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# Dreams and reality

## — practicalities of new IT systems

Progress with developing and implementing electronic prescribing systems was a key theme at this year's Guild of Healthcare Pharmacists IT interest group seminar. Hannah Pike reports

**T**here is a real need to gain experience in and further the development of electronic prescribing and medicines administration (EPMA) in paediatrics, according to Sue Conner, electronic prescribing project manager at Great Ormond Street Hospital, London.

Processes in paediatric prescribing are sufficiently different to adult prescribing to warrant a separate development stream, she explained. She presented a progress update of the EPMA system that is being phased in at the hospital over the next few years.

Mrs Conner described how a project board, team and other resources were identified, and funding was obtained for trust-wide implementation of the new system over a five-year period.

During development of the system specification it became clear that many of the features identified as being useful in the paediatric environment could also benefit adult practice. However, a number of key requirements were identified specifically for paediatric use, including the facility to:

- Record/display patients' height and weight throughout the system with appropriate warnings
- Record/display gestational age at birth
- Record/display 24 hour fluid targets
- Enter/view maternal drug history
- Perform dose calculations with dose banding by age and/or weight
- Check doses with standard paediatric texts (eg, the BNF-C)

The nephro-urology clinical unit was selected as the site for the evaluation phase because of the diversity and complexities of prescribing, plus commitment shown by the clinicians, Mrs Conner explained. "The initial aim was to provide an electronic version of the drug chart," she said, "This has now been achieved and we have a development contract in place to ensure that progress continues over the roll out period."

The Guild of Healthcare Pharmacists information technology interest group seminar entitled "Dreams and reality" took place in Coventry on 26 April. Hannah Pike is editor of *Hospital Pharmacist*.



Sue Conner: paediatric systems require different specifications to adult systems

The EPMA system went live in October 2005 on the nephrology ward, following the new pharmacy system going live in April 2005. In January 2006 the urology ward plus associated theatre started to use the system, and the nephrology outpatient clinics went live in April 2006.

Senior house officers and specialist registrars prescribe from personal computers in their office on the ward and from a laptop on the notes trolley during ward rounds, Mrs Conner said. Consultants access the system and occasionally prescribe in the ward seminar room. In the outpatient department clinicians prescribe using PCs in the consulting rooms. Each morning the lead clinical pharmacist accesses the system from her office to view all newly prescribed items and later in the day using a mobile device on the ward. Dispensary staff and the resident pharmacist access the system to verify new items from the dispensary out-of-hours. Use of different wireless devices is also being evaluated by the team.

At Great Ormond Street Hospital there are no medicines administration rounds. Nurses are responsible for the care of individual patients and use a wireless mobile device to display the "doses due" in the drug treatment room and to record administrations at the bedside. Nurses can use the new system according to their access rights, which depend on grade and experience.

Mrs Conner described some of the issues that have been identified during early use of the system and how they are being solved. These include:

- Training requirements — the project board has approved the introduction of EPMA system training into the trust's induction programme for doctors
- Time taken to log into the system, especially in theatres — the trust plans to implement software to provide users with a "single sign on"
- Full screen display requested — the supplier (JAC) is to implement this
- Ability to prescribe from a list of favourites — the next release will provide users with protocols listing medicines they commonly prescribe

Mrs Conner said that evidence of the impact of EPMA on rates of real prescribing error is limited, and some errors may actually be introduced by the system. A PhD student is now being funded to research the effect of EPMA implementation in a paediatric environment.

"The system has proved to be robust and dependable, but it is essential that we continue looking at its effectiveness and whether it is going to improve safety and efficiency overall," she concluded.

### — Clinical engagement

Clinicians need to get more involved in developing electronic prescribing systems and telling the suppliers what functionality they want, said Dave Rosser, consultant in intensive care medicine at United Bristol Healthcare Foundation Trust. He outlined the benefits and difficulties of electronic prescribing, providing data and examples from the system currently being used at the intensive care unit at UBHFT.

He urged attendees to attend the prescribing and clinical engagement workshops that are being held by Connecting for Health over the next few months. "Get involved and shape it," he urged. "It will happen to you if you do not let it happen for you."

Details of the workshops are available at [www.cfh.nhs.uk/eprescribing](http://www.cfh.nhs.uk/eprescribing)

# Central database for monitoring on-call activity

This year's First DataBank Europe information technology award was presented to James Turton, pharmacy computer systems manager at Queen's Medical Centre, Nottingham. Mr Turton's winning project was the design and implementation of a networked IT system for monitoring the activities of the on-call pharmacist.

Presenting his project, Mr Turton explained that the previous system used for logging on-call activity was a paper record, and pharmacists had to congregate in one place in the morning to read the file and check if any follow-up were required before they went on their ward rounds. These records were often hard to read and untidy, and follow-ups were not managed and sometimes missed, he explained. It was also difficult and time consuming to extract useful management data such as call volume and call type from the paper records.

The new system, first launched at the QMC in October 2004, is a password-protected system that involves the on-call pharmacist logging the calls they receive onto a central electronic database. Details that can be recorded on the database include: contact number, ward, caller, call type, call details, date and time, any follow up required and by whom, and whether the call is within policy guidelines.

A "quick log" facility is also included to allow rapid input of only the contact number during busy periods. Pharmacists can

## Further information

Further information about the system including a demonstration is available at [www.innottinghamwebdesign.co.uk](http://www.innottinghamwebdesign.co.uk)



James Turton (left) was presented the award by Peter Spurr, deputy head of knowledge based services at First DataBank Europe (right)

then complete the remaining details during quieter times. A "close call" facility enables the details to be edited until the file is closed, at which point the original details become locked.

Pharmacists can now easily and quickly find out what has happened to their patients during the night, said Mr Turton. The system also requires that staff input details about what follow-up has been carried out.

Filters have been incorporated so that the data may be viewed by call type, calls requiring follow-up, calls from a particular ward etc, and a search facility is available for rapid extraction of data. Users can add additional details about the calls from the review screens which will be attached to the original record.

Activity levels can also be viewed as bar charts.

Departments can now be monitored for adherence to agreed guidelines on use of the on-call service and any issues can be followed up with the ward manager.

Mr Turton explained that this system can run with existing technology in most hospitals. It is located on the hospital intranet and therefore accessed via existing PCs in wards and departments.

The program also includes a messaging system which prompts users when they log on that calls have been flagged for them.

Mr Turton said that additional features currently under development include an interventions monitoring system and the use of handheld devices.

## Electronic mind maps — efficient organisation tools

**Mind mapping**, the technique of documenting thought processes in a tree-like structure, is commonly used as a memory aid or to gather ideas on paper, but they are less often used in an electronic format, said George Gannon, operations manager at University College London Hospitals. He explained how mind maps can be used to improve individual productivity, to aid organisation, and as a knowledge resource, and that using a computer program is a simple and quick way of creating the maps.

"You do not have to be a computer expert, they are very user-friendly tools," he said. There are at least ten different software packages available, Mr Gannon told attendees, and despite being designed for different user groups, they all work on the same principle.

Mr Gannon demonstrated how to use the mind map software, and how to attach notes and files to individual entries. A map can be linked to other maps and thus joined to other processes across organisations. There is also the option to protect certain areas of the map with passwords.

Mr Gannon demonstrated one of the most useful aspects of the program — that at the touch of a button the mind map can be presented as a Word document or a PowerPoint presentation.

Electronic mind maps can be used to create organisational memory, so that if a person leaves a department a knowledge base will remain for others to access. "I believe that one day having mind mapping software on your PC will be as common as the other three estab-

lished desktop applications [word processing, spreadsheets and databases]," Mr Gannon said.

## "Table top challenge"

Conference attendees were given the opportunity to take part in a board game presented by Connecting for Health to help groups of staff better understand the National Programme for IT. The game involved moving counters around a board using dice and answering scenario-based questions or putting forward group opinions about the national IT programme. It has been designed to give players more confidence to get involved with the programme and to stimulate debate.

## Correction

In the letter “Bears need not suffer for our health” (p107), Jill Robinson MBE, the founder of Animals Asia, was incorrectly referred to as Jill Johnson.