Accredited pharmacists undertake the medication reviews that inform resident care.

Big data provides big insights on drugs

Analysing prescribing patterns in aged care can reveal patterns, trends and areas for concern, writes DR CHRIS ALDERMAN.

One of the realities of advancing age is the tendency to develop multiple medical conditions that require medication treatment.

Although we all aspire to approaches that are based on lifestyle interventions such as a healthy diet, exercise and activities to keep the brain active, many people end up taking multiple medicines.

And even with great care in prescribing and monitoring, almost inevitably there are situations where the use of medicines can create problems – some of them very serious.

Polypharmacy is a hot topic in the aged care sector, and is receiving attention from prescribing doctors, pharmacists and nurses.

In addition, consumers are rightly joining the conversation and are questioning how the amount of medication required for older people can be kept to a minimum.

Recognising harm related to the use of medications by older people, specially accredited pharmacists can provide an assessment of medications taken by someone who is at risk of medication related harm.

This process is known as residential medication management review (RMMR) in residential aged care and a home medication review (HMR) in community aged care.

Since the introduction of these services, millions of reviews have been completed by pharmacists in response to referrals from GPs.

In each case, the pharmacist's recommendations are provided in the form of a written report to the GP, who can then integrate these suggestions into a medication management plan.

Dr Chris Alderman

Review provides insights

One project that can support good treatment decisions is Choosing Wisely, coordinated in Australia by the National Prescribing Service (NPS).

At the Choosing Wisely meeting in Melbourne in May, we presented information gathered while conducting 25,000 RMMRs over a three-year period.

> "Of the 24,864 medication reviews we examined, 29 per cent of the residents were treated with a statin at the time of review."

A high-level view of prescribing patterns in aged care can reveal patterns, trends and areas for concern.

The advantage of this is that data can be used for feedback on how practices compare between aged care facilities, or between different individual prescribing doctors.

For example, when a facility is undergoing accreditation, being able to provide evidence that medication prescribing patterns are being monitored and acted upon is helpful.

Data monitoring can identify situations where unusual prescribing patterns may be emerging – such as under or over use of a specific medication, or medication class.

In some situations, it is possible to identify medications that may be candidates for de-prescribing.

In the recent data analysis, we examined the characteristics of prescribing of several key drug classes, detailed patterns of medicine usage and how these relate to illnesses present amongst the residents of facilities.

Statins use

An interesting example involves statins, which are amongst Australia's most widely prescribed medications and are used for the management of high cholesterol to lessen the risk of heart attack or stroke.

Statins can be used for primary prevention (stopping a cardiovascular event from happening to a person who has not experienced one before) and secondary prevention (stopping a serious cardiovascular event in someone with established cardiovascular disease).

Although the subject of some conjecture, particularly for seniors, it is generally agreed that the evidence to secondary prevention is stronger than for primary prevention.

Moreover, when medications are used for older people, the risks of adverse effects and drug interactions are generally thought to be higher than for younger people.

Of the 24,864 medication reviews we examined, in 7,103 cases, or 29 per cent, the resident was treated with a statin at the time of review.

In 1,562 cases, the statin appears to have been prescribed for people with an established history of cardiovascular pathology. This means the statins were apparently prescribed for secondary prevention in 22 per cent of all people receiving these agents, and for 6 per cent of all people who underwent a medication review.

On the other hand, statins appear to have been prescribed for primary prevention in 78 per cent of cases where these agents were prescribed, and for 22 per cent of all people who had received a medication review.

Looking at age patterns

It's also interesting to understand age pattern in statin usage amongst these residents.

In 5,525 of 7,103 people prescribed statins (78 per cent), the recipient of the review was aged 80 years or older.

In 2,246 people prescribed statins (32 per cent) the resident was aged 90 years or older (including 79 people aged 100 years or older).

Of 5,525 people treated with statins who were 80 years old and older, 1,186 (21 per cent) were treated for secondary prevention and 79 per cent were treated for primary prevention.

For those less than 90 years of age, 485 (22 per cent) were treated for secondary prevention, whereas the remainder (78 per cent) appeared to have been receiving the statin for primary prevention. This is despite the fact that the risk of muscle pain, falls and cognitive impairment associated with statins is arguably much higher amongst the "older-old".

It's now evident that using data to understand and improve medication in aged care is another example of the ways in which prescribing information can help achieve optimal prescribing for aged care residents. ■

Dr Chris Alderman is clinical director of Ward Medication Management.

What's a medication review?

Any older person living in residential aged care can have a residential medication management review – all they need is a referral from a GP.

An RMMR is an excellent way to identify and solve medication problems and to prevent issues in the future.

Only a specially-qualified pharmacist can provide an RMMR, but after it is completed both GP and the facility receive a detailed report with specific recommendations.

RMMRs have been available to Australians since 1997 and many thousands are completed around the country every month.

They are completely funded by the Commonwealth, and can be provided as often as a GP considers necessary.

Clinical indications for a review range from new admission to a facility, recent hospitalisation, new onset of falls or confusion, or for many other clinical syndromes.

Typical recommendations will suggest introducing a new medicine, changing the doses, discontinuing a treatment, or additional monitoring such as blood tests.

Dr Chris Alderman