## Editorial

# Screening or screaming?

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Screening is an established part of medicine - cervical screening using cytology and breast cancer screening using mammography have been in place for many years and screening for colorectal cancer using faecal occult blood testing is now established. Although there remain some die-hard sceptics, most have little difficulty in accepting them (as Sellers and Yeatman would put it in *1066 and All That*) as a Good Thing.

When politics or commercial interests are in the driving seat for screening it is often not a Good Thing at all. Politicians are liable to jump on the screening band wagon. Intuitively they assume (in common with many) that screening for disease "to catch it early" must always be right. Except it isn't always right. A screening test only makes sense if the test is safe, reliable, available and not too expensive. The disease being screened for must be relatively common, sufficiently serious to warrant finding early, and must have a significantly better prognosis if found and treated early. What's more we need to interpret statistics for screening with caution. Early detection of disease will inevitably increase "survival times", but mortality may not be affected. It may simply be that patients know they have the disease earlier and are not living any longer than had they not been screened.

Screening also introduces a new and very different relationship with the public. We are trained to deal with sick people to try and get them better. Our "clients" for screening – for they are not yet patients – are not unwell. Or at least they don't feel unwell. The process of screening may turn these people who thought they were well into nervous wrecks. Worse still, if an abnormality is found they may be subjected to invasive and unpleasant tests at the end of which no serious pathology may be found at all.

Screening, when there is a clear commercial interest, raises further serious issues. What are we to make of advertisements in the national press for whole body CT scans to screen for unsuspected disease? Such services are offered by businesses that need to make a profit. We are supposed to be in an age of evidence-based medicine. We are not supposed to offer a service unless there is clear evidence that it does good. There may well be anecdotes in the press of individuals who can say that such a scan discovered some ghastly tumour which was then cured by timely surgery. Such anecdotes are not enough to introduce or recommend a service. CT is not without risk. Particularly with new multislice spiral scanners, the radiation dose is considerable. An abdominal CT examination can result in a radiation dose equivalent to about a thousand PA chest Xrays – a whole body scan even more. Some estimates suggest up to 2% of cancers in the US may be attributable to the radiation associated with CT scans. This does not feature in the advertisements for screening scans. Furthermore such scans will discover many abnormalities which are not due to serious disease but which will require expensive, unpleasant and invasive investigations to prove they are benign. The difficulty we face in questioning the value of such scans is that a number of doctors clearly are doing quite well financially from these schemes. We would not want to question their integrity, but we would need to ask them if they have investigated what evidence there is for the real value of what they are doing. It cannot be right to profit from the anxiety of the worried well.

But does this mean the use of CT for screening can never be justified? The answer appears to be "no". Preliminary results from the National Lung Screening Trial (NLST) of the National Cancer Institute in the US suggest that annual screening of heavy smokers over the age of 55 using low-dose CT of the chest results in significant reductions in lung cancer deaths compared with a control group who had conventional chest X-rays only[1]. If this is confirmed it is good news indeed for those suffering from a cancer which hitherto has produced very little good news. With few exceptions, lung cancer is almost universally fatal,

and is responsible for more deaths than the combined totals of breast, colon and prostate cancers. This could have a major impact on patients in our part of the country where lung cancer is an especial scourge. It could also mean a big change in the workloads of radiology, chest medicine and thoracic surgery departments. Lung cancer does not have the popular appeal for charitable sponsorship that breast and haematological malignancies and AIDS research appear to enjoy. This may in part be because the victims are regarded as the architects of their own misfortune through smoking, and they tend to be older men. Such thoughts can have no part in determining priorities for doctors and other health professionals.

So – screening? Yes – where evidence-based we should scream for more. If the evidence isn't there we must try to get the evidence, and if the answer is that a screening test is not helpful – or worse still, harmful -we must not be afraid to scream against it.

**Reference:**

1. Kamerow, D. Screening for early detection of lung cancer BMJ 2010;341:c6544