

Risk management: CPOE and standardised substitution of drugs

When automating any system, expertise is essential in not only the subject, the new and old systems, but also in human behaviour.



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These talks presented different ways in which hospital pharmacists influence prescribers. Computerised Physician Order Entry (CPOE) generates a new problem as it solves existing ones: that of alert fatigue. As experts try to guide prescribing by introducing alerts, prescribers ask for alerts to be switched off because they feel overwhelmed. In Germany, attempts are being made to automate the substitution of non-formulary to formulary drugs, because switching of drugs is a time-consuming and error-prone process.

Low specificity of alerts, unclear and long-winded information make the process inefficient and time-consuming. Looking at the clinical decision support, prescribers were asked about 24 frequently-overridden drug interaction alerts: could these be turned off hospital wide? Answer: "No!" Next, an attempt was made to improve the content of alerts. Studies found that 50% of prescribers did not read an alert before deleting it; and nurses refused to take over alert handling for alerts with respect to drug administration times.

What should happen when a patient comes in taking a branded drug not used by the hospital? About 62,000 drugs are available in Germany, but a typical hospital drug formulary is restricted to about 3,000. Thus, millions of drugs are switched to comply with formularies. To accelerate and facilitate this process a 6-step decision

algorithm was developed and tested by retrospectively applying it on 140 patients with more than 770 drugs. Because 98% of the drugs could successfully be switched with the help of a standardised interchange algorithm it was consequently implemented into a decision support system and is now being studied to see how its use is going. Much effort was put into gathering information about generic and therapeutic substitution, critical drug classes and dosage forms, and gaining approval by local clinicians.

It is difficult to find the best method of drug safety alerting. The Dutch experience is that adjustments may have unexpected results and should be monitored by outcome measurements. Decision support requires consultation, transparency, patience and then evaluation in a continuing cycle of development and improvement.

Delivering patient services – People vs Machines

Man or machine: who offers optimal patient care? A Welsh pharmacist argues that harmony between human and technical elements brings the best results.

Who's in control now?

Welsh hospital pharmacist, Mr Darrell Baker from Cardiff and Vale NHS Trust gave an entertaining presentation on the benefits of technology to pharmacy services. Mr Baker comes from a large Cardiff hospital with a staff of 12,000 serving a population of 2.5 million.

He is a great supporter of automated dispensing. Change in Cardiff was driven by several factors including increased demand for dispensing and growing drug complexity. Yet Mr Baker admitted evaluating the value of automation is often hard. "Practice is often very different to theory," he admitted.

The absence of a computerised physician order entry (CPOE) system has led Mr Baker and his colleagues to adopt other strategies to support the four-step patient care process: Prescribe – Dispense –

Administrate – Monitor. He said automation with this process helps staff save time, improve care, work safer, and reduce costs. But he reminded pharmacists that they can not forget that patients do not follow every instruction from health staff. Therefore, the human element in care remains vital.

Seven habits of successful pharmacists

Borrowing from the best-selling book, *7 Habits of Highly Effective People* by Stephen Covey, Baker offered pharmacists seven steps to success automation:

1. Be proactive. Attempt to change what you can influence.
2. Begin with the end in mind.
3. Put first things first - look at your options and choose the best fit.
4. Think win-win: collaborate. Engage with other teams and inform them of the benefits. It is vital that you understand and address opposition to change.
5. Seek first to understand, then to be understood. Show empathy to your patients. Machines help dispense, allowing pharmacists to be more caring and communicative.
6. Synergise. Automation can improve information sharing between teams. For example, pharmacists understand not just what drugs patients take, but how they take them.
7. Develop staff ("sharpen your sword"). During an implementation carefully identify staff training needs and plan to improve.

Mr Baker closed by commenting that when implementing IT the end goal should be realising the full potential of your staff and patients. "It is not people vs machines. It is people and machines together improving safety, care and cutting costs!"

Questions from the floor

"How do pharmacists justify automation to the accountants?" Pharmacy staff need to embrace change and use technology to its full capacity to optimise the return on investment (ROI). Technology that is under-utilised may not be worth investing in. Secondly, it is vital that pharmacists