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POSTER

SignGuideOncology: a unique patient information system!

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Introduction: This new information system, a flip chart, is a practical tool for use during education sessions about chemo-immunotherapy. The goal is to improve the education and instruction for oncology patients. The SignGuideOncology (SGO) makes it possible to learn about a treatment's side effects in a clear and vivid way and works with the aid of pictogrammes. In addition, it helps nurses communicate information comprehensively and clearly. The target group is elderly patients and/or patients with limited reading skills and/or visually oriented patients who are being given information and instructions about the treatment.

Approach: The development of the SGO logically follows the 'Cancer and Therapy' flip chart presented at ECCO 13 in Paris. It was agreed at the conference that the flip chart model offered increased visual support regarding the side effects resulting from treatment. Patients indicated that this type of visual support leads to a better understanding of the information. This response ultimately led to the creation of the SGO.

Outcome: A practical visual aid. The side effects are grouped by means of clear pictogrammes. This makes it easier for patients to remember the information. In addition to the pictogrammes, key words are also displayed that summarize the most important points. The pages have an uncomplicated layout using three main colors:

- Blue provides information about the subject.
 - Red displays the pictogrammes and signs related to the side effect in question and clearly explains what patients should be on the alert for.
 - Green displays suitable actions and advices to be taken.
- The back of each flip chart page provides clear and comprehensive instructions for nurses.

Follow up: The SGO is currently being tested in practice and modules are being developed about pain, hormonal therapy and radiotherapy. In addition, the possibility of marketing the SGO outside the Netherlands is being explored. The SGO is a unique patient information system and is fulfilling a need!

Poster Session**Symptom and rehabilitation**

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POSTER

Effects of aerobic exercise on nutritional symptoms and body composition in women with breast cancer during and after chemotherapy

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Although the effects of aerobic exercise on quality of life have been widely studied in women with breast cancer, few studies have examined nutritional symptoms and body composition outcomes. The purpose of this single-blind randomized clinical trial was to determine the effects of tailored, 5-days/week aerobic exercise on nutritional symptoms and body composition during and after chemotherapy in women with stage I-IIIa breast cancer. Women were randomly assigned to exercise during and after chemotherapy, after chemotherapy only, or not exercise. Research questions were: (1) what was the frequency and severity of nutritional symptoms experienced during and after chemotherapy, and (2) what was the relationship of nutritional symptoms with body composition? Hypotheses were: (1) women who exercised during and/or after chemotherapy reported fewer and less severe nutritional symptoms than those who did not exercise controlling for baseline nutritional symptoms, and (2) women who exercised during and/or after chemotherapy had better body composition than those in other groups, controlling for baseline measure. Symptoms were measured by an 11-point Likert scale. Weight and height were measured using one balance beam scale and stadiometer. Percent body fat and lean body mass were measured with Dual Energy X-ray Absorptiometry. Bio- and psychometric properties of all measures are well established. The sample included 101 women whose average age was 49.9 years (SD=9.6). 70% were married or partnered, 76% were white, most had graduated from college, and most had incomes \geq \$50,000. 85% received adriamycin/cytosine chemotherapy, and 56% also received radiotherapy. 37-43% had mild taste changes, nausea, constipation, and anorexia at baseline and end of treatment, but these diminished post treatment. There were no significant correlations of

nutritional symptoms with nutritional status indicators. No group differences were found in the total symptoms or symptom severity. Women who exercised during and after chemotherapy had significantly lower body weights than those in other groups when baseline weight was controlled. These findings are important because there is strong evidence that breast cancer recurrence may be associated with overweight and obesity, and aerobic exercise may reduce the weight gain that many women with breast cancer experience. Future studies should test effects of resistance exercise to improve lean body mass.

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POSTER

Health-related quality of life among postmenopausal women with breast cancer during adjuvant treatment: symptom experience and predictors for global health/quality of life

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Background: A descriptive study with a correlational, predictive and longitudinal design with the aim to characterize Health-Related Quality of Life (HRQoL), symptom experience, and predictors for Global Health/Quality of Life (GH/QoL) over time for newly diagnosed postmenopausal breast cancer patients receiving adjuvant treatments, at two university hospitals and one county hospital in Sweden.

150 postmenopausal women (\geq 55 years of age) scheduled for adjuvant chemotherapy treatment (CT, n=75) or radiotherapy treatment (RT, n=75) for breast cancer were included.

Material and Methods: The EORTC-QLQ-C30, BR23, HADS were administered during the week prior to treatment and either one week after the first, third, and last CT cycles or 3 weeks into RT treatment and 2 weeks post RT. Differences over time for severity of symptoms and HRQoL were tested. The predictive value of demographic variables and symptoms at baseline was also tested.

Results: Women receiving CT experienced decreased social and cognitive function, increased depression, hair loss and appetite loss over time. Women receiving RT experienced increased arm and breast symptoms. Predictors for GH/QoL after completed CT treatment were pain and emotional function at baseline. For RT, the predictors were breast symptoms, physical and emotional function, and tumour stage.

Conclusion: Generally, HRQoL deteriorated over time from the adjuvant treatments. Baseline emotional function was an independent predictor for post-treatment GH/QoL in both CT and RT. In women with CT, social and cognitive function, pain and psychological experiences also predicted HRQoL and GH/QoL over time. In women receiving RT, predictors included problems associated with more localized symptoms (arm and breast symptoms), physical function and tumour stage together with emotional function.

Clinicians should take into account the different patterns of symptoms associated with adjuvant treatments over time in postmenopausal women. A better understanding of baseline predictors for GH/QoL after completed CT or RT should help clinicians to anticipate and intervene more effectively to prevent decreased GH/QoL in this population.

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POSTER

Permanent Pleurx catheters for recurrent malignant pleural effusion

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Background: Symptoms elicited by malignant pleural effusion frequently are a reason for hospitalization. Standard care consists of chest tube drainage and pleurodesis. However, patients with protracted effusion or a trapped lung cannot efficiently be palliated by these procedures. In these cases tunneled catheters for long-term pleural drainage (Pleurx, Denver Biomaterials) have been introduced for palliation and initial reports have shown a high rate of symptomatic relief and a low complication rate. We report the results of a prospective evaluation of the Pleurx system.

Material and Methods: Patients who had failed the treatment with standard pleural drainage received oral and written information on the Pleurx system. The system was placed in accordance to the standard guidelines and follow-up of the patients was weekly for 2 weeks and monthly thereafter.

Results: From July 2003 until January 2007 56 patients (18 breast cancer, 10 lung cancer, and 28 other malignancies), all with recurrent malignant pleural effusion were informed on the Pleurx procedure. In 32 of them this catheter was eventually chosen as the best option for palliation. The main reason withholding the Pleurx was rapid tumor progression and/or clinical deterioration. Satisfactory palliation of symptoms was obtained in

25 patients (80%). The Pleurx was in situ for a period of time of only a few days up to 10 months. In 3 patients long term drainage resulted in a cease of effusion. In these cases the Pleurx could be removed easily. Three patients developed infectious complications. In two cases this was the result of non-sterile handling of the drain by the patient at home. In one case a neglected infection of the catheter port must have been the cause of the empyema.

Conclusions: The Pleurx system efficiently palliated recurrent pleural effusions in a majority of patients. Attention should be paid to careful patient selection and the prevention of infectious complications. The implantation of a permanent pleural catheter increases quality of life. Although the optimal timing of insertion of an indwelling pleural catheter is not known yet, we think that implantation of this catheter could even be considered as first line treatment of malignant pleural effusions in selected cases.

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POSTER

Lymphedema prevention and management with Phallus impudicus: six-years survey after breast cancer treatment

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Background: Lymphedema following mastectomy with removal of the axilla and postoperative radiation of the axilla is a frequent and extremely stressful complication. Sometimes lymphedema doesn't show up until years after cancer treatment has taken place. There is still no universally effective remedy for lymphedema. Based on the experience with the therapy for the post-thrombotic syndrome we propose the treatment effect of Phallus impudicus (PI) in prevention of lymphedema.

Methods: In present comparative study 214 women undergoing mastectomy with removal of the axilla and postoperative radiation of the axilla were preventively treated over a period of two years and follow up for 6 years. PI was used in dose 20 ml/day in liquid extract and additionally applied to the arm in the form of ointment 2 times/day. In patients who had developed a lymphedema of the arm the duration of management was 9–12 months. The pre- and post-treatment volumetric measurements were compared, and the correlation with age, body mass index, and type of surgery, chemotherapy, and radiotherapy was determined.

Results: 92% of the afflicted women with PI prevention developed no lymphedema during an observation period of six years. In the control group, however, only 59% developed no lymphedema. An improvement in the clinical findings and in the subjective feeling of well-being was observed in 88% patients with developed lymphedema. The mean pretreatment volume of the affected and normal arms was 2832 and 2420 mL. Volume of the affected arm was 2580 mL after 9 months of treatment and 2455 after 12 months. The absolute volume of the affected arm was reduced by a mean of 377 mL ($p < 0.0001$). The indurated, painful swelling of the upper and lower arm which was observed at the start of the therapy was seen to improve. The patients described the treatment as being a pleasant relief.

Conclusions: PI could be considered as a remedy for lymphedema prevention. The results, also suggest a beneficial activity of PI at the usual dose of two 20 ml/day liquid and topical ointment in patients affected with lymphedema. PI could relieve the symptoms of a persistent lymphatic obstruction. The mechanism of action of PI extract maybe explained by cytokines and inflammatory-relevant adhesion molecules regulation, exudates viscosity reduction, recanalization of obstructive lymphatic vessels, decrease of internal pressure in the tissues and volume of the arm.

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POSTER

An inductive study of the most distressing concerns and relation to EORTC QLQ C-30+LC13 among women and men with inoperable lung cancer during one year post diagnosis

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Background: Patients with lung cancer (LC) experience many distressing concerns. Methods to assess those issues are therefore important in palliative care. Standardized questionnaires are one commonly used method predetermined item reflect clinicians' and researchers' perspective of important issues, but even other important issues may exist for patients. The aim of this study is therefore to examine (1) what women and men with inoperable LC spontaneously report as most distressing at six time points post diagnosis; (2) to what extent the most distressing concerns are included in one common quality of life cancer specific instrument, EORTC QLQ-C30+LC13 and its lung specific module, LC13; and, (3) at which intensity level symptoms and problems are said to be distressing for these patients.

Materials and Methods: Data has been collected from 400 patients with inoperable LC recruited close to time of diagnosis through the lung

medicine departments of two university hospitals in Stockholm region. The patients were asked to respond to an open inductive question "What do you find most distressing at present?" and also to complete EORTC QLQ C-30+LC13. Data were collected close to diagnosis and prior to treatment (T1), two weeks after T1, one, three, six and twelve months after T1.

Preliminary results: Fifteen categories of distressing concerns were identified, which were constructed under three dimensions: bodily distress, psychosocial distress, and iatrogenic distress. Distress associated with the body comprised the majority of the issues reported and increased steadily during the first year. Psychosocial distress decreased over time following one year later. Iatrogenic distress that is, distress caused by contact with the health care system was also found. Analysis of which of the reported concerns to be the most distressing are assessed by the EORTC QLQ C30+LC13 ongoing and will be presented at the conference. Analysis based on a sub-sample from this study show that items included in the EORTC QLQ C-30+LC13 not always are adequate to assess patients' distress.

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POSTER

Physical exercising program decreases fatigue in cancer patients

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Background: Cancer patients with metastatic disease suffer often from fatigue due to anticancer treatment or due to the disease itself and it has been shown that fatigue has an important impact on quality-of-life (QoL). In the ZNA Middelheim, several interventional programs have been developed to deal with fatigue in this group of patients.

Methods: The medical and nursing staff, together with the 'Vlaamse Liga tegen Kanker' and a pharmaceutical firm developed a teaching program to inform patients about the problem of cancer-related fatigue and practical tips to deal with this symptom. Furthermore an exercising program consisting of aqua-gym and fitness was offered to the patients. Patients were evaluated by the FACT-F before the start of the program and a selection completed the FACT-F before and after the program. Patients included in the program were receiving chemotherapy in adjuvant setting or for metastatic disease.

Results: From September 2004 till January 2007, 150 patients participated in the teaching program and 94 in the exercising program. The initial FACT-F was completed by 55 patients and 20 patients completed the FACT-F before and after the program. At the start of the program, 24% of patients complained of lack of energy; 24–36% mentioned social problems; 16–53% registered emotional problems; and 38–72% had functional problems. In the 20 patients completing both questionnaires, there was a decrease in fatigue.

Conclusion: Many cancer patients complain of lack of energy, psychosocial and functional problems. An exercising program may decrease the fatigue and should be offered to all patients with cancer-related fatigue.

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POSTER

Care continuity after discharge from the Breast Surgery Division

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Objective: To ensure appropriate and continuing care in the out-patient ward by improving the Unit. In 2004, 3268 operations were performed by the Unit. Returning to their homes is a particularly critical moment for patients. From interviews and telephone calls, it emerged that post-discharge care was lacking and inadequate to patients' requests. There is a need to improve the Service by offering patients care continuity and reassurance.

Materials and Methods:

- 2 dedicated nurses were after a period of training
- An informative booklet with all FAQs (Frequently Asked Questions)
- A computerized clinical report was created
- A phone line dedicated to patients discharged from the Unit was activated
- An existing multidisciplinary database for breast cancer patients was modified
- A support "web" of IEO-accredited centers all over Italy was created
- A database was created to monitor wound infections
- An informative leaflet on hormonal therapy was created