

MEDICINES MANAGEMENT INITIATIVES REDUCE ERRORS

Pharmacy staff taking drug histories, working in emergency departments and educating staff about medication incidents were among the topics covered at the UK Clinical Pharmacy Association symposium, 19–21 November, Blackpool. Gareth Jones reports

Pharmacy technicians can make less drug history errors than doctors, according to Julia Keating, principal pharmacist clinical development, Basildon Hospital, Essex. A new medicines management service has been introduced at the hospital with technicians taking on additional responsibility. Surveys showed that 90 per cent of patients had no objection to talking to pharmacy technicians and 90 per cent of staff rated the service as sometimes helpful or as valuable.

A medicines management project was designed to involve pharmacy technicians, as studies have shown that they can be trained to take an active role in many medicines management areas, said Mrs Keating. She thought that it would be hard to expand the service to this level using pharmacists due to the nationwide recruitment difficulties. Instead, a pharmacist was appointed to head the project and four experienced technicians were appointed to provide the service. Employing a team allowed for the establishment of an extended working day, seven days a week.

The pharmacy technicians take and document detailed drug histories, prepare



Julia Keating: technicians can develop competence in some tasks normally undertaken by doctors

in-patient prescription charts which are signed by a doctor, re-write patients' prescriptions charts as needed, assess the suitability of medicines brought into hospital by patients and prepare a summary of each patient's medicines for the discharge letter.

A three month training programme was set-up for the technicians to complete and demonstrate competency. They were required to produce a portfolio of evidence in each skill area before the service was implemented. Audits were performed at baseline and at five and ten months after the introduction of the service.

The error rate in writing drug histories dropped by 55 per cent when this task was performed by pharmacy technicians as opposed to doctors ($P=0.001$). There were also significant reductions in errors on the admission drug charts, re-written drug charts and discharge letters. The clinical significance of errors made by doctors was found to be greater than that made by pharmacy technicians.

The service saved around 39 hours per week of doctors' time. This is beneficial in reducing the workload of doctors so that the trust can comply with the requirements of the European working time directive.

Mrs Keating concluded that following suitable training, pharmacy technicians can be competent in various medication documentation tasks that are usually undertaken by doctors.

Re-design services to improve care

The introduction of a new medicines management service with the use of patients' own drugs and one-stop dispensing led to a reduction in the percentage of drug histories containing an error from 70 per cent to 42 per cent. This was one of the key findings of work undertaken by Alexa Wall, principal pharmacist, Wishaw General Hospital, Lanarkshire.

Before the new system was implemented, medicines brought in by patients were either given to relatives to return home, stored on the ward or destroyed. Destruction of drugs resulted in significant wastage and duplication of workload in primary and secondary care.

There were also problems with discharge from hospital, which were often delayed.

Data were collected on missed doses, time to discharge and patient and nurse opinion on the medicines management processes. A system of using patients own drugs throughout the hospital stay and at discharge was then introduced. An audit of the new system was performed after it had been operational for one month.

The number of omissions of current therapy reduced from 68 per cent to 46 per cent after the introduction of the new service. Prescribed doses not administered due to unavailability of drugs reduced from 10 per cent to 3 per cent. The new system reduced wastage of medicines and saved money on drug expenditure in pri-

mary and secondary care, Mrs Wall said. For each patient admission, £13.23 in primary care and £26.42 in secondary care were saved.

The patient opinion survey reported a doubling in the number who thought that they received enough information about their drugs (40 per cent at baseline, 81 per cent during the pilot).

Nursing staff reported that they had more time to provide patient education as a result of the system. Seventy per cent of patients said they received information on medicines from a pharmacist during the pilot.

Mrs Wall received the Merck Pharmaceuticals and United Kingdom Clinical Pharmacy Association Medicines Management Award 2004 for this project.

Mr Jones is editor of Hospital Pharmacist

Emergency department role for pharmacy

Medication histories taken by pharmacists in the emergency department are more complete than those recorded by doctors, according to Gail Foreshaw, emergency department pharmacist, Queen's Medical Centre, Nottingham.

A baseline audit was conducted in October and November 2002 on medication history-taking by doctors (n=175). The medication history taking was verified by a pharmacist based on the medical admissions ward.

The study audit was undertaken between September 2003 and January 2004. The emergency department pharmacist saw patients on weekdays between 9am and 5.30pm before admission to a ward (n=125). The pharmacist documented the drug history on the in-patient drug chart. Senior pharmacists on the medical wards audited the accuracy of drug history taking by the emergency department pharmacist. Exclusion criteria were patients not seen by a pharmacist until discharge, patients admitted to a ward with a junior pharmacist and patients admitted at the weekend. It was not possible to blind the pharmacists assessing the accuracy of the drug chart, but identical criteria were used for defining errors involving both doctors and pharmacists.

Over 1,700 items were analysed. Drug prescribing errors were detected for 44 per cent of items prescribed by doctors com-



Gail Foreshaw: pharmacists can improve accuracy of drug histories at admission

pared with 2.2 per cent for pharmacists ($P<0.0001$). Drugs were accidentally omitted from the 17.5 per cent of drug charts written by doctors and 1.1 per cent when written by pharmacists ($P<0.001$). Information on allergies was always completed by pharmacists but omitted by doctors on 9.1 per cent of occasions.

The authors conclude that medication histories taken by pharmacists are more complete and the new service has improved prescribing practice. Pharmacists took 18 minutes completing a drug history com-

pared with doctors who spent 7.5 minutes on this activity.

□ Patients who present at the emergency department requesting emergency prescriptions can be dealt with by a pharmacist, according to Ursula Collignon, senior pharmacist emergency medicine, Guy's and St Thomas' Hospital NHS Foundation Trust.

Patients in the emergency department requesting a supply of a prescription-only medicine that they were unable to obtain through normal channels were referred to a pharmacist, once the patient had been assessed by the triage nurse. Patients were excluded if they had symptoms of the condition for which the drug was prescribed (eg, peak expiratory flow rate <75 per cent best or predicted when requesting salbutamol) or the medicine requested was nebulised, a benzodiazepine or controlled drug (except phenobarbitone for epilepsy).

Data were collected for these referrals over four consecutive weeks. Over half of patients requesting medication were seen by the pharmacist (seven out of 13). Medicine supplied included glyceryl tri-nitrate spray, salbutamol inhaler, fluoxetine and venlafaxine. Pharmacists were able to authorise a five-day supply under the emergency supply provisions of the Medicines Act if the drug had previously been prescribed by a UK registered medical practitioner.

Medication incidents briefings help improve practice

Briefing staff on medication incidents can improve practice, according to Bryony Dean Franklin, principal pharmacist, Hammersmith Hospitals NHS Trust. Dr Dean Franklin explained that the trust already had a well-established medication incident and near-miss reporting system. However, feedback to staff had been limited, so medication incident briefing seminars were set-up to improve this situation.

A half-day programme has been developed by a group of nursing and pharmacy staff. The programme includes evidence-based sessions on human error theory, why errors occur, how health care professionals can help prevent them and an overview of the incidents reported within the trust and changes made as a result. The director of nursing or chief pharmacist is also involved by facilitating a discussion session.

The effectiveness of the seminars was evaluated by sending questionnaires to 168 of the members of staff who had attended. Of the 29 per cent who responded, 83 per



Bryony Dean Franklin: two-thirds of staff changed practice as a result of attending a seminar

cent said they would like to attend again. Eighty-one per cent said they were satisfied or very satisfied with the seminar and 73 per cent thought they had learned something,

with 67 per cent saying they would change practice as a result.

Participants were asked to identify the areas where their practice would change as a result of the seminar. The replies included checking prescriptions more carefully for drug errors, reporting medication incidents and cascading information about errors on the unit to all staff.

According to Dr Dean Franklin, the feedback suggests that the seminars are worthwhile and will therefore be continued. A similar session is now being run for medical staff.

Publishing work

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