million women screened in the British breast cancer screening programme in 1991-2 and that 1465 of the cancers were invasive and <10 mm in diameter.¹ Subsequently Yeoman *et al* reported that 39% of the cancers were palpable, leading to the conclusion that the balance, 39% (100-39-22), were non-invasive and impalpable.² Now Joan Austoker reports that ductal carcinoma in situ made up 17.6% of the cancers.³ In view of its rarity, lobular carcinoma in situ seems unlikely to have accounted for the other 21.4% of minimal lesions. We are left wondering where the discrepancy lies. In any event, such a large number of non-invasive cancers presents a practical and ethical problem since there is no consensus among surgeons about how to treat them.⁴ It is recognised that an appreciable proportion do not become life threatening.

We also note that figure 3 of Austoker's paper shows reduced mortality, with a relative risk of 0.5 among women aged 40-49 screened in the Malmö trial. This scarcely equates to a 29% increase in mortality among women under 55 screened in that trial⁵; this error would also affect the size of the cumulative reduction in mortality among the seven trials cited.

Austoker reports that "primary care teams have an important part to play in encouraging women to attend for screening and in providing information and advice, and reassurance at all stages of the screening process." She subsequently lists the benefits (three) and disadvantages (seven). It is not clear whether the women are shown this list and, in relation to overdiagnosis, told what Fentiman advises: that "for many borderline lesions there cannot be any clear guidelines at present, and the only appropriate treatment will be to enter the patient into well-designed national clinical trials."⁶

Skrabanek's argument for the need to obtain signed informed consent from the invited women at the outset of screening⁷ is underlined by the reported outcome measures.¹⁻³

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Screening for testicular cancer

Familial predisposition ignored

EDITOR,—Joan Austoker clearly evaluates the advantages and disadvantages of population screening for testicular cancer.¹ We agree that screening of the general population cannot be justified on present evidence and that greater awareness of this tumour in the general population and among the medical profession should be encouraged. Austoker does not, however, discuss the now substantial evidence concerning familial predisposition to testicular cancer.

Forman *et al* showed that sons of men with the disease had a relative risk of developing it them-

selves of 4.0 and that brothers of men with the disease had a relative risk of 9.8.² Thus siblings of patients with testicular cancer have a lifetime risk of developing the disease of over 2% and form a high risk population with a greater risk of developing the disease than patients with cryptorchidism. We believe that this risk is sufficient in brothers and sons of patients for them to be actively encouraged to undertake self examination and that self examination should be considered mandatory for males in families with two or more cases of testicular cancer.

In July this year the five groups involved in family studies of testicular cancer met to form a consortium to localise the predisposing gene(s) by linkage analysis in families of patients with the disease. If the gene is found it may help to select very high risk patients for more intensive screening as well as give insight into the mechanism of development of testicular cancer. To succeed we will need to examine a large number of families. Sixty families have been identified in Britain, but more are needed, and we would encourage oncologists and surgeons aware of such families to enter them into our research programme by contacting us or Dr David Forman at the Yorkshire Cancer Registry, Yorkshire Cancer Organisation, University of Leeds, Cookridge Hospital, Leeds LS16 6QB (from 1 October).

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Self examination of testes is of value

EDITOR,—As Joan Austoker states, 120 deaths from testicular cancer a year do not justify population screening for this disease.¹ The question of education of young men about testicular cancer in general, and about self examination of the testes in particular, raises some different questions; it will indeed be difficult to evaluate education about self examination of the testes in terms of its effect on mortality from the disease and the proportion of patients requiring chemotherapy.

I take issue, however, with Austoker's statement, based on anecdotal reports, that widespread application "might lead to a substantial increase in investigation of non-malignant conditions with its associated anxiety." Colleagues and I have reported the effect of distributing a leaflet about self examination of the testes. A study of a population of male students indicated that around 500 saw a copy of the leaflet.² Shortly after they did so there were seven consultations at the student health service for scrotal complaints. After the interviews that were conducted to evaluate the effect of the leaflet a further six consultations took place. Such consultations were monitored throughout the investigation, which lasted seven months. From this it seems that publicity about self examination of the testes will, over a short period, provoke inquiries from around 1% of the people who are affected by the publicity. There is no evidence of any longer term anxiety that would appreciably affect the demand on health services.

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Screening for toxoplasmosis

EDITOR,—The Toxoplasmosis Trust's finding that only just over half of British antenatal clinics give advice and information on toxoplasmosis¹ broadly agrees with the finding of a similar study by the Public Health Laboratory Service.² The trust's survey, however, raises more questions than it provides answers.

Both the table and the text misuse the term "screening" and therefore misleadingly imply that almost all the respondents (89% of British antenatal clinics) are, contrary to current recommendations,³ engaged in a category of this activity. Investigating subjects for acute toxoplasmosis on request and when flu-like symptoms are reported is diagnosis, not screening. Failure to distinguish between these two activities can only add confusion to the "ad hoc nature of current screening policy" deplored by Christine Asbury.¹ The activities carry completely different ethical and resource implications, although they both require backing by well informed professionals if patients are to benefit. The survey's finding that ignorance was common among midwives is therefore worrying, although unsurprising.

This ignorance was also reflected in the finding that 51 (>20%) clinics investigated women if they owned a cat. Although this is not commented on by Asbury, no scientific basis exists for doing this. The study's confirmation of professional ignorance also lends weight to earlier concerns about the ethics of media campaigns for screening for toxoplasmosis when expectations cannot be met in practice by the health service.⁴

The chief medical officer recently stated that purchasers should not start new screening programmes unless the programmes have been recommended after research and appraisal.⁵ Such appraisal led to the current recommendations about screening for toxoplasmosis,³ and it would be interesting to know why the purchasers responsible for the five clinics that reported routine screening disagreed with this conclusion.

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Mammography after treatment for breast cancer

EDITOR,—The National Breast Screening Programme's guidelines on follow up of women after treatment for breast cancer recommend regular mammographic surveillance of both the treated and contralateral breast.¹ This surveillance is the responsibility of the clinician providing follow up. Local screening units will continue to recall women with treated breast cancer aged 50 to 64 at the normal screening interval as part of the national programme. Women over the age of 64 will not be recalled but will be screened on request at the normal interval. But for women under 50, or women whose clinicians recommend surveillance