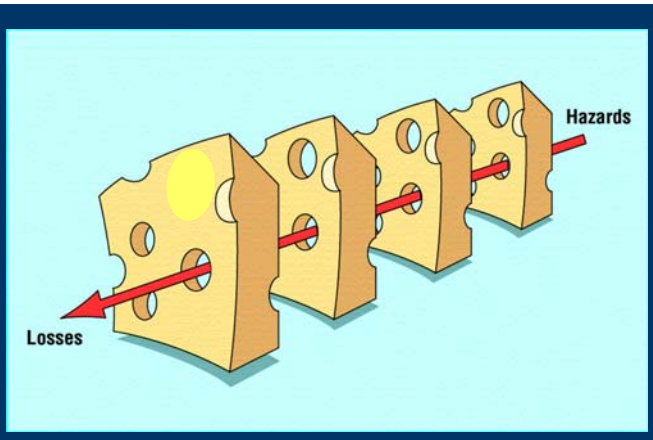
Medication Safety Today



Issue 10 **The Northern Ireland Medicines Governance Team Newsletter** **February 2005**

What's in a name?

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Yet so often with medicines, the first and sometimes also the last letters of two very different medicines can be the same. This may help to explain why some medicine names are confused - we see what we expect to see. This is known as confirmation bias. This has led to medication incidents where the wrong medicine has been prescribed, administered or dispensed. Examples of medicines names that have been confused are:

OxyNorm®	OxyContin®
sulfadiazine	sulfasalazine
Humulin®	Humalog®
Cipralex®	Cipramil®
carbamazepine	carbimazole
Equasym®	Equazen®
Xyzal®	Xatral® XL

How can these medication incidents be avoided?

- Write medicine names and doses clearly.
- Write medicine names in capitals.
- Read the whole medicine name.
- If the medicine name is illegible, don't guess.
- Review how medicines with similar names are stored.
- Consider the indication for the medicine – does it match the patient's condition or diagnosis?
- Involve patients as appropriate, as they may be the first to realise that the medicine is incorrect.
- Be aware of 'confirmation bias' – you see what you expect to see.
- Report all incidences of confusion between medicine names.

[1](Reproduced by permission of Phoenix Pharma)

Examples of oral medicines given ONCE a WEEK:
Methotrexate for non malignant conditions, alendronic acid (alendronate sodium) 70mg, risedronate 35mg, chloroquine for malaria prophylaxis, mefloquine

Once upon a time

Medication incidents, involving oral medicines that should be given once a week, being prescribed, dispensed or administered on a daily basis, continue to be reported. Medication Safety Today (February 2004) has previously highlighted where this had led to fatalities in patients taking oral methotrexate.

Once a week is an unusual dose frequency used for only a few oral medicines. Can you name any? (Common examples are given at the bottom of the page)

For patients on a once weekly dosing regimen:

- ✓ Specify the day of administration on the prescription: try to avoid 'Monday', which can be misread as 'morning'.
- ✓ For Kardexes where the administration record is directly beside the prescription, the prescriber should also strike out the six days of the week on the administration record when a dose must not be administered.
- ✓ Before administering a dose, check the administration record to see when the last dose was administered.
- ✓ Label dispensed doses with 'ONCE a WEEK' and where specified on the prescription, include the day of administration.

Did you know?

Many antibiotics interact with warfarin and cause changes in a patient's INR. This can lead to bleeding complications or place the patient at risk of developing a clot. Information is available in Appendix 1 of the BNF.

Patients on warfarin, started on courses of antibiotics, may need the frequency of their INR monitoring increased.

If you have any comments on this newsletter, please contact Tracey Boyce, the Medicines Governance pharmacist on ext 5724 at the Royal Hospitals or by e-mail at Tracey.boyce@royalhospitals.n-i.nhs.uk. The Medicines Governance Team website can be viewed at www.dhsspsni.gov.uk/pgroups/pharmaceutical

Déjà vu

Sometimes several discharge prescriptions are prepared for the same patient. While this obviously increases the workload of staff involved in organising, prescribing, and dispensing these multiple prescriptions, the greater risk is that the patient is discharged with the incorrect medicines and the GP receives incorrect or conflicting information.

How can this be avoided?

- Develop a system to record when a discharge prescription has been written and sent to pharmacy.
- If medicines have changed after a discharge prescription has been dispensed and sent to the ward, ensure that the original prescription and dispensed medicines are returned to pharmacy at the same time as the new prescription is sent (as per your Trust's medicines return policy).
- If a second discharge prescription is required, clearly indicate on each of the prescriptions that there is more than one discharge prescription for that patient, for example, '1 of 2' and '2 of 2'.

Did you know?

Duloxetine (Yentreve®), which can be used for the treatment of stress incontinence, is a serotonin and noradrenaline reuptake inhibitor (SNRI)?

- It should be used with caution in combination with antidepressants and other centrally acting medicines. In particular, combination with moclobemide, a selective reversible monoamine oxidase inhibitor (MAOI) is not recommended.
- It should not be used with non-selective, irreversible MAOIs.

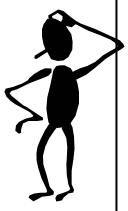
Please see SPC for further information.

More than you bargained for?

Do you know what an injection displacement value is?

Dry powder injections need to be reconstituted with a diluent before they are used. Sometimes the final volume of the injection will be greater than the volume of liquid that was added to the powder. This volume difference is called the injection's displacement value.

For example by adding 6mls of water to a 250mg vial of medicine X the final solution obtained will be 250mg/6.4mls. This is because medicine X has a displacement value of 0.4ml/250mg.



Displacement values will depend on the medicine, the manufacturer and its strength.

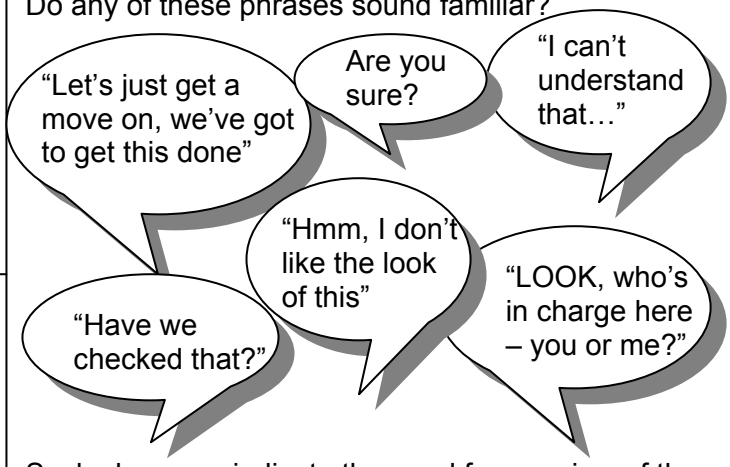
For most patients this does not matter because the whole vial is administered however it can be very important when you want to give a dose that is less than the total contents of the vial – a frequent occurrence in paediatrics and neonatology.

The volume of the final solution must be considered when calculating the amount to withdraw from the vial. For example, 125mg of medicine X is contained in 3.2mls of the final solution.

Information on a medicine's displacement value is included in the product information leaflet in injection packs or can be obtained from your Pharmacy Department.

Healthcare staff operate in complex situations and under intense pressure. In stressful periods, how do staff working with medicines remain vigilant and alert to risky situations?

Frontline staff need to have a 'sixth sense' in recognising a developing medication incident. Often this will be a feeling that something just isn't right? Do any of these phrases sound familiar?



Such clues can indicate the need for a review of the situation. Staff may need:

- more information;
- to alert others to a potential problem;
- to challenge opinion; or
- to act to prevent a medication incident.

If in doubt, check it out!

Take care with liquid medicines

Several medication incidents have been reported with liquid medicines where the dose has been expressed as the volume e.g. 5ml or 2.5ml.
This can lead to confusion over the intended dose, particularly if there are several different strengths available of a medicine.

FUROSEMIDE	*5ml each morning*

Is the intended dose 20mg (4mg/ml), 40mg (8mg/ml) or 50mg (10mg/ml)?

Even when the strength of liquid has been included on the prescription, an overdose or underdose can be more easily overlooked if the dose to be administered is written as a volume.

RISPERIDONE 1mg/ml	*5ml TWICE a day*

The intended dose was 1mg TWICE a day.

Safety tips:

- Where possible, state the dose of liquid medicines as the number of micrograms, milligrams or grams required, rather than the volume.
- Remember, often there can be more than one strength available of a liquid medicine.