Submission to the Royal Commission into Aged Care Quality and Safety

Research into medicine use in older people in aged care has been plentiful and consistently finds poor outcomes for aged care residents in relation to effective medicines management. However, this is not impossible to address. **A similar challenge is faced in hospitals where vulnerable patients are provided with a high number of complex medicines. In hospitals, this important service is called clinical pharmacy or medicines management and is provided by hospital pharmacists who have high level clinical pharmacy skills**.

Clinical pharmacy involves assessing a patient's risk for adverse medicine reactions by reviewing their current medication orders to ensure they are accurate (medication reconciliation), to identify potentially unnecessary or unsafe medicines and unsafe dosages, as well as considering side-effects and drug interactions.

For older patients much consideration is given to deprescribing, which is the planned and supervised withdrawal of unnecessary or inappropriate medicines. **Research has consistently found beneficial outcomes from the provision of clinical pharmacy services.**

Most aged care facilities do not have a pharmacist on staff or a pharmacist who is available to spend significant time with patients. **Pharmacists are contracted primarily for the dispensing of medicines, which can exacerbate poor medicines management**, rather than the regular and ongoing clinical review that is needed. **The SHPA recommends a ratio of one equivalent full-time clinical pharmacist to every 200 aged care residents to provide an appropriate level of medicines management or clinical pharmacy care**, but this is rarely met – if ever.

Research into medication mismanagement in aged care facilities and their residents indicates that:

- 91% of aged care residents take at least 5 regular medicines (also generally known as polypharmacy) and 65% take more than 10 regular medicines (hyper-polypharmacy) every day[1]
- 96% of residents in aged care facilities have at least one medication-related problem, with an average of three medication-related problems per resident[2]
- Between 40% and 50% of residents in aged care facilities are prescribed potentially inappropriate medicines[3]
- 20% of all medicine use in the aged care population is potentially inappropriate[2]
- The most common potentially inappropriate medicines dispensed are long-term (>8 weeks) proton pump inhibitors (42% of residents), benzodiazepines (38%) and antipsychotics (31%)[4]
- Discrepancies between doctors' orders and older persons' medication administration charts are common and lead to medication administration errors[5,6].

Clinical pharmacist services are able to improve medicines management through a range of patient-focused services that aim to minimise the inherent risks associated with the use of medicines, ensure medicines are used appropriately and optimise health outcomes of the elderly. There is a substantial body of published literature demonstrating the clinical and economic benefits of clinical pharmacy services for older people in inpatient, residential care and ambulatory settings. Clinical benefits include:

- prevention, identification and resolution of adverse medicine reactions and other medication-related problems
- improved safety and quality of medicines prescribing and charting
- safer and higher quality use of medicines, especially for high-risk medicines such as antipsychotics, benzodiazepines, opioid analgesics and insulin
- enhanced continuity of medication management during care transitions
- improved medication adherence[7,8].

The Society of Hospital Pharmacists of Australia
PO Box 1774 Collingwood Victoria 3066 Australia
(03) 9486 0177 | shpa.org.au | shpa@shpa.org.au | ABN: 54 004 553 806

RECOMMENDATIONS

1. Increase access to clinical pharmacy services for aged care residents so pharmacists can identify and manage medication-related issues and reduce harm

Aged care services should engage clinical pharmacists (through employment or contractual arrangements) to provide fundamental medication management services to residents that will improve the safety and quality of their care, their quality of life and reduce mortality and morbidity.

Access to clinical pharmacists for aged care residents through employee or contracted clinical pharmacists by aged care facilities is almost non-existent in Australia and puts aged care residents at grave risk of medication-related issues that go undetected until the resident becomes severely ill and is hospitalised. Research indicates that older people are at risk of adverse medicine reactions and other medication-related harms including falls, cognitive impairment, and unplanned hospitalisation[9].

In contrast to clinical pharmacy service for patients in hospital settings, current clinical pharmacy service provision to aged care residents and home care clients – in the form of federally funded programs such as the Residential Medication Management Review (RMMR) and Home Medicines Review (HMR) – is contractual and provided on an ad-hoc basis at the demand of the aged care service and/or on referral from a GP.

The contractual model means it is difficult for pharmacist service providers to detect and address medication-related issues and collaborate with medical practitioners to implement recommendations. Its inadequacy in addressing the complex needs of this patient group, who require regular and timely monitoring and review of medicines, is further compounded by arbitrary service limits imposed through the Community Pharmacy Agreement which mean most aged care residents can only access one RMMR every two years rather than being re-assessed whenever medical treatment is revised or their health status changes.

These limited programs are insufficient to address the disproportionate number of medication complications experienced by frail aged care residents. Many aged care residents or clients do not receive HMR or RMMR, and when they do, it is often not provided at a time when it is most needed (e.g. following a care transition). For example, post-discharge medications reviews are frequently delayed or do not occur, and only 1 in 5 home care clients receives an HMR[6].

Case conferencing for RMMRs are likely occurring in less than 10% of aged care recipients which provides limited opportunities for interdisciplinary care and for older people and their families to be included and aware of the care provided. Interdisciplinary care that includes clinical pharmacists is recognised as vital for effective geriatric medicine care.

Having an integrated or onsite clinical pharmacist provides a solution to improving the quality use of medicines in this setting and provides equity of access to regular medication review and medicines optimisation for aged care residents and home care clients.

Recent Australian evidence highlighted that embedded clinical pharmacist services in aged care homes can reduce medication-related problems, polypharmacy and adverse drug events, while also being cost-effective[10]. Preliminary Victorian evidence on a clinical pharmacy model in a home nursing service indicates a return on investment of $1.54 for every $1 spent is achieved through embedding pharmacists to improve medication management[11].

Deprescribing, which is the process of stopping a medication or reducing its dose to improve the person's health or reduce the risk of adverse effects, is an important strategy for reducing unnecessary and inappropriate medication use in aged care residents. There is evidence that pharmacists can effectively identify medications that should be deprescribed, and implement and monitor deprescribing plans to ensure medications are safely withdrawn while minimising risk of adverse drug withdrawal effects[12].

Antipsychotic medications are commonly prescribed for older patients. However, a recent study concluded that only 10% of psychotropic medicines prescribed for aged care residents with dementia were appropriate[13]. Although antipsychotic medicines may be appropriate for adults with severe mental health issues or long-term mental illness, there is concern that these medicines are being prescribed inappropriately in people aged 65 years and over and they have been associated with several adverse effects including falls and increased risk of mortality[14]. There is evidence that pharmacists working in residential aged care facilities can help to reduce the use of antipsychotics[15].

2. Add pharmacist-led medication management services into the Aged Care Quality Standards and Accreditation Standards to mandate the safe and quality use of medicines

The Aged Care Quality Standards and the Accreditation Standards should specifically require residential aged care facilities to provide medication reconciliation on admission (within 48 hours), and a comprehensive medication review by a pharmacist within 4 weeks of admission.

Aged care standards must recognise that health needs of residents are increasingly complex and warrant management by not just general practitioners, but also specialised, interdisciplinary, team-based care, which includes nurses, pharmacists and allied health professionals.[16]

For residents' medication management needs, this can be achieved by a collaborative, patient-centred clinical pharmacy model in all aged care facilities and home care services to address the complex needs of aged care residents and home care clients, and their heightened risk of medication-related incidents.

SHPA's forthcoming *Standard of Practice in Geriatric Medicine for Pharmacy Services* recommends a ratio of one full-time equivalent pharmacist to 200 residents in aged care facilities to deliver an evidence-based, best practice, clinical pharmacy service (Table 1).

The equivalent ratio for home care clients depends on the geographic distribution of the clients, but on average a pharmacist can complete a comprehensive review for three clients per day.

Table 1. Components of a best practice clinical pharmacy service

Medication history and medication reconciliation on admission, and after any care transition (e.g. hospital discharge)
Medication administration chart review at least monthly
Reconciliation of dose administration aid (DAA) packs with medication orders/charts.
Comprehensive interdisciplinary medication review within 4-6 weeks of admission and repeated at intervals determined by clinical need (not less than yearly, and within 5-10 days of returning from an unplanned hospital admission)
Monitoring and review of deprescribing plans and outcomes following a comprehensive medication review.
Multidisciplinary case conferences/team meetings
Provision of information and advice to prescribers, nurses and carers
Provision of information to patients and/or carers about medicines and medicine changes
Assessment of patients' ability to self-administer medicines and oversight/monitoring of self-administration of medicines
Preparation and delivery of medication information for clinical handover during transitions of care
Participation in medication advisory committees
Quality Use of Medicines activities (e.g. audits, staff education)
Contribution to medication policy and procedure development

3. Utilise clinical pharmacists to support aged care residents to have more autonomy to self-administer medicines

Recent evidence provided at the Royal Commission has mentioned the lack of independence and autonomy provided to aged care residents with respect to medicines when they are capable of managing their own medicines. Research indicates that empowering patients to self-administer medicines improves their independence and engagement with their medicines and overall care[17].

As they do in hospitals, clinical pharmacists can identify residents who would benefit from self-administration, assess their capacity to manage their own medicines, and deliver structured self-administration of medicines programs to enable older people to maintain or enhance their independence with medication taking[18].

With suitable investment into pharmacy services by embedding clinical pharmacists into aged care services, pharmacists could appropriately identify residents who would benefit from self-administration of medicines and provide assistance, education and monitoring.

SHPA has produced the *Guideline for Self-Administration of Medication in Hospitals and Residential Care Facilities*[19] which assists health and aged care services to implement self-administration programs.

4. Utilise hospital-provided interim medication charts to reduce the risk of medication errors related to the transition from acute to residential care settings

Older people discharged from hospital to residential care facilities have complex and intensive medication needs[20]. An Australian study reported that people discharged to residential care facilities were prescribed an average of 11 medications of which seven were new or had been modified during hospitalisation[21]. The continuity of medication management is often compromised when older people are discharged from hospitals to residential care facilities and home care. Missed, delayed or incorrect medication administration occur for around 1 in 5 patients[22]. The median time between arrival at the residential care facilities and the first scheduled medication dose was three hours, and 'when required' (prn) medications were sometimes needed sooner.

In order to address the risk related to the transition from acute to residential care settings, there is a need for a national interim residential care medication chart. There is a gap in the current provision of services, for which there is evidence that hospital pharmacist-prepared interim residential care medication administration charts significantly reduce medication errors and the reliance on locum medical services to write medication charts after discharge from hospital to residential care facilities[1,2].

Despite evidence for this approach and it being supported by the Commonwealth through the *Guiding principles for medication management in residential aged care facilities*[23], there has been little progress towards implementation, and the use of these charts is fragmented across Australia.

This is an area in which hospital pharmacists are well placed to improve the quality of care and medication safety in aged care. The *SHPA Standard of Practice in Geriatric Medicine for Pharmacy Services* states that pharmacists should provide medicines information to patients, carers and health professionals during transitions of care, ensure ongoing access to medicines, and ensure that medications are able to be safely and accurately administered after a transition of care.

At present, South Australia is the only jurisdiction which has a standard interim medication chart[24] for use in South Australian hospitals when patients are transferred to residential care facilities. SHPA supports this to become a national initiative through:

- The Australian Commission for Safety and Quality in Health Care (ACSQHC) reviving their work on a national interim medication administration chart – potentially in partnership with the Aged Care Quality and Safety Commission
- ACSQHC to publish standard national interim residential medication charts with supporting guidelines
- Enshrining the provision of interim medication administration charts for patients discharging to aged care facilities in National Safety and Quality Health Service Standards for hospital accreditation

5. Improve the fragmented delivery of aged care services to achieve equitable health outcomes across Australia

The standards for delivery of all aged care services should be consistent across the country, and the quality and access to care should not be dependent on how these services are funded. At present, the aged care industry is fragmented, made up predominantly of small to medium organisations spread across community and residential care settings.

These organisations may be federal, state or privately funded, leading to a large variation in service delivery standards, and specifically, medication management regimens for older people.

The patchwork of differing delivery of care in states contributes to inequitable health outcomes for older people. For example, different jurisdictions will have local initiatives such as 'geriatric flying squad' services, hospital outreach (or in-reach) services and other interventions, but their viability is entirely dependent on contractual and intermittent funding, leading to significant variation in quality of care even within the same jurisdiction.

Pharmacist involvement in these services is limited, despite the high use of medicines and rate of medication-related problems.

The federal government, along with states and territories need to collaborate to implement a national, standardised approach to the delivery of aged care services (including hospital outreach services) to ensure that all older adults across Australia have equal access.

6. Improve access to palliative care medicines for older people in aged care

Palliative care medicines are not adequately accessible for patients in aged care facilities resulting in a higher than necessary rate of hospitalisations. Aged care facilities are currently not adequately supported to provide the level of care required for palliative care. This is a contributing factor to a 28% increase in the number of palliative care hospitalisations between 2011–12 and 2015–16, compared to a 14.6% increase in hospitalisations for all reasons over the same period[6]. People aged 75 years and over accounted for 52.2% of palliative care-related hospitalisations[25].

Various interventions are required to improve the provision of quality palliative care services and avoid unnecessary hospitalisations.

These include:

Reforming the PBS Palliative Care Schedule to reflect current practice

The PBS Palliative Care Schedule does not accurately reflect the use of medicines required in palliative care. Many of the medicines commonly used in contemporary palliative care practice are not listed in the PBS Palliative Care Schedule, although they may be listed on the general PBS schedule. These include metoclopramide for nausea, haloperidol for restlessness and agitation, glycopyrrolate for respiratory tract secretions among others.

This results in prescribing for palliative care from the general schedule, meaning that analysis of General Practice prescribing is not accurate and has inadvertently and unintentionally alerted general practitioners for prescribing opioids for people receiving palliative care.

For example, correspondence from the Chief Medical Officer to some general practitioners have alerted them to higher than average opioid prescribing to reduce inappropriate opioid prescribing for the general population, however it was impossible for the Chief Medical Officer to delineate how much of this prescribing was for palliative care, as oxycodone is not on the PBS Palliative Care Schedule.

This has resulted in many palliative care recipients being unable to access palliative care services in the community and being referred to specialist services unnecessarily.

Providing adequate training and education of primary healthcare and aged care providers to treat older people in need of palliative care

The provision of palliative care in the primary care setting (which includes residential aged care and home care) can be improved through adequate training and education of primary healthcare and aged care providers.

The primary care setting is the preferred setting for palliative care for many older people, however, at present, not all primary healthcare and aged care providers are trained to provide quality palliative care services and navigate existing frameworks such as the PBS Palliative Care Schedule.

Building capacity in the primary care and aged care workforce can reduce the number of palliative care hospitalisations and burden on specialist palliative care services.

References

1. Kosari, S., McDerby, N., Thomas, J., & Naunton, M. (2018). Quality use of medicines in aged care facilities: A need for new models of care. Journal Of Clinical Pharmacy And Therapeutics. doi: 10.1111/jcpt.12714
2. Nishtala, P.S., McLachlan, A.J., Bell, J.S., Chen, T.F. (2011). A retrospective study of drug-related problems in Australian aged care homes: medication reviews involving pharmacists and general practitioners. Journal of Evaluation in Clinical Practice. 17(1):97-103
3. Australian Commission on Safety and Quality in Health Care. (2013). Literature Review: Medication Safety in Australia. ACSQHC, Sydney
4. Harrison, S., Kouladjian, O'Donnell. L., Milte, R., et al. (2018). Costs of potentially inappropriate medication use in residential aged care facilities. BMC Geriatrics. 2018;18:9
5. Elliott RA, Lee CY, Hussainy S. (2016) Evaluation of a hybrid paper-electronic medication management system at a residential aged care facility. Australian Health Review. 40: 244-50
6. Lee CY, Beanland C, Goeman D, Petrie N, Petrie B, Vise F, Gray J, Elliott RA. (2018). Improving medication safety for home nursing clients: a prospective observational study of a novel clinical pharmacy service. The Visiting Pharmacist (ViP) study. *Journal of Clinical Pharmacy and Therapeutics*. 43: 813-21
7. Gillespie, U., Alassaad, A., Henrohn, D., Garmo, H., et al. (2009). 'A Comprehensive Pharmacist Intervention to Reduce Morbidity in Patients 80 Years or Older: A Randomized Controlled Trial'. *Arch Intern Med*. 169. 894-900.
8. Crotty, M. (2004). 'Does the Addition of a Pharmacist Transition Coordinator Improve Evidence-Based Medication Management and Health Outcomes in Older Adults Moving from the Hospital to a Longterm Care Facility? Results of a Randomized, Controlled Trial'. *The American Journal of Geriatric Pharmacotherapy*. 2. 257.
9. O'Connor, M. N., Gallagher, P., Byrne, S., and O'Mahony, D. (2012). 'Adverse Drug Reactions in Older Patients During Hospitalisation: Are They Predictable?'. *Age and Ageing*. 41. 771-76.
10. McDerby, N., Kosari, S., Bail, K., Shield, A., Peterson, G., & Naunton, M. (2019). The effect of a residential care pharmacist on medication administration practices in aged care: A controlled trial. Journal of Clinical Pharmacy and Therapeutics, 1-8. https://doi.org/10.1111/jcpt.12822
11. Elliott, RA., Lee, C. Y., Beanland, C., Goeman, D. P., et al. (2017). 'Development of a Clinical Pharmacy Model within an Australian Home Nursing Service Using Co-Creation and Participatory Action Research: The Visiting Pharmacist (Vip) Study'. BMJ Open. 7. e018722
12. Ailabouni N, Mangin D, Nishtala PS. (2019). DEFEAT-polypharmacy: deprescribing anticholinergic and sedative medicines feasibility trial in residential aged care facilities. Int J Clin Pharm. 41: 167–78.
13. van der Spek, K., Gerritsen, D., Smalbrugge, M., et al. (2016). Only 10% of the psychotropic drug use for neuropsychiatric symptoms in patients with dementia is fully appropriate.The PROPER I-study. Int Psychogeriatr; 28: 1589-1595.
14. Westbury, J., Gee, P., Ling, T., Brown, D., Franks, K., & Bindoff, I. et al. (2018). RedUSe: reducing antipsychotic and benzodiazepine prescribing in residential aged care facilities. *Medical Journal Of Australia*, 208(9), 398-403. doi: 10.5694/mja17.00857
15. Westbury J, Gee P, Ling T, Brown DT, Franks K, Bindoff I, Bindoff A, Peterson G (2018). RedUSe: reducing antipsychotic and benzodiazepine prescribing in residential aged care facilities. Med J Aust. 208 (9): 398-403
16. Ibrahim, J. Royal Commission into Aged Care Quality and Safety: the key clinical issues. Med J Aust || doi: 10.5694/mja2.50168
17. Richardson, SJ, Brooks, HL, Bramley, G, & Coleman, JJ. (2014). Evaluating the effectiveness of self-administration of medication (SAM) schemes in the hospital setting: a systematic review of the literature. *PloS one, 9*(12), e113912. doi:10.1371/journal.pone.0113912
18. Richardson SJ, Brooks HL, Bramley G, Coleman JJ. (2014). Evaluating the Effectiveness of Self-Administration of Medication (SAM) Schemes in the Hospital Setting: A Systematic Review of the Literature. PLoS ONE 9(12):e113912. doi:10.1371/ journal.pone.0113912
19. SHPA. (2002). SHPA Guidelines for Self-Administration of Medication in Hospitals and Residential Care Facilities. Journal of Pharmacy Practice and Research 32;(4): 324-325
20. Coleman, E. A. (2003), Falling Through the Cracks: Challenges and Opportunities for Improving Transitional Care for Persons with Continuous Complex Care Needs. Journal of the American Geriatrics Society, 51: 549-555. doi:10.1046/j.1532-5415.2003.51185.x
21. Elliott, RA., Tran, T. , Taylor, S. E., Harvey, P. A., Belfrage, M. K., Jennings, R. J. and Marriott, J. L. (2012), Gaps in continuity of medication management during the transition from hospital to residential care: An observational study (MedGap Study). Australasian Journal on Ageing, 31: 247-254. doi:10.1111/j.1741-6612.2011.00586.x
22. Elliott RA, Tran T, Taylor, SE, Harvey PA, Belfrage MK, Jennings JJ, Marriott JL. Impact of a pharmacist-prepared interim residential care medication administration chart on gaps in continuity of medication management after discharge from hospital to residential care: a prospective pre- and post-intervention study (MedGap Study) BMJ Open 2012; 2: e000918. DOI:10.1136/bmjopen-2012-000918
23. Department of Health and Ageing. (2012). Guiding principles for medication management in residential aged care facilities. Available at: http://www.health.gov.au/internet/main/publishing.nsf/Content/nmp-pdf-resguide-cnt.htm
24. SA Health. (2012). Standard interim medication administration chart (IMAC) Available at: https://www.sahealth.sa.gov.au/wps/wcm/connect/public+content/sa+health+internet/clinical+resources/clinical+topics/medicines+and+drugs/standard+interim+medication+administration+chart
25. Australian Institute of Health and Wellbeing. (2018). Palliative care services in Australia. Available from: https://www.aihw.gov.au/reports/palliative-care-services/palliative-care-services-in-australia/contents/summary