Using IT in the Yorkshire and the Humber area: A case study

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Despite the doom and gloom in the NHS regarding the delivery of new computer systems, there are success stories that are improving patients' experiences, and positively influencing clinicians' opinions. This article describes the information technology (IT) system developed to facilitate diabetes care in Bradford and Airedale and how this is being extended to support the Year of Care project for Yorkshire and the Humber Strategic Health Authority.

The author is a GP in Keighley, where, in 1998, a group of practices tendered for a new computer system that would be innovative without requiring special hardware, and that would permit integration of records between the GP surgery and the local hospital diabetes service, as well as the GP out-of-hours service. The Phoenix Partnership was successful in its bid to provide a system for the practice and as a result Holycroft Surgery has used SystmOne (*Figure 1*) as the practice information technology (IT) system since September 1999, and the sharing of medical records is now routine.

SystmOne provides a centrally hosted GP, community and child health record. A key technical feature is that a single record per patient exists on the system, and information added to the record is available to the next user the moment it is saved – in real time. This means that information can be added by many different clinicians at many different sites, ensuring that the same clinical record is available at every appointment.

Electronic shared records

The initial brief was to create a system that could share records between the local consultant diabetes unit and the GP surgery, so that all users could see the coded and narrative record of all those caring for an individual. Dr Richard Pope (Consultant Diabetologist at Airedale NHS Trust) created the original shared diabetes record design in 1999 and it has been in routine use since then. The IT architecture ensures that the patient record is safe and secure, that

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the person with diabetes can retain control over what is shared and what is not, and that the information is available in a timely manner. Dr Pope has more recently been responsible for developing a pan-strategic health authority (SHA) approach to the delivery of diabetes care that has built upon the approach facilitated by this IT system.

In the Bradford and Airedale teaching PCT (tPCT), electronic shared records have become routine in several areas – out-of-hours GP work, palliative care, diabetes, consultant advice for chronic kidney disease (CKD) and heart failure support. The work that Dr John Connolly (GP, Ridge Medical Centre, Bradford) and Dr John Stoves (Consultant Nephrologist, Bradford Teaching Hospitals Trust) are doing in CKD has been particularly rewarding. Their project, which was developed between Bradford and Airedale tPCT and Bradford Hospitals Teaching Trust, is supporting the electronic referral of the records of an individual with CKD whose GP needs advice, but where referral of the person is not required. By sharing the record with the consultant nephrologist (with the requisite permission of the patient) a detailed review of the individual's condition can be made without him or her being seen. This model supports more numerically data-rich clinical areas, but is not limited to these. Developments in telemedicine (video links between clinicians) as well as telecare (remotely measuring and

Figure 1. SystmOne login screen

sharing data) will extend the boundaries.

The provision of an electronic record that supports many patterns of care delivery has permitted an organic development of services. This is usually as a result of the vision of individuals or groups of patients, managers and clinicians who can see the benefits to be gained beyond the challenges. System change requires investment in terms of time and money, as well as ensuring clinician engagement.

GPs have been using electronic patient records for many years, and the linking of GP performance measures to coded information has ensured very high standards of coding. In secondary care, disease and outcome coding has usually been a "backroom" function, performed after a person has been discharged, by non-clinical staff, usually very accurately but not always clinically helpful. In the author's experience, community staff have been waiting a long time to get IT systems to support their work but have little training in coding. Experience of shared records shows that all users benefit from access to the record, and care is enhanced.

Anecdotally, people with diabetes generally desire the sharing of records as the benefits are obvious – more timely communications, greater accuracy in prescribing, and more open communications between groups. Furthermore, clinicians generally desire the sharing of records as it has the potential to:
- Reduce work.
- Ensure that "an adequate communication has taken place" (i.e. no obscure blood test result is overlooked in error).
- Lower the threshold to ask questions (it takes an effort to write a letter, post it and wait for the answer, whereas typing a question into the GP journal, notifying the consultant of the question [electronically] and receiving a reply within 24–48 hours ensures that the communication forms part of the medical record, and allows the recipient to view the medical record in question).
- Reduce duplication (of time and tests).

● Deliver a "proximity of care" where the clinicians feel "closer" to the care of the patient.

In the author's experience, managers can see the same benefits, along with the scope for Trusts to diversify as local tariffs for new ways of working are developed.

Consent

The issues around consent to share information in medical records is entertaining the profession at the moment, including whether consent should be assumed (implied) or expressly sought. Sharing of the "whole" GP record especially raises concern for many professionals. However, these issues can be addressed when the electronic model is designed to support the permutations and combinations of patients' wishes. This detailed level of control of record sharing supports the desire for some people to exercise precise control over their records.

Among people with diabetes at the author's practice, where consent is formally sought, the author has never known a patient to decline the sharing of his or her whole record between the GP and the diabetes clinic.

Indeed, in the author's experience, in 9 years of using shared records, only one patient has expressed a wish to opt out of any sharing, and that was in response to negative care record publicity (see http://news.bbc.co.uk/1/hi/health/6189745.stm).

Long-term conditions and the Year of Care

In England, 15.4 million people have a long-term condition (Department of Health [DH], 2007). This has a vast effect on the NHS, as improvements in treatments drive better outcomes. We are increasingly aware that the medico-centric model of diabetes care may not encourage, empower or engage the individual adequately, which has led to the adoption of the Year of Care project (National Diabetes Support Team [NDST], 2008), bolstered by the *Our Health, Our Care, Our Say* Government White Paper (DH, 2006). The Yorkshire and the Humber SHA is developing a strategy to support this process, centred around care planning and commissioning.

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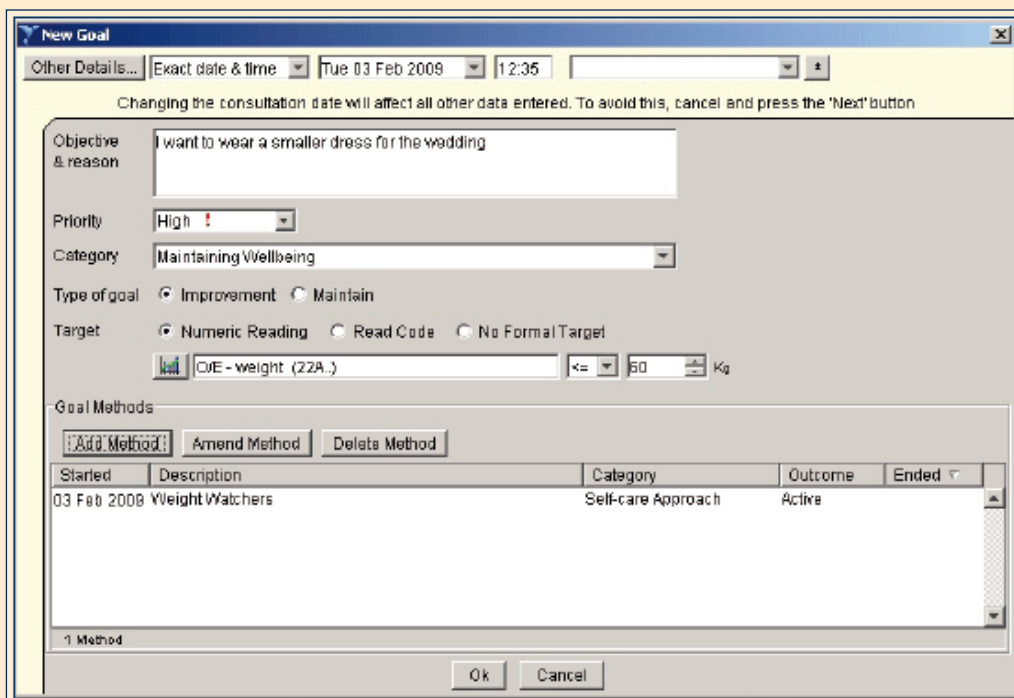
Figure 2. Goal setting in SystmOne

Page points

1. The Year of Care is not about delivering an IT system, rather it is about a system-wide change of approach to the support of a long-term condition.

2. By storing the person's desires, the reporting system can produce outputs to support the commissioning of what people with diabetes actually want.

3. The model being developed in the author's locality provides a solution for the present while the future developments are monitored.

wide change of approach to the support of a long-term condition. But person-centred care planning needs to provide the data required for better commissioning, as the diabetes National Service Framework states that "the key to good outcomes is productive interactions between an engaged empowered patient and an organised proactive system" (NDST, 2008). This is facilitated by improved electronic patient records, structured to collect the data required, and flexible enough to support the person-centred approach.

Dr Pope's experience of using the IT system described in routine diabetes consultations and the natural "e-traffic" that this has generated by the record sharing model has allowed him to envisage the expansion of shared records across the wider area as a tool to deliver part of the Year of Care project. ("E-traffic" refers to "conversations" between clinicians taking place within the patient electronic record.) Stakeholders have shown a remarkable willingness to contribute to this process, including the involvement of patient groups.

Of course, an electronic record is only part of this story, but in the author's view it is a vital component to the delivery of a successful outcome.

Current work to support the Year of Care

Dr Pope has been working with the larger group across the SHA to define a common data set, represented in a number of data entry templates for people with diabetes. In addition, a "goal setting" process has been developed, which enables the person with diabetes and the clinician to record the individual's desired achievement, be it a standard physiological measurement (for example, HbA_{1c} <9%, or weight <100 kg), or a "looser" term (for example, "I want to be fitter"). To achieve the goal an action is needed; this can be the recording of an existing service that will support the person (for example, referral to dietitian), as well as a desired service (for example, Weight

Watchers in the local village hall) where this does not yet exist (*Figure 2*). This latter option provides a chance to assess what new services need to be commissioned in order to meet patient requirements. So, by storing the person's desires, the reporting system can produce outputs to support the commissioning of what people with diabetes actually want.

Next stages

The templates and goal setting screens will be made available to any diabetes team across the SHA that want to utilise this approach. By standardising the process and dataset across all users, the reporting function of the system will return more consistent and accurate information. At the same time the concepts of the Year of Care will be introduced across the area.

Conclusion

Resistance to change of systems is natural. The uptake of systems is improving, with over 6000 NHS staff working in the community setting using SystmOne in the Yorkshire and the Humber SHA. The delays in the delivery of secondary care IT systems and the lack of "vertical integration" between primary and secondary care IT systems that will be supported in the future has stalled development in some areas. The model being developed in the author's locality provides a solution for the present while the future developments are monitored. ■

More information is available via the SHA website at http://www.yorksandhumber.nhs.uk/ what_we_do/improving_patient_care_and_ service_quality/diabetes/ (accessed 09.02.09).

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