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

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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

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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