



From the Clinical Director

No one likes to make mistakes, especially if in doing so, this creates the potential for serious harmful consequences that can affect the health of people that they are caring for. Like many other complex industries, health and aged care involve complicated interactions between many parts of the enterprise, repeated transfer of critical information, a requirement for very careful attention to detail in performing repeated technical tasks on a regular basis, and great attention to creating systems and processes that are least prone to error. Huge amounts of time, effort, energy and money are invested in work to render these industries as safe as possible, and yet mistakes can and do happen, and may have potentially serious consequences. Part of this relates to the enormous number of tasks that must be completed every day to provide care for hospital inpatients or aged care facility residents.

Consider the example of medication administration in an aged care facility. Data from Ward Medication Management reveals that on average a resident in an aged care facility serviced by Ward MM is treated with over eight regular medicines each day, in addition to a further four medicines that are administered only when required. If we assume that many (but not all) regular medications require administration once daily, we might conservatively assume an average of 1.25 occasions of drug administration per day for these medications, in addition to an average of 0.5 occasions of administration of products only when required. The mathematical equation therefore suggests that each resident will have approximately 150 individual doses of medication per week – 600 per month, 7,200 per annum. For a facility with 100 beds, this implies 720,000 medication doses administered each year. If a very conservative rate of medication administration errors is assumed (say 0.01%) this would equate to approximately 60 errors in medication administration every month. If we then assume that 99.9% of these errors are of very minor significance in clinical terms (i.e. that only 1 in 1000 likely have serious consequences for) this still suggests that a serious error could

be occurring in this facility once every two months. Medication administration to residents represents only one aspect of potential for medication error in an aged care facility. For example, if a prescriber makes an error with regard to selecting the appropriate product, dosage or route, this can create serious consequences for the resident. Similarly, if the supply pharmacy makes a dispensing error that results in the incorrect product being provided, this also has the potential to create significant harm.

If an error does occur, there are critical steps that must be addressed

A discussion of medication errors should not focus upon blame/consequences for any staff member involved. No one sets out to make an error, but when an error or incident does occur, there are critical steps that need to be addressed. It is very important that facilities foster a reporting culture, meaning that rather than avoiding error reporting, all incidents are documented and investigated with a view to identifying underlying factors that may have contributed. In many cases, it is possible to discover systems issues that may have contributed to the issue. By rectifying underlying problems in medication systems and taking learning from the human factors involved, it is possible to make interventions that reduce the likelihood of the same problem happening again, thus averting potential harm for another resident. By fostering a non-punitive reporting culture, an organisation can use lessons from reported errors in quality improvement initiatives which improve resident safety, and are positively viewed by quality surveyors.

Ward MM provide a wide range of services designed to enhance medication safety in the aged care industry – why not speak to your Ward MM pharmacist to see how we can help with services such as clinical & process audits, or targeted education sessions?

Dr Chris Alderman, Director of Clinical Excellence, Ward MM.



Feature Article:

Medication errors

As well as being a cause for potential adverse outcomes for residents, medication errors create a range of other impacts in the aged care setting. These include a possibly serious impact upon the wellbeing of the staff member involved, as well as potential for brand damage for the organisation and medicolegal risk. For these reasons it is critical for aged care facilities to adopt an approach that focuses upon the prevention of errors wherever possible. In a broad sense this involves providing the right training and preparation for all staff involved in the administration of medicines, creating a safe, uninterrupted environment for medication administration, ensuring access to the right equipment, and securing the services of reliably excellent pharmacy providers – this encompasses both the supply pharmacy that dispenses and transports the medications to the facility, as well as the pharmacy provider chosen to conduct medication reviews and quality use of medicines services for the facility.

Administration of medication is associated with a lot of responsibility. When administering medications it is necessary for staff to be focused, alert, methodical, accurate and thorough. It is known that mistakes are much more likely to happen when staff are not able to concentrate, or are in a hurry. As a general principle it is important to allocate adequate time for this critical task, and avoid interruptions when administering medications.

Before starting, it is a good idea to thoroughly organize the work area, and try to keep it tidy during the task. Remember to wash your hands before starting, and systematically gather everything needed for the task. Being organized helps to retain focus on the job at hand, as interruptions created by a need to obtain missing items increases the likelihood of making an error.

When preparing to administer medicines, one approach that reduces errors is to use a triple check system, reading the label three times:

- Before removing the medication containers from the storage site.
- When removing the medication from the container
- Before returning the medication containers to storage, but prior to administering.

The US Institute for Healthcare Improvement strongly recommends an approach to safe medication practices that is based upon the so-called “five rights,” which include:

- Making sure that the medicine is being given to the *right patient* – carefully checking the name, resident photo and secondary identifier, with special care when two or more residents have the same or similar names
- Checking that the *right drug* has been selected, ensuring that an error has not arisen from look-alike/sound alike names (e.g. Lasix® and Losec® can both be given at a dose of 40mg)
- Check that the *right dose* has been selected – the correct number of mg, units, or tablets/capsules are given
- Confirming that the *right route of administration* is used – this is critical for most drugs
- Ensuring that the medicine is given at the *right time* – e.g. with food, at bedtime etc.

Some other sources have added additional “rights” to their own version of the process – e.g. right method of administration (e.g. don't crush tablets when it's not appropriate to do so).

A clearly presented, well-organized medication chart can help to prevent medication errors – an RMMR from your Ward MM pharmacist can assist.

Quick Tip

APINCH Drugs!

Some medicines are associated with greater risk for serious harm if involved in medication errors – these are sometimes referred to as the “APINCH drugs”

A – Antibiotics

P – Potassium supplements or drugs that influence serum potassium, such as the ACE inhibitors or Angiotensin Receptor Blockers (ARBs)

I – Insulin and other drugs that have an effect upon blood glucose concentrations

N – Narcotics (opioids) and other medications that produce significant sedation and can cause respiratory depression

C – Chemotherapy, immunosuppressants and other related medicines

H – Heparin, heparinoids and other anticoagulant and anti-platelet agents including warfarin, dabigatran, apixaban, rivaroxaban, aspirin and clopidogrel.

Although proper caution is needed when administering all medications, the drugs in the APINCH mnemonic are all agents of low therapeutic index, where the dose that is needed for therapeutic effects is similar to the dose that has the potential to do harm.

Special additional measures may reduce the risk associated with these drugs:

- standardizing the ordering, storage, preparation, and administration of the drugs may reduce errors
- improving access to information about these drugs is a useful tool to aid safer use
- using auxiliary labels and automated alerts

Latest News

Ward MM in the biomedical literature

A paper published in the latest edition of the Journal of Pharmacy Practice and Research by Dr Natalie Soulsby (Associate Clinical Director) and Sue Ward (Ward MM Principal Pharmacist) describes the processes used by the group in the delivery of high quality, clinically relevant reviews, as well as the benefits of analysing big data assembled during the course of this work.

Dr Chris Alderman also published a special editorial in the JPPR, highlighting the need for the current generation of practicing pharmacists today to contributing to training and mentoring of the practitioners of the future.

World Pharmacists Day

World Pharmacists Day is celebrated each year on 25 September. In a statement from the International Pharmaceutical Federation (FIP), this year's theme was designated “Pharmacists: Caring for you.” “This year's theme was chosen to reflect the important role of pharmacists in providing care to the public, and also to highlight the emotional connection they have with their patients,” said FIP President Dr Carmen Peña.

Save the date – Ward MM Masterclass

The next of our series of free Ward MM medication masterclasses will be held on October 24th from 9:30 AM, and will focus on pain management. Topics include a session on the downsides of analgesia, an update on neuropathic pain, non-drug approaches to pain management, and a multi-D panel discussion exploring the management of challenging cases.

Experience has shown that places will fill fast, please RSVP by 17 October to info@wardmm.com.au

Notes from facilities serviced by Ward MM

Q. "What is diabetic neuropathy and how is it treated?"

A. Diabetic neuropathy can involve two separate syndromes: diabetic peripheral neuropathy (DPN) and autonomic neuropathy, which may be associated with conditions such as cardiac autonomic neuropathy, orthostatic hypotension, erectile dysfunction, gastroparesis, diarrhoea, constipation, faecal incontinence, neurogenic bladder and so on. Occasionally diabetic neuropathy can also manifest as radiculopathies such as diabetic lumbosacral radiculoplexopathy.

Tight glycaemic control from early the onset of diabetes has been shown to delay or prevent development of DPN and cardiac autonomic neuropathy in Type 1 DM, and for type 2 diabetes some studies have showed that tight glycaemic control may slow the progression of neuropathy modestly.

Diabetic Peripheral Neuropathy can affect different types of nerve fibres. If small fibres are affected patients could experience pain and dysesthesias (unpleasant sensations of burning and tingling). On the hand the involvement of large fibres could lead to numbness and

loss of protective sensation. The presence of non-diabetic neuropathies should be always excluded, because this type of syndrome is potentially curable.

There is currently no medication available for the management of patients with the loss of protective sensation in feet. It is a risk for diabetic foot ulceration. It is therefore vital that these patients should receive proper foot care and education. The diabetic neuropathic pain can be treated with a variety of agents:

- **Amitriptyline** 25 mg orally, at night, slowly increasing according to response up to a maximum of 150mg at night. Amitriptyline is arguably best avoided for older adults (>65 years) due to its strong anticholinergic effects, especially in patients with underlying dementia and/or delirium.
- **Duloxetine** 60 mg orally, daily, slowly increasing according to response up to a maximum of 60 mg twice daily. Start with 30 mg daily in older adults (>65 years). A lower maximum dose of 30 mg per day is recommended for patients with creatinine clearance of <30 ml/min.
- **Gabapentin**, starting with 100 – 300 mg at night, especially in older patients (>65 years), titrate up every 3-7 days according to response. Therapeutic Guidelines recommend max daily dose of 1800 mg. However, the maximum dose will need adjustment in renal impairment is present.
- **Pregabalin** 75mg orally, twice daily, increasing every 3-7 days according to response up to a max dose of 300mg twice daily. In older adults (>65 years), especially if frailty is present, it may be best to start with the dose of 25 mg every night and titrate as above accordingly. The maximum dose needs to be adjusted for renal impairment. There have been case reports of heart failure decompensation in patients receiving pregabalin. Use with caution in patients with heart failure, especially elderly patients.
- **Capsaicin** 0.075% topically, 3 - 4 times daily. May take 2 to 4 weeks of continuous therapy for the effect to be seen.
- **Other agents** recommended in the American Diabetes Association's Standard of Medical Care in Diabetes 2016 include tapentadol, venlafaxine, tramadol and carbamazepine.

There is little direct comparative research to compare the efficacy of these agents, so the choice of agent requires the patient's presentation and co-morbidities to be taken into account. A trial and error approach is often advisable.



Meet your Ward MM Team Member

Vicki Kerron looks after all of WardMM's HR requirements. She sources only the best pharmacists, ensures the team have an unrivalled career path and helps the organisation drive a culture where everyone truly is making a difference.

Most meaningful moment... I found it hard to pin it down to one - there was of course the birth of my 3 boys; during my time working for the Salvation Army I was privileged to be able to hear firsthand the stories of people who had overcome enormous adversity to change their lives; and with WardMM when I see the our amazing team achieve positive outcomes for our residents and are recognised for their achievements, I feel proud to be part of the same team.

My biggest challenge... switching off. I have to deliberately distract myself with something else – reading for example.

I'd be lost without – my phone! I spend a lot of time talking to people – our fabulous team and candidates, which I love doing as part of my role. I have so many contacts and information on it that the thought of losing it terrifies me. Yes – I back it up, regularly.