



## **POSITION STATEMENT**

### **Early Detection of Breast Cancer**

Mammography screening for women 50-69 is an effective way of reducing deaths from breast cancer. The Cancer Society recommends that women in this age group have screening mammograms every two years. Screening should be done by experienced professionals in a high quality service, which is linked to a high quality assessment service. Women, especially those over the age of 40, should also look and feel for breast changes. Although the Cancer Society does not recommend that women have regular breast checks by a doctor, a breast examination should be offered to women who are concerned about breast cancer, especially those over the age of 40.

### **Breast Cancer in New Zealand**

Breast cancer is the most common cancer (apart from non-melanoma skin cancer) and the leading cause of cancer death in women in New Zealand. In the late 1990s it accounted for a quarter of all registrations and a fifth of all female cancer deaths (Ministry of Health 2002). Each year in New Zealand about 1900 women are diagnosed with breast cancer and about 600 die of the disease. Despite epidemiological evidence of many possible risk factors for breast cancer, at this present there are no clear opportunities for prevention. However, early detection with treatment can reduce the risk of dying from breast cancer.

### **Mammography Screening**

Screening is the testing of people with no symptoms to identify early signs of disease. In 2002 the International Agency for Research on Cancer (IARC) of the World Health Organization convened an expert working group of 24 experts from 11 countries to assess the available evidence to date on breast cancer screening. The group concluded that:

- Screening trials over many years provide sufficient evidence that screening mammography offered to women 50-69 as part of an organised programme reduces deaths from breast cancer
- Women in this age group who are screened as part of an organised programme should reduce their risk of death from breast cancer by about 35%

- There is inadequate evidence regarding the benefit of screening for women under 40 or over 69 years (IARC 2002).

The IARC working group also concluded that there is limited evidence for a reduction in deaths among women who start screening between ages 40 and 49. According to the working group, the reduction in deaths, if real, is estimated at 19%. This could be less, however, depending on the extent to which it is due to screening of the women after they reach the age of 50 (IARC 2002). A large RCT involving 195,000 women between ages 40 and 49 is underway in Britain to address the length of time required for a benefit to emerge and whether the benefit arises from screening that occurs after women reach 50 (Moss 1999).

In accordance with the above evidence, the Cancer Society recommends mammography screening every two years for women 50 - 69 years. Screening should be done by experienced professionals in a high quality service. It should also be linked to a high quality assessment service for women in whom abnormalities are found. In New Zealand these screening and assessment services are available for women 50-64 years free of charge as part of Breast Screen Aotearoa, the national breast screening programme.

Because of limited evidence that mammography screening reduces breast cancer deaths in women 40-49 and of the potential risks, the Cancer Society does not recommend screening for women in this age group. The possible exceptions are women aged 40-49 years who have one or more of the following:

- A strong family history of breast cancer (that is, a mother or sister with premenopausal breast cancer or bilateral breast cancer)
- Previous breast cancer
- Breast histology (microscope examination of tissue from a biopsy) demonstrating an at risk lesion, e.g. atypical hyperplasia.

Although screening is not recommended for women in their 40's, each woman should be provided with information about the potential benefits and risks of screening and decide for herself whether to be screened. The potential benefits include earlier diagnosis and breast conserving surgery.

The potential risks, which are more likely in younger women, include:

- False positive results (abnormal mammograms in women who do not have cancer): These are estimated to be range from 1% to 10% of mammograms (IARC 2002) and could involve unnecessary biopsies and associated discomfort and anxiety<sup>1</sup>
- False negative results: breast cancers which are missed, possibly leading to false reassurance and a delay in treatment<sup>2</sup>
- Overdiagnosis: the detection (and unnecessary treatment) of breast cancers which might never have caused death or symptoms<sup>3</sup>

- Radiation induced breast cancer<sup>4</sup>

### **Recommendations of Others**

Countries, and organisations within countries, have different policies on the recommended age to begin mammography screening. BreastScreen Australia, a joint Commonwealth and State funded population-based screening programme, targets women aged 50-69. Although women under 50 can be screened as part of the national programme, women in this age group are not actively recruited to screening. Programmes in the United Kingdom, Finland and Canada begin screening women at age 50. While many Western countries have increased the upper age limit of the target age-range to 69 or 70 years, few have advocated reducing the age-range to women under 50.

### **Clinical Breast Examination**

The role of clinical breast examination (CBE) is clearly established in clinical practice for women with symptoms or those recalled with abnormalities detected through mammography screening (Members of the Breast Cancer Screening Policy Advisory Group 1998). It is also important for assessing suspect masses even if a mammogram is normal (Pruthi 2001).

The value of clinical breast examination alone as a screening technique in reducing breast cancer deaths has not been demonstrated in randomised controlled studies. Some studies have compared mammography and CBE with CBE alone to assess the effect of mammography over and above CBE.<sup>5</sup> One RCT showed similar rates of death from breast cancer in women screened by CBE alone and by a combination of CBE and mammography. The IARC working group concluded, however, that there is inadequate evidence that CBA, whether alone or in addition to screening mammography, can reduce deaths from breast cancer (IARC 2002).

In view of the inadequate evidence for the effectiveness of CBE in reducing mortality, the Cancer Society does not recommend that women have regular breast examinations. However, a breast examination should be offered to women without symptoms who are concerned about breast cancer, especially those over the age of 40. Women offered a CBE should be informed about its potential limitations.

## Breast Awareness

Many cancers are found by women themselves. There is a need to optimise the chances of women finding changes which could mean cancer and reporting them promptly to their doctors. One of the advantages of detecting smaller cancers is improving a woman's chances of having breast conserving surgery and reducing her chance of dying from breast cancer.

The Cancer Society recommends that women, especially those over the age of 40, regularly look and feel for breast changes. They should do this while washing or dressing, to become familiar with their breasts and how they change at different times of the month and with age. They should become aware of any changes from what is normal for them. This concept is known as "breast awareness" (Austoker 1994).

The Cancer Society advises women (and recommends that health professionals advise women) to:

- Know what is normal for them
- Look and feel for breast changes
- Know what changes to look and feel for
- Report changes without delay
- Attend for mammography screening if aged 50 and over.

Changes in the breast that may mean cancer:

- A new lump or thickening
- A change in breast shape or size
- Puckering or dimpling of the skin
- Any change in one nipple, such as a turned-in nipple or a discharge which persists without squeezing
- Lumpiness in one breast soon after the period ends
- Pain in the breast that is unusual.

For many years the Cancer Society, along with other health agencies, has advised women to practise monthly breast self-examination (BSE). BSE is a formal technique by which women feel for lumps and changes. Women are advised to lie down, with a folded pillow or towel under their shoulders, and examine their breasts in a set way.

There is suggestive evidence that women who practise BSE have smaller and more localised cancers than those who do not (Hill et al 1988). Because its effectiveness in reducing mortality from breast cancer is neither proven nor disproven, its role remains controversial (Vafiadis 1997).

Two randomized controlled trials of BSE designed to determine whether BSE reduces breast cancer deaths have been undertaken in China (Thomas et al 2002) and Russia (Semiglazov et al 1993). Final results in the former showed no reduction in breast cancer deaths among women instructed in BSE, although the lesions they detected were of a slightly smaller size. The authors concluded that programmes to encourage BSE in the absence of mammography would be unlikely to reduce deaths from breast

cancer. They also recommended that women who choose to practice BSE should be informed that its efficacy is unproven and that it may increase their chances of having a benign breast biopsy (Thomas et al 2002).

At present the Cancer Society emphasises the importance of “breast awareness” rather than promoting monthly BSE for the following reasons:

- There is no clear evidence that doing BSE will reduce a woman’s chances of dying from breast cancer
- There are barriers to women practising it regularly and competently
- BSE can lead to unnecessary anxiety and unnecessary medical investigations, particularly among younger women (Austoker 1994).

Focus group research in New Zealand found women are comfortable with the “get to know your breasts” message. Many admitted to not feeling confident doing BSE but more confident about doing ‘casual’ checks. The research concluded that the message of familiarity will encourage what women are already doing and hopefully give them confidence (O’Halloran and Kalafatellis 1996).

Breast cancer is uncommon in women under the age of 40, and a woman’s chance of developing breast cancer increases as she gets older. It is especially important for women over the age of 40 to regularly look and feel for breast changes. This is also important for women who have mammograms, as some cancers could be missed and others could develop in the interval between mammograms. All women who have symptoms of breast cancer should consult their doctor regardless of the results of recent mammograms.

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