rigid eyelashes, teleangiectasia and hyperpigmentation, all usually appearing after several months of treatment. Several retrospective analyses suggest a correlation between the severity of rash and the activity of the EGFR-inhibitor. Prospective studies are ongoing to better understand these findings. Dermatologic side effects of EGFR-inhibitors should be taken seriously since they can cause physical and cosmetic discomfort, that may compromise compliance to therapy if left untreated. Although the number of large trials on the treatment of skin toxicity is limited, the experience is growing on the best management

and treatment is best individualised according the type and the extent of the skin lesions. The task of nurses is one of rending information and educating patients. Besides information on general measures, nurses can provide extra support and encouragement for patients struggling to cope psychologically with rash and help patients understand that the rash is usually a transient and manageable condition that usually disappears without scarring. The approach of treatment and guidance of patients with skin-toxicity is multidisciplinary: nurses, oncologists, dermatologists and psychologists must collaborate.

References

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1513 INVITED

Is oral chemotherapy an option in treatment of cancer?

H. Marse, L. Lemmens, E. Van Cutsem. *University Hospital Leuven, Digestive Oncology Unit, Leuven, Belgium*

For several decades, intravenous chemotherapy has played and still plays a major role in the standard care of most tumours. However, delivery problems associated with infused administration are well-known. Intravenous therapy can be uncomfortable for the patient, time-consuming due to regular hospital visits and can generate venous access related complications (infections, thrombosis or blockage of the venal port). At the moment several chemotherapeutic agents and other novel targeted agents are available and approved in an oral form and several new ones are under development. In colorectal cancer it has been shown that the oral fluoropyrimidines (esp. capecitabine) are at least as active as IV 5-FU/FA. Two studies [1,2] in colorectal cancer showed a strong patient preference for oral therapy over intravenous therapy. The most important reasons for this preference were administration related (minor risk of infection, can be taken at home) and almost no interference with daily activities. Also the toxicity profile of oral versus intravenous chemotherapy influences the patients' preference. But in spite of preference for oral chemotherapy, most patients do not want to sacrifice any efficacy for convenience. A study of quality of life in cancer patients receiving palliative chemotherapy demonstrated that also patients' quality of life was significantly improved with home-based chemotherapy [3].
Since oral chemotherapy is taken in an outpatient setting, there are consequences for both, care giver and patient. The care givers are responsible for supporting and educating patients on dosing, compliance and how to handle side effects. The patient is responsible for correct recognition and evaluation of severity of the side effects and the action to undertake. Therefore selecting the right patient for an oral therapy is a very important contribution to the safety of oral chemotherapy.
In conclusion, oral chemotherapy can be a valid treatment option preferred by most patients if the toxicity profile and efficacy are at least equal compared to intravenous chemotherapy and the patients are well selected, educated and supported during their home based therapy.

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Proffered papers
Nursing interventions

1514 ORAL

Ethical and legal requirements in clinical research; the importance of structure and skills of the clinical trial nurse in the department.

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In Department of Oncology, University Hospital of Aarhus, Denmark approximately 25% of the cancer treatment is conducted as clinical trials. Research demands a structure in which roles and responsibility are clearly defined. Section of Clinical Research (SCR) has an important function in the matter of enabling the organization to handle this high activity of research.
SCR was established as an integrated part of our department of oncology in 1994, with the purpose of structuring and raising research activity, and also to develop a strong and noticeable unit for clinical research. An important aim is to ensure that we meet the obligations of quality requirements, our own as well as external, including the rules of Good Clinical Practice.
Any clinical trial to be initiated in the department of oncology has to be handled in SCR in order to discuss the scientific quality and to discuss whether the department has the capacity to carry out the trial.
The 7 Clinical Trial Nurses (CTN) in SCR manage a long list of tasks regarding the initiation and implementation of every clinical trial. The CTN plays an important role indicating the conditions and expertise that are needed for performing the clinical trials in the ward and in the out-patient department. The CTN is essential in educating all staff involved – primarily doctors and nurses – before initiating any clinical trial. We have high expertise and experience in composing informed consent documents, which is helpful in securing that the patients are well informed about the actual clinical trial.
We consider clinical cancer research to be a daily obligation with the responsibility for two patients: the patient entering the door today, as well as the future patient. The patient today should be given the best possible treatment that is available, and the future patient should be given an even better treatment. This dual responsibility demands a high research activity and high ethical standards. The CTN plays an important role in securing medical ethics – a matter the patients in general will find hard to relate to – and to secure that the patient is protected in every way regarding his rights, his safety and his welfare. In 2004 our department received an award of honor from the National Ethics Comity for our high ethical standards in research along with these words: "The department serves as a role model for priority of ethics in research".

1515 ORAL

Testing the effect of an educational intervention on nursing staffs' knowledge and attitudes on cancer pain management

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Background: The purpose of the study was to explore the effectiveness of an educational intervention on nurses' knowledge and attitudes regarding cancer pain management. The study was funded by EONS-ROCHE grant 2003.
Material and Methods: An experimental randomized 4-Solomon group design with alternative groups was utilized. The sample (n = 112) was recruited from "St. Savvas" a public Cancer Hospital, Athens, Greece. The following randomized groups were tested: a) pre- and post-test intervention group, b) post-test only intervention group, c) pre- and post-test sham-intervention group, and d) post-test only sham-intervention group. The educational intervention was based on viewing a series of 4 educational videotapes by Mc Caffery translated in Greek. The validated Greek version of the Nurses Knowledge and Attitudes Survey Regarding Pain was used at both pre-test and post-test measurements.
Results: 92.9% of the participants (mean age 37.94±8.10 years of age) were female and had an average 14.56±8.63 years of experience in cancer nursing. 2.7% of nursing personnel held a Bachelor degree in nursing, 56.3% were graduates of technological institutions of nursing, and 12.5% held assistant nurse diplomas. There were no significant differences between the intervention and control groups in regard with background variables.
Pre-intervention scores revealed various limitations in regard with pain assessment and management. At the pre-test, the average number of correct answers was 17.58±7.58 (45.1±19.3%). Pre-intervention scores differed significantly among participants with different educational backgrounds ($p < 0.0001$). A significant effect of pain education on total knowledge scores as well as regarding specific questions was detected. Intervention group participants provided 6.11±5.55 additional correct answers (15.66±14.23% improvement, $p < 0.0001$), and they exhibited significantly improved post-test scores compared to controls ($p < 0.0001$).
Conclusion: Study findings suggest relatively low pre-test knowledge scores among Greek oncology nurses. Despite the significant improvement in knowledge for the majority of test items after the educational intervention, some of the common misconceptions about pain management persist even immediately after the intervention. Moreover a trend for a potential negative effect of pre-intervention testing on knowledge acquisition remains to be further explored.