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.

Further copies of this and previous newsletters can be viewed at www.dhsspsni.gov.uk/index/pas/pas-governance.htm or on your Trust intranet.

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**Piperacillin/tazobactam**

A generic version of intravenous piperacillin / tazobactam is now available.

It has a different formulation and different compatibilities to that of the branded product (Tazocin®). MHRA has highlighted that these differences raise the potential for serious medication incidents.

To minimise the risk of medication incidents, generic piperacillin/tazobactam;

- **Must not** be mixed with or co-administered with any aminoglycoside, as this can lead to substantial inactivation of the aminoglycoside.
- **Must not** be reconstituted or diluted with lactated Ringer’s (Hartmann’s) solution.

Further information and supporting material can be accessed at www.mhra.gov.uk/Publications/Safetyguidance/DrugSafetyUpdate/CON035989

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**Solo, so similar**

Just as confusion can be caused by medicines with similar names and similar packaging, confusion may also arise if the same device is used with different medicines, for example with different insulins: Apidra® SoloStar® (a short acting insulin) confused with Lantus® SoloStar® (a long acting insulin) where SoloStar® is the name of the device.

**Safety tips**

- Wherever possible, show the insulin preparation to the patient and confirm this is the insulin they are expecting to receive.
- Confirm that the frequency of administration corresponds to the expected frequency for that type of insulin.

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**Rapid Response Reports**

**National Patient Safety Agency**

DHSSPS has issued Rapid Response Reports from the National Patient Safety Agency on a number of medicine related risks:


- Risks with intravenous heparin flush solutions [http://www.dhsspsni.gov.uk/microsoft_word_-_hsc_sqsd___43-08_heparin_flush_solutions.pdf](http://www.dhsspsni.gov.uk/microsoft_word_-_hsc_sqsd___43-08_heparin_flush_solutions.pdf)


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**Calculations**

1. Alfentanil 3mg has been prescribed. It is available as a 500microgram/ml (1mg/2ml ampoule). What volume should be administered?

2. Pentasa® m/r 1.5g twice daily has been prescribed. It is available as 500mg tablets. How many tablets are required for each dose?

3. Aciclovir IV is required at a dose of 5mg/kg for a 60kg patient. What volume of the 25mg/ml concentrate is required to add to the infusion fluid for this dose?

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Answers overleaf
‘The 5 Rights’ are commonly used to describe the basic principles of medication safety; right patient, right medicine, right dose, right time, right route.

The following can contribute to wrong medicine incidents.

**Similar sounding or look-alike names**

Similar medicine names can be a particular problem where the two medicines are available in the same strength. Even medicine names that appear to be very similar when typed, can be confused with other medicines when they are poorly written, abbreviated on a prescription or communicated verbally. For example,

<table>
<thead>
<tr>
<th>Medicine Name</th>
<th>Abbreviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hydralazine</td>
<td>Hydroxyzine</td>
</tr>
<tr>
<td>Azithromycin</td>
<td>Azathioprine</td>
</tr>
<tr>
<td>Ondansetron</td>
<td>Candesartan</td>
</tr>
<tr>
<td>Amlodipine</td>
<td>Amiloride</td>
</tr>
<tr>
<td>Istin® (amlodipine)</td>
<td>ISMN (isosorbide mononitrate)</td>
</tr>
</tbody>
</table>

- Print prescriptions clearly and legibly.
- Medicine names should be written in full, do not use abbreviations.
- Do not interpret illegible prescriptions.
- When reading medicine names, for example on an admission letter or on a prescription, read the medicine name in full. Be aware of confirmation bias, where you see what you expect to see rather than what is written or printed on a prescription.

**Look a-like packaging**

The use of similar colour and design for the packaging of different medicines can lead to confusion. ‘Colour coding’ can also cause problems; who hasn’t bought a blue packet of crisps and been surprised with cheese and onion flavour? However better use of colour and design can help differentiate different medicines.

- Do not rely on packaging to recognise a product – be aware of confirmation bias, where you see what you expect to see.
- Always read the label and check the name of the medicine carefully.
- Report incidents involving similar packaging.

**Medicines available in different formulations**

Sometimes the actual medicine may be correct but the wrong formulation is selected. For example, a patient receives ordinary release morphine sulphate (for example, Sevredol® or Oramorph®) instead of modified release morphine sulphate (for example, MST®), putting the patient at risk of opiate toxicity and later of ineffective pain relief.

- Check that the formulation corresponds to the expected frequency.
- Brand names should be used for oral opiates to help differentiate between different formulations.

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Medication incidents, involving the wrong dose, have been reported with oxycodone and morphine sulphate oral solutions. Both medicines are available in two strengths, an oral solution and a concentrated oral solution, where the concentrate is 10 times more concentrated.

<table>
<thead>
<tr>
<th>Medicine Name</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Morphine sulphate</td>
<td>Oramorph® oral solution 10mg/5ml</td>
</tr>
<tr>
<td></td>
<td>Oramorph® concentrated oral solution 20mg/ml</td>
</tr>
<tr>
<td>Oxycodone</td>
<td>OxyNorm® Liquid (=oral solution) 5mg/5ml</td>
</tr>
<tr>
<td></td>
<td>OxyNorm® Concentrate (=concentrated oral solution) 10mg/ml</td>
</tr>
</tbody>
</table>

Some hospitals only stock the lower strengths to minimise confusion, however in other hospitals, the concentrate is required due to higher doses.

**Safety tips**

- Be aware that there is more than one strength of these liquids, even if only one strength is routinely stocked. A patient may be admitted to hospital, having been taking the concentrate.
- Always state the dose in ‘mg’ rather than ‘ml’. If a dose has been prescribed as a volume, remember that without the strength, you don’t have the information to administer a dose.
- Take care when calculating the volume to administer, this should be double checked.
- If two strengths are stocked:
  - Provide additional labelling when dispensing to alert users to the concentrated liquid.
  - Only use the concentrate where it is appropriate, that is for larger doses. It should not be used to administer smaller doses.
  - Do not stock two strengths unnecessarily. Return the concentrate to pharmacy if it is no longer required.
- Always confirm that the dose is appropriate for the patient.
- Where a dose increase is intended, previous doses of opiate medicines should be taken into account to ensure the calculated dose is safe for the patient. An increased dose of oral morphine or oxycodone in adults should not normally be more than 50% of the previous dose.¹

¹ NPSA RRR 05:Reducing Dosing Errors with Opioid Medicines

**Answers**

1. (1) gml (2) THREE (3) 12ml