

Title	Harm resulting from screening is likely to be high where prevalence of breast cancer is low: Letters to the editor
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In the case of ultrasound screening, these psychological costs may be exacerbated by the visual imagery which is an integral part of the procedure.<sup>+</sup> It is not easy to convey to couples the idea that an indicator of abnormality that can be visualised is probably inconsequential. Women whose fetuses are deemed to be at an increased risk of chromosomal abnormality on the basis of an ultrasound examination might interpret this result quite differently to those receiving a report of a similar risk as a result of maternal serum screening. We suggest that specialist counselling methods need to be developed, and we support the report of the Royal College of Obstetricians and Gynaecologists highlighting the fact that further research is needed into methods of prescreening counselling.

The case above not only highlights a failure of counselling at the appropriate time but also raises the question of how often the disclosure of the presence of a soft marker does more harm than good. Such cases have led us to stop reporting isolated choroid plexus cysts in the fetuses of younger women as we believe that the anxiety caused to these women far outweighs the potential gain.

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  5 Royal College of Obstetricians and Gynaecologists. Report of the RCOG working party on ultrasound screening for fetal abnormalities. London: RCOG, 1997.

# Harm resulting from screening is likely to be high where prevalence of breast cancer is low

EDITOR-Matti Hakama and colleagues evaluated an organised programme of screening for breast cancer in Finland.' They report a 24% reduction in mortality from breast cancer due to screening, which, as they point out, is close to the protective effect reported in the early randomised controlled trials. In their conclusions they imply that having a breast cancer screening programme is worth while and a good use of health service resources.

Such a conclusion must, however, be treated with caution. In this study the authors calculate that about 200 000 women were screened to prevent 20 deaths from breast cancer. They also quote other benefits of screening but make no mention of the well

documented disadvantages.2 The most serious potential harm is that attributable to a false positive result, which can occur in about 14% of those screened.3 Thus the 20 deaths prevented must be balanced against the anxiety, trauma, and potential operative complications encountered by an estimated 28 000 women with a false positive result. To this can be added the cost to the health service of the investigations that these women will have had.

Hong Kong does not yet have an organised mammography screening programme. Since the prevalence of breast cancer is relatively low compared with that in other countries,4 the harm resulting from screening is likely to be high. This factor must also be considered when a public health decision is made on whether to introduce a screening programme.

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# Minimising factitious hyperkalaemia

## Samples should be centrifuged after collection in general practices

EDITOR-The advice given by J D Johnston and S W Hawthorne on how to minimise factitious hyperkalaemia in blood samples from patients in general practice is misleading and potentially dangerous.1 We agree that samples should never be refrigerated, but it is not safe to assume that plasma potassium concentrations will remain unchanged when samples are left at room temperature. One of us (PWM) showed that in hot weather potassium concentrations may be falsely low in the first few hours after collection if blood samples are not separated.<sup>2</sup> Large differences in changes in potassium concentrations during storage can occur, depending on time and temperature.<sup>2 3</sup> It is almost impossible to be sure that any potassium concentration measured in a blood sample from a general practice is correct unless the sample is separated within one hour. Though it is easy to disregard abnormal results-some of which will actually be correct-the main problem is pseudonormokalaemia in patients who truly have abnormally high or low potassium concentrations. This is more than "an annoying trait" — it is potentially dangerous. Unless samples remain at a constant 23°C the only satisfactory way to ensure correct results in samples from patients in general practice is to centrifuge samples in gel separator tubes.<sup>2</sup> This has been implemented in Wakefield, where all practices served by the

laboratory at Pinderfields General Hospital have been equipped with a benchtop centrifuge costing about £500 and staff have received appropriate training. We believe that the initial capital outlay is justified by the improved quality of results and, therefore, patient care.

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- 1 Johnston JD, Hawthorne SW. How to minimise factitious hyperkalaemia in blood samples from general practice. BMJ 1997;314:1200-1. (19 April.)
- 2 Masters PW, Lawson N, Marenah CB, Maile LJ. High ambient temperature: a spurious cause of hypokalaemia. BMJ 1996;312:1652-3.
- 3 Moore D, Walker P, Ismail A. The alteration of serum potassium level during sample transit. Practitioner 1989;233:395-7.

## Centrifuging samples may help prevent false readings

EDITOR-After reading J D Johnston and S W Hawthorne's letter on problems with factitious hyperkalaemia in blood samples received from general practices,' our practice audited serum potassium concentrations in samples analysed during the past calendar year. We found that in 74/82 (90%) of samples potassium concentration was below 5.0 mmol/1 (normal range 3.5-5.0 mmol/1); and in 8/82 (10%) of samples potassium concentration was raised, seven of these (87%) falling into the 5.0-5.5 mmol/l range.

There is a difference between our figures and the figures quoted in Johnston and Hawthorne's letter, although this may not be significant because of the different base numbers. It remains of interest, however, given that our mean transport time to the laboratory was about 34 hours. The reason for the improvement over the London results is that, like many rural doctors, we centrifuge our own samples on site. This normally happens within 45 minutes of taking the blood. If laboratories have legitimate concerns about false hyperkalaemia readings they should consider helping practices invest in centrifuges.

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1 Johnston J, Hawthorne S. How to minimise factitious emia in blood samples from general practice. BMJ 1997;314:1200-1. (19 April.)

## HIV positive doctors deserve support

EDITOR-We were disturbed by the reports that Dr Patrick Ngosa had been struck off the medical register for refusing to take an HIV test and continuing to work after learning that his former lover was HIV positive.1-3 We would like to raise two points of concern. Firstly, was Dr Ngosa treated in a reasonable way? He was portrayed as an irresponsible doctor who put his own interests before the safety of his patients. Is that really the case, or did he react as many of us would have done in

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