

E2. European Group for Breast Cancer Screening: breast cancer screening in Europe – current status

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Introduction

The European Group for Breast Cancer Screening was formed in 1982 with the aim of promoting the introduction of best practice in breast cancer screening throughout Europe. Population-based screening programmes are now established in many European countries and a large amount of data has been gathered as a result of the efficacy of breast cancer screening. However, there remains a significant number of countries where population screening is still not available. When there is very good evidence that breast cancer screening can reduce mortality in those that participate by more than 40% it remains important to explore the reasons why screening is not routinely available to women who may want to be screened.

Quality assurance guidelines

In an effort to promote high-quality standards for screening mammography the European Reference Centre (EUREF) was established more than 20 years ago to provide guidance on a Europe-wide basis on the requirements for high-quality mammographic screening. The EUREF Centre based in Nijmegen, the Netherlands, has produced guidelines on technical and performance aspects of breast cancer screening, and the fourth edition of these updated guidelines was published in 2004. The authorship of these guidelines is representative of expertise from across Europe. Dr Nicholas Perry, from St Bartholomew's Hospital in London, is the current editor. He will present an overview of the more important aspects of the guidelines, including the changes introduced in the latest edition. Particular emphasis is given to the need for high-quality mammography, and the fourth edition is supplemented by the first guidance on quality control aspects of full field digital mammography and computed radiography. These guidelines establish the minimum standards for breast screening performance, including pre-operative diagnosis and other aspects of breast pathology.

Screening programme design and results

To provide an overview of the different models of screening and the results of an experience of new and well-established screening programmes, there will be four short presentations from France, Italy, Germany and the United Kingdom (UK), delivered by national experts on breast cancer screening in these countries. There will be an opportunity for audience discussion on the performance of these different screening models in Europe.

Screening high-risk groups

Screening women at increased risk of breast cancer, particularly those in younger age groups, remains controversial. There have been a number of studies published recently that provide useful information about the efficacy of the various screening techniques that have been applied in the detection of breast cancer in higher-risk younger women. However, as yet there is little data on the effect of such detection on breast cancer mortality in this population. An overview of the results of screening in this situation is provided, on which current practice can be based.

Breast screening and over-diagnosis

Another aspect of breast cancer screening that remains controversial is the issue of over-diagnosis. Over-diagnosis is defined as the detection of breast cancer through screening that may never affect the life of the host and therefore may not have clinically presented. Over-diagnosis therefore results in the anxiety associated with a diagnosis of breast cancer and potential over-treatment of this type of disease. Again, evidence in this area is relatively sparse, but two internationally renowned experts in breast cancer screening with differing viewpoints on this aspect of screening will present their evidence and this will then be opened to debate. The issue of over-diagnosis is discussed in a separate abstract.

New mammography technology

Full field digital mammography is emerging as a technology that has considerable potential, particularly in breast cancer screening. The first afternoon session provides a detailed overview of current data and information about full field digital and computed radiography mammography. There is an overview of the design and performance of the various techniques of achieving digital acquisition of breast images, followed by reviews from UK and Italy on the logistical and clinical aspects of using this new technology in the screening setting.

Image guided biopsy of screen-detected disease

The programme includes a review of the most recent non-operative diagnostic techniques available for pre-operative diagnosis of screen-detected cancer and the role of ultrasound in breast cancer screening.

Staging, pathology and treatment of screen-detected breast cancer

Imaging has increasingly been used to stage screen-detected breast disease in an attempt to rationalise and influence treatment regimes. Staging of the axilla prior to treatment has been a quest for some time now and an update on the role of ultrasound and image guided biopsy in achieving axillary diagnoses is provided.

An update of the current aspects of pathology relevant to breast cancer screening is included in the programme, along with an overview of special techniques for the up-to-date surgical treatment of screen-detected breast cancer.