Helping to prevent hospital medication errors

In the Medical Defence Union's experience, medication errors are a common type of adverse incident in secondary care. In a busy hospital environment, mistakes can occasionally happen when prescribing, dispensing or administering medicines and the consequences for some patients can be serious. This article looks at some of the medication errors that can occur and considers steps that could help to reduce the risk and improve patient safety.

Between February 2009 and January 2010, it has been estimated there were more than 16 million episodes of in-patient care in England, over 57% of which included at least one procedure or intervention (NHS Information Centre, 2010). Against these figures, the number of medication incidents is extremely small and the reports of death and severe harm very rare: in a detailed study published in 2009, the National Patient Safety Agency revealed there were 54 827 medication incidents reported to its National Reporting and Learning Service by acute sector hospitals during 2007.

Types of incident

In the National Patient Safety Agency study, which looked at both primary and secondary care, most serious medication incidents reported occurred when a drug was being prescribed or administered. The most common incident types reported were: wrong or unclear dose or frequency, wrong medicine and omitted or delayed medicines. These accounted for nearly half of the medication error reports and 71% of the errors associated with fatal or serious clinical outcomes.

This reflects the experience of the Medical Defence Union where the most common medication problems reported by hospital doctor members on the Medical Defence Union's advice line are:

- Wrong drug or wrong dose being prescribed
- Errors in administration (e.g. injecting a drug into the wrong site)
- Prescribing to patients with a known drug allergy
- Prescribing a drug contraindicated by concurrent or other medication
- Communication problems (e.g. failures to check possible adverse reactions, not recording medication details in the notes, and problems with shared care between the hospital and the patient's GP).

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Dangerous drugs

The National Patient Safety Agency reported that the types of drugs most frequently associated with severe harm included cardiovascular, anti-infective, opioid, anticoagulant and antiplatelet medication. There were also a handful of serious incidents related to the monitoring and management of chemotherapy regimens.

The National Patient Safety Agency regularly issues safety alerts and safer practices notices about specific drugs and it is certainly advisable to be aware of relevant guidance concerning the safe delivery of medication. For example, safety alerts and advice were issued about safer spinal, epidural and regional devices (November 2009) and lithium therapy (December 2009). National Patient Safety Agency safety alerts and other patient safety guidance can be found on their website (www.nrls.npsa.nhs.uk/). When administering drugs with the potential to cause serious harm, such as intrathecal chemotherapy, the Medical Defence Union also advises that it is essential to ask a colleague to provide an independent check and to follow any relevant hospital protocol.

Communication

Clear and unambiguous communication with a patient is key to avoiding misunderstandings when prescribing or administering medication.

The General Medical Council's (2008) *Good Practice in Prescribing Medicines* says that doctors should:

> **'be in possession of, or take, an adequate history from the patient, including: any previous adverse reactions to medicines; current medical conditions; and concurrent or recent use of medicines, including non-prescription medicines.'**

The General Medical Council's prescribing guidance also requires you to 'satisfy yourself that the patient understands how to take the medicine as prescribed and that the patient is able to take the medicine as prescribed'. The Medical Defence Union advises doctors to take time to explain to patients what they should expect from the medication, including any side effects. If the patient is being discharged, provide unambiguous information about how regularly he/she should take his/her medication and the dose, and warn the patient of what to do if he/she experiences any side effects. Of course, not all patients may remember everything that is explained to them, especially if the information is complex, so it may be helpful to provide written information that they can study later.

There have also been cases where the wrong medication has been prescribed for a patient because there had been confusion with a patient with a similar name. Check the identity of patients at each consultation and before administering drugs, and ensure that you have the correct patient records and drug chart.

Patient handover and shared care

Communication problems between healthcare professionals themselves are also a significant factor in many medication errors. For example, the National Patient Safety Agency (2009) study reported that:

> **'incidents frequently occur due to a breakdown in communication between healthcare professionals in the acute care setting and as a result of poor documentation – particularly at transfers and hand-offs'.**

It later continued:

> **'Transitions where errors of this kind can occur include site-to-site transfers (i.e. patient transfer from A&E to inpatient ward) or from person to person (i.e. daytime staff nurse handover to night-time staff nurse). Communication and documentation issues may often be contributory factors.'**

The Medical Defence Union advises hospital doctor members to ensure that everyone involved with treating the patient, within

the secondary and primary care setting, is kept fully informed about his or her prescription and factors which may affect this such as existing medication and allergies. This includes recording dose, frequency and route of administration in the patient's clinical notes and the drug chart in a place that is obvious to all those involved in the care of the patient, as well as highlighting any adverse reactions in the notes and on the drug chart, and ensuring these are mentioned during handover meetings.

Medication errors can occur if there is poor handover of care after patients have been discharged from hospital. In 2009 the Care Quality Commission said that the NHS needs to improve information sharing between hospitals and GP practices so that the baton is passed smoothly between services. The Care Quality Commission reported that 81% of the 280 GP practices it surveyed said that when hospitals sent them summaries of care, the details of medicines prescribed were incomplete or inaccurate 'all of the time' or 'most of the time', while 47% reported that discharge summaries were received in time to be useful for patients' first follow-up appointment 'some of the time' or 'hardly ever'.

The General Medical Council expects doctors who provide treatment or advice for a patient but are not the patient's GP to 'tell the GP the results of the investigations, the treatment provided and any other information necessary for the continuing care of the patient, unless the patient objects' (General Medical Council, 2006). The Medical Defence Union recommends that the GP should be given all the necessary information about the patient including the condition requiring treatment, the required dose and frequency of the medication to be prescribed, and appropriate follow-up arrangements. Be particularly careful if special monitoring is required or if the medication administration is unusual, e.g. weekly methotrexate doses.

Information should always be sent promptly when the patient is discharged, and give enough information for GPs to prescribe safely if you expect them to take responsibility for the patient's medication. Patients on repeat medications should be reviewed and monitored regularly and if care is shared with the patient's GP, it should be clear who is responsible for follow up and monitoring. Patients themselves should also be given information about their long-term medication, including what to do if they experience any side effects.

Reporting adverse incidents

Many medication errors might be prevented by good planning, preparation and communication. However, if something should go wrong patients should be told immediately what has happened and should receive an explanation and an apology, if appropriate.

Doctors are also advised to be aware of and use the hospital adverse incident reporting system so that lessons can be learned from any mistakes or near misses that do occur. From April 2010, NHS trusts in England must be registered with the Care Quality Commission and will have a legal obligation to report to the National Patient Safety Agency 'without delay' adverse incidents which result in harm or death to patients. The duty will also extend to private health-care providers by 2012.

If you have any specific concerns about medication incidents, contact your medical defence organization for individual advice. **BJHM**

Conflict of interest: none.

Care Quality Commission (2009) *Managing patients' medicines after discharge.* Care Quality Commission, London (www.cqc.org.uk/_db/_documents/Managing_patients_medicines_after_discharge_from_hospital.pdf accessed 7 May 2010)

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NHS Information Centre (2010) *Provisional Monthly Hospital Episode Statistics for Admitted patient care and outpatient data, April 2009 - December 2009.* www.ic.nhs.uk/pubs/provisionalmonthlyhes (accessed 11 May 2010)

KEY POINTS

- The most common medication problems reported by hospital doctors to the Medical Defence Union include prescribing the wrong drug or dose and errors in administering medication.
- The types of drugs most frequently associated with adverse incidents leading to severe harm include cardiovascular, anti-infective and opioid medication.
- Take time to explain to patients how to take their medication and what to do if there are side effects.
- All the necessary information about a patient's condition and treatment should be promptly sent to his/her GP upon discharge from hospital.
- Doctors should make use of their hospitals' adverse incident reporting system.