

# Medication Safety Today



Issue 36

The Northern Ireland Medicines Governance Team Newsletter

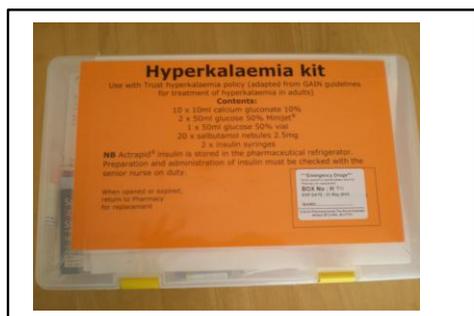
August 2011

## Hyperkalaemia - a refresher

Serious overdoses of insulin have occurred in the treatment of hyperkalaemia, particularly where too much insulin has been administered. Hyperkalaemia kits and treatment guidelines were implemented across Northern Ireland a number of years ago to reduce the risk of recurrence.<sup>1</sup>

To ensure safety when treating hyperkalaemia in adults:

- Hyperkalaemia kits (shown below) are available and readily accessible. Use the kit every time you are treating hyperkalaemia in adults.
- Make sure a replacement kit is reordered from Pharmacy when the kit on the ward has been used.
- Remember the dose of soluble insulin to treat hyperkalaemia is **10 units**.
- The 10 unit dose of insulin must be second checked by the senior nurse on duty.
- If you know that somebody is being treated for hyperkalaemia, ensure the kit is being used and challenge anybody treating hyperkalaemia without the kit.
- Make sure all staff in your ward/department know where the kit and treatment guidance is located.



1. Guideline for the treatment of hyperkalaemia in adults. Available at [http://www.Gain-Ni.Org/Library/Guidelines/Hyperkalaemia\\_Guidelines.Pdf](http://www.Gain-Ni.Org/Library/Guidelines/Hyperkalaemia_Guidelines.Pdf) [accessed 4th July 2011]



One of the recommendations from the NPSA Rapid Response Report *Preventing fatalities from medication loading doses*<sup>1</sup> requires clinical checks to be performed by medical, nursing and pharmacy staff (when available) so that loading and maintenance doses are correct.

Please complete the missing information (A-F) in the table below for the following intravenous loading and maintenance doses for a 60kg patient. Refer to BNF, HSCNI Intravenous Medicines Administration Guide and/or Summary of Product Characteristics.

	Loading dose	Maintenance dose
<b>Amiodarone</b> Total dose over 24 hours =1.2g	[A] mg in glucose 5% <sup>2</sup> over 1 hour	[B] mg in glucose 5% <sup>2</sup> over 23 hours
<b>Aminophylline</b>	[C] ml of 250mg/10ml injection over 20 minutes. Dose is 5mg/kg	[D] ml/hour of 250mg aminophylline in 50ml glucose 5% infusion. Dose is 500microgram/kg/hour
<b>Phenytoin</b>	[E] ml of 250mg/5ml injection diluted in 100ml sodium chloride 0.9% (not exceeding 10mg/ml) at a rate not exceeding 50mg/minute through an in-line filter. Dose is 15mg/kg	[F] mg orally or IV every 6 – 8 hours

Answers on the back page.

1. <http://www.dhsspsni.gov.uk/hsc-sqsd-17-10-preventing-fatalities-from-medication-loading-doses.pdf>

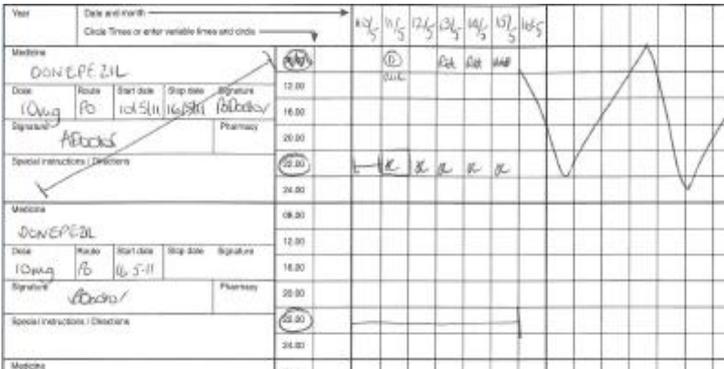
2. See IV Guide, BNF Appendix 6 or Summary of Product Characteristics for volume of glucose 5%

# Stop / start



When changing the dose or frequency of a previously prescribed medicine, it might be tempting to amend the existing prescription rather than rewrite it.

However this is an example of what can go wrong:



The patient was prescribed donepezil in the morning. However donepezil should be taken at bedtime and the doctor changed the prescription by scoring out the morning time and adding 22.00 as the time to be taken. After a few doses the nurse administered a dose in the morning in error. For three consecutive days donepezil was given morning and night until the error was discovered.

So, resist temptation. When changing any detail of a previously prescribed medicine on the Kardex always cancel the previous prescription and prescribe the medicine again with the new directions.

# Oxygen



In 2009, the National Patient Safety Agency produced Rapid Response Report 006 (2009). One of its recommendations is that oxygen is prescribed in accordance with BTS guidelines.

- Remember that oxygen is a medicine therefore prescription and administration must be documented on the kardex. Many Trusts have incorporated oxygen prescriptions into kardexes.
- When incidents involving oxygen occur, report them according to your Trust incident reporting policy.

The Rapid Response Report is available at: <http://www.nrls.npsa.nhs.uk/resources/?entryid45=62811&q=0%ac2%acoxygen%ac2%ac>

# Give it on time

## Avoiding omitted and delayed doses of medicines



The National Patient Safety Agency has highlighted that omission and delay of medicine doses can lead to harm for patients, particularly where critical medicines are involved<sup>1</sup>. Critical medicines are those medicines where the timeliness of administration is crucial.

Below are examples of critical medicines:

Critical medicines	
Anti-infectives (injectable route)	Corticosteroids
Anticoagulants	Opioids
Antiplatelets and thrombolytics (for acute indications)	Oxygen
Anticholinesterases	Immunoglobulin
Anticonvulsants	Immunosuppressants
Antiretrovirals	Insulin
Bronchodilator (injectable or nebulised route)	Parkinson's Disease medicines
Chemotherapy (injectable route)	Proton-pump inhibitors (injectable route)
Clozapine	'STAT' doses of any medicine (prescribed for immediate administration)
Resuscitation medicines including plasma expanders and reversal agents e.g. phytomenadione, naloxone, flumazenil, prothrombin complex	

Find out what is happening in your Trust to minimise the risk of omitted and delayed doses of medicines.

- [http://www.nrls.npsa.nhs.uk/EasySiteWeb/getre\\_source.axd?AssetID=66734&type=full&servicetype=Attachment](http://www.nrls.npsa.nhs.uk/EasySiteWeb/getre_source.axd?AssetID=66734&type=full&servicetype=Attachment)

If you have any comments on this newsletter, please contact Anna Lappin, Medicines Governance pharmacist on Ext: 4926 at Antrim Area Hospital or by e-mail at [Anna.Lappin@northerntrust.hscni.net](mailto:Anna.Lappin@northerntrust.hscni.net) Further copies of this newsletter and past editions can be viewed at [www.medicinesgovernanceteam.hscni.net](http://www.medicinesgovernanceteam.hscni.net) or on your Trust intranet.