

Bring patient safety to the foreground

Five patient safety alerts were announced by the National Patient Safety Agency last week, along with a programme of work to support their implementation. Tom Moberly looks at the alerts and at the background to the NPSA's recommendations

The co-ordinated programme of work set out by the National Patient Safety Agency last week (*PJ*, 31 March, p356) represents a first, David Cousins, the NPSA's head of safe medication practice, explained at the launch of the programme.

"Although the NPSA has put out safe medication practice alerts before, we have never done it on such a scale, affecting a wide range of professional groups in all settings and with such comprehensiveness in terms of support materials," he said. "There's a lot of interest worldwide in what we're doing here, because no one has done it in anyway similar."

The alerts follow several common strategies, including rationalising product ranges, using safer design, improving communication with patients, providing training on safe medicines use and auditing of medicines management.

They cover five areas of medicines management that are of concern to the NPSA: anticoagulation therapy, oral liquid medicines, injectable medicines, epidural injections and infusions, and intravenous infusions to children.

Anticoagulation therapy

The risks to patients during treatment with anticoagulants are manifold, Professor Cousins stressed. There are instances of patients going out of hospital not knowing that they need to have regular blood tests and possibly have their doses adjusted. And there is confusion when prescribers dose by tablet, rather than by milligram. At the same time, he said, anticoagulants do not generally appear on the "radar" of many NHS risk managers. "Somehow they're not being seen as something that needs to be improved," he said.

The NPSA has therefore worked closely with the British Society for Haematology to identify safety indicators for anticoagulant services. The NPSA suggests that the indicators be used as the basis for an audit of anticoagulation services, which should inform local actions to improve the safe use of anticoagulation therapy.

Oral liquid medicines

The safety problems relating to oral medicines centre on wrong route administration errors, Professor Cousins said. The potential for this to happen needs, he argued, to be designed out of hospital systems. "If you draw things up in an intravenous syringe, it is physically possible to connect it to an IV line and administer it," he said. "So the best way to avoid that is only to use oral and enteral syringes for oral liquid medicines — do not use IV syringes to measure or administer oral medicines. Enteral feeding systems should be "purchased for safety" he said, to ensure the connectors will not connect to IV syringes. "Telling people 'Be more careful' does not work," he insisted. Engineering out the problem is an effective way of stopping IV syringes being used for oral liquid medicines, he said.

Injectable medicines

The incidence of errors in prescribing, preparing and administering injectable medicines is higher than for other forms of medicine. In fact, injectable medicines are the subject of about a quarter of patient safety incidents and caused 25 deaths between January 2005 and June 2006. "Injections can be drawn up and not diluted," Professor Cousins explained. "They can be mixed with other medicines with which they are not compatible. They may require complex calculations. All these things can cause confusion and cause error."

The NPSA is recommending that a pharmacist and a senior clinical practitioner from each clinical area undertake a relatively simple risk assessment (see Panel) to identify high-risk procedures and high-risk products that can be focused on and can be made safer to use.

Epidural injections and infusions

Epidural injections and infusions were associated with 346 incidents reported to the NPSA between January 2005 and June 2006. These errors involved wrong routes, drugs or doses being used. So, the NPSA recommends, infusion bags and syringes for epidural therapy should be clearly labelled "for epidural use only" and stored separately from other medi-

cines. "You don't need [to keep] bags of epidurals next to bags of intravenous infusions," Professor Cousins insisted. "It's going to increase the risk of a mix-up. So just storing them in a different place makes a big difference."

Intravenous infusions to children

Since 2000, three children have died as a result of their plasma sodium levels dropping too low during treatment in hospital. The NPSA is recommending that hypotonic sodium chloride intravenous infusions be removed from stock and general use in areas where children are treated. "There is evidence that there is a greater level of risk of hyponatraemia associated with the use of hypotonic solutions," the NPSA says. "Within the range of hypotonic solutions available, the use of sodium chloride 0.18 per cent with glucose 4 per cent presents an even greater risk." The availability of these hypotonic intravenous infusions should, therefore, the NPSA suggests, be limited to critical care and specialist wards such as renal, liver and cardiac units.

Support materials

The work programme accompanying the alerts includes materials to support implementation, including risk assessment tools, patient information, e-learning modules and audit collection forms.

"We are in no way intending just to say to the NHS 'Do something about this. We're not quite sure how you do it, but get on with it'," Professor Cousins said. "We are giving practical support to people to actually implement this and achieve the things that need to be achieved. We also think it is really important to evaluate, so we're providing safety indicators, audit profiles, audit collection forms, so people can really, over the period of 12 months, see how well they have done in terms of implementation and evaluate the effectiveness of what we are proposing."

The training packages are designed to accommodate the fact that training will need to be part of an ongoing process, Carwen Wynne Howells, chief pharmaceutical adviser for Wales, said at the programme's launch. "We have developed training packages that can be used by new members of staff, so you're not reliant on everybody starting on the same day or undertaking the training on the same day," she said. "We now have user-friendly packages that can actually be used by new members of staff when they join the service to try to introduce them to safe practices, particularly in respect of prescribing and administration methods."

Further information about the alerts and details of the work programme are available from the NPSA website (www.npsa.nhs.uk).

Injectable medicines risk assessment tool

Much of the patient safety work that forms the basis of the five new alerts was carried out in NHS Wales. For instance, Cardiff and Vale NHS Trust was involved in the development of the injectable medicines assessment tool. Paul Spark, principal pharmacist for sterile production services at the trust, comments: "The tool originated from the work of Anne Black and her colleagues [*Hospital Pharmacist*, April 2005, p151]." Properties of injectable medicines and the way they are handed were ranked according to potential risk posed to patients by errors in administration. "Five or six risk factors were identified, which led to the development of the list of the 60 highest risk injectable medicines," he explains. This list then formed the core of the NPSA's assessment tool, which was trialled by the Welsh Aseptic Pharmacists Group, which carried out a risk assessment in Welsh trusts using the tool.