One step for medication safety

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Insulin medicine management

Check the insulin-related guidelines/protocols and information available at ward or hospital level – use the five questions to review these elements of medicine management

Background and evidence

International evidence suggests insulin is frequently associated with adverse drug events. While often the events may not cause serious harm, they can cause patients distress and confusion, and impact on the confidence of patients in managing their diabetes.

Errors have been identified at all stages of the medication management process: prescribing, administration, dispensing and monitoring. The number of patients on insulin is increasing, as its use in type 2 diabetes increases. Insulin patients present on all hospital wards but not all clinicians are experts in insulin management.

The easy availability of clear protocols and guidelines for using insulin (prescribing, administration and monitoring) can reduce insulin-related adverse events.

An audit of staff knowledge and understanding relating to the administration of insulin[1] identified significant knowledge gaps. In particular there was limited staff awareness of which insulins were recommended to be given 30 minutes prior to meals. When asked when insulin was actually administered in relation to meals the most frequently reported outcome was that it was given after meals.

The national diabetes inpatient audit 2011 in England and Wales[2] identified that 31 percent of insulin patients audited experienced at least one medication error. These patients were more than twice as likely to experience a severe hypoglycaemic episode compared with patients with diabetes who did not experience a medication error. In patients with diabetes the hospital stay was on average three nights longer than non-diabetic patients.

Clinicians partnering and communicating well with patients and whānau are crucial aspects of insulin use. All written information given to patients should reflect the verbal information they receive, and contain consistent messages. Remember that patients who are admitted on insulin are often experts on their own diabetes experience and management.

1 Sharpe L. 2012. Improving safety of insulin administration: a pilot audit of hospital staff knowledge. *Journal of Diabetes Nursing* 16(1): 8–16.

2. Healthcare Quality Improvement Partnership. 2012. *National Diabetes Inpatient Audit 2011*. London: Healthcare Quality Improvement Partnership. URL: www.hscic.gov.uk/catalogue/PUB06279/nati-diab-inp-audi-11-nat-rep.pdf.

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The activity:

To reduce the risk of insulin errors and help promote improvement in practice, the Health Quality & Safety Commission's Medication Safety team is asking hospitals to identify the number of insulin-related protocols/guidelines and patient information leaflets available in their hospital.

This simple, five-question data collection tool is designed to help wards and/or hospitals shed light on the current situation that exists for their staff and patients.

DHB: Hospital:	Ward:	
Medicine management: insulin	**eg**	
How many insulin guidelines/protocols are available in the ward/hospital?	**4**	
Does each guideline/protocol have a review date?	**N (x/4 do not)**	
If there are multiple protocols/guidelines in the organisation, do they all specify where and which patients should be treated under it?	**N (x/4 do not)**	
Are the guideline(s)/protocol(s) easy for all staff to access?	**Y**	
How many patient information leaflets describing insulin subcutaneous administration technique are available in the hospital?	**5**	

Reviewing your results

The availability of multiple protocols/guidelines in one hospital can cause confusion for prescribers and administrators. This is intensified if there is conflicting advice in those protocols/guidelines.

Developing a single, clear, standardised protocol/guideline that all staff can easily access can reduce the risk of harm from insulin use.

Check the information being given to your patients is clear and consistent. Patients are often given several information leaflets on their condition and their medicines. They need to be given information, but it is important that the messages given are clear and consistent.

With thanks to the Patient Safety First Campaign for permission to use the one step approach