UNITED KINGDOM CLINICAL PHARMACY ASSOCIATION

How pharmacists are helping to make patients safer

Medication errors and patient safety were high on the agenda at the autumn symposium of the UKCPA, which was held in Blackpool on 22–24 November. Diane Langleben, editor of Hospital Pharmacist, *reports*

Medication errors: learning from the American experience

Mistakes are a fact of life, said ALICE OBORNE, pharmacist for evidence-based practice and research, King's College Hospital, London, opening her AstraZeneca travelling fellowship lecture.

Ms Oborne used her award to travel to the United States to learn about failure mode effects analysis (FMEA). She explained that the components of FMEA were:

- Failure — system or part of a system that performs in an unintended way
- Mode — way in which the failure may occur
- Effects — the result of failure
- Analysis — a detailed examination of the elements or structure of the process

FMEA is the prospective assessment of risk in drug use, and it can be applied in such areas as processes, systems, equipment and labelling. This method allows a process to be examined to see how it can be made safer.

Ms Oborne explained that a high-risk process, vulnerable to error, is selected and a multidisciplinary team assembled. The team, ideally comprising 10 people close to the process, brainstorms to find potential failure modes and determine what could happen at each stage, so identifying the possible effects on patients. Each stage is given a score and the severity of failure is ranked to give it a probability of occurrence. Processes with a high score are then redesigned to reduce unacceptable errors. The new process is then piloted, implemented and monitored.

Ms Oborne visited the Institute for Safe Medication Practices (ISMP), Pennsylvania, which has made a number of recommendations based on failure mode effects analysis. These include standardisation of prescribing, particularly for warfarin and heparin, using double checks, avoiding verbal orders, limiting the access and use of drugs such as potassium chloride, and storage precautions for drugs in packaging that look similar.

The ISMP produces error reports which are then sent to hospital pharmacists throughout the US. A slightly different alert goes out to nurses and to primary care pharmacists and, from early 2003, consumers will begin to have access to the alerts.

The ISMP also produces posters for hospitals on how to avoid bad practice. Ms Oborne showed several examples to the audience: "Don't trust your hearing" warning against verbal orders, "Hold on tight" warning against putting something down before it is labelled, and "Don't point" advising against showing strengths with decimal points. Computer screen savers and videos have also been produced.

Ms Oborne also visited Brigham and Women's Hospital, Boston, to look at computerised prescribing which has been in place since the early 1990s. The system includes admission dates for all patients, diagnoses, allergies and drugs they have been prescribed in the past; it automatically screens for adverse events. The system brings up about 150 alerts a day, 15 per cent of which relate to adverse drug events. Of these, over half are deemed serious or life threatening. One full-time pharmacist is required to operate the system. Use of the system has led to substantial cost savings. Ms Oborne believes that any hospital staff thinking of installing computerised systems would have to choose one at least as good as the one she saw to achieve similar benefits.

Ms Oborne also described a different computerised system used at Veterans Affairs hospitals (5 per cent of all US hospitals). Patients, their unit dose drugs and prescriptions are all bar-coded. Before nurses administer the medicine, all the bar codes must be scanned. Ms Oborne cautioned that there are still problems associated with this system such as poor useability, difficulty "viewing at a glance" and prescribing tapering courses.

Ms Oborne attended a meeting of the safe medication use expert group at the US Pharmacopeia headquarters in Rockville. As at the ISMP, the group reviews medication error reports, but in a different way, giving a much greater depth of information. Hospitals report voluntarily and the group receives 44,000 reports a quarter. The group makes recommendations based on the reports to various health care professional bodies.

Evaluating the provision of advice to patients on oxygen

Many patients on domiciliary oxygen receive a sub-optimal standard of care from community pharmacies, when compared with the standards of good practice documented in the Royal Pharmaceutical Society's 'Medicines, ethics and practice' guide. So found researchers from Lothian pharmacy practice unit and the pharmacy departments at Lothian Primary Care NHS Trust and Lothian University Hospitals NHS Trust, Edinburgh. ALISON BOYLE, who was then a preregistration trainee at Lothian University Hospitals NHS Trust told the symposium that the aim of the study was to evaluate the advice and instruction received by patients prescribed domiciliary oxygen and to identify the professionals involved in the care process. Questionnaires were sent to specialist respiratory staff and to all community pharmacies in the area. Community pharmacists identified 247 patients, who completed anonymous questionnaires. Results from the study indicate that although community pharmacists fulfil the basic requirements of the domiciliary oxygen contract, there are areas where professional practice should be developed. In particular, Miss Boyle mentioned follow-up, monitoring of progress and provision of written information with oral advice, which are often absent. She believes a standardised approach is required.

Alison Boyle receiving her prize from Duncan Hannant, hospital accounts manager, GSK

The presentation won the GlaxoSmithKline award for the best oral communication from a first-time speaker.

Error reporting and the primary care pharmacist

Error reporting in primary care is feasible, according to a study carried out by Hull and East Riding Pharmacy Research Network. The study was presented by HILARY EDMONDSON, a community pharmacist who works for the network.

Mrs Edmondson explained that there are few data about medication errors that occur during the dispensing process, especially in primary care. The aim of the pilot study was to investigate the feasibility of a self-reporting system for near-misses and dispensing errors in community pharmacies in Hull and East Riding primary care trusts. For the purposes of the study, a near-miss was defined as an error found before the medicine was handed over to the patient. Four community pharmacies, one in each PCT, volunteered to participate in the study, which was conducted in two phases, each of four weeks' duration.

Hilary Edmondson: primary care error reporting needs the participation of all staff

The results of the study indicate that a self-reporting error scheme is feasible and could be incorporated into the dispensing routine as a risk management procedure. In her summary, Mrs Edmondson said: "Error reporting in primary care is feasible providing a 'no blame culture' is established."

Mrs Edmondson believes that the cause of errors should also be investigated. She stressed that a primary care error reporting scheme needs the participation of all staff and that it is sometimes difficult to involve locums. However, the pilot had shown that in the beginning, locum pharmacists had not been enthusiastic about taking part, but that attitudes had become more positive as the pilot progressed.

Mrs Edmondson hopes that the scheme will be expanded to all primary care pharmacists working in Hull and East Riding primary care trusts.

She won the GlaxoSmithKline award for the best oral communication at the symposium.

UKCPA awards from Merck and Napp from the first time

According to a study carried out by primary care pharmacists to measure their potential contribution in identifying, understanding and meeting the health needs of patients with bone disease, recipients are pleased with the service.

The study was the winner of the first Merck Pharmaceuticals medicines management award, and Jonathan Randall, market development manager at Merck, said that he had been impressed with both the quantity and quality of the entries.

ZIBA RAJAEI-DEHKORDI and CAROLINE HOLLINGSHEAD described the study by Pharmacy Alliance, which involved 25 community pharmacies in Chessington, Surrey. The results, endorsed by patients, GPs, pharmacists and pharmacy staff, show that community pharmacists can make a significant contribution to meeting the health needs of patients with osteoporosis. In addition, the researchers believe that the process can be used for other community pharmacist-led initiatives.

Another new award at UKCPA this year was the Napp palliative care award. Two senior clinical pharmacists, ELIZABETH AUSTWICK and MARIANNE TIMLIN, from Chesterfield and North Derbyshire Royal Hospital NHS Trust, described the significant input that pharmacists make into a palliative care clinic. The two pharmacists said that the clinic had been set up after the arrival of a new palliative care consultant. His experience in Canada influenced the decision to have a multidisciplinary team including pharmacists.

Outcomes of a study to assess the value of the pharmacist input show that the service is highly regarded. The pharmacists liaise closely with physicians and nurses and have established relationships with community pharmacists. Patients actively seek advice from the pharmacists at the clinic, who have also produced leaflets for them.

Medication errors: the research strategy

Pharmacists' *raison d'être* has always been patient safety, remarked RICHARD LILFORD, professor of clinical epidemiology, University of Birmingham, and director of the patient research programme at the Department of Health. Professor Lilford was delivering the Bristol-Myers Squibb lecture on medication errors. He said that there has been a flurry of activity around the world recently on patient safety. This has led to a surge of interest into research on the subject and the reason for this was because of a growth in knowledge, a number of high profile cases, the thoroughly documented incidence of unsafe practice, and society's expectations.

Professor Lilford asked rhetorically what can research offer and he suggested that research explains the epidemiology of error: the where, when and how often. He said: "Knowing error happens is not enough. We need to know why. Then we can do something about it. Therefore, there has to be an evaluation of things that could be done."

UKCPA awards for the best posters

The GSK award for best primary care poster was presented to Dr Gillian Hawksworth, community care pharmacist and Vice-President of the Royal Pharmaceutical Society (shown above left with Duncan Hannant, hospital accounts manager, GSK) and Dr Christine Clark, lecturer in clinical pharmacy, Liverpool John Moores' University.

The study examined the types of skin conditions presenting at seven community pharmacies and the nature and outcome of the consultation. The conclusion drawn was that deregulation of topical antibacterial preparations would result in a significant reduction in the number of referrals to GPs.

The GSK award for best secondary care poster went to staff at the Royal Sussex County Hospital for their poster "ABC: three steps to evidence-based practice in acute myocardial infarction (ACE inhibitors, beta-blockers and contraindications)". Mr Hannant can be seen in the picture (above right) making a presentation to Alison Warren.

Una O'Neill, Belfast City Hospital, Belfast, won the Pharmacia prize for the best preregistration trainee poster. The study, looking at injectable drugs and package inserts, found that the inserts are not always considered satisfactory by medical and nursing staff.