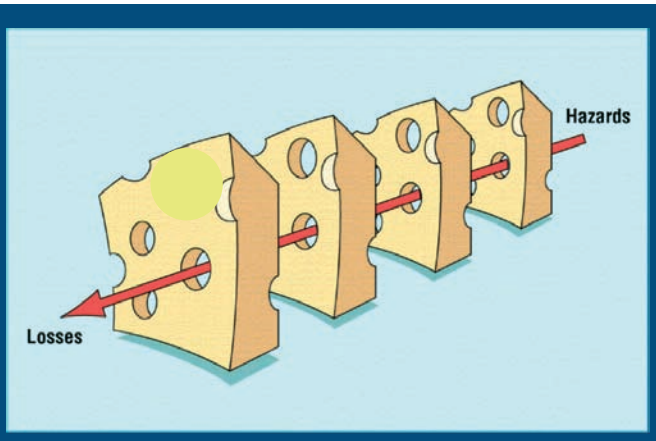
Medication Safety Today



Issue 20 **The Northern Ireland Medicines Governance Team Newsletter** **August 2007**

Gimme five!

The National Patient Safety Agency (NPSA) recently launched five medication related patient safety alerts. DHSSPS has distributed the alerts for action in Northern Ireland with information for regional implementation.

Circular HSC (SQS) 20/2007

- Reducing the risk of hyponatraemia when administering intravenous infusions to children.

http://www.dhsspsni.gov.uk/hsc__sqsd__20-07.pdf

Circular HSC (SQSD) 28/2007

- Actions that make anticoagulant therapy safer.
- Promoting safer measurement and administration of liquid medicines via oral and other enteral routes.
- Promoting safer use of injectable medicines.
- Safer practice with epidural injections and infusions.

http://www.dhsspsni.gov.uk/hsc__sqsd__28-07.pdf

STOP PENICILLIN ALLERGY?

Which of the following antibiotics can be given to a penicillin allergic patient?

1. co-trimoxazole
2. erythromycin
3. co-fluampicil
4. Tazocin®
5. ciprofloxacin
6. teicoplanin

Answers at the bottom of the page

If you have any comments on this newsletter, please contact Angela Carrington, Medicines Governance pharmacist on Ext: 5724 at Royal Hospitals or by e-mail at Angela.carrington@belfasttrust.hscni.net
Further copies of this newsletter can be viewed at http://www.dhsspsni.gov.uk/index/phealth/sqs/sqsd-safety-and-quality-updates.htm or on your Trust intranet.

Answers

1, 2, 5 and 6

A new term

August is a time of change on wards as staff take up new posts, often in different locations. While this can be a daunting experience for many, there is plenty of help available.

To maintain medication safety at this time of change:

- Familiarise yourself with policies and procedures for prescribing, dispensing and administering medicines. If you don't know where they are – ask.
- Seek assistance when required from experienced colleagues.
- Be willing to assist a more junior member of staff who asks for your help.
- Be alert for more junior members of staff who may not realise they need help.

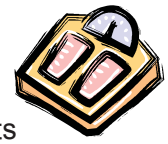
Insulin in hyperkalaemia

Serious medication incidents have occurred when insulin has been used as part of hyperkalaemia treatment (high potassium levels).

The CREST 'Guidelines for the treatment of hyperkalaemia in adults' January 2006 should be followed. The guidelines are available at http://www.crestni.org.uk/hyperkalaemia-booklet.pdf
Remember:

- Licensed soluble insulin contains 100units/ml. Each 10ml vial contains 1,000 units of insulin.
- The adult dose of insulin used to treat hyperkalaemia is 10 units, which must be measured using an insulin syringe.
- Insulin should be infused in 50ml of glucose 50%. This high concentration of glucose is used to prevent hypoglycaemia.
- Obtain a second check at every stage of preparation and administration. One of the practitioners involved must be a senior nurse on duty.

A weighty problem



The last edition of the newsletter highlighted the importance of ensuring paediatric weights are measured and documented in metric units.

Other problems have occurred where incorrect weights have been used as the basis for medicine doses. Some of the causes include using an out of date weight or not accounting for 'additional' sources of weight such as a wet nappy or a plaster cast.

Safety tips

- ☑ Remember to exclude any 'additional' weight where possible. Where this is not possible, make sure to document this beside the weight e.g. 'with plaster cast'.
- ☑ Always weigh a child on admission and record the date weighed beside the weight.
- ☑ Find out your Trust policy for reweighing children during an admission and how often this should be done.
- ☑ Familiarise yourself with typical weights for a child of a certain age – this can help to detect when an incorrect weight has been documented. A chart of typical weights for age is provided in the back of the BNF for children and the BNF.

What would you expect a child of the following ages to weigh?

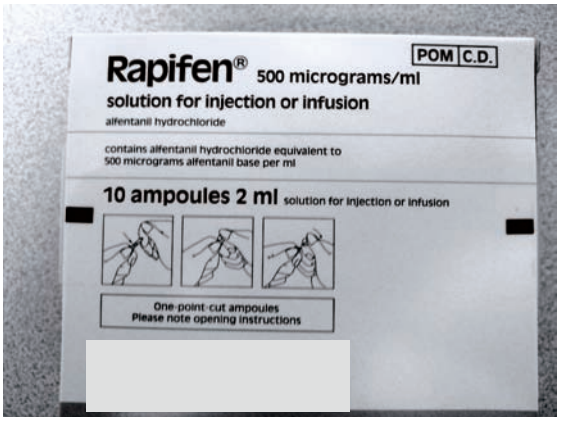
(a) 2 months (b) 3 years (c) 6 months

Answers at the bottom of the page.

Full up

Medication incidents have been reported where patients have received the wrong dose of medicine because the concentration (strength per ml) has been misinterpreted as the total quantity (strength per container).

Can you see how this packaging may cause confusion? How many ampoules should be used when preparing 1mg of this medicine?



Only one ampoule should be used. Each ampoule contains 2ml of 500microgram/ml solution (i.e. 1mg). However, expressing the concentration as strength per ml can mislead staff into thinking that the total quantity in each ampoule is 500microgram.

Reporting these types of incidents has contributed to changes in packaging and labelling of medicines.

Clozapine

Clozapine is an atypical antipsychotic medicine used in the treatment of schizophrenia. It can cause agranulocytosis and so the patient, prescriber and dispensing pharmacy must be registered with a clozapine patient monitoring service. Where a patient on clozapine is admitted to a hospital, remember to:

- Inform the registered pharmacy department and the Consultant Psychiatrist that the patient has been admitted.
- Confirm the patient's dose.
- Identify the frequency of white blood cell and neutrophil monitoring required during the admission for the monitoring service. This can be weekly, fortnightly or four-weekly.
- Be aware of the potential for drug interactions. Check the BNF, Summary of Products Characteristics or contact Pharmacy/Medicines Information.
- Ensure that your ward pharmacist or pharmacy (if not the registered pharmacy) have also been contacted.

Any unnecessary interruption in treatment has implications:

- Sudden cessation of treatment can put the patient at risk of rebound psychosis, which can have serious consequences.
- Where treatment is omitted for greater than 48 hours, re-titration of the dose is required; this requires specialist advice.
- Patients are at high risk of collapse if the previous dose is restarted without titration.
- Patient being re-titrated may have to revert to weekly monitoring even if they have been on less frequent monitoring prior to the interruption.

Therefore avoid unnecessary delays in prescribing, ordering, supplying or administering clozapine.

Time and time again

Intravenous vancomycin is administered as an intravenous infusion. If administered too rapidly it can cause severe hypotension, wheezing, dyspnoea, urticaria, pruritis, flushing of the upper body ('red man' syndrome), pain and muscle spasm of the back and chest.

➢ Infuse intravenous vancomycin over <u>at least</u> 60 minutes. For doses over 500mg, the rate should not exceed 10mg/minute.

BOOK CLUB

The NPSA has released a report 'Safety in doses: improving the use of medicines in the NHS', highlighting learning from medication incidents reported in England and Wales. The report is available at

http://www.npsa.nhs.uk/site/media/documents/2806_RevisedPSOforweb.pdf

Answers (a) 4.5kg (b) 15kg (c) 7.7kg