Issue 1, July 2014

Ballarat Health Services

Medication Safety Newsletter

What is medication safety?

Medications are a precious and often life-saving resource, but their use comes with a measure of risk. Medication incidents are the second highest reported category of incident within healthcare incident monitoring systems. Australian studies report that 2-5% of drug charts contain prescribing errors and 5-18% of medicines are administered in error (incorrect drug, patient, route or time). Medication safety encompasses all initiatives in preventing medication-related adverse outcomes and includes all those involved in medication management pathway (Diagram 1) .

Many medication errors can be prevented by introducing safer systems and greater awareness of safe medication practice.

Reference: www.safetyandquality.gov.au/our-work/accreditation-and-the-nsqhs-standards

Diagram 1. Medication Management Pathway

Documenting Adverse Drug Reactions (ADRs)

ADRs are harmful, unintended reactions to a medication that occur at doses normally used for treatment. This term includes allergic reactions.

When prescribing, dispensing or administering a medication always check the patient's allergies.

The ADR box on the medication chart requires;

- A tick in the correct allergy box
- The appropriate ADR sticker
- Drug names written generically (except if ADR is to a particular brand of a medication)
- Details of the nature of the reaction
- Signature and date

See examples below of how to complete ADR boxes and the available stickers.

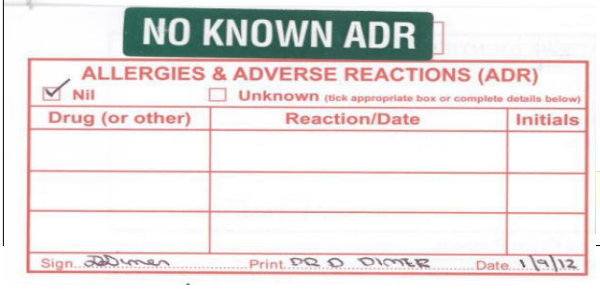
Avoiding codeine in children

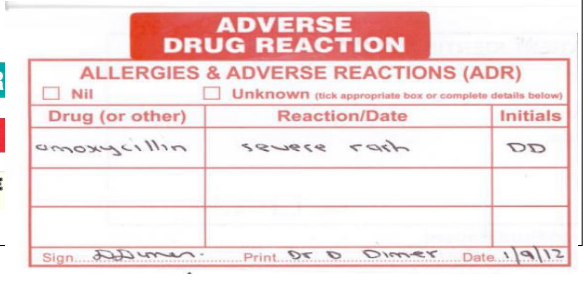
Safety concerns have arisen over the use of codeine and codeine-containing medicines in children following reports of respiratory depression, including some fatalities.

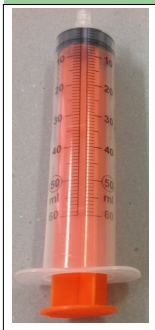
New recommendations for codeine and codeine containing products are:

- **Contraindicated** in any person under the age of 18 who is post adenotonsillectomy or has a history of obstructive sleep apnoea
- **Limited** to those other children in whom other alternative analgesics have been adequately trialled without a significant reduction in pain and who are able to be adequately monitored after dosing.

Alternative analgesics to be considered in patients with these contraindications to codeine include: paracetamol, NSAIDs and oxycodone.







Oral and Enteral Dispensers

New oral dispensers with an orange plunger (Nutrisafe®) are now available to order from the Supply Department. These dispensers have a unique tip that does NOT allow connection to intravenous administration ports but connects specifically with the new Nutrisafe® enteral feeding tube. These dispensers are used to draw up and administer liquid medicines intended for oral or enteral use. Refer to Medication Administration *CPP0287* for more information.

Tamper Evident Bags (TEB)

TEBs (A4 & A3) are now available for the storage of patient's own S8 and S11 Medications (POM).
TEB minimise the time taken to balance check S8 and S11 POM at change of shift.
Instructions for use are included in Medications—Use of Patient's Own *CPP0095*.
TEBs are ordered from the Supply Department.

Penicillin Allergy

As with all medications, antibiotics must be **prescribed generically** to assist with identifying 'hidden' penicillins. When prescribed by brand name Augmentin Duo Forte® (amoxycillin/clavulanic acid) and Tazocin® (piperacillin/tazobactam) are often not recognised as being penicillins.

Riskman reports at BHS have highlighted this risk.
In one incident, a patient with an allergy documented as "penicillin" on their drug chart received a dose of amoxycillin/clavulanic acid which was prescribed as Augmentin Duo Forte®. They had also previously been written up for a dose of Tazocin®.

Gentamicin—High Risk Drug Refresher

The current version of the Therapeutic Guidelines: Antibiotic recommends that gentamicin dosing be individualised based on renal function, age and **ideal body weight**. A recent audit of gentamicin prescribing at BHS demonstrated that younger patients were consistently under-dosed, while those above 60 years of age often received excessive doses of gentamicin. Table 1 below outlines the initial dose for empirical or directed therapy.
Gentamicin (all doses) is diluted in 100 mL and administered by intravenous infusion over 30 minutes.

The dosing interval should be extended in renal impairment, rather than the dose reduced. Please alert your ward Pharmacist as soon as practicable if a patient is prescribed gentamicin so they can provide information regarding dosing, administration and levels.
Levels are only required for patients continuing longer than 48 hours on gentamicin. Gentamicin levels require interpretation by a Pharmacist using a computer program. The Pathology report does not provide interpretation of results.
For more information refer to the BHS gentamicin drug guideline DRG0006.

Age	Gentamicin dose
Neonates, infants and children	Seek paediatrician advice
Adult up to 29 years	6mg/kg/day up to 560mg
30-60 years	5mg/kg/day up to 480mg
More than 60 years	4mg/kg/day up to 400mg
Adult (any age) with sepsis	7mg/kg/day up to 640mg
Adult (any age): streptococcal and enterococcal endocarditis	1mg/kg 8 hourly

Table 1. Initial dose for empirical or directed therapy