**25** Invited

**A Twenty Year Survivor's Perspective**

I. Kössler[1]. [1]*Swedish Breast Cancer Association − BRO, Box 1386, Sundbyberg, Sweden*

Any patient who has heard the words 'You have cancer' will probably be able to remember that moment for the rest of her life. Because cancer still is such a terrifying diagnosis, most patients panic and believe that that their life is in danger and they are going to die from the disease. It is also a trauma for relatives and the family, when a member of the family is diagnosed with cancer. The emotional reactions in spouses, children, siblings and parents can be just as strong and painful as in the patients. This presentation is about the journey from cancer diagnose, operation, treatment and recovery to a new established life.

23 years ago there was a huge lack in knowledge about breast cancer, diagnose, prognosis and treatment options. Patients were not expected to take part in decision making and patient empowerment was not common. Deciding on a particular treatment is as much a personal matter for patients as it is a medical one. As advocates within patient organisations, we believe that well-informed patients get better care and are more satisfied with treatment.

Cancer causes changes. When you are diagnosed with cancer you shift from being a person to being a patient. After operation and additional treatment you are expected to go back to normal life. Every cancer patient is well aware that end of treatment might not mean end of disease. No doctor can give you the assurance that treatment was effective and that you are cured. The realization that there is a risk of recurrence is a companion for many years. Every follow up visit and mammography is a vivid reminder of the threat of the cancer coming back.

After treatment a new phase is starting − the beginning of learning to live with the cancer experience. Give it time is a cliché often told to patients suffering from severe diseases. As time goes by and days run like sands through the hourglass you can gradually return to a more normal life again. The process of recovery is important in healing the person. The experience of cancer will help you to understand that you cannot take the future for granted. But it is wise to let time help to understand that there is life after cancer, even a life full of more hope and happiness than you ever expected.

## Wednesday, 21 March 2012 17:30–18:30

**PROFFERED PAPER**

# Screening

**26** Proffered paper oral

**20 Years Nation-wide Breast Cancer Screening in the Netherlands**

J. Fracheboud[1], S.J. Otto[1], M.J.M. Broeders[2], J.D. Otten[2], R. de Gelder[1], E.A.M. Heijnsdijk[1], A.E. de Bruijn[1], A.L.M. Verbeek[2], G.J. den Heeten[3], H.J. de Koning[1]. [1]*Erasmus M.C., Public Health, Rotterdam, The Netherlands;* [2]*Radboud University Nijmegen Medical Centre, Epidemiology and Biostatistics, Nijmegen, The Netherlands;* [3]*National Expert and Training Centre for Breast cancer screening, Nijmegen, The Netherlands*

**Background:** The Dutch population-based mammography breast cancer screening programme (BCSP) that started in 1989 knew three stages: (a) the implementation for women aged 50−69 years (1989–1997), (b) the extension up to age 75 (1998–2003), and (c) the transition from film screen to digital mammography (2004–2010). The BCSP has been monitored annually by the NETB with regard to effects and costs. We present the main results of one of the longest running national breast cancer service screening programmes.

**Material and Methods:** We used regional aggregated data for screening outcomes (completeness of follow-up 98.3%), data on interval cancers, breast cancer incidence and treatment by mode of detection after linkage of screened womens' files to the Netherlands Cancer Registry, data on mortality from Statistics Netherlands, and data on costs from the Center for Population Screening (RIVM), that co-ordinates the BCSP.

**Results:** In the period 1990–2009, 16.6 million invitations were sent to 3.6 million women. Overall attendance was 80.0%, increasing from 73.5% in 1990 to 81.5% in 2009. In the same period, 13.2 million screening examinations were performed among 2.9 million women (average 4.6 examinations per woman), resulting in 178,490 (1.35%) referral recommendations, 95.757 (0.72%) needle or open biopsies and 66.562 (0.50%) breast cancer diagnoses. The cumulative risk of a false-positive result after 10 screens was 6.0% for a woman who was 50 in 1990. Of all screen-detected breast cancers was 14.6% a DCIS and 49.9% a small (T1) node negative invasive tumour. Up to 2005, the programme sensitivity was 74.3% for initial and 67.6% for subsequent screens, and the programme specificity 99.0% and 99.4%, respectively. The mean annual total cost was €32.6 million (51.7 million in 2009), and the mean cost per examination €49.39 (55.65 in 2009). Compared with the prescreening period 1986–1988, breast cancer mortality among women aged 50−75 years decreased by 31.3% in 2009. We found a significant breast cancer mortality change from +0.3% increase annually to −1.7% decrease in targeted women related to the start of screening, that coincided with a significant decrease in advanced breast cancer rates. Overdiagnosis was limited: 2.8% of all and 8.9% of screen-detected breast cancers.

**Conclusions:** After 20 years, the acceptance and the screening performance of the BCSP are high. The BCSP contributed considerably to a reduced breast cancer mortality at limited harms and at reasonable costs.

**27** Proffered paper oral

**Cost-effectiveness of Screening with Additional MRI for Women with Familial Risk for Breast Cancer Without a Genetic Predisposition**

S. Saadatmand[1], M.M.A. Tilanus-Linthorst[1], E.J.T. Rutgers[2], N. Hoogerbrugge[3], J.C. Oosterwijk[4], R.A.E.M. Tollenaar[5], M. Hooning[6], I.M. Obdeijn[7], E.A.M. Heijnsdijk[8], H.J. de Koning[8]. [1]*Erasmus MC, Surgery, Rotterdam, The Netherlands;* [2]*Netherlands Cancer Institute-Antoni van Leeuwenhoek Hospital, Surgery, Amsterdam, The Netherlands;* [3]*Radboud University Medical Centre, Medical Oncology, Nijmegen, The Netherlands;* [4]*University Medical Centre Groningen, Medical Genetics, Groningen, The Netherlands;* [5]*Leiden University Medical Centre, Surgery, Leiden, The Netherlands;* [6]*Erasmus MC, Medical Oncology, Rotterdam, The Netherlands;* [7]*Erasmus MC, Radiology, Rotterdam, The Netherlands;* [8]*Erasmus MC, Public Health, Rotterdam, The Netherlands*

**Background:** Women with a family history of breast cancer start screening with mammography at a younger age than standard population screening age to reduce mortality risk. Adding Magnetic Resonance Imaging (MRI) strongly increases sensitivity compared with mammography alone. Yearly screening with MRI is cost-effective for women with a (50% likelihood of carrying) BRCA1/2 mutation. However, this is still not clear for women with a family history of breast cancer without a proven genetic predisposition.

**Materials and Methods:** Data from the Dutch MRI Screening Study (MRISC), the largest prospective cohort study including women in this risk group, were used for cost-effectiveness analysis. A total of 1597 women, with 8370 women years at risk, and an estimated cumulative lifetime risk (CLTR) of 15−50% for breast cancer were screened with clinical breast examination (CBE) every six months and annual mammography and MRI between ages 25−70 years. Costs per detected breast cancer were calculated. In addition these data were incorporated into a micro simulation screening analysis model: MISCAN. This model simulates screening programs with different screening modalities and time intervals and takes overdiagnosis into account.

**Results:** No metastases occurred at a median follow-up of 5 years in the 38 invasive (and 9 DCIS) breast cancers detected in the study. The costs per detected cancer by screening with CBE, mammography and MRI were about €103.380. Screening with this scheme from age 35 to 60 is predicted to reduce breast cancer mortality by 24% at a cost per life-year gained (LYG) of €30.404 (3% discounting). The estimated mortality reduction by screening with annual mammography and CBE is 20% at €10.269 cost per LYG. Effectiveness of other screening schemes will be presented.

**Conclusions:** Adding MRI to screening programs for all women with a CLTR of 15−50% for breast cancer is expensive. However, it may be cost-effective for a selective group. We will discuss subgroups that may benefit from MRI-screening. A multi-centre randomized controlled trial is currently performed in the Netherlands to answer this question.

**28** Proffered paper oral

**The Effects of Population-based Mammography Screening Starting Between Age 40 and 50 Compared to the Effects of Adjuvant Systemic Therapy**

R. de Gelder[1], E.A.M. Heijnsdijk[1], J. Fracheboud[1], G. Draisma[1], H.J. de Koning[1]. [1]*Erasmus MC, Public Health, Rotterdam, The Netherlands*

**Background:** Adjuvant systemic therapy has been shown to be effective in reducing breast cancer mortality. The additional effect of mammography screening in a situation in which an increasing number of patients receive adjuvant treatment remains uncertain, in particular for women aged 40−49 years. We assessed the effects of screening starting between age 40 and 50, as compared to the effects of adjuvant systemic therapy.

**Materials and Methods:** The use of adjuvant endocrine therapy, chemotherapy and the combination of endocrine- and chemotherapy, as