under discussion is "complementary" and this adds confusion in terms of perception and understanding. This paper aims to describe and identify the differences between alternative and complementary therapies as used by people diagnosed with cancer. Many patients are requesting information from their nurses in relation to the usage of alternative or complementary therapies or may be accessing inadequate information from the Internet. Many patients refuse to admit their usage of CAM to their hospital multi-disciplinary team. This paper explores the efficacy of current alternative and complementary therapies and discusses and recommends their role in relation to patient safety.

Meet the Manager
Cancer plans: implications for nurses

1520 INVITED

Cancer plan in UK: implication for nurses

C. Miller. *Guy's and St. Thomas' Hospital, Executive Nursing and Management Office, London, United Kingdom*

The Department of Health introduced the Cancer Plan in 2000 to modernise cancer services. The aims of the plan are to tackle inequality in cancer care provision and to provide new facilities and treatments to ensure the most appropriate evidence based care. To achieve this, is the commitment to expand the multiprofessional specialist workforce, ensuring best contemporary cancer care.
At the heart of the plan was to involve patients and carers in designing and evaluating the services provided in a unique relationship with health care professionals.
The session will discuss the unique contribution of cancer nurses in the implementation of the modernisation programme and the challenges faced in sustaining change in a complex health environment.

References

[1] DOH Cancer Plan 2000, Department of Health, HMSO London.

1521 INVITED

Cancer care management: implication for oncology nurses

H. Vorlickova. *Masaryk Memorial Cancer Institute, Brno, Czech Republic*

The oncology nurse attends not only to the physiologic needs of cancer patients but also to the educational, economic, logistic, and psychosocial factors that have impact on quality of care. Management of cancer patients' care from the first day of admission to the last day of hospitalization becomes more difficult in connection with today's short periods of hospitalization. Extending nurses' roles and responsibilities and their vigilant attention to "patient care maps" help keep the multidisciplinary healthcare team on schedule, reduce costs and maximize hospital resources.
Patient and family education along with hand-out education materials, both provided by the oncology nurse, facilitate the process of cancer treatment and improve patient compliance and patient satisfaction with health care. Also, these activities can cut down health care and mainly emergency care expenses.
Oncology nursing assists cancer patients through their illness and along the continuum of care, regardless of whichever pathway is chosen.

1522 Abstract not received

Podium session
New developments in the treatment of cancer

1523 INVITED

Targeted therapy and its impact on nursing care

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

Many new cytotoxic agents and novel targeted agents have been developed recently. Targeted therapy has an increasing importance in the management of cancer patients. It is expected that targeted therapies will increase the efficacy of anti-cancer treatments. They are directed towards the molecular "switch" that activates or deactivates the process or protein in the cancer cell that is altered during the process of carcinogenesis. Because targeted therapies are also focused, many have a favourable safety profile compared with cytotoxic drugs. These new developments make the task of the physician and of the nurse involved in the care of cancer patients more complex. The oncology nurse plays also an important role in the treatment and guidance of patients with cancer through the different treatment stages and options.
The novel targeted therapies under development include: monoclonal antibodies and tyrosine kinase inhibitors. These agents act/interact with a variety of targets, such as the Epidermal Growth Factor Receptor (EGFR), the Vascular Endothelial Growth Factor (VEGF) and many different tyrosine kinases. The targeted agents also play a role in wide variety of different tumours. The activity of the EGFR- and angiogenesis inhibitors is shown in an increasing number of different tumour types. Many of the novel targeted agents are used in combination with cytotoxic agents. The oncology nurse should therefore also understand the mechanism of action of these drugs, the possible indications and also the toxicities. Indeed with the implementation of novel targeted agents, a new variety of toxicities are seen. EGFR inhibitors cause frequently dermatologic side-effects. Since the experience with EGFR inhibitors is growing, the experience on the management of skin toxicity is also growing. VEGF inhibitors cause a different type of toxicity: hypertension, proteinura, bowel perforation and arterial thromboembolism. The oncology nurse has also to become familiar with specific aspects of novel targeted agents: the increasing use of oral treatment, often prolonged treatment periods and the use of new endpoints in clinical trials. In clinical trials the oncology nurses are also often confronted with new aspects such as the increasing importance of obtaining tumour biopsies for pharmacodynamic studies.
Conclusion: targeted therapy has a rapidly increasing role in cancer treatment. The oncology nurse is therefore confronted with many new challenges.

1524 INVITED

New developments in adjuvant therapy in colon cancer

A. Sobrero. *Ospedale S. Martino, Genova, Italy*

The adjuvant treatment of colon cancer has been one of the most successful fields of medical oncology in the last 15 years. Following the demonstration that 12 months of FU plus levamisole was efficacious as compared to no treatment in stage III disease, in 1990, a series of sequential improvements have been made.

1. Twelve months of chemotherapy are not needed, since 6 months of FU plus LV are equally effective.
2. Elderly patients benefit from adjuvant CT as much as younger patients.
3. High risk stage II patients have a worse prognosis than low risk stage III (this must be viewed as a new important development in this field because it constitutes the basis for the selection of stage II patients who may benefit most from adjuvant CT).
4. The convenient regimen of capecitabine (oral fluoropyrimidine) is as effective as, but less toxic thanstandardbolus FU plus LV.
5. The addition of oxaliplatin to infusional or bolusFUfurther enhances the benefit of adjuvantCTover FU plus LV.
6. Stage II patients significantly benefit from CT, although the absolute gain is limited due to the relatively low overall risk of relapsing. This long series of successes is bound to become longer since the very promising results obtained in the advanced setting with the combinations of CT plus the targeted agents cetuximab or bevacizumab may translate into even higher cure rates when used in the adjuvant setting of this disease. The identification of molecular markers, predictors of prognosis or treatment outcome, is the other potential but likely area of improvement in this field.

1525 INVITED

New developments in the therapy of breast cancer

B. Thurlimann. *Kantonsspital St. Gallen, Senology Center of Eastern Switzerland, St. Gallen, Switzerland*

Important data in the treatment of breast cancer have been presented during the last 12 months. The ARNO/ABCSG study showed that switching from tamoxifen to anastrozole during the 5 years of adjuvant endocrine therapy for hormone-sensitive breast cancer is associated with an improvement in disease-free survival. The first results of BIG 1-98 showed a 20% improvement in disease-free survival for letrozole versus tamoxifen. Aromatase inhibitors and tamoxifen have a different safety- and toxicity profile.
The sequence of FEC-100 $\times 3$ followed by taxotere $\times 3$ was superior when compared to FEC $\times 6$ in the adjuvant setting of high risk breast cancer.
The St. Gallen Consensus Conference made a major change regarding the selection criteria for choice of adjuvant treatments. Whereas in the past the risk of relapse was the most important criterion for the treatment choice, in 2005 the panelists used endocrine responsiveness not only for

selection of endocrine therapies but also for chemotherapies. HER2 and vessel invasion were added to nodal status, tumor size, grade and hormone receptors as prognostic/predictive factors.
The addition of bevacizumab, an antiangiogenetic drug, to taxol showed an important improvement in response rate and time to disease progression when added to taxol given as first-line chemotherapy for advanced disease.
The most striking improvement in breast cancer therapy has been achieved by the adjuvant use of trastuzumab as shown by the first results of three large randomised studies conducted in patients with HER2 overexpression.
Many promising drugs are in clinical development and give hope for further improvement of the outcome of women suffering from breast cancer. It is important for all caregivers that they have an adequate knowledge and experience in handling the new drugs and their side effects in order to optimize the benefit of these drugs.

Joint EONS/MASCC symposium
Rehabilitation: an overlooked area of supportive care

1526 INVITED

The interface between rehabilitation and supportive care

A. Glaus[1], S. Börjeson[2]. [1]*Zentrum für Tumordiagnostik und Prävention, St Gallen, Switzerland;* [2]*University, Faculty of Health Science, Linköping, Sweden*

The Multinational Society Supportive Care in Cancer (MASCC) has developed a definition of Supportive Care which addresses support regarding the effects of cancer and its treatment and it also explicitly includes enhancement of rehabilitation and survivorship (MASCC 2003). Although considering the entire continuum of a patient's illness, that definition does neither include nor exclude supportive care as part of palliative care. Therefore, the MASCC definition does not indicate whether supportive care in its core is directed more towards rehabilitation and cure or more towards rehabilitation or symptom control and dying. Equal priority is given to supportive care alongside diagnostic and therapeutic activities. In this sense, supportive care can be seen as part of the rehabilitation process but the interface between the two concepts needs further analysis and development. A truly supportive care issue in rehabilitation is presented by the barriers to rehabilitation for cancer patients through a persistent attitude amongst public, patients and health care professionals, interpreting cancer as remaining a fatal disease, needing an acute, short-term, treatment focused orientation. Historically, rehabilitation has not been systematically integrated as a process in cancer care. A rehabilitation model, adaptable to a variety of needs in a variety of settings has not been successfully implemented on a wide scale in most countries. These issues will be discussed and will be presented in the format of an interview between two experienced oncology nurses involved in MASCC activities.

1527 INVITED

Group rehabilitation for cancer patients: the effects, patient satisfaction and utilisation in daily practice

L.M. Petersson. *Department of Nursing, Karolinska Institutet, Stockholm, Sweden and Research and Development Unit, Stockholms Sjukhem Foundation, Stockholm, Sweden*

Group interventions for cancer patients were first documented in the late 1970s. When cancer treatments became more effective, more cancer patients survived, or at least became long-time survivors. This led to an increased interest in psychosocial issues and interventions to improve patients' ability to cope with problems occasioned by disease and treatment, and to prevent later psychosocial problems.
Group therapy offers advantages compared to individual therapy: (1) Social support. Many patients participate in groups because of the benefits of seeing and talking with others experiencing the same problem. (2) Cost-effectiveness. Group therapy makes the limited professional resources available to many patients. When compared, individual and group interventions have been found to be equally helpful.
Several studies of group interventions for adult cancer patients have been published during the last decades. The interventions often consist of 6–11 weekly, 1–2 hour sessions and are mostly conducted by a multi-professional team. Positive effects of group interventions have been found on anxiety, depression, quality of life, physical function, pain, nausea, vomiting, knowledge etc.
Studies of group interventions for cancer patients have shown that, in general, patients were satisfied when asked to give an overall assessment of the intervention. However, when asked about separate components of interventions, ratings tend to vary.
It should be possible, in spite of limited resources, to implement group interventions at many hospitals. Maybe this would lead to more satisfied patients, taking a more active part in their treatment and care. However, it is important to continuously evaluate such interventions.

1528 INVITED

The role of exercise in supportive care

L. Adamsen[1], M. Quist[1], J. Midtgaard[1], C. Andersen[2], T. Møller[3], L. Knutsen[1], A. Tveterås[1], M. Rorth[2]. [1]*Copenhagen University Hospital, Dept 7331, Copenhagen, Denmark;* [2]*Copenhagen University Hospital, Dept 5073, Copenhagen, Denmark;* [3]*Copenhagen University Hospital, Dept 4042, Copenhagen, Denmark*

Irrespective of their cancer diagnosis, patients report fatigue, diminished physical capacity, and declining quality of life. There is growing evidence that exercise programmes can increase physical fitness, reduce fatigue and improve quality of life (QOL) during and after treatment. Women with breast cancer represent the largest group of patients having participated in exercise studies. Very few studies investigated the potential impact of exercise on oncological or haematological cancer patients with mixed diagnoses, who were undergoing cytostatic treatment. Low to moderate exercise interventions of varying durations appear to be the standard across existing studies. Predominantly, studies have examined the effects of a single activity, e.g. cardiovascular training on stationary bicycles, rather than resistance exercise as the exercise modality. The aim of the present study was to investigate the impact of a multidimensional exercise intervention focusing on physical capacity; one repetition maximum (1RM) and maximum oxygen uptake (VO_2Max), activity level, general well being and QOL in cancer patients undergoing chemotherapy. The intervention comprised: resistance and fitness training, massage, relaxation and body-awareness training. Eighty-two cancer patients, with or without evidence of residual disease, were included: sixty-six patients with 13 different types of solid tumours, and 16 patients with 6 types of haematological malignancies. The patients trained in mixed groups for 9 h weekly for 6 weeks. Physical capacity, physical activity level and psychosocial well-being as measured by the MOS 36-item Short-Form Health Survey (SF-36) and the European Organization for Research and Treatment of Cancer Quality of Life Questionnaire C30 (EORTC QLQ-C30) were assessed pre- and post intervention. Highly significant increases were achieved in muscular strength ($p < 0.001$), physical fitness ($p < 0.001$), and physical activity levels ($p < 0.001$). The patients reported significant reduction in treatment related symptoms i.e. fatigue ($p = 0.006$) and pain ($p = 0.03$). Highly significant improvements were observed in physical functioning ($p < 0.001$) and role functioning ($p < 0.001$). Even patients with advanced disease were able to improve their results after six weeks. This study indicates significant, clinical meaningful improvements. A clinically controlled trial including 250 patients with mixed diagnoses and who are undergoing chemotherapy is concurrently being carried out.

Poster session
Symptoms and improvement in clinical practice

1529 POSTER

A meta-analysis of exercise interventions among people treated for cancer

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Background & Purpose: Research examining the effects of exercise among cancer patients has expanded dramatically in the last decade, and with that expansion comes the need to synthesize and integrate the research findings. This review applied meta-analytic procedures to integrate primary research findings that tested exercise interventions among people treated for cancer.
Methods: Extensive literature searching strategies located published and unpublished intervention studies that tested center- or home-based exercise interventions with at least 5 adult participants. Primary study results were coded. A standardized mean difference effect size (ES) was calculated for each comparison on each available outcome and adjusted for small-sample bias. Larger samples were given more influence in estimates and tests by weighting each ES by the inverse of its sampling variance. The overall analysis was carried out using both the fixed- and random-effects models. Fixed-effects moderator analyses compared the amount of ES variability among levels of a study-level moderator with the amount of variability in observed ESs that would be expected by subject-level sampling error alone. Single-group pre-post design studies were analyzed