

PRIMARY CARE FOCUS

An age old problem: caring for the frail elderly in aged care facilities

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INTRODUCTION

The need to provide appropriate funding for the care of the elderly in residential aged care facilities (RACFs) is a persistent and ever-evolving issue, due in large part to Australia's ageing population. As of June 2015, in Australia there were approximately 195 000 government funded aged care beds available in Australian RACFs. A recent piece in the *Australian Financial Review*¹ suggested that in 2015 there was a shortfall of 28 000 beds and it has been predicted the nation will need over 390 000 of these beds by 2025. It is of concern that the Commonwealth government has only projected funding for 262 000 places. This issue is compounded by the increasing acuity of care needs for people entering into RACFs; it is higher than was seen previously, with the average life expectancy of residents in these facilities being less than 2 years.² Residential Medication Management Reviews (RMMRs) are a government-funded service which can be provided by an accredited pharmacist every 24 months (unless clinical need arises in the interposing period).³ The role of the pharmacist in caring for the ageing population is critical; this profession provides a unique perspective as experts in assessing the appropriateness of medications prescribed for residents in RACFs.

There are many challenges faced by pharmacists providing these services, not the least of which is a perception that they may not necessarily be seen as an integral part of the aged care team. The importance of integrating the work of pharmacists into mainstream aged care services should not be underestimated. In addition to providing RMMRs, by providing high-level quality use of medicines (QUM) services, pharmacists can only improve their affiliation with the facilities serviced.⁴ QUM services are also government funded and include such activities as conducting audits, in-service

education, medication management policy development, developing medication protocols, helping with accreditation, involvement at Medication Advisory Committee meetings, data analysis and reporting, and benchmarking. The time spent developing relationships with the facility staff and general practitioners (GPs) will certainly reap rewards. Responding to the needs of the facility is an equally important priority for pharmacists and can be incorporated into each visit.

WHAT IS DIFFERENT AND UNIQUE ABOUT RESIDENTS IN RESIDENTIAL AGED CARE FACILITIES, AND RESIDENTIAL MEDICATION MANAGEMENT REVIEWS?

RMMRs are not the same as Home Medicines Reviews (HMRs). With RMMRs, in the majority of cases residents do not self-medicate and their medications are given to them by trained staff, akin to the hospital situation. This creates its own set of dilemmas, since pharmacists are taught to always discuss medication management with the patient. In order to resolve potential issues, pharmacists need to be able to elicit appropriate information from staff and family members, especially if the resident has cognitive impairment or other impairments in communication. Even so, some processes cannot be bypassed – for example, the importance of checking inhaler technique should not be overlooked. Another important factor that has impact in RACFs is the limited availability of time of the GP, meaning these doctors may often visit early in the morning or after their work in the surgery has finished in the evening, making it more difficult for pharmacists to foster a working relationship with them. GPs often find themselves under pressure to respond to 'mini crises' in the management of RACF patients, often needing to make decisions without necessarily having the benefit of the results of pathology tests and other investigations to hand, or (at times) based only on feedback provided through conversations with the facility staff. For example, GPs are often asked to prescribe antibiotics for residents

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without being able to view culture and sensitivity results to guide prescribing.

WHAT MAKES DRUG USE COMPLICATED IN RESIDENTIAL AGED CARE FACILITIES, AND WHY ARE TARGETED REFERRALS SO IMPORTANT?

Pharmacists are well aware of the issues related to changes in pharmacodynamics and pharmacokinetic parameters encountered among older people. In the RACF setting, it is often necessary to assess medication therapy in the context of extremes of old age, as well as complex medication regimens. For the residents serviced by our group, the mean number of regular medications taken per resident is 8.87 ± 3.92 and the average number of 'when required' (prn) medications is 4.2 ± 2.52 . Pharmacists are aware of the issues associated with polypharmacy in the elderly, and how these lead to an increased risk of adverse events.⁵⁻⁷ Moreover, in some cases medication may be continued despite explicit lack of evidence of benefit when used in an older person.

In aged care facilities in Australia and other parts of the world, there has been a move toward non-nursing staff (sometimes called personal care assistants, PCAs) administering medications, principally as a result of financial constraints placed upon an overloaded system. Due to the complexity of their medication regimens, individuals may need to receive medications four or more times a day. Administration rounds can take many hours, and can involve complicated schedules of drug administration. For example, if a resident is prescribed two different types of eye drops to be administered into both eyes, or, as is frequently the case, needs medications to be crushed, these practices will contribute to the

complexity of medication administration processes and the potential for errors.

RMMRs are especially important in situations where the medication regimen is dynamic, as reviews can be targeted to those who would be expected to benefit most. For example, if there has been some kind of change in clinical status, the RMMR can deliver valuable assistance. There are various examples of this type of situation, such as a recent or unexpected hospital admission, a new requirement to crush medications, deterioration in the medical condition of the resident, compromised cognition, weight loss and more. Another important factor is that many residents are no longer able to be actively involved in their own medication management and decisions are therefore made on their behalf. Conducting an RMMR allows for pharmacists to become the patients' advocate, providing an opportunity to rationalise medications based on current evidence and risk aversion, thus reducing medication burden.⁸

THE ROLE OF DATA ANALYSIS

The importance of data analysis should not be overlooked when conducting RMMRs, as this information can be put to use for the benefit of patients, prescribers and facilities. By using de-identified data to drive quality improvement in aged care settings, pharmacists can respond to potential concerns associated with prescribing patterns. An example of this is to analyse antipsychotic prescribing patterns, using the data for normative bench-marking and providing objective information about drug usage characteristics across RACFs or for individual facilities.

Ward Medication Management (MM) routinely uses aggregated and de-identified data to provide feedback to

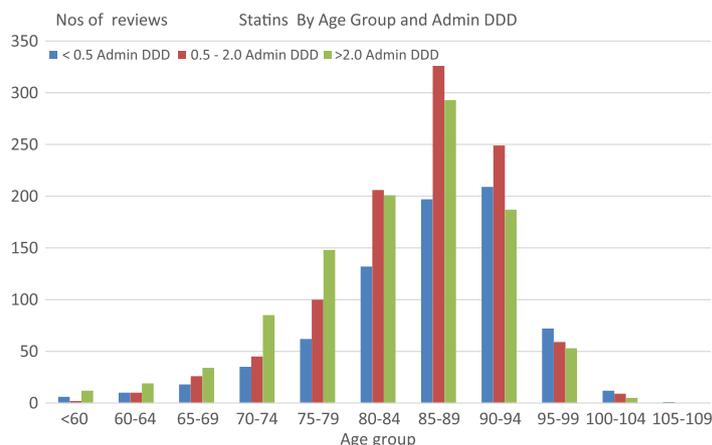


Figure 1 Statin use by age and proportion of defined daily dose in residential aged care facilities serviced by Ward Medication Management.

prescribers and facilities with the objective of enhancing QUM and guiding prescribing in accordance with high-quality evidence. An example of this type of data is illustrated in Figure 1. Since there is a relative lack of evidence for the use of hydroxymethyl glutaryl co-enzyme A reductase inhibitors (statins) for primary prevention purposes in older people, Ward MM have examined data from RMMRs provided to explore the ways in which these medicines are being used in this context. Data from over 15 000 RMMR reports were analysed, and statin doses were compared to the defined daily dose (DDD) of each medication, as recommended by the World Health Organization (WHO).⁹ This allowed for identification of residents receiving high-intensity treatment that might contribute to a risk of adverse effects. Analysis revealed that 3896 residents were prescribed statins, and of these people 1980 were aged between 80-90 years of age and 862 >90 years. In the 80-90 years old group, 982 people (49%) were receiving treatment at an intensity greater than the standard DDD; for those older than 90 years, 371 residents (43%) were receiving treatment at a dose greater than the DDD. In comparison, among those residents aged <80 years, 57% were receiving greater than the recommended DDD.

Almost 50% of residents treated with statins in RACFs serviced by Ward MM appear to be receiving treatment at a dose higher than the standard DDD. It is known that as people age there is an increased risk of adverse events associated with all medicines (including statins), and this risk is dose-related. The guidance provided in the 'Choosing Wisely' campaign states that statin therapy should not be commenced for older people without first assessing absolute risk of a cardiovascular event, and studies have shown that the relative risk of coronary heart disease due to high cholesterol reduces with advancing age.^{10,11} Although statins have a proven benefit for secondary prevention, these medications should be reviewed regularly and the potential risks and benefits regularly assessed in the context of advancing age, evolving comorbidities and alterations to other drug therapies. In older people requiring continuation of statins, careful consideration needs to be made as to whether the dosage should exceed the WHO DDD, as this may reduce their risk of adverse effects such as myopathy, myalgia and potential cognitive impairment. Moreover, the dosage may be adjusted as a person ages: aggressive treatment to achieve strict targets for serum lipids may not necessarily benefit an older person. Once serum lipid reductions have been achieved for a person with an otherwise limited life expectancy, it may be appropriate to reduce statin dosage intensity or even discontinue these agents. By using data to identify the extent of the issue, leverage is gained to enable targeted

education sessions with GPs and facility staff. This helps to ensure that the key messages regarding the importance of rationalisation of medications in the older person are widely distributed.

CONCLUSION

The benefits that can be gained from RMMR and QUM services in the aged care setting are difficult to ignore.¹²⁻¹⁶ Delivered in a setting where almost all of the residents are elderly, where medication use is complex and fraught with risk, and where the acuity of care is progressively increasing over time, these services have great potential to deliver improved outcomes and a decrease in drug-related morbidity. It is apparent that by delivering these services in the context of enhanced infrastructure support, including elements such as high-quality training and development, sophisticated information technology, and the use of data to guide the services provided, the benefits that can be gained may be enhanced even further.

Competing interests

None declared.

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