Future challenges

The relatively fluid process of patient management often does not match the rigidity of most electronic health records systems. Medicine is far from a factual science, and patient management requires a tentative, evolving reinterpretation of previous data in the light of new information. Most interaction between clinicians comprises narrative (free text). Narrative contains more information than isolated or coded words. Most electronic records, however, rely on structured data entry. The drawbacks of this approach have been summarised by Powsner¹² and de Lusignan and colleagues.²⁶ Read codes are less accurate at capturing general practice concepts.²⁷

There is great pressure to reduce patients' length of stay in hospital. At the time of discharge, computer generated summaries can be produced more quickly than dictated summaries and so improve communication with primary care.²⁸ The pace of modern practice dictates the use of technology, but the lack of direct clinical input in the development and procurement of information technology has been cited as a major factor in the failure of many clinical information systems. Replacing paper with electronic records will change medical practice, including relationships between doctors and nurses, responsibilities, and work distribution. Clinicians need to be closely involved in ensuring that software for documenting patient encounters complements the way they work.

Patients already have the right of full access to their electronic records for "any or no reason," says Goss; his article provides an interesting view of the difficulties associated with patients' access to health records.²⁹ By June 2004, some patients should have "direct" access to their electronic records in hospitals and in primary care.³⁰ From the clinician's perspective, however, the words of Scott McNealy of Sun Microsystems ring true: "You have zero privacy anyway. Get over it."

Contributors: SHW is the sole contributor.

Funding: No additional funding.

Competing interests: None declared.

- 1 McDonald CJ. The barriers to electronic medical record systems and how to overcome them. *J Am Med Inform Assoc* 1997;4:213-21.
- 2 Trace D, Naeymi-Rad F, Haines D, Roberts JJS, Almeida FD, Carmony L, Evans M. Intelligent medical record-entry (IMR-E). *J Med Syst* 1993;17(3/4):139-51.
- 3 Gilbert JA. Physician data entry: providing options is essential. *Health Data Manag* 1998 Sep;6(9):84-92.

- 4 Kaplan B. Reducing barriers to physician data entry for computer-based patient records. *Top Health Inf Manage* 1994;15(1):24-34.
- 5 Greenhalgh T. Narrative based medicine in an evidence based world. *BMJ* 1999;318:323-5.
- 6 Kay S, Purves IN. Medical records and other stories: a narratological framework. *Methods Inf Med* 1996;35:72-87.
- 7 Van Ginneken A. The physician's flexible narrative. *Methods Inf Med* 1996;35(2):98-100.
- 8 Frisse ME, Schnase JL, Metcalfe ES. Models for patient records. In: Van Bommel JH, McCray AT, eds. *Yearbook of medical informatics*. Stuttgart: Schattauer, 1995:238-42.
- 9 Berg M. Medical work and the computer-based patient record: a sociological perspective. *Methods Inf Med* 1998;37:294-301.
- 10 Coiera E. When conversation is better than computation. *J Am Med Inform Assoc* 2000;7:277-86.
- 11 Berg M, Langenberg C, vd Berg I, Kwakkernaat J. Considerations for sociotechnical design: experiences with an electronic patient record in a clinical context. *Int J Med Inf* 1998;52:243-51.
- 12 Powsner SM, Wyatt JC, Wright P. Opportunities for and challenges of computerisation. *Lancet* 1998;352:1617-22.
- 13 Poon A, Fagan LM, Shortliffe EH. The PEN-Ivory project: exploring user-interface design for the selection of items from large controlled vocabularies of medicine. *J Am Med Inform Assoc* 1996;3:168-83.
- 14 Wright P, Jansen C, Wyatt J. How to limit clinical errors in interpretation of data. *Lancet* 1998;352:1539-43.
- 15 Coiera E. *Guide to medical informatics, the internet and telemedicine*. London: Arnold, 1997:64.
- 16 Tang PC, Fafchamps D, Shortliffe EH. Traditional hospital records as a source of clinical data in the outpatient setting. *Proceedings of the symposium on computer applications in medical care*. Philadelphia: Hanley & Belfus, 1994:575-9.
- 17 Van Bommel J, Musen MA. *Handbook of medical informatics*. Heidelberg: Springer, 1997:34.
- 18 Mitchell E, Sullivan F. A descriptive feast but an evaluative famine: systematic review of published articles on primary care computing during 1980-97. *BMJ* 2001;322:1369.
- 19 Solomon GL, Dechter M. Are patients pleased with computer use in the examination room? *J Fam Pract* 1995;41:241-4.
- 20 Gadd CS, Penrod LE. Dichotomy between physicians' and patients' attitudes regarding EMR use during outpatient encounters. *Proceedings of the American Medical Informatics Association symposium 2000*. Philadelphia: Hanley & Belfus, 2000:275-9.
- 21 Aydin CE, Rosen PN, Jewell SM, Felitti VJ. Computers in the examining room: the patient's perspective. *Proceedings of the annual symposium of computer applications in medical care*. Philadelphia: Hanley & Belfus, 1995:824-8.
- 22 Haidet P, Paterniti DA. "Building" a history rather than "taking" one. *Arch Intern Med* 2003;163:1134-40.
- 23 Rousseau N, McColl E, Newton J, Grimshaw J, Eccles M. Practice based, longitudinal, qualitative interview study of computerised evidence based guidelines in primary care. *BMJ* 2003;326:314.
- 24 Zue V. Talking with your computer. *Scientific American* 1999 Aug;40:1.
- 25 Tange HJ, Dreesen VAB, Hasman A, Donkers HJLM. An experimental electronic medical-record system with multiple views on medical narratives. *Comput Methods Programs Biomed* 1997;54:157-72.
- 26 De Lusignan S, Wells SE, Hague NJ, Thiru K. Managers see the problems associated with coding clinical data as a technical issue whilst clinicians also see cultural barriers. *Methods Inf Med* 2003;42:416-22.
- 27 Brown PJB, Warmington V, Laurence M, Prevost AT. Randomised cross-over trial comparing the performance of Clinical Terms Version 3 and Read Codes 5 byte set coding schemes in general practice. *BMJ* 2003;326:1127-30.
- 28 Dougherty GE. "Conventional" dictated versus database-generated discharge summaries: timeliness, quality and completeness. *CMAJ* 1999;160:345-6.
- 29 Goss RM. "Now for something completely different"—a patient's eye view of accessing health records. www.doh.gov.uk/ipu/ahr/hrd1602.pdf (accessed 24 Jan 2004).
- 30 *The NHS Plan*. www.nhs.uk/nhsplan/nhsplan.pdf (see 4.21, p 48) (accessed 24 Jan 2004).

The door handle sign

She had been to see me several times during the previous few months with a variety of minor and seemingly insignificant symptoms. This occasion was no different; she had a minor degree of hallux valgus, a runny nose, and some contact dermatitis on her wrist. She was, however, clearly very unhappy, but I could not discover an underlying cause. After a long and unsatisfactory consultation, she left my consulting room leaving me aware that I had failed to meet her need. Fortunately, as she closed the door behind her, I noticed that the handle continued to turn unnecessarily two or three times.

I followed her into the by now crowded waiting room and asked her to come back. "I think there is something you haven't

told me," I said. Immediately she burst into tears and started to undo her dress. Her chest was swathed in purulent bandages, which covered a gangrenous breast carcinoma en cuirasse.

The relief was immediate and enormous. I don't know how she had managed to conceal this from her husband for so long. I don't think my failure to make a full examination on her first visit would have altered the prognosis, but it was a salutary lesson not to write off every seeming hypochondriac. Despite the dire situation, my subsequent consultations and visits were very rewarding.

John Williams *retired palliative medicine physician, St Austell*