Safe use of insulin – what is your organisation doing?

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In June 2010, the National Patient Safety Agency (NPSA) issued a Rapid Response Report highlighting safety issues relating to the prescribing and administration of insulin (NPSA, 2010). The NPSA challenged all NHS and independent organisations to implement key actions to prevent further insulin errors.

Insulin is a potent, life-saving medication that is an essential part of the daily regimen for many people with diabetes. In the USA, it is estimated that 20–30% of people with type 2 diabetes are treated with insulin (Koro et al, 2004) and in inpatients with diabetes the proportion requiring insulin is significantly higher (American Diabetes Association, 2008). If prescribed or administered inappropriately or inaccurately, insulin has the potential to cause severe harm or even death. Common errors include:

- Inappropriate use of standard intravenous syringes (marked in mL) rather than specific insulin syringes (marked in units).
- The use of abbreviations such as "U" or "IU" in place of "units", which may lead to the dose being misread (e.g. 10 U mistaken as 100).

Such errors can lead to serious harm, usually due to excessive insulin being given.

Last year, NHS Diabetes published the *Safe and Effective use of Insulin in Hospitalised Patients* document (Fowler and Rayman, 2010), which also highlights common insulin errors, including those mentioned above as well as incidents relating to the wrong insulin being given due to several insulins having similar names. The authors made the following suggestions of how such errors can be avoided:

- Education and training of healthcare professionals, including regular updates.
- Developing protocols and checklists.
- A second person to double check actions.
- Improving communication between healthcare professionals and patients.
- Electronic records and prescribing.
- Discharge planning.

This document provides a comprehensive review of the problems associated with insulin use in hospitals including hypoglycaemia and blood glucose monitoring. Thirty-four recommendations are made, ranging from undergraduate training to discharge planning. The document, although daunting, is essential reading for all DSNs working in acute trusts.

Education is key to the prevention of insulin errors and organisations need to implement education programmes for all staff involved in the prescribing, preparation and administration of insulin. This is an arduous task.

In response to these documents, NHS Diabetes has produced an online training module entitled *Safe use of Insulin* (see http://www.diabetes.nhs.uk/safe_use_of_insulin). This module consists of six sections covering a variety of aspects of insulin management (e.g. the right insulin, dose and devices). "True stories", highlighting the tragic consequences of insulin errors, can also be found online.

At the Aintree Hospitals NHS Trust, where I work, this module is now mandatory for all celinical staff. This is to be welcomed, although there will certainly be some practical implications that may cause hindrance (e.g. access to computers and the time taken to complete the module, which is approximately 90 minutes for non-specialist staff). Early feedback from staff focuses mainly on time issues. Several staff have reported finding the questions "challenging" and a senior member of medical staff commented that he had "learnt a few things along the way". Tracking who has accessed the training programme can be a problem; however, in time, NHS Diabetes together with Healthcare e-Academy will be able to generate reports for individual organisations.

Insulin errors in hospitals and in the community are a cause of great concern to all healthcare professionals working in diabetes care. As the current government keeps reminding us "we are all in this together"; therefore, we need to work collaboratively to prevent further errors. Do you know what your organisation is doing about safe use of insulin? If not, investigate today. Access the online programme as soon as possible and encourage your specialist and non-specialist colleagues to do the same. ■

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