

Commentary: Why are researchers surprised when there is not a smooth transition from research into practice?

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Randomised trials usually focus on finding the answers to narrow questions. They frequently neglect issues of concern to people who are ill and who are affected by the interventions studied. It can be difficult to convert the results of trials into information that is meaningful for individuals; and results are often equivocal or vary from one trial to another.

This is true of the research into the effectiveness of mammography. The findings of researchers and the opinions of other experts were beset with inconsistency, disagreement, and controversy before they moved into the public arena. This debate was introduced into an environment in which most women's fears of breast cancer are already disproportionate to their risk from the disease and in which there is no cure. "Finding the cancer early" has been put forward in health promotion campaigns as about the only thing that could help in treating breast cancer. If early detection is so good, why isn't even earlier detection even better? It should not have been surprising that the data on the effectiveness of early mammography would some day collide with the experience of real life.

Consider this situation from the perspective of the community. We hear about the results of trials in the context of other things that health professionals do and say about the subject. Women have been exhorted to examine their breasts regularly, regardless of their age. Early detection has been put forward as the holy grail—indeed, the only grail. At one extreme of the debate some experts have even extolled the virtues of having a baby before the age of 20 to lower a woman's risk of breast cancer, as if the promotion of pregnancy among teenagers could ever be a good idea.¹

Campaigns seeking to increase women's compliance with screening recommendations have used every technique possible to emphasise the importance of screening, yet research into mammography has not attempted to gauge the impact of a woman losing her last few "cancer free" years. Trials have not addressed the anxiety that screening programmes may cause or the impact of false negative or false positive results. Research into the effectiveness of mammography has been concerned only with the bare facts of the disease and survival and has largely been conducted out of touch with what it means to face a diagnosis of cancer.

The emphasis has been on the pursuit of public support, funding, and compliance with screening recommendations; little thought has been put into the consequences and potential follow on effects of all these campaigns. The short term goals—awareness of the disease, gaining priority for funding relative to other diseases, and compliance—seemed to be all that mattered. Yet all these activities helped people in the community build up a picture of the disease and the role of healthcare interventions and services.

More responsible behaviour is needed from everyone involved in disseminating information to the public about diseases and health care. To conclude, as Wells does, that political involvement and public expectations "impede" the translation of research into practice is to ignore the context of such debates. Indeed, the response of the public is often to take the logical next step in a direction already defined by health campaigns and shaped by the limitations of research.

1 Langlands A. Early births "cut breast cancer risk." *Advertiser* 1996 March 26:6.

A memorable patient

The inflating lady

Some four years ago, as a novice medical registrar, I was awoken at 3 00 am by a panic stricken senior house officer who told me that an elderly woman had been admitted to the accident and emergency department in anaphylactic shock, presumably from a dressing on a trivial back injury. The patient had had adrenaline, steroids, antihistamine, and nebulisers but remained ill. Of particular worry was her worsening facial and neck oedema, which I was told was endangering her airway.

I was already half dressed as the conversation ended. I asked the senior house officer to inform the duty anaesthetist of our problem and left for the casualty department. The woman was indeed unwell. She was distressed and clearly very breathless. Strikingly, and of great concern, her face was swollen and her neck was perhaps double its natural circumference. The cardiac monitor showed her to be tachycardiac and a cursory examination revealed wheezes but little else.

My first thought was for the airway. The anaesthetist came down and immediately shared my anguish. He began busying himself preparing the paraphernalia for intubation when the radiographers arrived to carry out a chest x ray examination. For a brief moment the anaesthetist and I debated the wisdom of doing

such a procedure in a patient who was clearly in danger of closing her airway at any moment, but we decided to let it go ahead.

As we grasped the patient by the shoulders to sit her forward for the x ray examination our hands seemed to sink in with a crunching feeling; at that moment a realisation of the diagnosis came in tandem to me and the anaesthetist on either side of her.

The old lady had fallen before going to bed, injuring her back. A small dressing had been applied to an innocuous looking graze, but she had awoken in the early hours with facial swelling. I later learnt that she had been fine until powerful drugs had been administered in the resuscitation room. Her chest x ray film showed a rib fracture, a small pneumothorax, and gross surgical emphysema. Most of the air that was admitted into her thoracic cavity had collected between the lung and the chest wall. The traumatic nature of the pneumothorax, however, had facilitated the passage of air into the subcutaneous tissues—an unusual consequence of spontaneous pneumothoraces but not uncommon after injury. She made an uneventful recovery from her ordeal.

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