



E-Health Insider/British Computer Society Patient Safety Round Table

Briefing paper: Improving patient safety through e-prescribing

'How the primary care experience can inform development in the hospital sector'

Round Table to be held 30 April, 2008, 12.00-5.00pm.

BCS Offices, 5 Southampton Place, London WC2E 7HA

Participant Briefing

Supported by



Description

The patient safety through e-prescribing event is the first of a series of three patient safety round table events being jointly organised by E-Health Insider and the British Computer Society Health Informatics Forum. The round tables will each examine how different areas of information technology can contribute to patient safety. The subsequent events will focus on Radio Frequency Identification Devices and whole systems safety approaches.

Format

Run on the afternoon of 30 April, 2008, between 12.00-5.00 with a buffet lunch served before commencement.

The round table event will comprise a small expert panel of NHS, provider, industry and academic experts who will discuss the key topics involved highlight areas where further work and research is needed and make recommendations for the future. The event will be chaired by Dr Glyn Hayes.

The afternoon event will examine the contribution e-prescribing can make to improved patient safety in the NHS, taking the experience of e-prescribing to date in primary care and applying the key lessons learned to its development in the acute hospital sector.

Formal discussion will be recorded, with a transcript produced which will be worked up into a final report by E-Health Insider editor Jon Hoeksma. This final report will be emailed to EHI readers.

Round table discussion: lessons primary care can offer secondary care on e-prescribing

The round table will examine what are the similarities and what are the differences and similarities between the prescribing experience and practice in primary and secondary care, and what are the lessons the latter can learn from the success of primary care. A series of top-level questions on this theme (set out below) will be examined by the panel, leading to conclusions and where appropriate recommendations.

Electronic systems for e-prescribing have not been widely implemented within the UK acute sector, despite the fact that e-prescribing promises much in terms of reduction in clinical risk and process changes.

Although e-prescribing in primary care is simpler than in a complex acute environment, its success, to a point where use is near 100%, offers potentially useful lessons for hospitals. In particular, the introduction of increasingly sophisticated knowledge bases and linked decision support tools to support the prescribing process demonstrate the potential for improvements in prescribing safety.

Sponsor

The event is being sponsored by First DataBank Europe.

The draft 2006 Connecting for Health functional specification for hospital e-prescribing described it as:

“the utilisation of electronic systems to facilitate and enhance the communication of a prescription, aiding the choice, administration or supply of a medicine through decision support and providing a robust audit trail for the entire medicines use process “

Benefits to patient safety

Until recently full e-prescribing had only been introduced in a handful of UK hospitals, these include Wirral, Burton and Winchester. Elements of e-prescribing are being introduced in a number of trusts and e-prescribing forms a key component of the NHS National Programme for IT.

Despite the considerable technical and organisational difficulties of introducing hospital e-prescribing, the benefits it can make to patient safety have been repeatedly identified. With over £800 million separate prescriptions to patients written by GPs and hospital doctors each year, medication is by far the most common form of treatment provided to NHS patients. In the average hospital 7,000 prescribed doses are given to patients every day.

The 2001 UK Audit Commission report, 'A Spoonful of Sugar' on medicines management in NHS hospitals estimated that 1,200 people die annually in England and Wales as a result of medication errors, costing the NHS £500m a year.

Many of the errors identified in 'A Spoonful of Sugar' were attributed to doctors lacking the right information about a patient either because paper notes are illegible, incomplete or missing altogether.

The report noted that progress on e-prescribing “has been extremely slow,” adding: “Many boards are concerned with strict financial targets and are unwilling or unable to invest money to achieve sustainable quality and cost improvements.”

In 2004 the Chief Pharmaceutical Officer (CPO) published 'Building a Safer NHS for Patients: Improving Medication Safety'. This described NHS standards of prescribing as high, but stressed mistakes can arise in the prescribing, dispensing or administration of medicines.

'Improving Medication Safety' estimated the direct cost of medication errors to NHS hospitals at £200-£400 million a year, and cited Australian research that found 1% of all hospital in-patient admissions suffered an adverse event as a result of a medication error.

The US experience of introducing e-prescribing and dispensing systems - usually implemented as a computerised physician order entry (CPOE) programme - indicates that appropriate application of IT can reduce errors.

The most often quoted study into the scale of avoidable adverse patient harm, in part attributable to medication and prescribing errors, is the famous US Institute of Medicine's 2000 report, 'To Err Is Human: Building a Safer Health System', which said handwritten reports or notes, manual order entry, non-standard abbreviations and poor legibility lead to errors and injuries to patients. It estimated 98,000 people die each year from medical errors that occur in hospitals.

A follow up IOM report in 2001 advised use of CPOE and associated decision support systems. Prescribing errors are the largest identified source of preventable hospital medical error. Most recently a 2006 IOM estimated that a hospitalised patient is exposed to a medication error each day of his or her stay. According to one JAMA paper CPOE use can reduce the medication error rate by 80%, and by 55% for errors with serious potential patient harm.

Patient safety through e-prescribing discussion topics

Opening remarks by Chairman

- **The lessons on e-prescribing that primary care can offer secondary care**
 - How has primary care successfully implemented e-prescribing?
 - What have been the benefits to patients?
 - What have been the business benefits?
 - What are next steps?

- **Hospital experience of e-prescribing and medicines management**
 - Why the relatively low levels of implementations to date?
 - What lessons can be learned from NHS sites that have implemented e-prescribing in acute care?
 - In primary care, prescribing is largely confined to practice and pharmacy. In hospitals the medicines management chain is longer, pharmacists are far more involved in decision making and prescribing is often carried out by more junior doctors
 - In hospitals the focus needs to be far more on the medicines management process which occurs after the actual prescribing process
 - Improving patient compliance

- **Difficulties of hospital implementation**
 - Not just in UK that progress that has been slow
 - Few hospitals have yet implemented full acute e-prescribing. What are main challenges and difficulties?
 - Evidence exists that introducing e-prescribing can actually create harm to patients if not done well – examples in literature from US
 - Practical problems such as alerts overload

- **Capturing benefits**
 - From where do the benefits come?
 - Capturing clinical benefits
 - Capturing business benefits
 - Research and post marketing surveillance opportunities from e-prescribing data

- **Conclusions and recommendations**
 - What can NHS the acute sector learn from primary care experience?
 - What are the lessons to ensure success in development of hospital e-prescribing?
 - What should be the next steps for primary care e-prescribing development?
 - Panel recommendations on policy and further research required.

Closing remarks by Chairman

EHI readers are now invited to continue the debate online on this key topic using the [dedicated forum](#) we have set up, click [here](#).