



## From the Clinical Director

Polypharmacy is relatively common, particularly amongst the elderly and people with multiple morbidities. Sometimes defined as a situation whereby there are five or more regular medicines prescribed, or 12 or more occasions of medication administration per day, polypharmacy is associated with an increased incidence of adverse drug reactions and drug interactions, as well as poorer adherence to prescribed treatment regimens, and potentially compromised clinical outcomes.

If it is known that polypharmacy is associated with outcomes that are not positive, what drives this phenomenon? A range of reasons have been cited as the factors underpinning polypharmacy, but one of particular concern is the development of prescribing cascades.

Put simply, a prescribing cascade evolves when one drug is added to the therapeutic regimen with the objective of treating symptoms that are actually attributable to the adverse effects of medications that have been added to a regimen. Especially in the case of an older person, it is important to have a high index of suspicion that new symptoms emerging around the time of changes to a treatment regimen may in fact be related to a recently added drug. The emergence of new symptoms or clinical syndromes after changes to the medication profile, especially for older people, may well provide a trigger for a comprehensive clinical review, perhaps in the form of a Home Medicines Review (HMR) or Residential Medication Management Review (RMMRS). These services may provide the opportunity for rationalising treatment, simplification of regimens, and the adoption of changes that can decrease the numbers of medications that are needed.

Ironically, it is sometimes the case that polypharmacy and prescribing cascades may actually be driven by the effects of evidence based guidelines. Consider, for example, the case of a patient who develops metabolic syndrome and type II diabetes mellitus after the prescription of an antipsychotic agent such as olanzapine: if evidence-based guidance is applied, this same person may well eventually be prescribed aspirin, a statin, metformin and an ACE inhibitor.

A range of measures can be applied to reduce the risk associate with prescribing cascades and polypharmacy. Where possible, it is important to use non-pharmacological treatments first. Medication combinations should be systematically checked to exclude serious drug interactions. It is best not to use medications to treat the side effects of other drugs, unless this is unavoidable. For some drugs, the serum concentration can be checked (e.g. digoxin, amiodarone, carbamazepine and many others) – this approach can reduce the risk of toxicity.

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The effort to address polypharmacy and potential prescribing cascades in aged care requires multidisciplinary cooperation and continued vigilance. Doctors, facility staff and pharmacists all play a role – if there's a resident you are concerned about why not speak with your Ward MM clinical pharmacist to arrange for a Residential Medication Management Review (RMMR).

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



## Feature Article:

# Polypharmacy and prescribing cascades – *more is not necessarily better*

There are numerous examples of prescribing cascades in clinical practice. Examples include:

- the use of Proton Pump Inhibitors (PPIs) or other drugs that reduce gastric acidity to suppress symptoms such as reflux that can arise after the addition of a NSAID, aspirin or other medications that contribute to GI distress
- alterations to treatment for Parkinson's disease after the addition of metoclopramide for nausea (which may itself have been prescribed to manage nausea associated with another drug such as an SSRI, digoxin, or a course of antibiotics)
- the addition of loperamide or other anti-diarrhoeal agents after commencement of SSRIs and many others
- The need to introduce treatments such as oral bisphosphates (e.g. alendronate or risedronate) to deal with osteoporosis arising from extended treatment with corticosteroids such as prednisolone
- introduction of drugs such as oxybutynin to manage overactive bladder symptoms that arise after the introduction of cholinesterase agents such as donepezil or rivastigmine for the management of dementia
- a requirement for the introduction of antihypertensives after the initiation of NSAIDs (which can often cause elevated BP)
- introduction of an inhaled bronchodilator (e.g. salbutamol) to deal with cough or wheeze arising from the use of cardiovascular agents such as beta blockers (e.g. atenolol, metoprolol) or ACE inhibitors such as ramipril, enalapril or perindopril
- prescribing powerful topical corticosteroids and/or oral antihistamines to deal with a pruritic rash that is actually a drug eruption associated with another medication that has been recently introduced
- adding a potassium supplement to deal with hypokalaemia associated with the use of diuretics such as frusemide or hydrochlorothiazide
- misinterpretation of dizziness secondary to drug-induced hypotension (e.g. with prazosin, nitrates, amitriptyline, venlafaxine) as possible vestibulitis, resulting in the introduction of betahistine or prochlorperazine (Stemetil®)



There are times when, at least in the short term, polypharmacy and prescribing cascades are relatively unavoidable. After a course of chemotherapy, many people will need some form of antiemetic to deal with nausea and vomiting. Some people cannot achieve adequate relief from serious pain without the use of potent opioids that almost invariably lead to constipation that requires the use of laxatives. Under these circumstances it is important to choose the right duration of treatment and the right medicine to add (e.g. opioid-induced constipation will require a stimulant-based laxative).

Polypharmacy need not be an inevitable consequence of ageing – feel free to contact the Ward MM team for further advice.

**The Ward MM freecall number 1800 WARDMM (1800 927 366) can be used at any time to seek advice about the issues raised here, or indeed any medication-related matters.**

## Announcement

### **Booked Out – Waiting List in Place!**

#### **Ward MM**

### **Aged Care Medication Masterclass**

#### ***Mental Health in Aged Care***

To be held at LASA Victoria

21<sup>st</sup> March 2016

(No cost)

To register interest in this event email:  
[info@wardmm.com.au](mailto:info@wardmm.com.au)

## Quick Tip

### **PBS Changes and the Aged Care Sector**

As you may be aware, there have been recent changes to the range of medications that are subsidised for supply through the Pharmaceutical Benefits Scheme (PBS).

Paracetamol, aspirin, chloramphenicol eye drops, iron tablets, folic acid tablets (iron/folate combinations) are included amongst other products that will no longer be subsidised.

This will affect residents, as they will now have to buy these products and will be charged accordingly by your supply pharmacy. However, these medicines must still be prescribed by the doctor on the resident's drug chart. If a resident still has a current prescription that was written before January 1st 2016, they are still able to receive these medications through the PBS – the new arrangements only apply to newly written prescriptions.

For further information, please ask your Ward MM pharmacist for a copy of the PBS Changes Flyer.

## Quick Tip

### **Expiry dates on Dosage Administration Aids.**

Is your facility fully compliant with Standard 2.7?

Are your prn medications packed to comply with standards set by the US Pharmacopeia?

Guidelines recommend marking a 6-month expiry on prn medications that are packed into dose administration aids (with the exception of paracetamol which is stable for 12 months). Be sure to check expiry dates on prn packs regularly.

If you require any further information contact your Ward MM pharmacist for an information brochure.



## Your Questions Answered

# Notes from facilities serviced by Ward MM

*It is quite common for us to receive similar enquiries from more than one facility in our network. In this section we summarise questions with a common basis – as a part of our “connect – network – share” ethos, we share the information with all of our facilities.*

*Q. Complementary medicines seem so popular, but are they safe?*

A. There are literally thousands of complementary medicines sold in Australia – many are innocuous, but some can have serious side effects.

In Australia, the term complementary medicines is used to refer to products herbs, vitamins, minerals, some nutritional supplements, and other products such as homoeopathic preparations. These products are regulated as medicines under the Therapeutic Goods Act 1989.

A product is defined under the act if it contains one or more of a wide variety of active ingredients, including things like amino acids, essential oils, plant/herbal material, microbes (except for vaccines), minerals, non-human animal material (such as dried material, bone and cartilage, fats and oils, substances produced by bees), and vitamins and related compounds.

Depending upon the level of risk deemed by the Therapeutic Goods Administration to be associated with the product, complementary medicines are either registered or listed on the Australian Register of Therapeutic Goods (ARTG). In addition, complementary products must also satisfy requirements under a wide range of other provisions such as manufacturing standards, quarantine and biodiversity regulations, food standards and others.

It is very unwise to source non-approved products from overseas. Not only may the supply and distribution of these be illegal, but they may be affected by dangerous contaminants, fail to satisfy reasonable manufacturing standards, and have often been found to be adulterated with the inclusion of potentially dangerous drugs – recent examples of non-declared content include dangerous and powerful anti-inflammatory drugs, antibiotics and sildenafil (Viagra®).



## Meet your Ward MM Team Member

**Viola Nasserallah** has recently joined the Ward MM family as the regional manager for western Victoria. Viola's passionate spirit ensures her team are never without a laugh or an understanding of the importance of the impact their work can make on the people in their care. Viola tells us a little about her family and career.

**Most meaningful moment...** in life would be giving birth to my daughter Lily. She is such a character and life has no meaning without her.

**My biggest challenge...** would be finishing the stage 2 AACP and becoming an accredited pharmacist after being a community pharmacist for almost 10 years thus having to learn a lot of clinical things again and still continuing to learn.

**I'd be lost without...** my family and friends. I lived in Sydney for 18 months and I enjoyed it but couldn't wait to come back home to Melbourne.