Geriatric Medicine and Aged Care Clinical Pharmacy Services

POSITION STATEMENT

This document was produced by the Society of Hospital Pharmacists of Australia (SHPA) Geriatric Medicine Leadership Committee. It outlines the position of SHPA on the role of Geriatric Medicine Pharmacy services in all healthcare and aged care settings in supporting Quality Use of Medicine and Medicine Safety, Australia's tenth National Health Priority Area. It addresses the need for greater pharmacist involvement in clinical medication management as highlighted by the Royal Commission into Aged Care Quality and Safety in the *Final Report: Care, Dignity and Respect*[1] and is based on SHPA's Standard of Practice in Geriatric Medicine for Pharmacy Services.[2]

About SHPA

The Society of Hospital Pharmacists of Australia is the national professional organisation for more than 5,000 pharmacists, pharmacists in training, pharmacy technicians and associates working across Australia's health system. SHPA is committed to facilitating the safe and effective use of medications, which is the core business of pharmacists, especially in hospitals.

SHPA members lead Pharmacy Departments and are in leadership and management positions in hospitals across Australia. SHPA members are also employed in a range of innovative outreach and liaison services in community healthcare settings.

The Geriatric Medicine Leadership Committee is the seven-member group elected to guide member education and advise on policy and advocacy related to Geriatric Medicine.

Position

Geriatric Medicine Pharmacists must be embedded in all healthcare and aged care services where medications are used in older people and they must be involved in all transitions between healthcare settings. Geriatric Medicine Pharmacists provide a range of services that are essential for delivering safe and effective medication management to older people. Older people in all healthcare and aged care settings, and during all care transitions, are entitled to safe, effective and timely geriatric medicine pharmacy services.

RECOMMENDATIONS

- Employment of Geriatric Medicine Pharmacists in all hospitals and other settings that provide care for older people, including community and residential aged care services.
- Inclusion of Geriatric Medicine Pharmacists in broader hospital-based multidisciplinary aged care outreach services.
- Universal use of Interim Medication Administration Charts for all transitions of care between hospitals and aged care settings.
- Implementation of Psychotropic Stewardship programs involving Geriatric Medicine Pharmacists in all hospitals and aged care settings.
- Integration of a Geriatric Medicine Pharmacist in all Aged Care Assessment Teams (ACAT) or equivalent.

Key Points

- Older people constitute a growing proportion of Australians and are the most frequent users of health services. They account for 42% of hospital admissions and 22% of emergency department presentations. Up to 30% of hospital admissions of older people are medication-related, and approximately half are preventable.
- Medications are essential in treating chronic health conditions in older people and, when used safely, are effective and improve quality of life. However, if overprescribed, poorly monitored or otherwise mismanaged, medications have the potential to cause adverse effects and may cause or worsen geriatric syndromes and symptoms such as dementia, delirium and incontinence and increase the risk of falls. Studies indicate that 20% of all medications used in older Australians are potentially inappropriate.
- Systemic challenges in Australia's healthcare system make it extremely difficult for aged care nurses, doctors and pharmacists to provide continuity of care to older people transitioning between care settings. These challenges frequently result in medication administration delays and errors, which has been demonstrated to compromise medication safety.
- Access to timely geriatric medicine pharmacy services, outlined in Table 2, is essential to optimise medication management and improve medication-related outcomes for older people.
- The term 'Geriatric Medicine Pharmacist' refers to all pharmacists whose focus is providing care to older people, regardless of whether the pharmacist works in a specialist geriatric medicine service, or another clinical area that manages the care of older patients, including those in residential and community aged care.
- In order to achieve better health outcomes for older people by mitigating the risks of medication-related harms and inappropriate use of medications, SHPA's Geriatric Medicine Leadership Committee has identified five recommendations.
- Fundamentally, incorporating Geriatric Medicine Pharmacists into aged care and hospital governance structures is a pivotal component of achieving medication safety for older Australians in all settings and during transitions of care.

Background

Older people constitute a growing proportion of Australians and are the most frequent users of health services. In 2017, there were 3.8 million Australians aged 65 and older, and it is projected there will be 8.8 million older people in Australia by 2057.[3] Although only making up 15% of the population, older Australians accounted for 42% of the 11.3 million episodes of admitted patient care and 22% of all emergency department presentations in 2017-18.[4,5] It is estimated that up to 30% of all hospital admissions of older people are medication-related, and approximately half of these are preventable.[6]

Older people receive health care in a variety of settings including: residential and community aged care facilities, hospitals and their homes (see Table 1). Regardless of where care is provided, most older people are taking medications to manage their chronic health conditions, such as coronary heart disease, dementia and chronic obstructive pulmonary disease (COPD), which are leading causes of disease burden for older Australians.[3] Data shows that people aged 65 years and older contribute to more than 50% of all the Australian Pharmaceutical Benefits Scheme (PBS) expenditure.[7]

The use of medications in older people is complex, as they often have several chronic health conditions requiring treatment with multiple medications. Older people are more likely to have barriers to safe medication management than younger adults. These include: taking multiple medications (polypharmacy), having multiple prescribers, cognitive or sensory impairment, reduced manual dexterity, poor health literacy and multiple transitions between care settings.

Safe and Quality Use of Medicines in older persons

Medications are essential tools in treating chronic health conditions in older people, and when used safely, are effective and improve quality of life. However, if overprescribed, poorly monitored or otherwise mismanaged, medications have the potential to cause adverse effects and may cause or worsen geriatric syndromes such as dementia, delirium and incontinence and increase the risk of falls. Complex medication regimens may also impact on the older person's ability to manage their own medications, further complicating their care and affecting their quality of life.

Older people are also commonly exposed to medication errors during and after transitions of care, such as into and out of hospital, or into residential aged care or respite care. Studies indicate that 20% of all medications used in the older Australians are potentially inappropriate.[8] Research in hospitalised older people identified that 60% of patients were exposed to one or more potentially inappropriate medication, with benzodiazepines, tricyclic antidepressants and anticholinergics identified most frequently.[9] Similar results were obtained in research that explored medication mismanagement in aged care facilities, with 40-50% of residents found to be prescribed potentially inappropriate medications.[10]

There is a need for a consistent and collaborative approach to medication management throughout the patient care journey, regardless of setting. Systemic challenges in Australia's healthcare system make it extremely difficult for aged care nurses, doctors and pharmacists to provide continuity of care to older people transitioning between care settings. These challenges frequently result in medication administration delays and errors, which has been demonstrated to compromise medication safety. Given the complexity of the multiple systems that need to cooperate and collaborate in order to ensure medication safety across care settings, hospital-led interventions must be employed to mitigate these risks and support higher quality transitions from hospitals into aged care or community settings.

Table 1. Settings of care for older people

Setting of care	Description	Medication management
Independent living	Independent living refers to older people living at home without the need for support services.	Older people living independently manage their own medications (sometimes with help from a family member or carer) together with their prescriber(s) and community pharmacy.
In-home (community) aged care	In-home aged care supports older people to continue living independently at home whilst accessing support to meet care needs such as personal care, shopping and housework.	Older people receiving in-home care may have access to nursing or care-worker support to help manage their medications. They also receive support from their prescriber(s) and community pharmacy.
Short-term aged care (transition care programs, restorative care, respite care)	Short-term care supports older people as they recover from an acute illness or provides respite for their carer(s). Short-term services are provided in an older person's home or an aged care home.	Older people utilising short-term care have access to nursing support to help manage their medications if they need it. They also receive support from their prescriber(s) and community pharmacy.
Residential aged care	Older people who can no longer live at home and/or need ongoing help with everyday tasks or health care.	Older people in residential aged care homes have their medications managed by a multidisciplinary team including prescribers, pharmacists and nurses. Some residents may self-administer their medications.
Hospital care (acute and subacute)	Older people who are acutely unwell or requiring inpatient geriatric assessment or rehabilitation.	Older people who are hospitalised have their medications managed by hospital prescribers, pharmacists and nurses. In subacute care, some patients may participate in a self-administration of medicines program.

Geriatric Medicine Pharmacists

Pharmacists who care for older people require specific geriatric medicine knowledge and expertise because medication management for older people is complex and differs significantly to that for younger adults. These pharmacists are referred to as Geriatric Medicine Pharmacists and often undertake specialised training programs and credentialing processes. These highly skilled healthcare professionals may be employed by hospitals, residential aged care facilities, home care services, general practice clinics, community pharmacies or they may work as independent contractors. They work in collaboration with doctors and nurses to provide direct patient care as well as supporting high-quality clinical governance. Geriatric Medicine Pharmacists working in multidisciplinary teams to ensure that treatment is rational, safe, cost-effective, aligned with the person's healthcare goals and preferences, and manageable without excessive treatment burden.

Geriatric medicine pharmacy services

Access to timely geriatric medicine pharmacy services, as outlined in Table 2, are essential to optimise medication management and improve medication-related outcomes for older people. Evidence, including randomised controlled trials, has shown that geriatric medicine pharmacy services improve medication management and safety for older people in inpatient,[11,12,13,14,15] residential care[16,17] and ambulatory settings,[11,18,19,20,21] and during transitions of care between settings.[22,23,24] These services have been shown to prevent, identify and resolve adverse drug reactions (ADRs), medication errors and other medication-related problems, improve quality of prescribing and medication adherence and in some patient groups, reduce unplanned hospitalisations.

Table 2. Best-practice geriatric medicine clinical pharmacy services[2]

Patient-focused activities
Medication history and reconciliation on admission to hospital or aged care
Medication chart review at regular intervals, and clinical review of new or changed orders
Comprehensive interdisciplinary medication review at regular intervals
Monitoring and review of deprescribing plans and outcomes following a comprehensive medication review
Multidisciplinary ward round participation
Multidisciplinary team meeting or case conference participation
Provision of information to patients and carers about medications and medication changes
Assessment of older persons' ability to self-administer medications
Leadership/contribution to self-administration of medicines programs in hospitals and aged care
Development of a plan for medication management after discharge/care transition
Discharge prescription review and reconciliation
Preparation and delivery of discharge medication information for patients and carers
Preparation and delivery of medication information for clinical handover (to community pharmacy, general practitioner, community nurse, residential aged care facilities (RACF) and/or hospital as applicable), including provision of Interim Medication Administration Charts
Medication reconciliation after any care transition (e.g., transfer between units, after hospital discharge)

Health service-focused and clinical governance activities
Provision of medication information and advice to prescribers, nurses and care workers
Participation in medication management committees
Quality Use of Medicines activities (e.g., audits, quality improvement activities, Antimicrobial Stewardship, staff education)
Contributing to medication management policy and procedure development

Recommendations

Safe and effective medication management must be central to the care of older people. All older Australians are entitled to safe, effective and timely geriatric medicine pharmacy services during each episode of care and when transitioning between health or aged care services. Five priorities have been identified by SHPA for achieving better health outcomes for older people by mitigating the risks of medication-related harms and inappropriate use of medications:

- Employment of Geriatric Medicine Pharmacists in all hospitals and other settings that provide care for older people, including community and residential aged care services.
- Inclusion of Geriatric Medicine Pharmacists in broader hospital-based multidisciplinary aged care outreach services.
- Universal use of Interim Medication Administration Charts for all transitions of care between hospitals and aged care settings.
- Implementation of Psychotropic Stewardship programs involving Geriatric Medicine Pharmacists in all hospitals and aged care settings.
- Integration of a Geriatric Medicine Pharmacist in all Aged Care Assessment Teams (ACAT) or equivalent.

Employment of Geriatric Medicine Pharmacists in hospitals and aged care services

Older people are the greatest users of health services, occupying more than 50% of adult hospital bed-days in Australia[25], and accounting for more than 20% of all emergency department presentations.[5] Medication errors have a disproportionate impact on older Australians, accounting for an estimated 20–30% of all hospital admissions in the population aged 65 years and over.[26] As highlighted in the *Royal Commission into Aged Care Quality and Safety: Final Report*[1], the work of Geriatric Medicine Pharmacists employed in residential care services, and in all settings where older people receive care, can significantly improve the use of medications and patient health outcomes.

Embedding Geriatric Medicine Pharmacists into hospital medical teams supports best practice high-quality medication management for older people before they enter any high-risk transition of care. Multi-disciplinary teams that incorporate Geriatric Medicine Pharmacists, are well equipped to make deprescribing decisions that improve the quality use of medications for older people. They also facilitate safer transitions of care upon hospital discharge.

In aged care settings, an integrated, onsite Geriatric Medicine Pharmacist improves the safe and quality use of medications and provides equity of access to geriatric medicine pharmacy services including medication reconciliation on admission, regular medication reviews and medication optimisation for aged care residents. The responsibilities of the embedded Geriatric Medicine Pharmacist also include involvement in clinical governance and quality use of medicines activities, which help focus the attention of the facility on quality and process measures rather than only outputs.

According to SHPA's *Standard of practice in geriatric medicine for pharmacy services*[2], the ideal geriatric medicine pharmacy service requires the following evidence-based, full-time equivalent, non-dispensing Geriatric Medicine Pharmacist-to-bed staffing ratios: 1:20 in acute aged care, 1:30 in subacute aged care, 1:200 in long-term residential aged care, 1:40 in residential Transition Care Programs and 1:20 in respite care.

Inclusion of Geriatric Medicine Pharmacists in broader hospital-based multidisciplinary aged care outreach services

As noted in the *Royal Commission into Aged Care Quality and Safety: Final Report*[1], nowhere is the need for multidisciplinary services more apparent than at the interface between the hospital system and the aged care system. These services are typically hospital-led and, as highlighted in the *Royal Commission into Aged Care Quality and Safety: Final Report*[1], these multidisciplinary teams must include pharmacists. The interface between the hospital system and the aged care system can be divided into two main components; pre-hospitalisation and post-discharge. Services in the pre-hospitalisation space aim to manage and stabilise older people, in order to prevent hospitalisation. Services in the postdischarge space aim to support older people transitioning from the hospital to the community setting and reduce their readmission risk. The terms 'in-reach' and 'outreach' are often used interchangeably when referring to services provided in the pre-hospitalisation and post-discharge phases of transitioning of care.

Data shows that for older people, approximately one in five unplanned admissions to hospital is medicationrelated.[27] It is therefore imperative that Geriatric Medicine Pharmacists are incorporated into hospital-based outreach services and available to older people in residential care or receiving personal care at home, based on clinical need. Geriatric Medicine Pharmacists working in collaboration with doctors and nurses, can promptly respond to older people at risk of hospital admission and deliver appropriate care to manage the individual in their place of residence. This service provides better care for the older person whilst placing less strain on hospital emergency departments.

A major risk in the transition of care process is the misalignment of hospital and community services post-discharge. This leaves a gap for patients at a critical time leaving them at risk of medication error or mismanagement and a delay in medication supply, heavily compromising medication safety. Geriatric Medicine Pharmacists embedded in outreach roles support the transition of care process by reviewing patient's medications, ensuring they are correctly and safely taking or receiving their medications, and that the intended weaning or cessation of medications post-discharge has occurred. These pharmacists have an opportunity to conduct comprehensive medication reviews to ensure safe and quality use of all medications prescribed and, where appropriate, achieve medication regimen simplification.

Universal use of Interim Medication Administration Charts for all transitions of care between hospitals and aged care settings

Medication administration delays and errors are common when patients transition between healthcare services. Patients discharged to residential aged care facilities (RACFs) are prescribed an average of 11 medications of which seven are new or were modified during hospitalisation.[28] Up to 23% of these patients experience delays or errors in medication administration after discharge from hospital to a RACF.[28] Unplanned hospital readmissions have been reported as a result of failure to receive prescribed medications after transfer to an RACF.[29]

An Interim Medication Administration Chart is a document that is populated with the patient's details and discharge medication information, usually completed and signed by the hospital pharmacist, and sent with the patient to the RACF. This enables medications to be safely administered immediately after arrival at the RACF, while waiting for a general practitioner (GP) to prepare a long-term care medication chart, which can sometimes be delayed by up to seven days. The use of Interim Medication Administration Charts has been demonstrated to reduce missed or delayed doses of prescribed medicines by 85.2%, with 83.6% of RACF staff reporting improved continuity of care.[30]

Implementation of Psychotropic Stewardship programs involving Geriatric Medicine Pharmacists in all hospitals and aged care settings

Psychotropic medications affect the mind, emotions and behaviour of an individual, and are recognised as high-risk medicines by the Australian Commission for Safety and Quality in Health Care.[31] They are often used to treat behavioural and psychological symptoms in people living with dementia and in the management of delirium. In 2017, dementia was the second leading cause of death in older Australians, and affects approximately 1 in 10 Australians aged 65 and over.[32] Research shows that more than 50% of residents in Australian RACFs have a diagnosis of dementia, and 71% of hospitalisations for people with a diagnosis of dementia are of the highest clinical complexity.[32,33] There is however, a high prevalence of inappropriate use of psychotropic medications in older people. The *Royal Commission into Aged Care Quality and Safety: Final Report*[1] identified an over-reliance on chemical restraint in the purported 'care' of older people in aged care.

Psychotropic Stewardship programs are an effective strategy for supporting older people at risk of harms associated with the inappropriate use of antipsychotics. Psychotropic Stewardship programs involve Geriatric Medicine Pharmacists, and incorporate coordinated interventions to improve, monitor and evaluate the use of antipsychotics in older patients, along with development of psychotropic medication management policies and guidelines.[34] Geriatric Medicine Pharmacists are uniquely positioned to determine whether antipsychotic medication prescribing is appropriate and in accordance with clinical practice guidelines, and thus, are able to determine if they are being used therapeutically or for chemical restraint.

Hospital admissions can trigger initiation of antipsychotic medications that are intended to be utilised short-term, but which may be continued unnecessarily when the individual returns home or to a RACF. Therefore, Psychotropic Stewardship services should be implanted more broadly in hospitals and in aged care settings. Geriatric Medicine Pharmacists embedded in hospital and aged care Psychotropic Stewardship programs, play a significant part in minimising chemical restraint through regular audits and quality improvement activities as part of their Quality Use of Medicines (QUM) role at a facility level.

Integration of a Geriatric Medicine Pharmacist in all Aged Care Assessment Teams (ACATs) or equivalent

ACATs are multidisciplinary teams that assess older peoples' care needs and their eligibility for aged care services. Pharmacists are usually not included in these teams, even though medication-related problems are highly prevalent in this cohort of older people and often contribute to the need for aged care services.

Assessment by a Geriatric Medicine Pharmacist as part of a comprehensive multidisciplinary Aged Care Assessment would ensure people experiencing medication-related problems or at high risk of medication-related harms are identified and reviewed by a pharmacist with expertise in geriatric medication management. The Geriatric Medicine Pharmacist can assess the persons' ability to manage their medications, appropriateness of their medications, and risks of medication-related harm. The pharmacist can put appropriate measures in place to mitigate harm, optimise patient independence and prevent decline in health and function, ultimately improving the person's overall quality of life, which serves as a long-term cost-saving intervention.

A randomized comparative study[35] comparing various methods of facilitating a pharmacist-led comprehensive medication review for people referred to an ACAT, found that very few patients received a timely pharmacist review when the ACAT relied on the patients' GPs to organise a Home Medicines Review. In contrast, almost all patients received a pharmacist review when a pharmacist was integrated into the ACAT team. 77% of medication problems included in the ACAT pharmacist's reports were assessed as being associated with a moderate, high, or extreme risk of an adverse event. Over 92% of GPs who provided feedback reported that the pharmacist medication reviews were useful and more than 77% of ACAT clinicians agreed that pharmacist-led medication reviews should be a standard component of ACAT assessments.

As recommended by the *Royal Commission into Aged Care Quality and Safety Final Report*[1], older people should have increased access to medication management reviews conducted on entry to residential aged care and annually thereafter, or more often if there has been significant change to their condition or medication regimen. Medication management reviews are critical to reduce chemical restraint and other inappropriate use of medications. Inclusion of a Geriatric Medicine Pharmacist as part of an ACAT will facilitate a comprehensive medication management review to assess the appropriateness and safety of all current medications in the context of the individual's past history, current clinical problems, relevant laboratory and observational data and treatment goals, and identification and assessment of adverse drug reactions, non-adherence and medication management issues.

VERSION	**1**
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