

Enhancing Outcomes Through Pharmaceutical Care Research

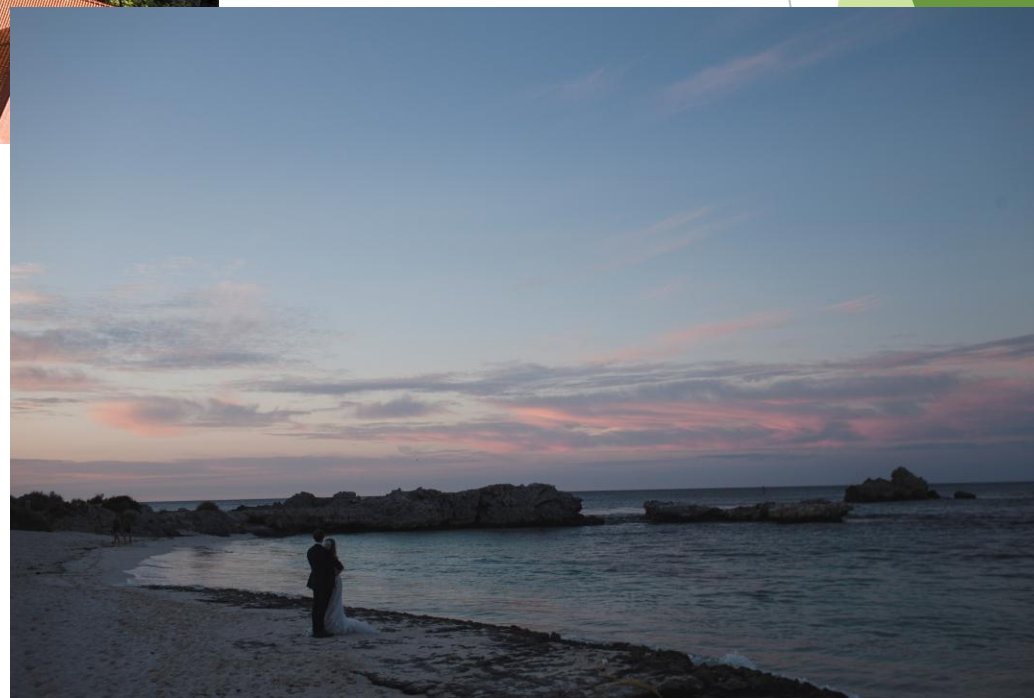
Highlighting the current challenges for
Disproportionately Affected Populations
(DAP)

Can we do more?





THE UNIVERSITY OF
**WESTERN
AUSTRALIA**



Global challenges in Pharmaceutical Care

- ❖ Supply-Chain Fragility
- ❖ Critical Medicine Shortages
- ❖ Fragmented Regulatory & Market Access
- ❖ Delayed Access to Innovative & Orphan Drugs
- ❖ Pricing Pressure & Global Trade Tensions
- ❖ Escalating R&D Complexity & Costs
- ❖ Regulatory Burden
- ❖ Rising Digital Health Risks



Global challenges in Pharmaceutical Care

- ❖ Counterfeit & Falsified Medicines
- ❖ Environmental Contamination from Pharmaceuticals
- ❖ Workforce Shortages
- ❖ Operational Complexity
- ❖ Disproportionately affected populations (DAP)
- ❖ Contemporary Curriculum
- ❖ Professional Development

**Ensuring pharmacists can solve
the challenges.....**





GLOBAL CHALLENGES IN PHARMACEUTICAL CARE

What do you see as the top three GLOBAL challenges that we should consider in Pharmaceutical Care Research?

Global Challenges in Disproportionately Affected Populations (DAP):

- ▶ Culturally and Linguistically Diverse (CALD)
- ▶ Refugees
- ▶ Migrants
- ▶ Indigenous
- ▶ Rural and remote
- ▶ Low socioeconomic
- ▶ Older people
- ▶ People living with disability
- ▶ Children and young people at risk





GLOBAL CHALLENGES IN PHARMACEUTICAL CARE

**What populations need attention
in your country?**



GLOBAL CHALLENGES IN PHARMACEUTICAL CARE

What aspects of pharmaceutical care research **SHOULD** we focus on to improve outcomes for disproportionately affected populations?

Australian challenges in Disproportionately Affected Populations:

- CALD
- Refugees
- Migrants
- Indigenous
- Rural and remote
- Low socioeconomic
- Older people
- People living with disability
- Children and young people at risk



Presentation of two case studies focussing on Disproportionately Affected Populations:

Case study one:

Elderly Populations

Case study two:

Indigenous Populations

Pharmaceutical Care in the Elderly: Case Study One

Background:

Centre for Optimisation of Medicines (COM)

<https://www.uwa.edu.au/schools/research/centre-for-optimisation-of-medicines>

The University of Western Australia (Pharmacy Department)

Focus: Improving safe and effective medication use for older adults

Royal Commission into Aged Care

- ❖ The report found the aged care system was underfunded, poorly led and often provided substandard care.
- ❖ **48 recommendations** aiming for a major overhaul: better governance, better oversight, stronger rights for older Australians, improved workforce training, more accessible and quality care especially in rural/remote areas.
- ❖ One key theme: more transparency and accountability—government and providers need to do better at measuring quality and preventing harm
- ❖ So what should we do as Pharmacists.....?

Pharmaceutical Care in the Elderly

The Research (COM):

Medication Appropriateness Tool for Comorbid Health conditions during Dementia (MATCH-D):

- ❖ Consensus-based tool with stage-specific medication recommendations for people living with dementia
- ❖ Developed through Delphi methodology with multidisciplinary experts
- ❖ Provides practical deprescribing triggers and supports shared decision-making
 - ❖ Page AT, Potter K, Clifford R, Etherton-Bear C. Medication Appropriateness Tool for Comorbid Health conditions during Dementia (MATCH-D): consensus recommendations. *BMJ Open*. 2016;6(3):e010337.
 - ❖ Elliott RA, O'Connor D, Wade V, Streeton E, Page AT, et al. Stakeholder perspectives on implementing MATCH-D. *BMJ Open*. 2019;9(9):e031296.

Implementation studies and next steps:

- ❖ Focus groups confirmed value of MATCH-D but highlighted barriers (limited time, communication gaps)
- ❖ Need for practical resources, education, and digital tools
- ❖ Studies need to include patients living with dementia and their carers
- ❖ Studies need multidisciplinary involvement
- ❖ Consider of curriculum and professional development to ensure pharmacists have the skills to provide the service
- ❖ Consider endorsement or credentialling to drive life-long learning

Pharmaceutical Care in the Elderly

❖ Deprescribing in Frail Older People

- ❖ Open randomised controlled trial (RCT) in Aged Care Facilities
- ❖ Pharmacist-led deprescribing vs usual care
- ❖ **Outcome:** Reduced inappropriate medicine use; safety confirmed; larger trials needed

❖ Page AT, Clifford RM, Potter K, Schwartz D, Etherton-Ber CD. Deprescribing in frail older people: a randomised controlled trial. *PLoS One*. 2016;11(3):e0149984.

❖ Optimising Medicines for Older People with Frailty

- ❖ Double-blind, multi-arm RCT in Aged Care Facilities
- ❖ Evaluated multiple-drug deprescribing interventions.
- ❖ **Outcome:** Improved medication appropriateness and reduced medication burden

❖ Page AT, Kouladjian O'Donnell L, Etherton-Ber C, Hilmer SN, et al. Effect of a multi-drug deprescribing trial in residential aged care: the Opti-Med trial. *Age Ageing*. 2023;52(4):afad022.

❖ Pharmacist Review to Optimise Medicines in Residential Aged Care (PROMPT-RC)

- ❖ Cluster RCT protocol.
- ❖ Testing pharmacist reviews supported by electronic decision-support.
- ❖ Outcomes: prescribing quality, acceptance rates, resident outcomes (ongoing)

❖ Sluggett JK, Page AT, Wesselingh H, et al. Protocol for Pharmacist Review to Optimise Medicines in Residential Aged Care (PROMPT-RC): a cluster randomised controlled trial. *Trials*. 2022;23:883.

Our vision is to enhance the safe and effective use of medicines for every older Australian living in residential care through supporting the successful transition of pharmacists into RACF practice.

Pharmacist Review to Optimise Medicines in Residential Aged Care PROMPT-RC intervention

Interventional Capstone:
an electronic medicines management
app providing decision support



**PHARMACISTS USE AN
ELECTRONIC MEDICINES
MANAGEMENT APP**

The app supports pharmacists to apply the step-by-step clinical reasoning of experts in geriatric medicines management



Stepped wedge RCT

**IMPLEMENT
INTERVENTION**



- Engage with resident and staff
- Monitor for side effects
- Changes implemented every two weeks

PILLAR ONE: VIRTUAL COMMUNITY OF PRACTICE

Sharing expertise

Ongoing development
of individual members

Bringing together
pharmacist in RACFs
to interact frequently

PSA and SHPA commit to its
continuation beyond the grant



PILLAR TWO: SUPPORT TRAINING AND CAPACITY BUILDING

Provide a tailored
workforce training
program

Develop skills
and capacity for
evidence-based practice

Train pharmacists
to implement the
PROMPT-RC intervention

SHPA commits to its
continuation beyond the grant

Pharmacists will be embedded in residential aged care facilities (RACFs) from 2023 phased in over four years. This research proposal supports the successful transition of pharmacists into these new embedded roles.

Pharmaceutical Care in the Elderly:

Outcomes and Implementation:

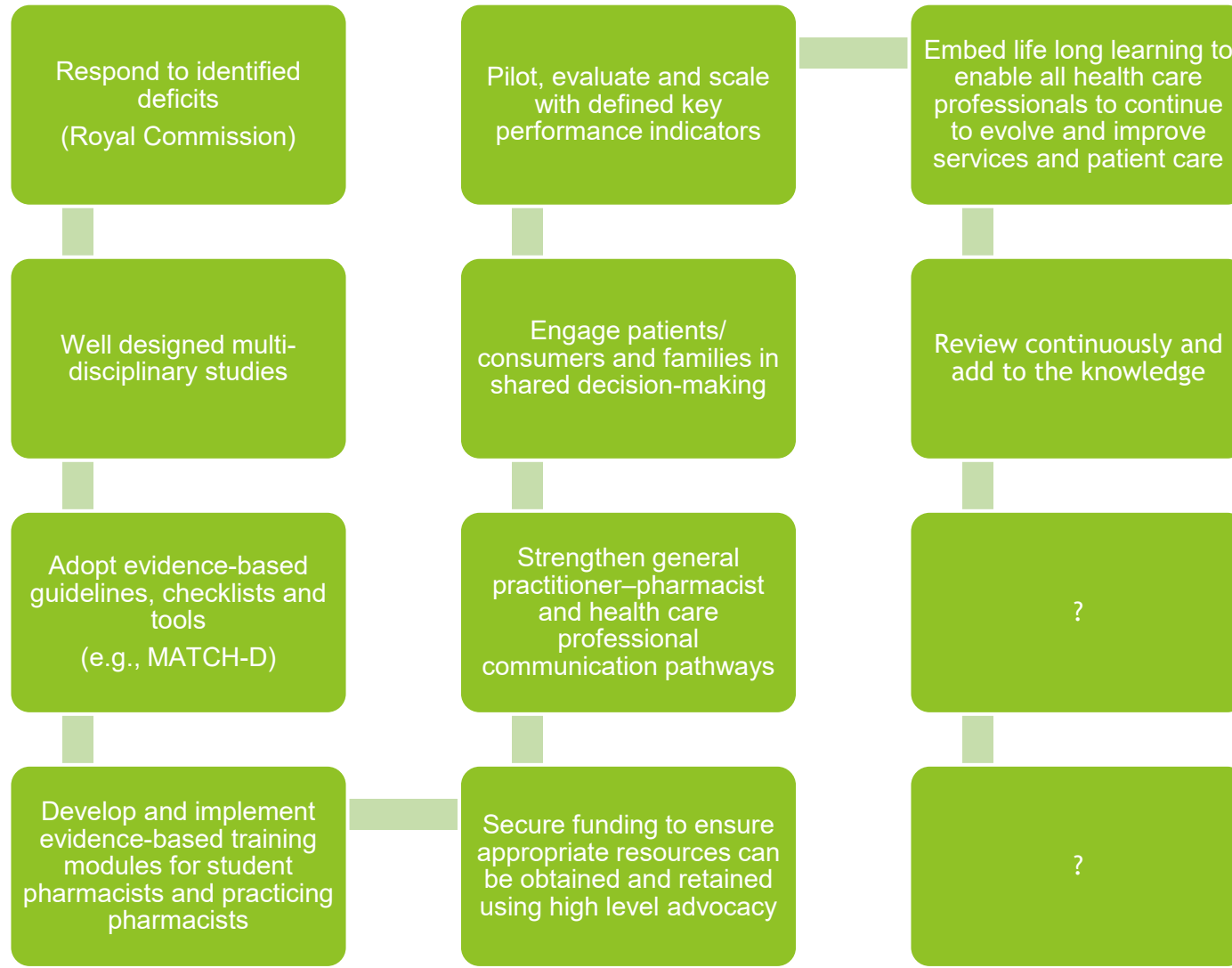
De-prescribing Guidelines 2025

- ❖ Clinicians (GPs, pharmacists, nurse practitioners, specialists) can use this as a **practical tool** – not just theory – to guide deprescribing decisions.
- ❖ It supports more **structured, evidence-based deprescribing**, rather than ad-hoc stopping.
- ❖ Encourages **regular medication reviews** in older people, with built-in consideration of whether to continue or deprescribe.
- ❖ Enhances shared decision-making: empowers older people and their carers to engage in conversations about medication burden, risks, and goals.
- ❖ May help reduce **polypharmacy-related harm** and improve quality of life for older adults.
- ❖ <https://deprescribing.com/>

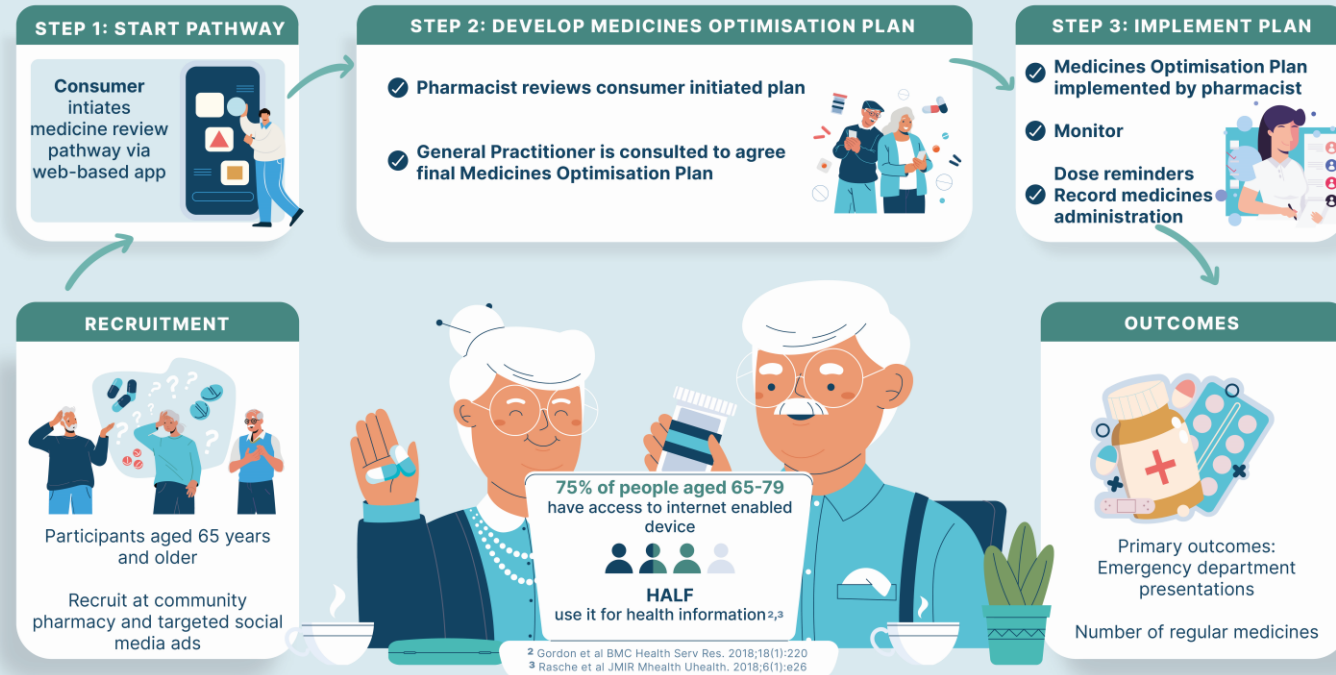
❖ Quek H. W., Reus Perello, X., Lee, K., Etherton-Bear, C., Page, A. T., & Guideline Development Group. *Deprescribing in older people: a clinical practice guideline*. The University of Western Australia (16 Sept 2025). [UWA Research Repository](#)

Pharmaceutical Care in the Elderly

Review, Stakeholder Engagement, Research, Implement, Service Delivery, Train and Review....



Consumer initiated medicine Review to Optimise Medicines Regimens to align with their priorities and treatment goals: COM



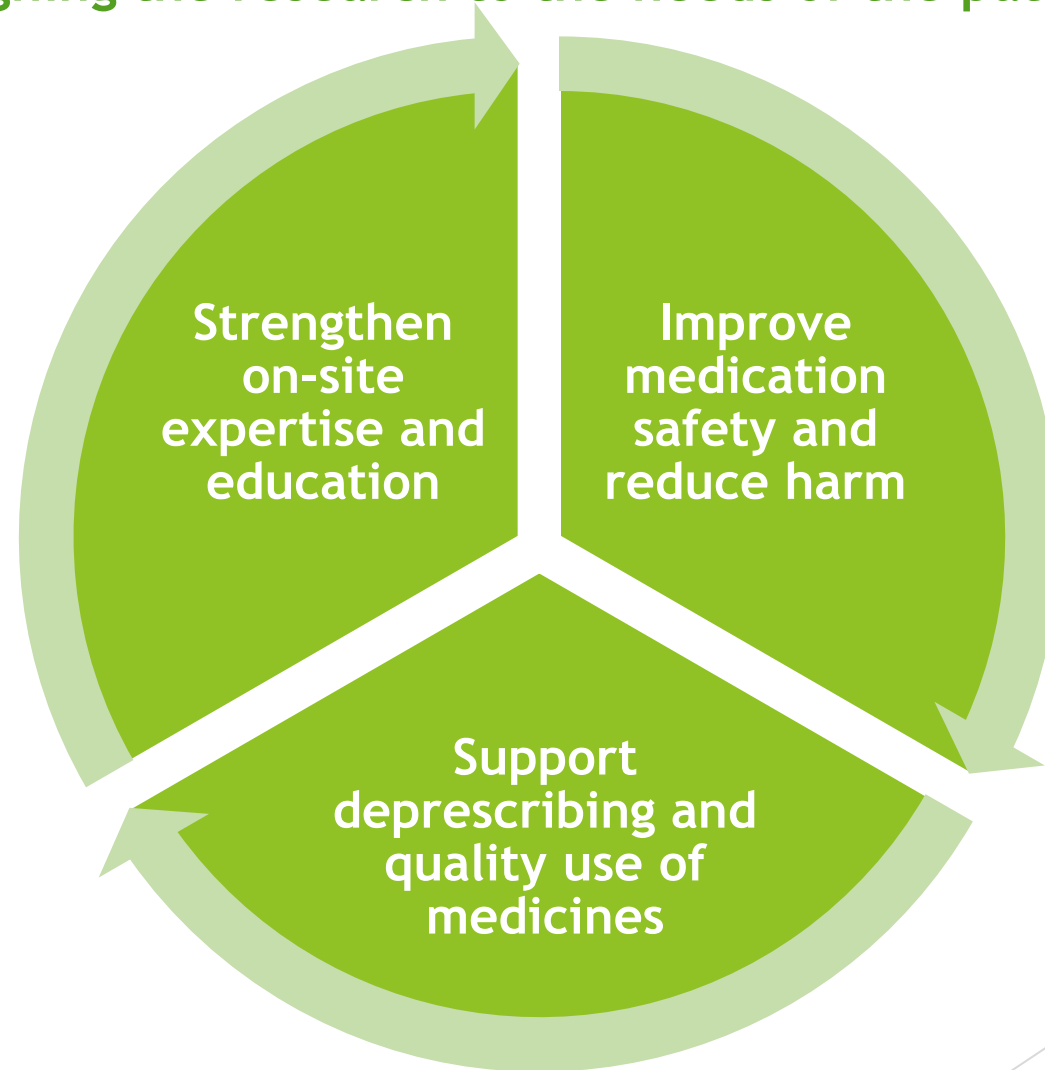
Our vision is for a healthcare system where reducing medicines burden becomes routine care in older adults.

To achieve this, we will investigate a pathway to optimise medicine use to reduce medicine-related harm and its potential impact on older adults.

Figure 1: The intervention

Pharmacists are now embedded in Aged Care across Australia:

Let's get it right by aligning the research to the needs of the patient!



**Focus On Disproportionately
Affected Populations:**

Clinical yarning: Case Study two

Why is this important?

SERIOUS HEALTH DISPARITIES OF INDIGENOUS PEOPLES IN AUSTRALIA



1 LIFE EXPECTANCY GAP



Indigenous Australians live, on average, about **8 years less** than non-Indigenous Australians

2 BURDEN OF CHRONIC DISEASE



Cardiovascular disease, type 2 diabetes, chronic kidney disease, and respiratory illnesses occur at much higher rates in Indigenous populations

3 MENTAL HEALTH AND SUICIDE



Indigenous Australians experience much higher rates of psychological distress, suicide, and self-harm

Clinical yarning: Case Study two

❖ Background:

❖ What is clinical yarning?

- ❖ *Clinical Yarning* is a patient-centred communication framework tailored for Aboriginal and Torres Strait Islander health care.
- ❖ Developed at the Western Australian Centre for Rural Health (WACRH) by a multidisciplinary team
- ❖ WACRH is a crucial part of our rural and remote training for **student pharmacists and other health care students**
- ❖ The model involves structuring clinical conversations in a culturally appropriate way through yarns (stories), by connecting, building trust, understanding the patient's story and social/cultural context, then sharing health information in ways meaningful to the person.
- ❖ It emphasises listening, relationality, avoiding medical jargon, acknowledging cultural perspectives.
- ❖ Clinical Yarning can be seen as a **health literacy–enabling practice**, because it bridges communication gaps and empowers patients to understand and act on health information.
- ❖ <https://www.psa.org.au/deadly-pharmacist-project/>

Research (WACRH) and “outcomes and implementation”:

- ▶ **Improved clinician skills & confidence**

WA pilot studies (Lin et al., 2023) show significant gains in communication skills, competence, and confidence after training.

- ▶ **Culturally appropriate & well-received**

Clinicians and managers highlight that Clinical Yarning fills a gap left by standard cultural awareness training.

- ▶ **Implementation challenges**

Workforce turnover, scheduling in remote areas, and sustainability are ongoing barriers.

- ▶ **Scaling up across Western Australia and beyond....**

WA Country Health Service rollouts (2024–25) have trained hundreds of staff, with strong positive feedback.

- ▶ **Evidence gaps**

Limited data on patient outcomes (satisfaction, trust, health improvement) – further longitudinal research needed.

- ▶ **Medication adherence**

Could this improve adherence in this population?

- ▶ **Other populations**

Could this framework be adapted for other populations?

Improving pain management through clinical yarning: an evidence-based approach



To summarise.....

In summary, what are the current issues in Australia that we are focussing on through good quality pharmaceutical care research and service implementation?

Pharmacist Prescribing Growing

Governments are moving toward enabling pharmacists to *diagnose and prescribe* under defined conditions, after completing accredited training.

Pharmacist prescribing is being introduced across primary health, tertiary care and aged care.

Embedding pharmacists in Aged Care Facilities

Improving the Quality Use of Medicines for the Aging Population.

Training, Accreditation & Regulatory Frameworks

Additional training/accreditation will be required (post-registration training, protocols etc.), and legislative/regulatory changes are in process so pharmacists can safely operate under expanded scope.

Pharmaceutical Society of Australia 2030 Vision

Pharmaceutical care research leading to increasing scope of practice and service implementation:

“Pharmacists in 2030” Vision

The Pharmaceutical Society of Australia’s strategic plan emphasises expanded roles, greater involvement in chronic disease management, improved medicine safety, and more integration into primary health care teams.

Expansion of Conditions Pharmacists Can Treat

With access to appropriate options for treatment and payment for services

- Uncomplicated urinary tract infections (UTIs)
- Oral contraceptive resupply and possibly initial prescribing under protocols
- Skin conditions (acne, dermatitis, psoriasis, shingles etc.)
- Ear infections, nausea, vomiting, reflux etc.
- Wound management and other minor injuries/conditions

“Without pharmaceutical care, medicines are just products; with it, they become solutions for better health.” – **Hepler & Strand, 1990**



Thank you

Questions and
comments

Pharmaceutical Care in the Elderly

Resources:

<https://www.match-d.com.au>

<https://deprescribing.com>

<http://www.match-d.com.au/wp-content/uploads/2016/08/RxDementia5PageBW.pdf>

<http://www.match-d.com.au/wp-content/uploads/2019/05/MATCH-D.pdf>

<https://e-ageing.wacha.org.au/australian-potentially-inappropriate-medicines-list/>



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- WA Country Health Service. Yarn with me: Implementing Clinical Yarning in the Midwest [Internet]. Perth (WA): WACHS; 2024 [cited 2025 Sep 23]. Available from: <https://wacountry.health.wa.gov.au/News/2024/11/05/Yarn-with-me-Implementing-Clinical-Yarning-in-the-Midwest>
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