The pharmacist's role in supporting people living with dementia in the community

BY ANDREW STAFFORD

More than 342,000 people with dementia are living in Australia – around 70% of whom live in the community.[1]

Whilst dementia can occur in younger people, the prevalence of dementia increases markedly with age; around 9% of Australians aged 65 years and over have dementia, increasing to 30% of people aged 85 years or more.[1] As the majority of people living with dementia are elderly, many have multiple comorbidities that also require management. In a recent international study involving people with dementia living in the community, dementia was the sole chronic medical condition in less than 13% of participants.[2]

Approximately half of all Australians aged between 65–74 years have five or more chronic medical conditions, increasing to 70% of those aged 85 and older.[3] Consequently, the older a person is the more likely they are to take multiple medications, with around half of the population aged 65 years or more taking five or more regular medications.[4] People living in residential aged care facilities (RACFs), over half of whom have dementia,[5] take on average between nine and ten regular medications.[6,7]

As a consequence of this high prevalence of chronic disease and medication use, pharmacists can have an important role in supporting people living with dementia and their carers throughout their journey with dementia. This ranges from ensuring that the community pharmacy environment is responsive to the needs of people with dementia, through to a comprehensive suite of medication management services.

Dementia-friendly pharmacies

As the majority of people with dementia live in the community, there is an increasing awareness of the need to ensure that communities are appropriately equipped to support people living with dementia.[8] This is termed being dementia-friendly. A core component of dementia-friendly communities involves businesses being responsive to the additional needs of people with dementia. As people with dementia may experience symptoms such as memory loss or confusion that can make business interactions more difficult,[8] it can be particularly beneficial for businesses to become dementia-friendly.

Whilst the characteristics of individual dementia-friendly businesses differ depending upon the business type and services provided, all share a number of common principles[8]:

- awareness of the needs of people with dementia
- commitment from all staff to being dementia friendly
- adequate staff knowledge and understanding about dementia
- appropriate physical environment
- simplified documentation and processes where possible
- ongoing review and improvement.

For community pharmacies, this may involve a number of activities, such as:

- consulting with local people with dementia and their carers to identify their specific needs in community pharmacies
- staff training in strategies for communicating with people with dementia
- assessing the physical pharmacy environment for adequate signage, lighting and contrast
- reviewing the dispensing process for customers who are known to have dementia to minimise opportunities for confusion (e.g. prescription reminders,[9] organising scripts, simplifying paperwork if possible).

Alzheimer's Australia recently released a toolkit for businesses (https://fightdementia.org.au/about-us/dementia-friendly-communities/toolkits) to enable them to improve their dementia-friendliness, and be recognised for it.[10] The toolkit provides guidance for businesses to create an action plan to become more dementia-friendly, based on the aforementioned principles.

Medication management and dementia

The role of pharmacists in supporting people living with dementia is not limited to the physical pharmacy environment, and there are evolving opportunities for pharmacists to optimise medication management for people with dementia. The high prevalence of multiple chronic diseases and polypharmacy in older people is associated with a high risk of

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LEARNING OBJECTIVES

After reading this article, pharmacists should be able to:

- Identify of the role of the pharmacist in helping people following a diagnosis of dementia
- Understand how to support customers living with dementia
- Understand issues associated with medication use in dementia
- Recognise the benefits of medication reviews for people living with dementia.

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medication misadventure. For people with dementia, the use of medications presents some unique challenges, and it has been suggested that they are amongst the most vulnerable to adverse outcomes associated with inappropriate medication management.[11] Furthermore, people with dementia often require complex medication regimens that can change frequently, particularly when transitioning between care sites. Consequently, effective medication management is vital in ensuring that people with dementia receive the greatest benefit from medication use whilst the risk of medication-related harm is minimised. Pharmacists therefore have an important role in optimising medication management for people with dementia, ranging from assisting with adherence to medication reviews.

Medication adherence

Dementia is associated with particular low adherence rates, with over 30% of people with dementia reported to not take their medications as intended in some studies.[12,13] There are many ways by which pharmacists may assist people with dementia and their carers to improve compliance, and the most effective strategies typically involve an individualised, multi-faceted approach. Examples of some interventions that have been found to assist with compliance are listed in Table 1.

Table 1. Measures (single components) for helping people with dementia take their medications as prescribed.

• Simplified administration instructions, including verbal, written and visual material • Dose administration aids (DAAs), e.g. Webster-paks • Telephone follow-ups • Increased convenience, e.g. scheduled delivery of medications • Involving patients and carers more in their care through self-monitoring	• Simplified dosing regimens • Reminders, e.g. tailoring the regimen to daily habits • 'Reminder' pill packaging • Dose-dispensing units of medication and medication charts • Appointment and prescription refill reminders • Minimising generic substitution • Direct observation of administration

Adapted from Arlt, et al.[13]

Pharmacists may find the MedsCheck Service particularly valuable for identifying and addressing many of the issues that home-dwelling people with dementia and their carers may be experiencing with medication management.[14]

Clinical roles

Managing symptoms of dementia

In addition to assisting with adherence, pharmacists can play a significant role in supporting people with dementia through various clinically-focused services. As discussed previously, dementia frequently co-exists with other chronic diseases; hence, people with dementia use medications to manage both the symptoms of dementia and non-dementia conditions.

The syndrome of dementia is characterised by cognitive symptoms, such as memory loss, and behavioural and psychological symptoms of dementia (BPSD; e.g. aggression, agitation, hallucinations, walking without purpose and sexual disinhibition).[15] Almost all people with dementia experience BPSD at some point, which can seriously impact upon their quality of life and that of their carers.[15] Managing BPSD can be complex as several symptoms can occur concurrently, and many symptoms frequently respond poorly to pharmacological treatment, if at all. Antipsychotics have been used for many years to treat BPSD, and some, particularly risperidone, have been found to reduce some BPSD in up to 20% of people, particularly aggression.[16] However, antipsychotics are ineffective for BPSD in many people, and there is growing concern in many countries that the use of these drugs may not always be consistent with best practice.[15-17] It should also be noted that risperidone is currently the only antipsychotic TGA-approved and PBS-subsidised for treatment of BPSD, with a streamlined authority requiring that it be prescribed only after non-pharmacological approaches to management of symptoms have proven unsuccessful.

In Australian RACFs, between 20–25% of residents take an antipsychotic medication. A number of authors have suggested that many people with dementia may be taking antipsychotics needlessly, exposing them to an increased risk of severe adverse effects including cerebrovascular events and death.[16,18,19] An analysis of the use of atypical antipsychotics for the treatment of BPSD in 1,000 people with dementia for approximately 12 weeks results in clinically significant improvements in BPSD for between 91–200 people, with 18 additional cerebrovascular events and 10 additional deaths.[20] This is in addition to other more overt adverse effects including extrapyramidal symptoms, sedation, and gait disturbances.[15]

As a consequence of the limited efficacy and risk of harm associated with antipsychotic use, clinical BPSD guidelines recommend non-pharmacological strategies as first-line treatment.[16] If an antipsychotic is required, then its use should be limited to severe symptoms of agitation, aggression and psychosis, at the lowest effective dose for the shortest possible time.[16] However, there is evidence that a high proportion of people with dementia who are commenced on antipsychotics continue to take them for extended periods; in one Australian study 60% of RACF residents were taking the same antipsychotic at the same dose 12 months after an initial audit.[17] This is despite good evidence that the withdrawal of antipsychotics does not worsen symptoms in 70% of people.[16]

As antipsychotics are ineffective for BPSD in many people, a number of other pharmacological agents have been used for management, including cholinesterase inhibitors, antidepressants, memantine, anticonvulsants and benzodiazepines.[15] Of these, benzodiazepines are perhaps the most widely used, particularly for anxiety, agitation and insomnia.[21] Despite benzodiazepines being most effective and least likely to cause adverse effects when used for short periods at low doses, there is evidence that many people

with dementia take them for much longer periods than recommended.[17] Consequently, they are at risk of a range of adverse effects including excessive sedation, ataxia, amnesia and confusion which can be particularly problematic in people who are already experiencing significant cognitive impairment associated with their dementia.[21]

A number of studies have demonstrated that pharmacists can optimise the appropriateness of antipsychotic and benzodiazepine use for BPSD in people with dementia.[22,23] A trial undertaken in RACFs in Tasmania involving a series of pharmacist-led strategies involving medications audits and staff education sessions significantly reduced the proportion of residents regularly taking antipsychotics and benzodiazepines.[23] Based on these results, this program is currently being rolled out Australia-wide. For pharmacies that provide *Webster-paks* to RACFs, software has been developed for pharmacies to report antipsychotic usage rates for each facility.[24] The reports facilitate analysis and management of antipsychotic use in RACFs, with the intention of ensuring appropriate use of these medications.

Medications that may worsen dementia

Pharmacists also have an important role in identifying and resolving drug-related problems involving medications that may exacerbate the symptoms of dementia. Of particular note are medications with anticholinergic activity; many forms of dementia are associated with a loss of cholinergic neurones, and medications with central anticholinergic action can further reduce cholinergic function and impair cognition. Numerous commonly prescribed medications possess anticholinergic properties, including selected anti-emetics, antispasmodics, bronchodilators, anti-arrhythmics, antihistamines, analgesics, antihypertensive agents, antiParkinsonian agents, skeletal muscle relaxants, acid-suppressive drugs and psychotropics.[25] A recent international study identified that the use of these agents, particularly in combination with other sedatives, was associated with a significantly increased risk of hospitalisation and death in people with Alzheimer's disease.[26]

Several studies have found that medication reviews by pharmacists can reduce people's exposure to medications with anticholinergic and sedative effects.[27,28] An Australian study of Home Medicines Reviews (HMRs) reported an absolute 15% decrease in the use of these medications in people who received the service (60.5% of participants down to 51.6%).[28] A similar study of Residential Medication Management Reviews (RMMRs) identified that residents' total anticholinergic and sedative burden decreased by a mean of 12% from baseline following the RMMR.[29] Consequently, it may be considered that HMRs and RMMRs have the potential to be of substantial benefit for people living with dementia to minimise the use of medications that may adversely affect their cognitive function. Pharmacists practicing in tertiary settings are also well placed to identify and minimise the use of these medications where possible.

Dementia as a criteria for HMR and RMMR referral

The potential benefits of HMRs and RMMRs for people with dementia have been recognised since the inception of these services. People with dementia frequently fulfil a number of the criteria suggested to identify a person likely to benefit most from a HMR. In particular, one criterion identifies people '*managing their own medicines because of… confusion/dementia or other cognitive difficulties*' as likely to benefit from HMRs.[30] The current HMR program guidelines maintain reference to '*altered cognitive function*' as a potential reason for repeated provision of the service.[31] Similarly, current RMMR guidelines include a '*change in medical condition or abilities (including… cognition…)*' as a possible trigger for a RMMR.[32]

Dementia is a chronic, terminal condition, and comfort is the primary goal of care stated by the majority of proxies of RACF residents with advanced dementia.[33] However, there is evidence that many people with advanced dementia continue to receive medications that are unlikely to achieve this aim, with a recent study undertaken in the USA reporting that 54% of RACF residents with advanced dementia received at least one medication of questionable benefit.[34] As the aim of RMMRs is to optimise the benefits from medicine use and enhance quality of life,[35] RMMRs may be particularly beneficial in ensuring that people with advanced dementia only receive medications that are aligned to their goals of care.

Conclusion

Medicine use is frequently problematic for people living with dementia and their carers. Pharmacists can support people living with dementia in a number of ways, including promoting dementia-friendly pharmacy design, assistance with medication management and providing clinical services to minimise drug-related problems. Pharmacists can support people living with dementia across all sites of healthcare delivery, and are funded to provide a range of services that have been shown to improve health outcomes for these people.

As the number of people living with dementia increases over the coming years, there is an opportunity for pharmacists to be at the forefront of professional healthcare support for these people and their carers throughout their journey with dementia.

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QUESTIONS

UP TO 1 CPD CREDIT GROUP 2

1. Which ONE of the following statements regarding dementia is the LEAST appropriate?

a) Dementia may occur in people less than 65 years of age.
b) The prevalence of dementia is increasing in Australia.
c) The majority of Australians with dementia live in residential aged care facilities.
d) Polypharmacy is common in people with dementia.

2. Which ONE of the following is LEAST likely to be considered a characteristic of a dementia-friendly pharmacy?

a) Training of a single staff 'champion' in communication techniques for people with dementia.
b) Streamlined processes and simplified documentation wherever possible.
c) Ongoing evaluation of all strategies implemented to improve dementia-friendliness.
d) Environmental audit of signage, lighting and colour contrast to ensure appropriateness for people with dementia.

3. Which ONE of the following statements regarding medication use in people with dementia is the MOST appropriate?

a) Most adherence issues can be resolved with only the introduction of a dose administration aid (DAA).
b) Transitions between care sites are a particularly high risk period for medication misadventure.
c) Non-adherence is rarely an issue for people with dementia.
d) People with dementia are generally at no greater risk of medication misadventure than the greater population.

4. Which ONE of the following statements regarding sedative use for the management of behavioural and psychological symptoms of dementia (BPSD) is the LEAST appropriate?

a) There is evidence that many people with dementia are prescribed benzodiazepines for much longer periods than guidelines recommend.
b) When used for BPSD, antipsychotics are associated with an increased risk of cerebrovascular accidents and death.
c) Antipsychotics will improve most BPSD for a majority of people with dementia if given for a sufficient length of time.
d) Educational interventions delivered by pharmacists to RACF staff have been found to significantly reduce sedative use for BPSD.

5. As the manager of a community pharmacy, you decide that the business should work towards becoming more dementia-friendly and increase its services to support people living with dementia. You create an action plan based on the Alzheimer's Australia business toolkit, and start promoting a range of adherence assistance strategies, MedsChecks and clinical medication management reviews (HMRs and RMMRs). However, a local GP asks a number of questions about the need for these services and whether there is any evidence that pharmacists can support people living with dementia. Which ONE of the following responses is the LEAST appropriate?

a) Whilst there is evidence that most medications of questionable benefit are ceased in advanced dementia, RMMRs improve adherence with remaining medications.
b) HMRs have been shown to significantly reduce the burden of medications with anticholinergic and sedative effects in people who receive the service.
c) MedsChecks provide an ideal opportunity to identify and address medication management issues that people with dementia may be experiencing.
d) Current RMMR guidelines specifically reference people with altered cognitive function as being likely to benefit from the service.