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Electronic solution to intervention monitoring aids clinical governance

Quality and medication safety was the theme of the EAHP congress. Harriet Adcock reports

Data collected as part of intervention monitoring has traditionally been used to justify the existence of clinical pharmacy services, Roger Williams, pharmacy manager at Morriston Hospital, Swansea, told the conference. However, because these services are now well established there has been a move to collect data to test the impact of the pharmacy service on clinical governance.

Electronic solutions to collecting and reporting data for monitoring purposes are needed, said Dr Williams. Many monitoring practices have been paper based, which can be time consuming and makes reporting and benchmarking more difficult. Personal digital assistants are already used by pharmacists for accessing clinical databases and so can be adapted to provide an intervention database tool.

Dr Williams described a project undertaken across five NHS trusts in which the ability of a PDA database to record and report pharmacists' interventions was assessed. Other objectives were to investigate whether a common dataset would allow benchmarking within and between pharmacy departments, and to assess whether use of the database results in changes in practice that improve patient care. "We also wanted to incorporate a risk management element," he said. This allows risk rating of interventions to identify high-risk areas where pharmacy services can be targeted.

The database allows a record to be made of where interventions are taking place,



Roger Williams: recorded data supports further investment in clinical pharmacy services

who initiates enquiries and the type of intervention made. "Ideally, we want pharmacists to be proactive," said Dr Williams. "We want to see high numbers of interventions being made at admission." It also allows the practice of pharmacists across different specialties to be compared, as well as practices across different hospitals.

Pharmacists involved in the pilot spent two weeks collecting data on the interventions they made. They were also asked to record information about the actual and potential outcome of errors and near misses. Recording data took no more than 15 seconds per intervention, said Dr Williams, and pharmacists were then able to download data to a central database.

Over the two weeks, data on 1,531 interventions were collected from 38 wards. The data revealed that the drugs most commonly associated with interventions were aspirin, enoxaparin, warfarin, simvastatin, isosorbide mononitrate and clopidogrel. "A list similar to that obtained for dispensing errors, but for different reasons," said Dr Williams.

Most interventions were made on medical and elderly care wards where the trusts have the most developed clinical pharmacy services. "This is not to say that we have not got problems in other areas," said Dr Williams. "In fact, we can take this information to managers as evidence that we need further investment in clinical pharmacy services."

Benefits of the PDA system identified through the pilot included it being a quick and convenient data entry method, its ability to highlight problem drugs and its potential to be used as a teaching aid.

"The database is able to reveal inconsistencies across trusts," Dr Williams said. For example, at one hospital there may be a lot of illegible prescriptions leading to errors or near misses. The database provides evidence to show this is not the norm and that something needs to be done about how doctors write prescriptions at that hospital.

Dr Williams stressed that intervention recording was not a replacement for entries being made in clinical notes. "It is important that we do not have a separate record." He suggested that intervention recording can be used to profile a service intermittently.

Funding is now being sought to roll out the database across 24 trust sites in Wales.

Promote value of incident reporting, especially to medics

The value of incident reporting needs to be promoted to hospital staff, particularly medical staff, according to Cathy Mooney, clinical governance manager, Charing Cross Hospital, London. And in terms of managing risk, it is vital that someone is responsible for review and action, she said.

Not following procedures is often identified as the cause of errors, resulting in

procedures being reviewed. "This is not enough. It is important to make sure that procedures can be implemented and that they are supported with training." And when considering the cause of an error, the whole episode of care needs to be looked at.

Ms Mooney gave an example from her own trust, of an elderly lady who had fallen during the night and who subsequently died. The assumption could have been that the fall was the most important factor in the incident. However, by looking at the circumstances that led up to the fall it was possible to identify the more relevant areas of weakness in the system — level of moni-

toring of international normalised ratio for patients treated with warfarin, provision of information to patients and carers about the effects of treatment and availability of junior doctor support. Using a timeline to track events can be helpful, she said.

Ms Mooney went on to describe the features of a successful system put in place to prevent an incident happening again. Ideally, it should be simple, it must be worth the effort required to implement it, and it should reduce the need for human input. She added that staff commitment is vital for success, so frontline workers should be used to identify and solve problems.

The 11th congress of the European Association of Hospital Pharmacists was held in Geneva, Switzerland, on 22–24 March. **Harriet Adcock** is news editor of *The Pharmaceutical Journal*

Rational drug selection for formulary purposes

There is an intuitive belief that formularies improve prescribing and patient care, Roger Walker, professor of pharmacy and consultant in pharmaceutical public health, Cardiff, told conference participants. But he pointed out that there is only limited evidence that formularies bring about the benefits they are designed to.

However, he added that there are issues about how medicines are promoted by the pharmaceutical industry, and formulary committees provide an opportunity to bond against industry influence.

Decisions made by formulary committees often attract attention because there is a perception that the committee is trying to drive costs down. So it is important that decisions are evidence based. He also warned that decisions can be influenced by the more articulate members of committees.

Professor Walker listed the ideal characteristics of a formulary committee. It should have defined, evidenced-based criteria for decision making, and it should be transparent (for example, it should publish relevant papers on the internet). Decisions should be consistent, timely and involve all key stakeholders. There needs to be an appeal process and review date built in and conflicts of interest must be dealt with. Implementation of decisions should also be monitored.

Robert Janknegt, Maasland Ziekenhuis, Sittard, The Netherlands, explained that the selection of drugs for formularies is often based on more than just rational information. There may be emotional factors that influence the process, based on a committee member's experience of a drug, and hidden factors, such as a financial interest in seeing a drug included. Perhaps the most important influences can be unconscious, warned Dr



Robert Janknegt: drug selection is sometimes based on emotional and unconscious factors

Janknegt, whereby members make decisions based on information they are most familiar with. "This limits their choices to perhaps two or three drugs."

To achieve rational drug selection at a local level, interactive decision making methods can be used. In The Netherlands the System of Objectified Judgement Analysis (SOJA) is used. The SOJA method uses only rational criteria, for example, efficacy, effects on clinically relevant endpoints, incidence and severity of side effects, drug interactions, cost and supporting documentation. The extent to which each drug fulfils the requirements for each criterion is determined and relative scores are set by a panel of experts.

"The results of SOJA sessions are highly predictable," said Dr Janknegt. "Almost all users will assign the high relative weights to criteria such as clinical efficacy, documented effects on clinical endpoints, safety and dosage frequency. Drugs which perform well

on these criteria will therefore show a high score for almost all users."

He gave the example of statin selection. When a pharmaceutical representative focuses on cholesterol lowering, rosuvastatin may come out on top. "They are telling the truth, but not the whole truth," he warned.

The interactive SOJA programme is available online at www.sojaonline.nl.

Michael Scott, chief pharmacist, United Hospitals Trust, Antrim, described the use of a modified SOJA system within the Northern Health and Social Services Board in Northern Ireland. The system, known as STEPS (safe therapeutic economical pharmaceutical selection), is being used to tackle lack of integrated product use across primary and secondary care. "Essentially, the sectors procure independently with little formal consideration of each other's needs," he said.

Step one involves clinical evaluation of products whereby an expert panel decides on selection criteria and assigns relative weights to these criteria. Then consultants and GPs with specialist interests are consulted about the matrix system to ensure there is local consensus. Once the process has been validated, information about available products is gathered from manufacturers and the drug entities to be assessed are selected.

Step two is a risk assessment involving a detailed safety evaluation of these products. Critical information is collected regarding storage conditions, labelling and packaging and scores are assigned. Then aspects that add value to products are determined, such as whether or not they are available in a calendar pack. Step three is a budget impact analysis to determine the affordability of products at which point the final selection of product lines is made.

RFID raises issues associated with privacy and data collision

Use of radiofrequency identification (RFID) tagging technologies raises technical issues, including those associated with privacy and data collision, Christian Hay, Medinorma, Switzerland, told participants.

He predicted that the first routine intelligent use of RFID in the hospital setting would be at the case or pallet level rather than at a patient level. He suggested that hospitals should concentrate on the use of barcodes to identify products. "Then, when RFID comes, you will be ready," he said.

However, he saw an important application for RFID in patient identification, since barcode scanning could be intrusive.

Michael Baehr, Hamburg-Eppendorf, Germany, agreed that personal security is an issue with RFID and suggested that its use for patient identification is a long way off. How-

ever, Dr Hay said that different countries react differently to the issue of personal security. "Fear comes because people don't understand how RFID works," he said.

To address use of scanning technologies in health care, manufacturers have founded a health care user group, Dr Hay explained. Top of their agenda is patient safety, then anti-counterfeiting. There are major companies within the user group — AstraZeneca, GlaxoSmithKline, Baxter, Pfizer, Wyeth — but, as yet, there are no hospitals. Manufacturers are ready to offer solutions but there needs to be a demand, he said. "If everyone asks for something different you will have nothing. But if you agree to a simple standard [for product identification] then you will have it."

Responding to the speakers' presentations, Laurence Goldberg, National Patient

Safety Agency, expressed concern that health care systems seem to be 10 years behind the rest of industry. "By the time we have agreed on standardisation for barcoding, barcoding will be obsolete," he warned.

He suggested that industry was moving towards RFID tagging to address the problems of counterfeiting. "If industry is going to put RFID tags on packs because of counterfeiting then surely we must consider how we can use tags already on packs," he said.

Dr Baehr agreed that barcoding was not a final solution to drug and patient identification and that the future might lie in RFID. "However, first we must implement the process then we can switch to tag readers," he said. "If we wait for tag technology then we will just lose more time," he said.