The adult patient’s passport to safer use of insulin

Insulin is frequently included in the list of top 10 high alert medicines worldwide. Insulin treatment has been identified as an important cause of hospital admissions, mainly as a consequence of severe hypoglycaemia. The costs of managing hypoglycaemia in the UK are significant.

The problem
This Alert concentrates on errors involving: using the wrong insulin product; omitted or delayed insulin dose; and wrong insulin dose. Together these accounted for 60 per cent of insulin-related adverse drug events reported in the UK and 67 per cent of all such incidents reported in the USA. Frequent causes were: look-alike and sound-alike insulin products, inadequate systems for insulin administration in hospitals and poor communication regarding dosing.

A review of the National Reporting and Learning System (NRLS) for the period 1 November 2003 to 1 November 2009 identified 16,600 incidents including six deaths and 12 resulting in severe harm. Of these 26 per cent were due to the wrong dose, strength or frequency and 20 per cent were due to omitted medicine. Patients being prescribed or dispensed the wrong insulin product accounted for 14 per cent of incidents. Reported incidents involved patients with type 1 or type 2 diabetes who were using insulin.

The solution
The aim of this Alert is to improve patient safety by empowering patients as they take an active role in their treatment with insulin. This will be achieved with a patient information booklet and a patient-held record (the Insulin Passport) which documents the patient’s current insulin products and enables a safety check for prescribing, dispensing and administration. The Insulin Passport will complement existing systems for ensuring key information is accessed across healthcare sectors.

This Alert also asks for systems to be in place enabling hospital inpatients to self-administer insulin (where feasible and safe). This should reduce the harm associated with incorrectly timing insulin administration with food, and deaths and severe harm caused by errors of omission such as failure to provide basal insulin while ‘nil by mouth’.

Errors due to incorrect use of non-insulin syringes and confusing insulin abbreviations have been the focus of previous guidance (see Safer administration of insulin. NPSA/2010/RRR013 www.nrls.npsa.nhs.uk/alerts)