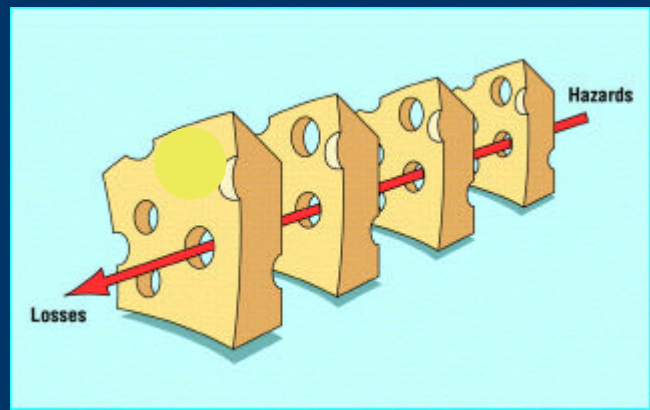


Medication Safety Today



Issue 21

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Dosing of medicines in renal impairment

Issue 17 of this newsletter highlighted the BNF advice on dosing of medicines in renal impairment, in light of routine laboratory reporting of estimated Glomerular Filtration Rate (eGFR). This advice has been updated in BNF 54.



The BNF continues to give information on dose adjustments based on creatinine clearance (CrCl). It advises that while the two measures of renal impairment (eGFR and CrCl) are not always strictly interchangeable, in practice, for most drugs and for most patients of an average height and build, eGFR can be used in place of CrCl to determine dose adjustments.

However the BNF advises that for potentially toxic medicines with a small margin for safety and in some patients (e.g. those at both extremes of body weight) the absolute glomerular filtration rate or creatinine clearance should be used or the dose adjusted according to plasma-drug concentration and clinical response.

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.

A slow burner

Medication incidents have been reported involving confusion between two different preparations, Slow K[®] and Slow Sodium[®], where the wrong preparation has been dispensed.

The two preparations have similar brand names and are packaged in identical white plastic tubs.



A safety memo was issued to hospital and community pharmacies in Northern Ireland, on 17th July 2007, highlighting steps that should be taken to minimise the risk of this incident occurring.

Make sure you have taken steps to prevent this incident occurring in your pharmacy.

What time is it?

Some medicines should be administered at a particular time of the day or night.



Prescribing and administering these medicines at inappropriate times may lead to increased side-effects or alternatively, a reduced therapeutic effect.

Some examples of incidents include:

- Zopiclone at 10am, leading to an increased risk of a patient fall.
- Gliclazide at 10pm, leading to subsequent hypoglycaemia.

Safety tip!

Ask yourself the following,

- 'What is the medication for?'
- 'Is the time of day appropriate?'

Gone but not forgotten

In a previous newsletter (November 2006), we described incidents where medicines, intended to be temporarily withheld, had been administered. A related incident that occurs is where a medicine is temporarily withheld on admission but is then not restarted during the inpatient stay or on discharge.

Safety tips

- ☑ On admission, record in the patient notes all the medicines that the patient has been taking, even if the plan is to withhold them.
- ☑ Annotate the Kardex and make an entry in the patient notes giving guidance on:
 - any medicines that are to be withheld and the reason why.
 - when it would be appropriate to restart, where known.
- ☑ Review withheld medicines regularly during inpatient stay and restart if appropriate.
- ☑ At discharge:
 - Review any medicines that have been withheld since admission.
 - If a medicine is not to be restarted and has been discontinued, ensure this information is communicated to the GP.
 - Ensure that the GP is aware of any medicines that have been withheld and are to be restarted sometime after discharge.

Every Breath You Take



Many different types of medication incidents have occurred with inhaled medicines. Examples are provided below with suggested safety tips.

| Problem | Safety tip |
|--|---|
| 'Missing inhalers' from a patient's Kardex. | ☑ As part of the medication history, always ask the patient if they use an inhaler. |
| Missing dose, frequency and inhaler device. | ☑ When prescribing, always specify the strength, the dose and the inhaler device e.g. Turbohaler. |
| Wrong dose. | ☑ Ask to see the patient's inhaler(s) to help confirm these details. |
| Duplication of therapy e.g. Combivent® and tiotropium. | ☑ Check the inhaled medicine the patient is already on before starting new therapy. |
| Wrong medicine e.g. Serevent® (salmeterol) instead of Seretide®. | ☑ Confirm this as part of the medication history and check with the patient's own inhaler if available. |

So many insulins ...



There is an increasing range of insulins available with different durations of action and some with similar names. This can lead to the wrong insulin being prescribed, dispensed or administered.

Some different insulins that have been confused include:

- NovoRapid® / NovoMix® 30
- Humulin S® / Humulin I®
- Humalog® / Humalog® Mix25
- Humalog® Mix25 / Humalog® Mix50
- Mixtard® 30 / NovoMix® 30

Safety tips

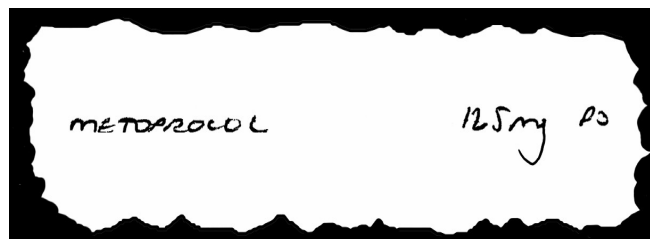
- ☑ Print the brand name of the insulin preparation when prescribing.
- ☑ If using an electronic system to prescribe, order medicines or label for dispensing, ensure that you select the correct insulin preparation from any 'drop down' or 'picking list'.
- ☑ When taking a medication history, if there is any uncertainty as to the insulin preparation, ask to see the patient's own insulin.
- ☑ Confirm that the frequency of administration corresponds to the expected frequency for that insulin.
- ☑ Wherever possible, show the insulin preparation to the patient and confirm that this is the version they are expecting to receive.
- ☑ Obtain a second check of the preparation and administration of insulin. NB One of the practitioners must be a registered nurse.

Missing the point



Previous newsletters have looked at illegible handwriting as a well-recognised cause of medication incidents, some of which have led to patient harm.

Below is an example of a prescription for metoprolol, 12.5mg orally, where the words and numbers are clear and legible, however the decimal point is not. This could result in a patient receiving a tenfold overdose of the medication.



Safety tips

- ☑ Take time to write clearly and legibly.
- ☑ Where doses involve a decimal point, make sure that it is clearly visible.