Misconnecting for health: (lack of) advice for professionals on the safe use of mobile phone technology

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Ensuring that good clinical practice keeps pace with technological innovation requires that safety and medico-legal issues are identified, and agreed nationally and internationally

Healthcare systems globally are looking to developments in communication technology to help meet the challenge of providing care for the increasing numbers of people with long-term conditions.[1 2] Mobile phones, with high penetration rates (>70% in Europe), may contribute significantly to this initiative. Diabetes, asthma, hypertension and coronary heart disease are examples of common long-term conditions in which the use of mobile phone-based technology may offer potential benefits.[3 4]

Mobile phones, with their increasing capability for transmitting and receiving data in various formats (eg, text, audio and video), have been enthusiastically embraced by the general population, and are increasingly being explored as a means of improving access to care, transmitting monitoring data and supporting self-management.[3 4] With utopian zeal, the NHS has stated that "millions of people with asthma, diabetes and other long-term conditions could soon receive text messages on how to stay fit and healthy".[5]

In reality, however, until now, clinical use of mobile phones has remained the province of enthusiasts, with practical and medicolegal concerns inhibiting more widespread adoption.[6] This is poised to change, as increasing public awareness of the clinical application of mobile technologies and ready availability of self-monitoring equipment fosters patient demand, echoing the direction of health service policy, which aims to increase the effective use of new technologies.[1 2] Faced with these two powerful drivers, clinicians will look to professional organisations for advice on the safe use of these technologies.

LIMITATIONS OF CURRENT ADVICE

The results of our recent exploration of the guidance on appropriate use of mobile technologies available to UK practitioners from their professional and statutory bodies highlight a real lack of clear and coherent policy in this area. We searched the websites of key UK medical and nursing professional bodies, defence organisations and official regulatory bodies, followed up with personal telephone and/or email contact to ensure that we had not overlooked any important documents. Guidance, where it existed, was extremely limited in scope and either failed to address key concerns or did not take into account the full range of functions of mobile phones. The UK, with the US, has been described as having a "leadership role" in the strategic development of health information technology,[7] so we believe it is unlikely that more comprehensive guidance will be readily available elsewhere.

In many instances, concerns raised in other contexts had direct relevance, but no specific advice addressed the issues from the perspective of mobile phone technology. For example, in the context of email communication, there are clear recommendations of the need to confirm that a message has been received and the importance of archiving electronic messages,[8] injunctions that should presumably apply to SMS text messages.

General advice on the limitations of telephone consultations are clearly relevant,[8 9] although additional issues, such as misunderstandings because of poor reception, loss of communication before a consultation is complete, calls taken under inappropriate circumstances (eg, when a patient is in a noisy or public environment), need to be addressed. In addition to reduced security, the potential for a mobile phone to be lost, borrowed or stolen add to confidentiality concerns. The dire warning that transmitting data outside the European Union is "strictly forbidden" unless the country ensures adequate data protection,[8] is unhelpful in the context of mobile phones.

Available advice concentrates on concerns and barriers, rather than on providing positive advice on safe use. In response to advice from the Medicines and Healthcare products Regulatory Agency that the use of a non-medical device (eg, a mobile phone) in a medical context may not be "safe, suitable or reliable", the medicolegal pitfalls of picture messaging have been emphasised,[10] undermining potential benefits.[11] More positively, the Royal College of Nursing has recently issued guidance on text messaging,[12] which provides some welcome practical advice, although it does not address the broader policy issues raised by mobile technology.

THE URGENT NEED FOR NATIONAL AND INTERNATIONAL POLICIES

Formal licensing of devices that are "safe, suitable and effective", practical guidance on using mobile technology and medicolegal parameters for good clinical practice need to be defined at the national level by regulatory and professional bodies. Mobile telephony, however, knows no boundaries, and an international agreement is required on the international transfer of data, and on the status of consultations when the clinician and patient are in different countries. The need for clarification is urgent. Already, a UK clinician may provide a consultation using a registered patient's mobile phone, unaware that the patient is physically in a country where UK medical credentials are not recognised and legal indemnity is invalid.

Healthcare policy currently promotes the use of mobile communication technology, which has the potential to enhance the care of people with long-term conditions, but which leaves clinicians feeling increasingly exposed as existing guidance highlights the pitfalls, rather than provides solutions. Ensuring that good clinical practice keeps pace with technological innovation requires that safety and medicolegal issues are identified, agreed nationally and internationally, and solutions to any potential pitfalls disseminated by professional bodies so that clinicians feel supported as they provide care within the context of the modern communications era.

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REFERENCES

1 **NHS Executive**. *Information for health*. http://www.dh.gov.uk/en/Publicationsandstatistics/Publications/PublicationsPolicyAndGuidance/DH_4008278 (accessed March 2006).
2 **Institute of Medicine**. *Crossing the quality chasm*. Washington, DC: Institute of Medicine, 2001, http://www.iom.edu/?id=5432&redirect=0 (accessed 5 Apr 2007).
3 **Currell R**, Urquhart C, Wainwright P, *et al*. Telemedicine versus face to face patient care: effects on professional practice and health care outcomes. *Cochrane Database of Syst Rev* 2000;(2):CD002098.
4 **Ryan D**, Cobern W, Wheeler J, *et al*. Mobile phone technology in the management of asthma. *J Telemed Telecare* 2005;**11**(Suppl 1):43–6.
5 **NHS Information Authority**. *Better health by e-mail and text message*, 2005. http://www.informatics.nhs.uk/cgi-bin/item.cgi?id=1087&d=11&h=0&f=0 (accessed 5 Apr 2007).
6 **Pinnock H**, Slack R, Pagliari C, *et al*. Professional and patient attitudes to using mobile phone technology to monitor asthma: questionnaire survey. *Prim Care Respir J* 2006;**15**:237–45.
7 **Detmer DE**. Information technology for quality health care: a summary of United Kingdom and United States experiences. *Qual Health Care* 2000;**9**:181–9.
8 **British Medical Association**. *Consulting in the modern world*. London: BMA, 2001.
9 **Lee M**. *Telemedicine—a good alternative to a full waiting room?* London: Medical Defence Union, 2002.
10 **Norwell N**, Medico-legal implications of picture messaging. London: Medical Defence Union 2004.
11 **BBC News**. *Photo message plan to save lives*, http://news.bbc.co.uk/1/hi/scotland/3142945.stm (accessed 5 Apr 2007).
12 **Royal College of Nursing**. *Use of text-messaging services, Guidance for nurses working with children and young people*. London: RCN, 2006, http://www.rcn.org.uk/publications (accessed 5 Apr 2007).

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