

Medication incidents in primary care

More than a third (35 per cent) of all incidents in the NRLS reported to have occurred in primary care between October 2006 and September 2007 relate to medication errors.

As of 27 January 2008, there were 11,700 incidents in the NRLS reported to have occurred in primary care settings during the period 1 October 2006 to 30 September 2007. Of these 4,071 were related to medication errors.

The four most common themes identified from medication errors in primary care were:

- Vaccination
- Prescribing (including administration errors at production of prescription)
- Repeat prescribing
- Dispensing

Vaccination

Childhood and adult injections/vaccinations are an important part of the service general practice offers. They do, however, illustrate the complexity of the setting in providing care in the community, often with multiple patients in the same room, attending as families. In addition, the vaccination schedules have changed over time and illustrate the need for repeated education and training of team members.

Human factors are important in such settings; similar named drugs, standardised packaging for different drugs and strengths can easily be mistaken. Also, the documentation of vaccination status could be on paper or on a computer. Issues arise where this documentation isn't immediately obvious during a consultation.

Following are some examples taken from incidents reported to the NRLS:

"Patient attended clinic for pneumonia vaccination but was given Hydroxocobalamin injection by mistake."

"Practice nurse gave travel vaccines to two children from same family. Gave to both children adult Hepatitis A (Avaxim) rather than the Hepatitis A vaccine meant for children (Havarix Mono Jnr)."

"An immunisation was given in error. The Meningitis type C vaccination instead of the Measles Mumps Rubella was given to the child."

"Baby came for 1st imms - was accidentally given Men C vacc instead of PCV with Pediacel vaccine. Explained to mum no harm to baby - at 2nd imms will get PCV instead of Men C vacc."

Prescribing

Primary care issues a large number of prescriptions every year. As an indication, 659.7 million prescription items were dispensed in community pharmacies across England between 1 April 2005 and 31 March 2006.

Modern computerised prescribing systems have reduced much of the burden of individually hand-written prescriptions. However, our reviews of the data suggest that some problems are occurring at the point where the prescriptions are both initiated and generated. For example:

"Patient prescribed Pantoprazole for Dyspepsia. Given Omeprazole instead. Patient spotted error."

"On carrying out a risk assessment on the patient I noticed he was on two lots of medication. Citalopram & Mirtazepine. Until [date] patient was on Citalopram 40mg but this was reduced to Citalopram 20mg. Mirtazepine 15mg was added on 3 months later without stopping the Citalopram and the patient had been on both ever since."

"Patient prescribed Micronor, repeat requested from patient and given one months supply of Microgynon 30. Made appointment with practice nurse for one month later for the supply of Microgynon 30, issued from clinic. On attending error highlighted, patient had not taken any because she realised the box was different. Patient 50 years and a known smoker, both absolute contraindications."

Repeat prescribing

Over 80 per cent of all prescriptions are generated as part of a repeat prescribing system. Different practices have evolved a variety of systems to look at this, increasingly using the experienced skills of different team members.

The National Prescribing Centre (www.npc.co.uk) has run a series of successful collaboratives looking at medicines management issues within healthcare settings. How these systems are developed, maintained and monitored can be important to the quality and safety of patient care. Understanding the current risks within repeat prescribing systems will be important so that the roll-out of electronic transfer of prescriptions does not perpetrate or aggravate such issues.

Professor Tony Avery, from Nottingham, has close links with the NPSA and his research interests involve looking at systems and computerisation (www.saferprescribing.nhs.uk).

Whilst the system generally works well, the NRLS data has highlighted a number of problems that might be associated with the administrative side and the risks of medicines being wrongly changed or re-issued.

"Chance discovery of duplication of medicines on patient's prescription. Switch of Fosamax once weekly to Alendronic Acid has been undertaken on [date] and letter sent to patient. On the same day receptionist had re-instated Fosamax on to prescription and duplication of both drugs continued until last issue of Fosamax on [date]."

"Patient came in to say that he was given Tegretol retard 400mg instead of the regular Tegretol. Looking on the medication screen Tegretol retard 400mg comes before the regular preparation of 400mg so it was probably chosen first by receptionist who was inputting info from patient paper request."

"Patient came to see GP on [date], she was unsteady on her feet and was having frequent falls and BP was found to be low. Raprimil was reduced from 10mg to 5mg and Co - Tenidone was stopped. Repeat list was altered accordingly and as patient was on bubble packs the Pharmacy was informed of the change in medication and was given a new script. On [date] the pharmacy put in a request for the old drugs and was issued with a one month supply of post dated scripts for 10mg Raprimil and Co - Tencidone (these were restarted by the receptionist from the past drugs). The script was signed off by Duty Dr."

Dispensing

The NPSA has issued guidance on the design of both dispensed medicines and the dispensing environment (see page 3).

The dispensing incidents reported to the NRLS from primary care illustrate that medicines management arrangements in primary care offer many points of safety check, but that empowering the patient to understand their medication is as important as a final safety check.

"Patient on prescribed medication Burinex A (combination of two loop diuretics) and was dispensed Burinex K (diuretic and potassium supplement. Wholesaler sent wrong drug undetected by dispensary staff. Patient identified immediately that the medication was incorrect before leaving the surgery."

"Patient prescribed 5mg Amiloride twice a day but 5mg Amlodipine in box. Patient admitted to hospital with left ventricular failure."

"Patient contacted surgery today – she had been given Novomix 30 Penfill instead of Mixtard 30 Penfill. None used."

"Patient on Dasette box medication from pharmacist. Wrong box delivered & patient took one dose of medication therein. GP reviewed items taken & confirmed no further action needed clinically. Pharmacist collected & replaced with correct box."