



## Mobile phones in hospitals

Mobile phones (cell phones) are a source of irritation for some but undeniably useful for many, and over 50% of the population of the United Kingdom possess one. Their use in hospitals, however, is mostly banned as they are considered potentially hazardous in medical environments. But the evidence for serious harm is flimsy, and the hysteria that surrounds the use of mobile phones in hospitals is unjustified.

So how dangerous are they? The evidence for harm is limited. Anecdotal reports exist of interference with medical electrical equipment, which led to a study by the Medical Devices Agency in the United Kingdom. In this study, 4% of medical devices suffered from electromagnetic interference from digital mobile phones at a distance of 1 metre. This compared with 41% from emergency services' handsets and 35% from porters' handsets. Most of the interference related to disturbance of the signal on monitors, such as electrocardiographs, confirmed by data from the United States.

Other effects were on pacemakers, with inappropriate inhibition or atrial oversensing – or misinterpretation of the mobile phone signal as atrial activity with synchronous fast pacing of the ventricle – which has been documented elsewhere in both permanent and temporary systems. The effect on both devices is, however, transitory and can be avoided completely by taking the mobile phone away from the monitor or pacemaker. Moreover, the interference with the pacemaker occurred only with the mobile phone at a distance of up to 10 cm.

BMJ 2003;326:460–1

## Bananas in the fertility clinic

Having shunned sex for thousands of years, bananas are in trouble. Those grown commercially are sterile mutants, propagated by replanting the suckers that sprout from existing trees. Lacking the genetic shuffling of sex, the single variety that dominates the export market is susceptible to any pest that evolves to evade its defences against disease.

In the late 1990s, the emergence in Southeast Asia of a new strain of Panama disease, a wilt caused by the fungus *Fusarium oxysporum*, devastated commercial plantations. It has since spread to Australia and Africa, and if it lands in Latin America, where most export bananas are grown, farmers will need a new resistant variety.

Genetic manipulation seems the obvious answer – and researchers at the Catholic University of Leuven in Belgium have already produced several transgenic varieties that carry genes for antifungal proteins. These will be field-tested for resistance to Panama disease over the next few years.

But even if they pass these tests, there is no guarantee that Europe's suspicious consumers will warm to the idea of transgenic bananas. So a conventional breeding effort is also under way. Breeders at the Honduran Agricultural Research Foundation in San Pedro Sula have found that it is just about possible to breed bananas, through

careful hand pollination and sieving hundreds of tonnes of banana pulp to collect the few resulting seeds.

Nature 2003;421:569

## **Moulding the surgical mind**

William Hunter, 18th-century obstetrician and medical educator once described surgeons as ‘savages with knives’. Ironically, one of these savages, his brother John, became one of surgery’s icons. In their time, patients were pinned down, screaming and squirming, by burly assistants, and the surgeon’s fame rested on his dexterity, precision and speed. Then, surgeons were feared, surgery was limited in frequency and scope, and plagued by deadly sepsis.

The arrivals of anaesthesia, antisepsis, and asepsis changed all that. Now, surgeons are revered, surgery’s scope is virtually unlimited, and waiting list numbers swell.

But what is the image of the modern surgeon? Surgery continues to be a male-dominated fraternity of adherents of resolute action, aggression, technology and defensive detachment in practice. Their expertise is bound up in experience, and entry into their ranks is influenced by sex and an ‘intolerance of ambiguity, excessive reliance on high technology, a negative orientation towards psychological problems and a Machiavellianism...expressed as ‘the means justifies the end’ or ‘whatever it takes’.’

Something is missing in the moulding of surgical minds – an emphasis on analysis, problem-solving, evaluation, discrimination and judgement. In short, surgeons’ training is short on thinking, reasoning and understanding.

Eminent US surgeon William J Mayo once observed that ‘Surgery is more a matter of mental grasp than it is of handicraftsmanship.’

Stressing this mental grasp requires a seismic shift in surgery’s culture.

MJA 2003;178:249

## **Influenza vaccination and reduction in hospitalisation**

Serious complications of influenza among the elderly include pneumonia and exacerbations of coexisting conditions that can result in hospitalisation or death. Vaccination against influenza has consistently been associated with reductions in hospitalisations for pneumonia and death from all causes in the elderly.

During influenza epidemics, hospitalisations for cerebrovascular and cardiovascular causes increase, and acute infections, including upper respiratory tract infections, may increase the risk of acute cardiovascular and cerebrovascular events.

In this report, the authors studied two large cohorts during the 1998–1999 and 1999–2000 influenza seasons to assess whether influenza vaccination of community-dwelling elderly persons is associated with reduced rates of hospitalisation for cardiac and cerebrovascular disease.

Observational studies from the United States, Manitoba, and the United Kingdom have reported that influenza vaccination is associated with reductions in the risk of

death from any cause of 30 to 50 per cent. In this study, vaccination was associated with a reduction in risk of death from all causes of 48 to 50 per cent. This reduction may be greater than might typically be expected. Hospitalisation for pneumonia and exacerbations of underlying medical conditions are well-recognised complications of influenza. The finding that vaccination is associated with reductions in the risk of hospitalisation for cardiac and cerebrovascular disease suggests additional effects of influenza that contribute to the overall disease burden and may help to explain the reduction in the risk of death associated with vaccination.

N Engl J Med 2003;348:1322–32