remain the preferred instrument to measure peak flow rates. Whether knowledge of values for forced expiratory volume in one second and forced vital capacity in addition to that of peak expiratory flow rate is helpful to general practitioners is a question that will determine the relevance of the turbine spirometer in primary care.

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Screening in Practice

Breast cancer screening and the primary care team

Joan Austoker

The National Breast Screening Programme, which is currently being implemented in the United Kingdom, provides an important new challenge to the whole primary care team. The aim is to reduce mortality from breast cancer through early diagnosis by mammography. The programme follows the recommendations made in the Forrest report¹: women aged 50-64 will be screened; women aged 65 and over will be screened on request; women under 50 will not be offered routine screening. Screening by single oblique view mammography is to take place at three year intervals. These guidelines are being kept under review and are the subject of national research trials.

Practical contribution of the primary care team

Unlike other screening programmes such as cervical cytology, for breast screening the new general practitioner contract does not provide financial inducements to enlist the cooperation of general practitioners. In the terms of the contract all that is required for breast screening is for the general practitioner, where appropriate, to seek details from newly registered patients or patients not seen within three years in respect of tests carried out for breast cancer.² But for the National Breast Screening Programme to be successful the contribution and cooperation of primary care teams is essential. Primary care teams can help to improve the quality of the programme, increase uptake, and provide information and counselling related to all aspects of the programme.

If women are to be given accurate and appropriate information and advice it is important for all members of the primary care team to understand the organisation of the programme. For this purpose each practice in Britain should receive an information pack from the Cancer Research Campaign when the practice starts to participate in the programme.³ More important, however, is that each practice should be visited by representatives from the screening office in order to discuss breast screening in general and the local arrangements for screening the practice in particular. Good communication between practices and the screening office is essential. Practices should be well prepared in advance, understand the procedures, and know the time schedule for the entire screening process. Arrangements should also be made for referring women with abnormalities detected on screening. Ideally this should include prior consent by the general

The practical contribution of the primary care team

Quality:

- Improve acceptability of the programme
- Make appropriate referral arrangements
- Evaluate primary care team involvement

Uptake

- Check prior notification lists
- Encourage attendance
- Provide practical advice
- Allay fears
- Discuss screening with non-attenders

Information and counselling

- Answer general inquiries
- Advise ineligible women
- Discuss the implications of recall for further investigation
- Discuss the implications of a biopsy
- Discuss treatment options
- Discuss screening with non-attenders

practitioner for the automatic referral of all women with "abnormal" mammograms to the specialist multi-disciplinary team at the assessment centre for further investigation to confirm normality or make a definitive diagnosis of cancer (see below).⁴ This is particularly important for the evaluation of impalpable lesions. Speed in referral for each stage of investigation is vital, and arrangements must give priority to this.

The breast screening procedure

The screening procedure can be divided into three screening stages (identification and invitation, mammography, further investigation) and treatment. This is followed by routine recall. Figure 1 shows these stages. The estimated annual throughput for each stage when the programme is fully operational is shown in the table.

In an undertaking on this scale quality assurance is essential to ensure that uniformly high standards are maintained at all times, in all places, and at all stages of the procedure. This includes the need to increase attendance rates; monitor consumer satisfaction; assure high quality mammography, pathology and treatment;

CRC Primary Care Education Initiative, Department of Public Health and Primary Care, University of Oxford, Oxford OX2 6TN
Joan Austoker, PHD, director, CRC primary care education initiative

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FIG 1—Procedure for breast screening

Expected number of women in different stages of first round of breast cancer screening in Britain each year

Expected No	Category
4 857 000	Women aged 50-64
1 620 000	Invited for screening
1 134 000 (70% of those invited)	Attend for screening
79 000 (7% of those screened)	Recalled for investigation
17 000 (1.5% of those screened)	Biopsies
7 300 (6.5/1000 of those screened)	Cancers

and evaluate the reliability and efficiency of the information systems and management of the service.

Organisation of the service

Regional health authorities have overall responsibility for providing the service, which is organised on a supradistrict basis. At a local level screening offices covering at least one district health authority administer and implement the screening programme. Basic screening units, either mobile or static, provide routine mammography for a geographical area with total population of half a million—that is, two to three average district health authorities. This requires considerable cooperation between health authorities, screening offices, family practitioner committees, general practitioners, and consultants.

Further investigation of suspicious or uncertain mammographic findings is carried out at assessment centres. These should have multidisciplinary teams with the necessary skill, experience, and equipment to localise, excise, and examine palpable lesions and ensure that the number of recalls and invasive procedures carried out are kept to a minimum. The number of assessment centres is limited to ensure that a good quality service is established and maintained. Each assessment centre should cover more than one basic unit and a number of district health authorities within a region.

Call and recall

The call and recall procedure is outlined in figure 2. The programme manager of each local programme should hold meetings with local medical committees to discuss planning and implementation. Ideally, screening should be based on whole general practices screened once every three years rather than screening a third of a

practice each year or smaller groups on a continuous basis. Screening by whole practice has proved to be more effective in terms of operation, cooperation, and uptake (unpublished data).⁵ It allows publicity to be concentrated in a specific area, providing better information to primary care teams and women. When screening is by whole practice all eligible women on each general practitioner's list in the practice will be called for screening simultaneously once every three years. The numbers entailed in this approach are shown in figure 3.

Achieving high attendance rates

Primary care teams can help to obtain a high rate of response to the letter of invitation in a number of ways:

- Being aware of the importance of providing the family practitioner committee with correct addresses and details of patients
- Understanding the organisation of the programme in order to provide accurate information
- Actively publicising the programme using posters, leaflets, and verbal encouragement
- Understanding the procedure for changing appointments
- Understanding the procedure if an appointment is missed
- Being aware of beliefs, fears, and anxieties about breast cancer and breast cancer screening
- Following up non-attenders.

FIG 2—Call and recall system for breast screening

Checking the prior notification list

Check:

- That all women on the list are still registered with the general practitioner
- Address details; amend if necessary
- For mistakes of age and sex
- NHS number
- For women recently deceased

"Cease" (remove permanently from the list) women who are known to have had a bilateral mastectomy, or who are known to be terminally ill.

"Suspend" (remove temporarily from the list) women whom the general practitioner knows should not be screened during the allocated screening period—for example, women screened within the past 12 months. It is important to give a date for call or recall.

For ceasing and suspending, the prior notification list should be checked by the general practitioner, but case notes need not be examined. If in any doubt about ceasing or suspending a woman from the list, leave her to be invited.

If possible, check the practice records for any eligible women omitted from the list, including women who recently registered.

The corrected list should be returned to the screening office or family practitioner committee as requested.

The inaccuracy and incompleteness of the family practitioner committee's database remains one of the greatest problems for screening programmes. Primary care teams have a vital role in improving the accuracy of the registers. Practices should discuss the procedures for checking the prior notification list with the screening office (box). Checking and correcting address details is particularly important to ensure that all eligible members of the population receive an invitation to be screened. It would be helpful for the practice to encourage all patients to register any change of address—for example, by putting up a poster to this effect in the reception area.

It is worth noting that only administrative details need to be checked; case notes need not be examined. In order to plan, the practice needs to be aware in advance of the date of arrival of the prior notification list, the number of women listed, and the time allowed for checking the list. The arrival of a list of several hundred names for checking and correcting can be a daunting prospect, particularly if it is unexpected.

Counselling women recalled for further investigation

An abnormal result will create anxiety, and general practitioners can help in allaying fears, although most often in the breast screening programme these fears and anxieties are being dealt with by the staff at the assessment centre. Women may wish their general practitioners to provide further information about the implications of a result that requires further investigation. It is important therefore to appreciate the complexity and limitations of mammography and the corresponding need to call back a number of women who will subsequently be found to be normal. It is equally important, however, not to provide false reassurance at this stage. General practitioners will need to be able to explain the range of diagnostic techniques that are available and what these may entail. Most women who have abnormal mammograms will be found to be normal on assessment and will rejoin the routine recall system. Some women will have cancer diagnosed by fine needle aspiration cytology and will not need a biopsy. A few may require a biopsy to allow a firm diagnosis or exclude the possibility of

cancer. The general practitioner should be notified as soon as the need for a biopsy is identified. Referral will usually be to the surgeon in the multidisciplinary team at the assessment centre, but the wishes of the woman and her general practitioner should be respected if an alternative referral is required. General practitioners should be aware that the biopsy of impalpable abnormalities requires specialised radiological, surgical, and pathological skills. Good communication between the general practitioner and the multidisciplinary team should be maintained throughout this period.

Treatment

If a woman is found to have breast cancer her general practitioner will be informed and asked to refer her for treatment. Women may be referred to the surgeon from the specialist team, or the general practitioner in consultation with the woman may wish to arrange alternative referral. As with biopsies, it is important for general practitioners to understand that the treatment of impalpable lesions requires specialised skills and facilities and should be managed in a centre that has the appropriate expertise.

Although women who have been screened need to be made aware of the prevailing uncertainties about treatment choices, they will be justified in expecting to be managed according to locally or nationally agreed guidelines, and maximum participation in national clinical trials should be encouraged.

After screening

The screening office must establish failsafe procedures and notify all results to general practitioners, including a summary of practices' participation in the

FIG 3—Implications of breast screening programme for primary care teams (assuming 100% acceptance)

screening programme and a complete list of non-attenders. Routine recall procedures will be instigated by the screening office.

Non-attenders

If a woman does not attend for mammography her general practitioner will be informed. This information should be recorded in her notes, preferably with an external marker for easy identification. General practitioners, practice nurses, and health visitors are in an ideal position to discuss breast screening with non-attenders, either when the woman next consults or directly by contacting non-attenders to offer further information and advice. If the woman has fears and anxieties these need to be carefully explored. Remember that ultimately women have the right to choose not to participate in the screening programme. They should have access to accurate information to enable them to arrive at an informed decision. It is important not to create feelings of guilt or inadequacy by this process.

Interval cancers

No screening test is perfect, and some cancers may be missed by screening. Also some cancers may develop in the interval between screens. Women should be aware of minimal symptoms and continue to report these to their general practitioners, even if they have been recently screened. Any woman with symptoms should be examined by her general practitioner,

who should if necessary refer her without delay to a hospital breast clinic or to a general surgical outpatients clinic, as at present. In an ideal world multidisciplinary diagnostic facilities similar to those for lesions detected by screening should be both available and accessible for all women with symptoms.

Conclusion

The success of breast screening requires the active participation of primary care teams. Experience has shown that the breast screening programme does not substantially increase the workload of primary care teams. Of the general practitioners from 400 practices around the country who took part in our study to assess the implications of the programme for primary care, 81% (1079) considered that the participation of the practice was a constructive and worthwhile use of time (unpublished data). We hope that this continues to be the case despite, if not because of, the new contract.

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THE MEMOIR CLUB

Not only can evil communications corrupt good manners, they can also vitiate the very best medicine; and we owe a great debt to Charles Fletcher, who in his Rock Carling lecture and at other times has kept before us the importance of communication, which includes talking with as well as talking to patients. I am not entirely convinced of the value of set courses in communication, and would rather place a general obligation on medical teachers to emphasise, and above all to illustrate, the value of good communication, each in his own context. I was rather horrified recently to come, in a draft, on the statement, "Doctors should learn from practitioners of alternative medicine how to talk to patients." I felt that this should be amended to, "Doctors should not have to learn from practitioners of alternative medicine how to talk to patients."

Like any doctor who has spent the greater part of his life in practice, I am deeply conscious of how much I owe to the patients with whom I have shared either the gladness of recovery or the sadness of ill health; and also to the colleagues with whom I have shared so many discussions, and from whom I have learnt so much. In my case, this was largely by listening to them, unlike an occasion described to me by Robert Platt who, as a relatively new professor of medicine in Manchester, was visited by Stanley Davidson, a veteran of Aberdeen and later of Edinburgh, and a man of copious eloquence. According to Robert, Stanley Davidson came into his office at the appointed time, sat down, talked for an hour or so without interruption, looked at his watch, and got up to go with the parting words, "Thank you, Platt, I've learnt a great deal from our talk."

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One morning when Hildur and I were in Nairobi posting our letters home from the main post office we suddenly found ourselves surrounded by stampeding young men running up the street and barging everyone out of the way. We squeezed ourselves against the wall of the post office, which was solidly stone built and had small buttresses that gave some protection against the trampling throng, but no sooner had we withdrawn into these niches than the police drove up in armoured cars and began firing plastic

bullets into the students immediately in front of us. It was time to take cover, so we pushed through the mêlée into the post office, as did students, shoppers, and anyone else who happened to be in the line of fire. Some of the students tried a spirited defence by ramming the doors shut against an incursion of police who had by now dismounted and were forcing an entry into the building. But this tussle was quickly brought to an end by the police outside throwing canisters of CS gas through the open windows. The pandemonium changed its note as the brownish grey vapour spread through the crowd, blinding us instantly. Forcing one pair of eyelids open with my right hand I saw that they had failed to close the doors, for beams of light were coming through the gap. By this time the crowd was entirely blinded by the spasm this gas induces in the eyelids—it is impossible to open them by voluntary effort—and people were pushing this way and that till they collided with someone else like so many paramoecia swimming about on a microscope slide. Gripping my colleague's arm with one hand and holding one eye open with the other I started towards the beam of light which was all I could see of the doorway through my torrents of tears, and we zigzagged through the disorientated students and shoppers to the outside again, darting through the crowds round to the back of the building before we dared to take a deep breath of the less polluted air there. In a few moments we could see through our tears, though the glands continued to gush a volume of fluid I would never have believed possible.

"Let's restore our spirits with some coffee," I suggested, breaking into a trot to get away from the gas that still hung around the street.

"Surely we shouldn't run," said Hildur, "that might make them suspicious of us." So we settled down to a brisk walk towards our favourite cafe, the Sunflower, a few streets away. In half an hour we felt perfectly fit again. Our tears had ceased, and the repulsive metallic taste of the gas had cleared from our palates. In the upshot I was left with a certain admiration for a gas as effectual as it was harmless in preventing an outbreak of violence that might, even if inadvertently, have caused serious injuries to people caught up in the stampede.

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