



From the Clinical Director

No one likes to take more medications than are absolutely necessary, and with good reason. It is well known that the risk of adverse drug reactions and drug interactions rises considerably in a fashion that matches the number of drugs on the medication chart. Moreover, both residents in aged care facilities and their families or carers can become concerned as the number of medicines increases, and may voice their concerns to facility staff or prescribers. How many of us have heard an older person make the complaint "if I take one more pill I'll rattle"?

On the other side of the equation, it is important to realise that amongst elderly people the situation of multimorbidity is actually the rule, rather than the exception. What this means in practice is that in aged care facilities it is very uncommon to encounter elderly people who are affected by only a single illness, or one or two conditions. As each new diagnosis is added, it is often the case that the need to add an extra medication arises. This being the case, the number of medications taken may seem to rise uncontrollably, creating concern for residents and staff alike.

As people grow older, one group of conditions where the prevalence increases quite considerably are the neurological illnesses. As with Alzheimer's disease and other forms of cognitive disorders, there are other neurological illnesses that staff in aged care facilities may encounter amongst their clientele (epilepsy, peripheral neuropathies, multiple sclerosis and essential tremor) which are relatively common in this age group. One condition that is especially frequently amongst older people is Parkinson's disease, which has been described since ancient times. Parkinson's disease was referred to in the ancient Indian medical system of Ayurveda as *Kampavata*, and later described by the physician Galen as "shaking palsy" in AD 175.

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Medicines that are commonly prescribed for the management of Parkinson's disease are often complex. The aim is usually to use a relatively simple regimen with a limited number of medications & occasions of medication administration per day. As the illness progresses with time, extra medicines are often added and the complexity of the regimen increases. All of this means that a medication review for people with Parkinson's disease may prove to be very helpful – our friendly staff at Ward MM are always available to assist.

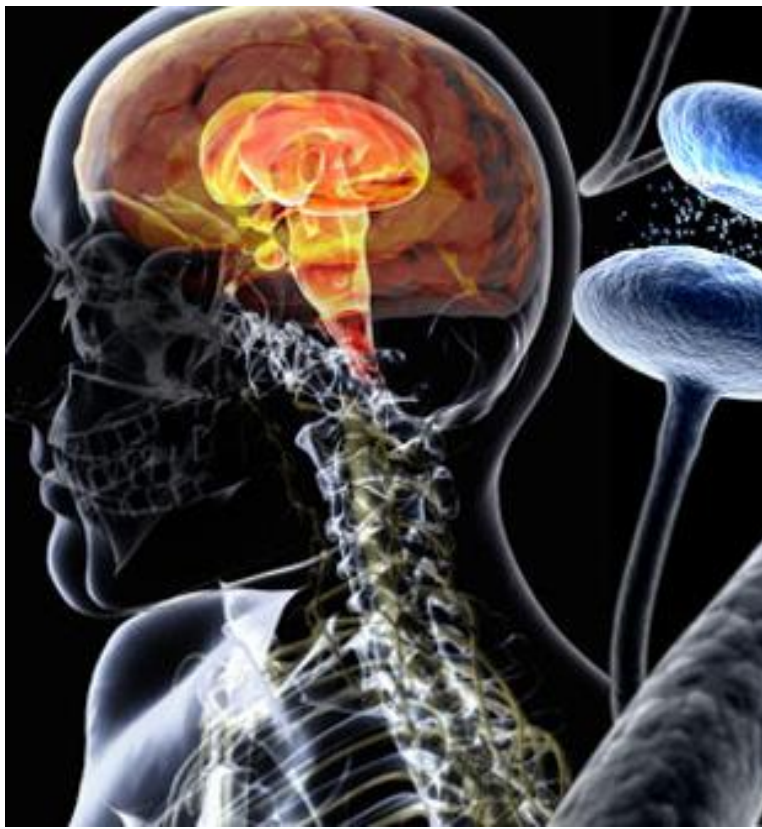


Feature Article:

Medications and Parkinson's disease

Dopamine is a neurotransmitter that helps to transmit messages from one nerve cell to another, in particular the messages for movement. In Parkinson's Disease the nerve cells deep in the brain that produce dopamine 'die off' leading to a deficiency in dopamine and disruption to this 'movement message' towards the rest of the body. The goals of treatment are to maintain functional capacity with the use of relatively minimal medication. Due to the progressive nature of Parkinson's disease, the doses used often need to be increased or additional medications added.

The goal of treatment is to maintain function with minimal medication.



Levodopa is considered a first line medication in Parkinson's disease, particularly for the elderly, as the benefit to risk ratio is generally favourable. Levodopa acts by replenishing dopamine levels in the brain - this is useful to combat the symptoms of Parkinson's disease. However, increased levels of dopamine in the rest of the body commonly cause problematic nausea and vomiting, which is why levodopa is almost always formulated in combination with a decarboxylase inhibitor (carbidopa or benserazide) to reduce the conversion of levodopa to dopamine in the periphery. Other less common side effects of levodopa include hypotension, behavioural disturbances, sweating and brownish-orange discolouration of sweat and urine.

Other medications that can be used with or without levodopa therapy include dopamine agonists (i.e. bromocriptine, cabergoline), MAO-B Inhibitors (i.e. selegiline), entacapone or amantadine.

Anticholinergics (such as benztropine) have a limited role in Parkinson's disease due to a high incidence of adverse effects, particularly in the elderly, as well as only modest symptom benefit.

The correct timing of medication in Parkinson's disease is critical for effective control of symptoms. Every effort needs to be made to ensure that medication is given to patients at the correct, specified time.

The elderly are particularly sensitive to variable levels of medication, and dose timing needs to allow for onset of action and duration of effect to maximise the "on" periods and minimise "off" periods.

The timing of medication in Parkinson's disease is vital for effective control of symptoms.

Parkinsonian symptoms (or parkinsonism) may be caused by medications that interfere with dopamine pathways – these include drugs such as antipsychotics (e.g. haloperidol, or risperidone at high doses) and anti-emetics (such as metoclopramide or prochlorperazine).

The management of Parkinson's disease is often complex due to multiple daily dosing, strict timing of medication, adverse effects and the need for careful dose titration and combination therapy.

Residents with Parkinson's disease are likely to benefit from a collaborative medication management review. For more information or to organise a referral contact your Ward MM Pharmacist or call 1800 WARDMM.

Find more information about warfarin drug interactions at the Ward MM website

Quick Tip

Was that rash there before?

Dermatological reactions are amongst the most frequently encountered of all adverse reactions to medications seen in Aged Care. With lots of skin conditions seen in older people, skin reactions can be quite easy to overlook. Always be on the lookout for a new rash that appears soon after the addition of a new drug

– if in doubt, as your Ward MM pharmacist.



Your Questions Answered

Should
Metamucil® be
separated from
other
medications by
at least two
hours?

As a bulk forming agent, Metamucil® works by attracting water to the colon whilst increasing faecal bulk, which in turn stimulates peristalsis, the rhythmic, coordinated movements of the muscles in the wall of the bowel. The active ingredient in Metamucil® is psyllium husk, used in the treatment of both constipation and diarrhoea. The packaging of the product states that there should be a 2-4 hour gap between taking Metamucil and other oral medications. In reality, this may create challenges in the aged care setting, where the administration of medications is a part of complex daily routine for care staff.

The consumption of psyllium can result in decreased gastric emptying, which can cause decreased absorption of some medications. The delay in gastric transit time can lead to the overexposure of acid labile medications such as some penicillin derivatives (e.g. penicillin V, flucloxacillin), causing enhanced degradation of these medications and potentially compromising absorption after oral administration. As the extent of the interaction is variable and largely unknown in individual cases, it may be safer to leave time between psyllium and medicines.

Non-digestible products such as psyllium can also form poorly soluble complexes with medications, resulting in

decreased oral absorption of these medications. This interaction may occur between psyllium and digoxin, nitrofurantoin, thyroxine, iron and salicylates. To optimise the therapy of these medications and to avoid clinically significant consequences it is recommended that these medications should be administered at separate times to Metamucil.®

It should also be noted that Metamucil®I needs to be administered with a full glass of fluid. This is to reduce the risk of oesophageal obstruction, as psyllium can swell in the oesophagus if not sufficiently flushed down. Also, increased levels of fluid reduce the risk of constipation that could be caused by psyllium. However, it is important to note that large fluid intake can be inappropriate for those on fluid restrictions, meaning that alternative agents may be preferred.

Quick Tip

Movicol® can be mixed with things other than water!

The product should initially be diluted with water to achieve the optimal concentrations for treatment of constipation. It is recommended that ½ a cup of water (125ml) be used for the full strength sachet and ¼ cup of water (62.5ml) for the half strength sachet. Once this dilution is completed, other liquids such as juice or cordial can be added. If palatability is an issue for patients, keep in mind that the Movicol range includes Movicol Chocolate, Movicol Lemon/Lime and Movicol Flavour Free preparations.

Meet our Pharmacist



Andrew Wood

Andrew Wood has joined the WardMM team as an expert in all things management (12 years in retail pharmacy management will do that!). If you want to hear a great story - ask Andrew about his 'Hot Seat' experience...

Most Meaningful Moment: Being there when my son was born. He is now 2 years old and a ball of fun!

Biggest Challenge: My wife and I have different religions, so we decided to fit two wedding ceremonies and a reception into one weekend. Had to be planned down to the last minute, but we pulled it off!

I'd Be Lost Without: My wife will probably say "my phone", but I don't know what I would do without my little family. Love my work, but I can't wait to get home at the end of the day!