Conclusion: The patient's perception of a "cancer diagnosis" was associated with the very prospect of a mastectomy – a more disruptive operation – rather than their actual prognosis, or their age. It is conceivable that similar perceptions exist in other cancer patients, and these findings could have wide implications for the management of their psychological well being.

The full manuscript has been submitted for publication.

147 Poster Discussion

Prophylactic bilateral salpingo-oophorectomy (PBSO) with or without prophylactic bilateral mastectomy (PBM) or no intervention in BRCA1 mutation carriers. A cost-effectiveness analysis

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Background: Women with germline BRCA1 mutation have a significant risk of breast and/or ovarian cancer. Prophylactic bilateral mastectomy (PBM) and prophylactic bilateral salpingo-oophorectomy (PBSO) prevent cancer in mutation carriers.

Material and Methods: The cost-effectiveness of PBSO (age of 35 years) with or without PBM five years earlier was compared to a no intervention setting employing a marginal cost analysis. Norwegian data on cancer incidence, mortality rates and costs were implemented in a Markov model and PBSO was assumed to reduce the risk of ovarian cancer by 90%. A 3% discount rate was used.

Results: The additional health care cost per mutation carrier undergoing PBSO and PBM was €15,784 and 6.4 discounted life years gained (LYG) was indicated (PBSO alone with 100% acceptance 3.1 LYG). The additional cost per LYG was €1,973 (PBSO alone €1,749/LYG). Including all resource use, the figure was a cost of €496 and €1,284 per LYG, respectively.

Conclusion: PBSO with or without PBM in BRCA1 mutation carriers is cost-effective. A testing of all incident breast cancers to identify mutation carrying families should be explored on a health economic basis.

148 Poster Discussion

Patient–physician interactions during early breast-cancer treatment: results from an international online survey

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Background: Patient care extends beyond clinical outcomes, covering side effects, patients' confidence in their physician, and 'negative' patient–physician interactions (eg telling a patient her cancer has recurred). This international survey examined the impact of positive and negative interactions on patients with early breast cancer (EBC) and breast-cancer physicians.

Material and Methods: The survey was conducted online in two parts: 1) postmenopausal women diagnosed with EBC in the past 5 years, who had undergone breast-cancer surgery; 2) breast-cancer physicians (oncologist/gynaecologist/surgeon), depending on the healthcare setting for each country (US, UK, Germany, Italy and France). The survey covered several issues: patient–physician interactions, sources of information and EBC treatment.

Results: In total, 462 physicians and 600 patients were surveyed. In terms of physician–patient dynamics, 86.6% of physicians considered the most rewarding part of their job to be having a good relationship with their patient. Although 61.2% were satisfied with the consultation time (13−22 min), 30.2% did not believe it was sufficient. Indeed, 53.8% of patients indicated that they would prefer more time to ask questions. Patients reported that their physician was a primary source of information, with 81.4% of patients trusting their physician to recommend the best treatment and 79.6% indicating trust in the physician was a vital part of their care. Most physicians (90.2%) indicated that patients trusted them to give the best treatment but only 40.0% involved patients in decision-making. Physicians (72.2%) felt that telling a patient she has EBC was easier than talking about recurrence; 37.2% reported telling a patient her cancer has recurred is the most stressful part of their job. Many physicians (92.4%) rated clinical data as crucial for building trust; 72.4% believed that treatments that minimise recurrence result in more positive conversations. Of the physicians surveyed, 76.0% would recommend anastrozole as adjuvant therapy for themselves or their family.

Conclusions: This survey reveals some disparities in the views of physicians and patients; however, a strong patient–physician relationship is highly valued by both. Patients should have access to accurate information and sufficient time to discuss their concerns. Effective and well-tolerated treatments minimise breast-cancer recurrence and increase the number of positive physician–patient interactions.

149 Poster Discussion

Very low risk for subsequent breast cancer in BRCA1/2 carriers after prophylactic mastectomy

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Background: BRCA1/2 gene mutation carriers are at high life time risk to develop a first and contralateral breast cancer. These carriers increasingly consider prophylactic mastectomy to reduce their high risk, in stead of choosing intensive surveillance.

Patients and methods: Starting in 1995 a consecutive series of carriers who had uni- or bilateral prophylactic mastectomy after one or more surveillance rounds were analyzed. Most recent imaging had to be within six months of the prophylactic operation. Standard procedure was skin sparing mastectomy with immediate reconstruction by means of an implant in the majority of the women. Random samples of all removed breasts were microscopically analyzed; only (pre)-malignant lesions were registered.

Results: Are described in the table. The single occult infiltrating breast cancer detected was in stage pT1aN0. The patient is well after two years of follow-up.

Characteristics at prophylactic mastectomy	BRCA1 carriers N = 179	BRCA2 carriers N = 72
Prior breast cancer, N (%)	83 (46)	28 (39)
Mean age ± SD		
Asymptomatic (bilat)	37.3±8.5 yrs	39.4±7.2 yrs
Symptomatic (unilat)	41.3±8.6 yrs	44.1±8.1 yrs
Pathology: DCIS, N (%)	7 (4)	5 (7)
IDC, N (%)	–	1 (1.4)
LCIS	1	1
Follow-up time	1027 women years	254 women years

In the follow-up only one of the 251 (0.4%) carriers was diagnosed with a pT1cN1 breast cancer in the incompletely removed axillary tail two years after prophylactic mastectomy. Six years after treatment she is free of disease.

Conclusions: Uni- or bilateral prophylactic mastectomy is highly effective in preventing breast cancer in BRCA1/2 carriers. Since the remaining risk is less than 1% continued surveillance is not warranted.

Wednesday, 16 April 2008 12:30–14:30

POSTER SESSION

Psychosocial aspects

150 Poster

The Distress Thermometer assessed in women at risk of developing hereditary breast cancer (HBC)

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Background: The Distress Thermometer (DT; ã National Comprehensive Cancer Network, USA), is a short and promising instrument to get insight into the distress experienced by cancer patients.

Methods: At the Family Cancer Clinic of our hospital the Dutch modified DT (a horizontal numeric scale ranging from zero (no distress) to ten (unbearable distress), and an adapted version of the problem list, was completed by 100 women at increased risk of developing BC due to a genetic/familial predisposition (mean age 45.5 years; range: 22 to 75). Additionally, the women randomly filled in either the Hospital Anxiety and Depression Scale (HADS) as psychological component (n = 48) or the somatic subscale of the Symptom Checklist-90 (SCL-90) as physical component (n = 50) to identify whether the DT-score is determined by mood and/or somatic complaints. Further, the women filled in an evaluation form.

Results: The median score on the DT was 2 (range: 0 to 9). Nineteen percent scored above the DT cut off score (i.e. had a score $\geqslant 5$). The mean score for anxiety (HADS) was 4.4 (sd = 2.8), for depression (HADS) 1.9 (sd = 2.6) and for the somatic subscale of the SCL-90 17.2 (sd = 5.3). Differences between women scoring below and above the cut off score for anxiety, depression and somatic complaints were significant. With regression analysis adjusted for age, the contribution of mood and somatic complaints, respectively, were investigated. The standardized regression coefficient for anxiety was 0.32 (ns), for depression 0.14 (ns) and for the somatic subscale 0.49 ($p < 0.001$). The explained variance for anxiety and depression was 16%, and for somatic complaints 24%. The differences between the standardized coefficients were not significant. By means of the problem list the DT scores were clarified and attributed to the increased risk of cancer (47%), concern about the result of the surveillance appointment (36%), sleep disturbances (31%), and fatigue (31%). The evaluation form was filled in by 73 women; the physician had discussed the DT in 50% of these women, which was appreciated by 80% of them. 62% Would recommend the use of the DT for other patients.

Conclusion: The use of the DT/problem list seems promising for the current population, and was appreciated by the majority of the women. Since mood and somatic complaints did not differ significantly in explaining the experienced distress, other candidate factors need to be examined.

151 Poster

A study to identify which factors influences whether a patient chooses to enter a randomised clinical trial and to identify differences between patients' and their partners'/supporters'perception of these factors

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Much research has been done to look at factors that may increase patient recruitment to clinical trials and the barriers to their participation. These factors have been explored largely from the perspective of the patient and the doctor, little research has been done which involves partners/supporters. The aim of this study was to identify which factors influence whether a patient chooses to enter a randomised clinical trial and to identify differences between patients and their partners'/supporters' perception of these factors.

This study has measured the opinions, influences on and level of understanding of patients and their partners/supporters recently offered a clinical trial in a North London Cancer Center. A cross sectional survey approach was used. An existing questionnaire by Wright et al (2006) was used and modified for partners/supporters. Data were collected from 118 questionnaires completed by patients' and their partners'/supporter'. The main statistical tests used in the study were chi-squared test to determine which factors correlated with the patients decision to enter the trial. Paired t tests and chi-squared were used to compare differences between patients and their partners/supporters. Finally odds ratio analysis were performed on the significant factors found.

Analysis of the data has revealed that influences on patients included the importance of altruism as well as personal benefits and having sufficient time in which to make a decision on whether to participate in a clinical trial.This study has shown that the nurse helped the patient make the decision regarding trial entry rather than the doctor as previously found in the literature. This is the first study to try to explore the opinions, influences and understanding of partners/supporters in relation to recruitment to randomised clinical trials. This study has shown the characteristics of the partner/supporter who has been positively influential in the patients' decision to enter into a clinical trial are that they generally favour clinical trials and see the benefits that the trial might bring to the patient. They need sufficient information, especially around potential side effects and time to allow them to help the decision making of the patient but, at the same time, they realise that the decision is a difficult one for the patient to make.

Implications for practice are that patients and partners/supporters need to have enough information and time with the doctors and nurses and the benefits of the trial need to be clearly explained. Partners/supporters should be encouraged to attend all consultations and be supported through the whole trial process.

152 Poster

Health status in breast cancer patients is influenced by trait anxiety and type of operation

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Aim: Since incidence rates of breast cancer are still increasing and mortality is still decreasing, more and more women are survivors of breast cancer. This makes research into health status and quality of life of these women increasingly important. The aim of this study was to examine the role of anxiety and type of operation in health status of breast cancer patients.

Method: The women that participated in this study, visited the department of Surgery of the St. Elisabeth, Maasland or Jeroen Bosch hospital, the Netherlands, because of breast complaints. At their first visit, before diagnosis, they completed an anxiety questionnaire (State-Trait Anxiety Inventory). One, 3, 6 and 12 months after their breast cancer operation, they completed the European Organisation for Research and Treatment of Cancer Quality of Life Questionnaire Breast Cancer module (EORTC QLQ-BR23), a disease-specific health status measure. The EORTC QLQ-BR23 measures the following domains: Arm symptoms, Breast symptoms, Systemic therapy side effects, Upset by hair loss, Body Image, Sexual functioning, Sexual enjoyment and Future perspective. All patients could choose between breast conserving therapy (BCT) or a modified radical mastectomy (MRM).

Results: The ANOVA for repeated measures shows that there is a significant main effect of time in Body image ($p < 0.001$), Systemic therapy side effects ($p = 0.006$) and Breast symptoms ($p = 0.004$) 12 months after surgery.

There is a significant difference in Body image ($p = 0.012$), Future perspective ($p < 0.001$), Sexual functioning ($p = 0.013$) and Systemic therapy side effects ($p = 0.009$) between patients high on trait anxiety and patients not high on trait anxiety in the 12 months after surgery. In addition, a significant difference is found for Body image ($p = 0.007$) and Breast symptoms ($p = 0.000$) between patients who had a BCT and patients who had a MRM. Furthermore, there is an interaction-effect between time and trait anxiety for Body image ($p = 0.029$) and Future perspective ($p = 0.002$) and an interaction-effect between time and type of surgery for Breast symptoms ($p = 0.025$).

Conclusion: Breast cancer patients who score high on trait anxiety, experience significantly more problems with Body image, Future perspective, Sexual functioning and Systemic therapy side effects in the first year after breast cancer surgery than patients that do not score high on trait anxiety. Moreover, patients who underwent BCT had significantly more Breast problems than patients that had a MRM.

153 Poster

The inner representation of illness and its influence on the decision making in breast cancer patients

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Background: The decision making is very important part of the treatment and disease experience in breast cancer patients. The decision making process is supposed to be equal in different individuals. However the individual personal features and actual possibilities of the brain functioning (including geriatric specific) influence a lot on the inner representation of illness. The inner representation of the illness has four levels: sensual, emotional, cognitive and motivational. The predominance of one of the levels is the result of the individual's psychological type of the character. The decision making regarding treatment process is based on the inner representation of the illness and needs different medical professional approaches in patients with different types of the character.

Patients and Methods: In the group of 100 breast cancer patients oncologist discussed the suggested methods of treatments: the description of the method, prognosis, side effects, quality of the life and social adaptation during and after treatment. All the patients were examined regarding their individual psychological type (MMPI, psycho-semantic test). 4 blocks of the sources were used in order to help patient to imagine the method and it's expectable result: visual, verbal, verbal-logic presentations and dialog with the doctor with patient's self activities (drawings and questions, comments). The effectiveness of each method was estimated with the help of psychologist.

Results: The 65% of the patients, who had the experience of the medical decision making before, told about the feeling of the more well-based and responsible decision with the help of the suggested sources The quantity