

## Breast self examination

*Does not prevent deaths due to breast cancer, but breast awareness is still important*

A large well conducted randomised controlled trial from Shanghai shows conclusively that teaching women how to examine their breasts does not lead to a reduction in mortality due to breast cancer compared with no screening at all.<sup>1</sup> The findings should bring to an end more than decade of controversy and confusion in the United Kingdom concerning the efficacy and effectiveness of self examination of the breast.

In September 1991, in his retirement speech, Chief Medical Officer Sir Donald Acheson announced that breast self examination was not effective and may give a false sense of security. His remarks outraged women's health campaigners, fuelled by a media frenzy in favour of breast self examination that lasted several weeks. The introduction of a policy of breast awareness shortly afterwards only added to the confusion. Rather than ritually checking their breasts at a specific time each month according to a set technique, women were encouraged to take responsibility for their own health by taking convenient opportunities such as bathing or dressing to become familiar with their breasts at different times of the month and with age, looking and feeling for any changes from normal, and reporting any obvious changes promptly.<sup>2</sup>

Systematic breast self examination has been recommended for the past 70 years,<sup>3</sup> despite the lack of compelling evidence of its efficacy in reducing deaths from breast cancer. More than 30 non-randomised studies have produced conflicting results, not providing any strong evidence to support the practice of breast self examination.<sup>4</sup>

Programmes to support and encourage monthly breast self examination were first established in Europe, Australasia, and North America in the 1950s and implemented until recently. Surveys in many Western countries in the 1990s showed, however, that despite a high level of awareness about breast self examination only a small minority of women ever examined their breasts regularly.<sup>5</sup> The rates were low even among women doctors—only 21% of American female doctors reported examining their breasts monthly.<sup>6</sup> The reasons why most women do not examine their breasts are varied.<sup>7</sup> They include anxiety because of the possibility of eventually finding something suspicious, false reassurance when cancer is present, many false positive results (particularly among younger women), and, for many women who find benign lesions, being exposed to unnecessary anxiety and medical investigations with subsequent morbidity

and scarring.<sup>8</sup> The risk is also that women who have experienced one or more benign diagnoses may delay presentation of a further (possibly malignant) lump on the basis of their past experience.

To further the state of uncertainty, there has never been any consensus on what constitutes a competent self examination or how often it should be carried out. Most authorities have suggested that monthly examination is appropriate, but no evidence exists about the advantages of this arbitrarily chosen frequency, which was based on the menstrual cycle in spite of the fact that most women who develop breast cancer are postmenopausal.

Variation and inconsistency in suggested techniques of self examination have always been considerable. This has served only to confuse women. Some women have been reluctant to examine their own breasts because they have perceived the technique to be complicated and have had little confidence in their ability to do it correctly. The more numerous, complex, and unpleasant the manoeuvres required the less likely women are to remember or do them.<sup>9</sup>

The Shanghai trial provides high quality evidence of the lack of effect of teaching breast self examination. Between 1989 and 1991, 266 064 current and retired 30-64 year old female employees of the Shanghai textile industry bureau, working in 519 different factories, were randomised by factory to the group receiving instruction about breast self examination or to the control group. The intervention included intensive regular instruction both in groups and individually, with multiple reminders to examine their breasts, and reinforcement practice sessions every six months for five years. Follow up rates were high. No breast screening was offered to women in the control group.

The results after 10-11 years showed that the proportion of deaths due to breast cancer and the cumulative mortality were almost identical in both groups. Moreover, women in the breast self examination group had more breast biopsies and diagnoses of benign lesions, with the associated morbidity, than women in the control group. The numbers of women with breast cancer were similar in the two groups, and the cancers did not differ appreciably in size or stage. These findings confirmed the preliminary findings reported from a randomised trial of breast self examination in Russia in 1992.<sup>10</sup>

The results of the Shanghai trial should bring to an end a decade of confusion about what women should and should not be doing about breast self examination.

Although women no longer need to agonise if they cannot remember up to 34 steps of a systematic breast self examination procedure, or if they forget to do it at “the right time,” the importance of women continuing to be “breast aware” and reporting any unusual changes in their breasts to their general practitioner promptly cannot be overemphasised.<sup>11</sup> This could lead to a reduced delay in the presentation of any symptoms discovered by women themselves.<sup>12</sup>

In the meantime, those of us who have battled against the breast self examination lobby since 1991 can at last say, in the words of the editorial accompanying the publication of the Shanghai trial, that routinely teaching and doing breast self examination is dead.<sup>13</sup>

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## Using clinical databases in practice

### *Individualised prediction of survival for patients with cancer may be possible*

In the past decade clinical databases have become increasingly widely used in all industrialised countries. This has been accompanied by enhancements in their quality as a result of greater understanding of the requirements for scientific rigour and the availability of technology that can automate processes such as validity checking. Meanwhile recognition has been growing of the uses to which high quality clinical databases can be put—evaluative research, clinical audit, and managing services.<sup>1</sup> A further but less widely recognised application is that of helping patients, together with their practitioners, to make informed decisions about their clinical management.

An example of such an application is the use of a breast cancer database in Finland (p 29).<sup>2</sup> The Finprog study uses data on about 2000 women followed up for 10 years to enable an individualised prediction of survival for a new patient by matching her disease profile to that of many previous patients with breast cancer whose outcome is known. The patient and her practitioner can obtain a survival curve for the entire available follow up period, not simply an estimate for a single point in time. Such a system could be applied to any clinical database that includes accurate information on those characteristics of patients that affect clinical outcome.

Such a development could make a major contribution to the promotion of patient centred care and help make meaningful shared decision making a reality.<sup>3</sup> The need for such decision support was recognised by the inquiry into paediatric cardiac surgery in Bristol, which noted the failure of staff to provide parents with accurate prognostic information.<sup>4</sup> This was not because

the information was withheld but because it wasn't available.

The Finprog study illustrates the potential value of such an approach, but it also highlights three challenges that lie ahead. Patients and practitioners are going to require information that is up to date and reflects local clinical services. At present, users of the Finprog study obtain information on the outcomes for a cohort of women diagnosed and treated 10 years ago. But clinical care has moved on. With ongoing recruitment, databases would be able to provide more up to date information (at least for short term outcomes) reflecting current treatment outcomes. The second enhancement needed is the ability to provide data on the outcomes achieved by the healthcare providers a patient is attending, although inevitably the relatively small volume of patients treated in any one setting will limit the statistical confidence of any estimation of prognosis. The third challenge will be to show that this approach not only promotes patients' participation in making decisions but also leads to health benefits.<sup>5 6</sup>

The potential scope for using high quality clinical databases in this way is rapidly expanding with the growth in the availability of such databases. To encourage their use and enhance their quality, a web based directory of clinical databases ([www.docdat.org](http://www.docdat.org)) has recently been developed.<sup>7</sup> This directory is restricted to the United Kingdom, but similar websites could be created in other countries. When complete the directory will provide a description of all multicentre clinical databases that exist in the country and an independent assessment of the extent and quality of the data collected. The growing availability of software such as

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