APSA Scientific Program – DAY ONE

Program timings are in ACDT. Program is subject to change. Latest as of 05/12/2025

Sunday 7 December 2025

Pre-Conference Workshops		
12:30 — 14:30	**Education Workshop**	
	Room: UniSA Yungondi Building, Y1-70	
	Chair: Assoc Prof Carl Schneider, University of Sydney & Dr Julie Stevens & Dr Thilini Thrimawithana, RMIT University	
	100 Building a Community of Practice for SoTL Presenters: Assoc Prof Carl Schneider, University of Sydney Dr Julie Stevens & Dr Thilini Thrimawithana, RMIT University	
14:45 — 16:45	**PSA Workshop**	**Career Development Workshop**
	Room: UniSA Yungondi Building, Y1-70	**Room:** UniSA Barbara Hanrahan Building, BH2-16
	Chair: Dr Amanda Cross, Monash University	**Chair:** Srinivas Kamath, Adelaide University
	101 Aged Care On-Site Pharmacist: Education, Implementation and Governance Presentations & Workshop Presenters: Prof Sam Kosari, RMIT University, Dr Bella St Claire, University of Canberra, Assoc Prof Amy Page, University of Western Australia, Tiernan McDonough, University of South Australia, Ms Brooke Blakely & Dr Amanda Cross, Monash University	**102 Where Can Pharmacy and Pharmaceutical Science Take You?** Presenters: Santhni Subramaniam, Industry Development Officer at MTP connect Milena Dryza, Partner at Madderns. Sherrylin Wong, Clinical Editor at Australian Prescriber
16:00 — 19:00	**Registration desk open** UniSA Yungondi Building, Y1-75 (Atrium)	
17:00 — 17:30	**Conference Opening**	
	Room: UniSA Barbara Hanrahan building BH2-09	
	Welcome to Country by Luke Wilson **Conference Welcome** Dr Jack Janetzki and Dr Tien Bui, APSA 2025 Conference Chairs, University of South Australia	
17:30 — 18:30	**Keynote Presentation**	
	Room: UniSA Barbara Hanrahan building BH2-09	
	Chair: Trina O'Donnell, Director of Strategic Projects, Bellberry Limited	
	103 The Future of the PBS: Balancing equity, access and affordability in the new world order Professor Andrew Wilson AO Co-Director, Leeder Centre for Health Policy, Economics and Data, The University of Sydney **Keynote sponsored by Major Sponsor, Bellberry Limited** Sponsor Address: Trina O'Donnell, Director of Strategic Projects, Bellberry Limited	
19:00 — 20:30	**Welcome Reception** Peter Rabbit McGregors Private Events 196 Hindley St, Adelaide	

APSA Scientific Program – DAY TWO

Program timings are in ACDT. Program is subject to change. Latest as of 05/12/2025

Monday 8 December 2025

08:30 — 16:30	**Registration Desk Open** UniSA Yungondi Building, Y1-75 (Atrium)			
09:00 — 10:00	**Keynote Presentation** **PSA Lecture**			
	Room: UniSA Barbara Hanrahan Building, BH2-09			
	Chair: Dr Tien Bui, APSA 2025 Conference Chair, University of South Australia			
	200 Medicines management in aged care: evidence, interventions, and policy impact Assoc Prof Janet Sluggett UniSA Allied Health and Human Performance, University of South Australia			
10:00 — 10:25	**Morning Tea** UniSA Yungondi Building, Y1-75 (Atrium)			
10:30 — 12:00	**Concurrent Session 1: Oral Presentations**			
	Pharmaceutical Science	**Pharmacy Practice: Scope of practice**	**Pharmacy Practice: Safety and patient outcomes**	**Education**
	Room: UniSA Barbara Hanrahan Building, BH3-11	**Room:** UniSA Barbara Hanrahan Building, BH2-09	**Room:** UniSA Barbara Hanrahan Building, BH3-12	**Room:** UniSA Barbara Hanrahan Building, BH2-16
	Chairs: Dr Souha Youssef, Adelaide University & Srinivas Kamath, Unisa	**Chairs:** Dr Lauren Cortis & Ms Dona Babu, University of South Australia	**Chairs:** Dr Sarira El-den, The University of Sydney & Dr Tien Bui, UniSA	**Chairs:** Dr Kirsten Staff, Unisa & Tiernan McDonough, University of South Australia
10:30 — 10:45	**201 Biophysical Characterisation of Thermal Stability and Aggregation in Monoclonal Antibody Formulations** Ms Vinodya Karunadhika, RMIT	**207 Leveraging Pharmacists' Scope of Practice to Improve Access to Gender Affirming Care in Nova Scotia** Mr Zachariah Crawford, Dalhousie University	**213 Prescription opioid discontinuation and mortality due to suicide or unintentional overdose** Assoc Prof Natasa Gisev, Ndarc, UNSW Sydney	**219 Generative AI usage and literacy in pharmacy education: development and validation of an assessment tool** Mr Thai Duong Pham, Monash University
10:45 — 11:00	**202 Insights from intravenous drug compatibility studies: excipients, diluents and analytical challenges** Prof Kevin Batty, Curtin University	**208 Patient perspectives of a collaborative pharmacist prescribing model: a cross-sectional mixed methods survey** Ms Hana Amer, University of South Australia and SA Pharmacy	**214 Evaluating the responsiveness and minimum important change of a tool for measuring medicine-related symptom changes over time.** Mr Abebe Mekuria, University of South Australia	**224 First Nations Peoples' contributions to education for healthcare students and workers: Systematic Review Protocol** Miss Nushin Alam, University of Sydney

11:00 — 11:15	**203 Nicotine exposure and metabolism during pregnancy among First Nations individuals in Queensland, Australia** Min-tz Weng, The University of Queensland	**209 Swab-Rx: Participant acceptability of community pharmacy-based chlamydia and gonorrhea testing and treatment** Dr Tasha D. Ramsey, Nova Scotia Health & Dalhousie University	**215 Providing Sick Day Medication Guidance to People with Chronic Diseases: A Qualitative Exploration with Health Care Professionals** Ms Mimi Truong, The University of Sydney	**221 Five years' experience of simulation-based learning in the therapy of serious infections: student satisfaction and learning outcomes** Assoc Prof Leanne Chalmers, Curtin University
11:15 — 11:30	**204 Low dose naltrexone: what is the evidence?** Miss Amina Gouda, The University of Queensland	**210 Implementation of a pharmacist-led chronic kidney disease (CKD) screening service in Australian community pharmacies: baseline data analysis** Mr Ayana Korsa, The University of Sydney	**216 National state of harm reduction: findings from a representative sample of community pharmacies** Dr Louisa Picco, Monash University	**222 A scoping review of generative artificial intelligence in healthcare simulation training** Miss Seemran Prasad, University of Sydney
11:30 — 11:45	**205 Laboratory simulations in pharmacology education: Educator Priorities for Simulation Design** Dr Nilushi Karunaratne, Monash University	**211 Evaluating the Expansion of Pharmacy Services in a South Australian Public Hospital** Mr Huri Balikubiri, University of South Australia	**217 Towards Safer Medication Practices: A Retrospective Analysis of Adverse Drug Reactions** Jing Xin Goh, The University of Sydney	**223 Evaluation of a pharmacy student video learning tool utilising humour and negative knowledge errors in pharmacist-prescriber communication simulations** Mr Adam Forrest, University of South Australia
11:45 — 12:00	**206 Ionizable lipid effects on mRNA-LNP pharmacokinetics and biodistribution** Mr Yuxiang Ren, Monash University	**212 Trends and patterns of vaccination in community pharmacies in Australia: A retrospective data analysis** Mr Ashenafi Kibret Sendekie, Curtin University	**218 Cardiovascular safety of DPP-4 inhibitors compared to insulin /sulfonylureas among people with diabetes in residential aged care homes** Mr Yohanes Wondimkun, University of South Australia	
12:00 — 12:55	**Lunch** UniSA Yungondi Building, Y1-75 (Atrium)			
12:20 — 12:50	**Poster Presentations** UniSA Yungondi Building, Y1-70			

13:00 — 14:30	Symposium 1:		Symposium 2:	
	Room: UniSA Barbara Hanrahan Building, BH2-09		**Room:** UniSA Barbara Hanrahan Building, BH2-16	
	Chair: Dr Holly Foot, University of Queensland		**Chair:** A/Prof Vincent Chan, RMIT University	
	225 Implementing AI into Clinical Practice: opportunities and challenges for clinicians Presenters: Assoc Prof Adam La Caze, University of Queensland Dr Nazanin Ghahreman-Falconer, University of Queensland Prof Michael Barras, PA Hospital & University of Queensland		**226 Inclusive Healthcare: Quality Care for Every Community** Presenters: Dr Swapna Chaudhary, James Cook University Ms Malath Al-Juhaishi, RMIT University Alex Burke from University of Sydney	
14:30 — 15:00	**Afternoon Tea** UniSA Yungondi Building, Y1-75 (Atrium)			
15:00 — 1630	**Concurrent Session 2: Oral Presentations**			
	Pharmaceutical Science	**Pharmacy Practice: Co-design**	**Pharmacy Practice: Priority populations**	**Education**
	Room: UniSA Barbara Hanrahan Building, BH3-11	**Room:** UniSA Barbara Hanrahan Building, BH2-09	**Room:** UniSA Barbara Hanrahan Building, BH3-12	**Room:** UniSA Barbara Hanrahan Building, BH2-16
	Chairs: Dr Wern Chai, University of South Australia & Deepa Nakmode, University of South Australia	**Chairs:** Assoc Prof Lisa Kalisch Ellett, University of South Australia & Tina Ung, The University of Sydney	**Chairs:** Dr Ricki Ng, The University of Sydney & Dr Vijay Suppiah, University of South Australia	**Chairs:** Assoc Prof Carl Schneider, The University of Sydney & Daniella Amato, University of South Australia
15:00 — 15:15	**227 One shot to beat depression: The Future of Mental Health Treatment** Ms Haripriya Koppisetti, Adelaide University	**232 "Not just labelling medicines": Pharmacists' Perspectives on Their Potential Roles within Youth Mental Health Services** Miss Phoebe Downey, The University of Sydney & School of Pharmacy	**238 Psychotropic medication use and review outcomes among older adults in Australia aged care homes: a retrospective study** Ms Gesnita Nugraheni, The University of Sydney	**244 Current status of pharmacy law education in Australia: Australian educator perspectives** Dr Jessica Pace, Sydney Pharmacy School, Faculty of Medicine and Health & The University of Sydney
15:15 — 15:30	**228 Dual Targeting of Prostate Cancer Cells with Engineered Nanoparticles** Mr Weranga Rajapaksha, Adelaide University	**233 Codesigning a patient-reported measure of medicine experiences and medication-related harm in hospital inpatients** Ms Jessica Coddo, University of South Australia	**239 Exploring the activities and clinical contributions of onsite pharmacists in aged care settings: early insights from OPTIMISER3 study** Mrs Lakeesha Sandamali Liyanage, University of Canberra	**245 Teaching approaches to delivering pharmacy law content to pre-registration pharmacy students: a global scoping review** Dr Jessica Pace, Sydney Pharmacy School, Faculty of Medicine and Health & The University of Sydney

15:30 — 15:45	**229 Liquid crystal lipid nanoparticles enable synergistic antibiotic and enzyme therapy against E. coli biofilms** Mrs Anam Anam, University of South Australia	**234 Data fields and interface design priorities in a consumer-focused adverse drug event reporting platform: insights from multiple stakeholders** Dr Eyob Alemayehu Gebreyohannes, University of South Australia	**240 A scoping review and environmental scan of models of care to optimise medicine use for First Peoples** Mrs Sanja Mirkov, The University of Queensland	**246 Assessing critical thinking in pharmacy curricula** Ms Genelle Lim, The University of Queensland
15:45 — 16:00	**230 Optimizing Intramuscular In-Situ Forming Implants for Controlled Drug Release in Parkinson's Disease Treatment** Miss Deepa Nakmode, University of South Australia	**235 Exploring Australian Early Career Pharmacists' sources of stress and their coping strategies** Ms Maria Cooper, University of South Australia	**241 Performative or purposeful? LGBTQIA+ perspectives on Pride symbol displays in community pharmacies** Dr Jason Perepelkin, University of Saskatchewan	**247 Exploring the mental health literacy of healthcare professionals: a systematic review** Miss Gloria Thomas, University of Sydney
16:00 — 16:15	**231 New Horizons in Antimicrobial Drug Development: A Multidisciplinary Approach from In Silico to In Vivo Validation** Songhita Mukhopadhyay, University of South Australia	**236 Development of the OPTMED-D trial digital intervention to support transfer of medicine information from hospital to community settings** Dr Holly Foot, University of Queensland	**242 Temporal dynamics of anticholinergic burden in older adults: a six-year longitudinal study** Mrs Valentina Meta Srikartika, Health Economics and Data Analytics & School of Population Health, Curtin University	**248 Barriers, enablers and perceived outcomes of post-registration education for pharmacists in Australia: a qualitative descriptive study** Tiernan McDonough, University of South Australia
16:15 — 16:30		**237 Co-designing medication management resources for people living with dementia in the community and their carers** Dr Amanda Cross, Monash University	**243 The use of psychotropic medications in autistic and non-autistic children and adolescents in Western Australia** Ms Roselyne Bulonza, Curtin University	**249 CORE Leadership: Embedding Student Leadership Development into International Engagement Programs** Miss Ka Yau Edris Chan, Monash University
16:45 — 18:00	**APSA Annual General Meeting**			
	Room: UniSA Barbara Hanrahan Building, BH2-16			
18:30 —	**APSA Student Dinner** The Cumby 205 Waymouth St, Adelaide			

APSA Scientific Program – DAY THREE

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Tuesday 9 December 2025

08:30 — 17:30	**Registration Desk Open** UniSA Yungondi Building, Y1-75 (Atrium)		
09:00 — 10:00	**Keynote Presentation** **APSA Lecture**		
	Room: UniSA Barbara Hanrahan Building, BH2-09		
	Chair: Dr Jack Janetzki, APSA 2025 Conference Chair, University of South Australia		
	300 Trends in psychoactive substance use in Australia by wastewater analysis and injecting paraphernalia Assoc Prof Cobus Gerber, University of South Australia **Keynote sponsored by Major Sponsor, Adelaide University**		
10:00 — 10:25	**Morning Tea** UniSA Yungondi Building, Y1-75 (Atrium)		
10:30 — 12:00	**Symposium 3:**	**Symposium 4:**	
	Room: UniSA Barbara Hanrahan Building, BH2-09	**Room:** UniSA Barbara Hanrahan Building, BH2-16	
	Chair: Assoc Prof Janet Sluggett, University of South Australia	**Chair:** Prof Pauline Lai, University Malaya	
	301 Consumer voices in research: strategies and success stories Presenters: Prof Steve Wesselingh, CEO, National Health and Medical Research Council Panel Speakers: Prof Steve Wesselingh, CEO, National Health and Medical Research Council Dr Sara Javanparast, Dr Aaron Davis & Dr Georgina Hughes, University of South Australia Sarah Eley, Health Translation SA Helen Radoslovich & Anna Sheppeard, Consumer representative	**302 e-Health: Harnessing Digital Tools for Better Healthcare** Presenters: Prof Carol Maher, University of South Australia Prof Pauline Lai, University Malaya Dr Vijay Suppiah, University of South Australia	
12:00 — 13:00	**Concurrent Session 3: Oral Presentations**		
	Pharmacy practice: Policy	**Pharmaceutical Sciences**	**Education**
	Room: UniSA Barbara Hanrahan Building, BH2-09	**Room:** UniSA Barbara Hanrahan Building, BH3-12	**Room:** UniSA Barbara Hanrahan Building, BH2-16
	Chairs: Dr Thilini Thrimawithana, RMIT University & Dr Vijay Suppiah, University of South Australia	**Chairs:** Prof Joseph Nicolazzo, Monash University & Maria Cooper, University of South Australia	**Chairs:** Dr Julie Stevens, RMIT University & Hana Amer, University of South Australia and SA Pharmacy
12:00 — 12:15	**303 A qualitative evidence synthesis on the unintended consequences of prescription opioid policies** Dr Kellia Chiu, The University of Sydney	**307 Restoring the Gut-Brain Axis: Precision Antipsychotic Delivery via Microbiome-Targeted Nanocarriers** Mr Srinivas Kamath, Unisa	**311 Reinforcement, Retention and Readiness: Student Experience with a Blocked Pharmaceutics Curriculum** Dr Tim Barnes, University of South Australia

12:15 — 12:30	**304 Awareness and understanding of the Black Triangle Scheme and its influence in adverse drug event reporting in Australia** Dr Eyob Alemayehu Gebreyohannes, University of South Australia	**308 Evaluation of anti-thymocyte globulin (ATG) dosing to determine optimised strategies in obese patients undergoing stem cell transplantation** Mr Elias Biris, University of South Australia	**312 Meeting compounding standards through improved education, training, and compliance strategies in a geographically diverse profession** Kerry Watts, Kaplar Consultancy
12:30 — 12:45	**305 Section 19A in Practice: Assessing the provision of overseas-registered medicines to mitigate the impact of medicine shortages** Dr Jack Janetzki, Adelaide University	**309 From Printing a Cure to Translating One: Proof of Concept 3D Implants for Liver Cancer** Dr Souha Youssef, Adelaide University	**313 Embedding career awareness into the second year of the pharmaceutical science bachelor's program via coursework** Dr Durga Dharmadana, RMIT University
12:45 — 13:00	**306 Inappropriate Surgical Antibiotic Prophylaxis and Watch-Class Overuse in Papua: A Two-Hospital Audit Against Indonesian and Australian Guidelines** Mrs Brechkerts Lieske Angruni Tukayo, Curtin University	**310 Developing Nanoparticle Formulations to Enhance γδ T Cell Activation for Cancer Immunotherapy** Isabella Revesz, University of South Australia	**314 From simulation to bench: a scaffolded, inclusive model for work-ready pharmaceutical laboratory learning** Dr Yassmin Samak, Monash University
13:00 — 13:55	**Lunch** UniSA Yungondi Building, Y1-75 (Atrium)		
13:20 — 13:50	**Poster Presentations** UniSA Yungondi Building, Y1-70		
14:00 — 15:30	**Symposium 5:**	**Symposium 6:**	
	Room: UniSA Barbara Hanrahan Building, BH2-09	**Room:** UniSA Barbara Hanrahan Building, BH2-16	
	Chair: Dr Thilini Thrimawithana & Dr Uma Rai, RMIT University	**Chair:** Nazanin Ghahreman-Falconer, University of Queensland and Metro South Health	
	315 Complementary Medicine in Practice: Safeguarding Usage and Regulatory Challenges Presenters: Assoc Prof Joanna Harnett, University of Sydney Kaveh Naseri, RMIT University Erin Krelle, Swisse Wellness - Scientific Affairs Associate Savitha Balakrishna, Swisse Wellness Regulatory Affairs Associate	**316 Collaborative Pharmacist Prescribing in Australian Hospitals** Presenters: Mrs Sally Marotti, SA Pharmacy, SA Health, Government of South Australia Ms Hana Amer, University of South Australia and SA Pharmacy, SA Health, Government of South Australia and Ms Courtney Hill, University of Queensland and Metro South Health Dr Jacinta Johnson, University of South Australia and SA Pharmacy, SA Health, Government of South Australia	
15:30 — 16:00	**Afternoon Tea** UniSA Yungondi Building, Y1-75 (Atrium)		

16:00 — 17:00	Concurrent Session 4: Oral Presentations	
	Pharmacy Practice	**Pharmacy Research Student of the Year Finals**
	Room: UniSA Barbara Hanrahan Building, BH2-16	**Room:** UniSA Barbara Hanrahan Building, BH2-09
	Chairs: Dr Tien Bui, UniSA & Ricki Ng, University of Sydney	**Chairs:** Dr Julie Stevens, RMIT University & Assoc Prof Carl Schneider, The University of Sydney
15:45 — 16:00		**321 The potential for pharmacogenomic-guided antiplatelet therapy after percutaneous coronary intervention.** Teoni Antonopoulos, University of Sydney
16:00 — 16:15	**317 Comparing characteristics of long- and short-term antidepressant users with non-users using longitudinal data on Australian women** Assoc Prof Treasure McGuire, Bond University, The University of Queensland & Mater Health SEQ	**322 Investigating key themes emerging from the 2024 TGA Consultation on understanding the impact of medicine shortages.** Chloe Dela Paz, University of South Australia.
16:15 — 16:30	**318 Stakeholders' perspectives about factors influencing the successful implementation of the Aged Care Onsite Pharmacist (ACOP) program in Australia** Dr Sara Javanparast, University of South Australia	**323 Aboriginal and/or Torres Strait Islander patient perceptions of medicine-related transitions of care between the hospital and community settings.** Bry Forrest, RMIT University.
16:30 — 16:45	**319 Understanding antibiotic disposal in Papua, Indonesia: A window into public health challenges** Mrs Brechkerts Lieske Angruni Tukayo, Curtin University	**324 Development of lignocaine gel for sunburn relief.** Cathy Vo, Curtin University
16:45 — 17:00	**320 Pharmacist integration in interprofessional ward rounds: A realist synthesis** Ms Dona Babu, University of South Australia	**325 Exploring the utility of a patient counselling flashcard game in the development and assessment of counselling skills in pharmacy students.** Stephanie D Yapa, Charles Stuart University
19:00 — 22:00	**APSA Conference Dinner** The Kitchen at SkyCity – The Attic (Private Room) SkyCity Adelaide, 125 North Terrace, Adelaide	

APSA Scientific Program – DAY FOUR

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Wednesday 10 December 2025

08:30 — 13:30	**Registration Desk Open** UniSA Yungondi Building, Y1-75 (Atrium)	
09:00 — 10:30	**Symposium 7:**	**Symposium 8:**
	Room: UniSA Barbara Hanrahan Building, BH2-09	**Room:** UniSA Barbara Hanrahan Building, BH2-16
	Chair: Helen Stone, Pharmaceutical Society of Australia	**Chair:** Prof Timothy F Chen & Dr Shukry Zawahir, University of Sydney
	400 Innovative and Emerging Roles for Pharmacists Presenters: Helen Stone, Pharmaceutical Society of Australia Dee-Anne Hull, Pharmaceutical Society of Australia Nicola Sander, Pharmaceutical Society of Australia	**401 Development, Implementation, and Evaluation of Tools to Facilitate Appropriate Medication Prescribing for Older Adults** Presenters: Maneesha Godakanda Arachchige, University of Sydney Dr. Kate Wang, RMIT University Dr. Lisa Kouladjian O'Donnell, University of Sydney
10:30 — 10:55	**Morning Tea** UniSA Yungondi Building, Y1-75 (Atrium)	
11:00 — 12:00	**APSA Emerging Leader Award**	
	Room: UniSA Barbara Hanrahan Building, BH2-09	
	Chair: Assoc Prof Lisa Kalisch Ellett, APSA President	
11:00 - 11:15	**402 Risk of adverse outcomes associated with mirtazapine versus sertraline use among older people living in aged care homes** Dr Georgina Hughes, University of South Australia	
11:15 - 11:30	**403 The first clinical practice guideline for MDMA-assisted psychotherapy in post-traumatic stress disorder: What clinicians need to know** Dr Alene Sze Jing Yong, Monash University	
11:30 - 11:45	**404 Enhancing undergraduate pharmacy students' readiness for interprofessional practice through simulation-based learning with nursing students** Dr Julie Stevens, RMIT University	
11:45 - 12:00	**405 Stakeholder perspectives on interprofessional collaboration with pharmacists when caring for people living with mental illness in the community** Ricki Ng, University of Sydney	
12:00 — 13:00	**APSA Medal Oration**	
	Room: UniSA Barbara Hanrahan Building, BH2-09	
	Chair: Assoc Prof Lisa Kalisch Ellett, APSA President	
	406 An accidental pharmacist: history beneath, mentors behind, opportunities ahead Assoc Prof Michael Ward, Executive Dean, UniSA Clinical and Health Sciences, University of South Australia	
13:00 — 13:30	**Conference Awards and Close**	
	Room: UniSA Barbara Hanrahan Building, BH2-09	
	Conference Close Assoc Prof Lisa Kalisch Ellett, APSA President	

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Oral Abstract Book

APSA 2025 Annual Conference

Sun 7 – Wed 10 December 2025
University of South Australia, City West Campus
Adelaide, South Australia
www.apsa-online.org

100

Building a Community of Practice for SoTL

Schneider C, Lim C

This interactive workshop is designed for pharmacy and pharmaceutical science academics at all career stages to explore the concept of a Community of Practice (CoP) in the Scholarship of Teaching and Learning (SoTL). Participants will engage in collaborative activities, learn about systems for collaboration, and identify dissemination opportunities

101

Aged Care On-site Pharmacist: Education, Implementation and Governance

Kosari S

The Aged Care On-site Pharmacist: Education, Implementation and Governance symposium highlights key national initiatives advancing pharmacist integration in residential aged care. The presentations share findings from large scale national research studies funded by the 2022 Medical Research Future Fund (MRFF) under the Quality, Safety and Effectiveness of Medicine Use and Medicine Intervention by Pharmacists initiative. The symposium will also explore the broader implications of these findings for practice, policy, and both current and future research.

The first presentation shares preliminary insights from the OPTIMISER3 study, which investigates the real-world application of the Aged Care On-site Pharmacist (ACOP) model across diverse Australian regions and contexts. It emphasises the importance of local adaptation, interprofessional collaboration, and flexible delivery modes to ensure sustainable pharmacist roles in aged care settings.

The second presentation addresses the training needs of pharmacists through the PROMPT-RC study, which is co-designing and piloting Australia's first aged care-specific Foundation Pharmacy Residency Program to equip pharmacists with the competencies required in this emerging field.

The third presentation focuses on clinical governance, detailing how pharmacists can lead or contribute to Medication Advisory Committees (MACs) to enhance medication safety. Findings from the MEGA-MAC study will showcase system-level strategies using data-driven quality improvement initiatives, aligned with national medication management guidelines.

Together, these presentations underscore the dynamic interplay between clinical practice and research, illustrating how each informs and strengthens the other in a continuous, iterative cycle to advance the role of pharmacists in aged care through education, implementation, and governance.

103

The Future of the PBS: Balancing equity, access and affordability in the new world order.

Wilson AO A

Now an icon of the Australian health care system, since its conception the Pharmaceutical Benefits Scheme (PBS) has experienced controversial episodes. In 1993 a world first legislated requirement was implemented that the Pharmaceutical Benefits Advisory Committee (PBAC) must assess a medicine as cost-effective to recommend listing on the PBS listing. The flow on consequences of this include the development of a sophisticated health technology assessment process and complicated arrangements to achieve cost-effective prices.

Later legislated changes requiring statutory price reductions added further challenges because of impact of falling price of comparators. Concerns have always been present about the dominance cost-effectiveness in the decision-making process and the requirement has not always been comfortable for governments. A more general move for greater involvement of informed consumers in decision making and for greater transparency have also impacted on PBS processes as have patient and clinician expectations of faster access to new medicines.

The 2022 National Medicines Policy review followed by the 2024 HTA policy and process review were the first substantive whole-of-systems assessments in over 20 years. The extent to which the response to those reviews can prepare the PBS and its processes to be suitable for stakeholder expectations, new health technologies and their evidentiary support, and the broader international challenges will be the focus of my presentation.

200

Medicines management in aged care: evidence, interventions, and policy impact

Sluggett J

Older people living in aged care homes often experience multimorbidity and polypharmacy, and medicines-related problems are common. Optimising medicines management in aged care homes was a key focus of the Royal Commission into Aged Care Quality and Safety and subsequent policy reforms.

This presentation will provide an overview of recent studies examining medicines use, safety and effectiveness in aged care homes. It will highlight the value of real-world data in generating timely evidence to inform aged care policy and practice. The presentation will also explore the evaluation of pharmacist-led services and the impact of novel interventions targeting quality use of medicines and improved health outcomes among residents of aged care homes.

201

Biophysical Characterisation of Thermal Stability and Aggregation in Monoclonal Antibody Formulations

Karunadhika V[1,3,5], Pradhan N[1,3,5], Warrender A[6], Mehta D[3,5], Elmer Bodnar H[3,5], Thrimawithana T[1], Gras S[2,5], Dharmadana D[1,5], Valéry C[1,4,5]
[1]RMIT University, School of Health and Biomedical Sciences,, [2]Department of Chemical Engineering and Bio21, University of Melbourne , [3]CSL Innovation Pty Ltd, [4]UNSW Sydney, School of Health Sciences, Faculty of Medicine and Health, [5]The ARC Digital Bioprocess Development Hub., [6]ANSTO Australian Synchrotron

Introduction:
Development of monoclonal antibody (mAb) therapeutics, particularly for subcutaneous administration, often requires highly concentrated formulations. Such conditions can lead to aggregation and increased viscosity, compromising quality and increasing immunogenic risk. Temperature is a major concern in the biopharmaceutical industry due to its potential to trigger aggregation. Despite extensive efforts, a significant gap remains in understanding the molecular events that trigger and propagate aggregation.

Aim:
In this study, we aimed to elucidate the temperature-induced aggregation mechanism of IgG4 mAb, using various biophysical techniques, to monitor aggregation triggered by thermal unfolding of its least stable domain.

Method and Results:
The first thermal transition, corresponding to unfolding of the CH2 domain, was detected at +60°C by Differential Scanning Calorimetry. The hydrodynamic diameter of the mAb remained relatively stable up to +55°C, as determined by Dynamic Light Scattering, suggesting the protein retained its native conformation within this range. Above +60°C, a significant increase in size was observed, indicating the onset of aggregation, which was confirmed to be irreversible upon cooling. Despite this unfolding event, Fourier Transform Infrared Spectroscopy and Raman Spectroscopy revealed minimal disruption to the secondary structure, suggesting that early aggregation is not driven by major secondary structure loss. However, Small-Angle X-ray Scattering (SAXS) demonstrated notable tertiary structural rearrangements and the formation of oligomeric species at elevated temperatures. Synchrotron size exclusion chromatography coupled SAXS further resolved these aggregates, identifying monomers, dimers, and higher-order oligomers with distinct radii of gyration and molecular weights.

Discussion:
These findings highlight the pivotal role of the unfolding of the CH2 domain in initiating aggregation and provide molecular-level insights into the early events that compromise mAb stability under thermal stress. By resolving conformational changes and aggregate species using complementary biophysical techniques, this study establishes a mechanistic framework that can be utilised in understanding mAb aggregation under thermal stress.

202

Insights from intravenous drug compatibility studies: excipients, diluents and analytical challenges

Batty K[1], De Silva T[1], Hamilton A[1], Mukadam N[2], Petrovski M[3], Strunk T[4]
[1]Curtin Medical School, Curtin University, [2]Pharmacy Department, King Edward Memorial Hospital, Women and Newborn Health Service, [3]Pharmacy Department, Sir Charles Gardiner Hospital, North Metropolitan Health Service, [4]Neonatology, King Edward Memorial Hospital, Child and Adolescent Health Service

Introduction:
Evidence guiding intravenous (IV) drug compatibility in the context of neonatal intensive care (NICU) settings remains limited, despite the high frequency of Y-site administration.

Aim:
This presentation provides novel insights from physicochemical compatibility studies of IV drugs, highlighting the potential impact of excipients, diluents and analytical challenges.

Methods:
Primary drugs were mixed 1:1 with >40 secondary IV drugs at clinically relevant concentrations for up to 4 hours, to simulate Y-site co-administration. Physical compatibility was assessed by visual observation. Chemical compatibility was evaluated by primary drug concentrations, using validated HPLC assays.

Results:
Caffeine citrate injection was incompatible with six IV drugs, due to citrate buffer excipients, while caffeine base was universally compatible. Dexmedetomidine (1 µg/mL) and alprostadil (20 µg/mL) presented >1,000-fold concentration disparities with several drugs, and problematic assay interference was resolved by modifying the HPLC conditions or applying baseline subtraction. Meropenem-glucose (10-25% w/v) mixtures developed time-dependent discolouration; however, only the meropenem-glucose 25% combination was formally defined as incompatible (ratio <90%).

Discussion:
The majority of IV drug combinations were physicochemically compatible and deemed safe for Y-site co-administration in NICU settings. However, our studies show that excipients/diluents may impact the compatibility of IV drugs and validated HPLC assays are crucial for definitive clinical decisions. These novel, clinically relevant findings highlight the need for evidence-based guidelines applicable to vulnerable NICU populations.

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Nicotine exposure and metabolism during pregnancy among First Nations individuals in Queensland, Australia

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Introduction:
Exposure to cigarette smoke is one of the key factors contributing to adverse pregnancy outcomes. There are higher rates of smoking during pregnancy among First Nations peoples than non-First Nations populations in Australia. The nicotine metabolite ratio (NMR), the ratio between the two major nicotine metabolites, 3-hydroxycotinine and cotinine, indicates the nicotine metabolism rate. Previous studies investigating nicotine metabolism point towards nicotine metabolism becoming faster (NMR becoming a larger value) as pregnancy progresses. An increase in the rate of nicotine metabolism may result in more intensive smoking during the last trimester to compensate for faster nicotine elimination. Previous studies have been conducted in participants with primarily White ethnic backgrounds.

Aims:
This study investigated nicotine metabolism during pregnancy in a primarily First Nations population.

Methods:
A prospective observational study was conducted in Hervey Bay, Australia, with a target sample size of 80 pregnant individuals carrying a baby of First Nations descent. Urine samples collected during pregnancy were analysed for nicotine, 3-hydroxycotinine and cotinine. Nicotine exposure (the molar sum of nicotine and its metabolites) and NMR were calculated and compared across the three trimesters.

Results:
83 participants were enrolled in the study. Among these, 45 participants with urine cotinine values > 0.36 nmol/mg creatinine were included in this analysis, contributing a total of 180 urine samples. Nicotine exposure did not differ across trimesters. Regression modelling indicated that NMR estimates increased by 29% each trimester ($p = 0.002$) and by 2% for each additional week of gestational age ($p = 0.007$).

Discussion:
This study presents the first assessment of NMR in a First Nations population during pregnancy. The NMR increased during pregnancy and the highest NMR values were observed in the third trimester. Their nicotine exposure did not change across trimesters, suggesting that a compensatory increase in nicotine intake did not occur.

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Low dose naltrexone: what is the evidence?

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Introduction:
Naltrexone, an opioid receptor antagonist approved for opioid and alcohol use disorder (50-100mg), exhibits distinct pharmacological properties at low doses (0.5-6mg). Low dose naltrexone (LDN) emerged in the 1980s through off-label use and demonstrates hormetic dose-response characteristics. Despite growing clinical interest across diverse therapeutic areas including pain management, dermatology, gastroenterology, immunology and oncology, LDN remains off-label with limited high-quality evidence supporting its purported therapeutic applications.

Aims:
This review evaluated the current evidence for LDN as a therapeutic intervention across diseases states and identified areas requiring further research to guide clinical practice.

Methods:
A literature search was conducted in August 2025 using PubMed, Embase and Cumulative Index to Nursing and Allied Health Literature databases. The term “low dose naltrexone” was used in title and abstract searches to identify peer-reviewed, English-language publications exploring the therapeutic utilisation of naltrexone at doses ≤12.5mg in humans, yielding 94 studies for full review.

Results:
Evidence predominately consisted of small observational studies and case series. Pain management had the largest evidence base, but with mixed results, due to larger RCTs contradicting positive findings from smaller studies. Dermatology, gastrointestinal disorders and long-COVID showed consistent patient-reported improvement in observational data. Autoimmune conditions demonstrated variable outcomes, while evidence in mental health and oncology was largely inconclusive. LDN demonstrated favourable tolerability across all therapeutic areas with mild sleep disturbances and gastrointestinal effects.

Discussion:
Current literature indicates that LDN is safe, inexpensive and potentially versatile. Most of the evidence pertains to chronic pain and dermatological conditions, while other therapeutic areas have also been investigated, albeit with fewer studies. Although the diversity of conditions studied suggests broad therapeutic potential, the predominance of low-quality evidence and frequent use of concurrent therapies limit definitive conclusions. Large, well-designed, multi-centre RCTs are needed to establish efficacy, optimal dosing and the clinical role of LDN.

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Laboratory simulations in pharmacology education: Educator Priorities for Simulation Design

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Introduction
Ethical, regulatory, and logistical constraints on live-tissue practicals are accelerating adoption of digital and cell-based alternatives in undergraduate pharmacology. Uncertainty remains about the extent to which current simulations support conceptual understanding, practical reasoning, and assessment alignment relative to traditional labs.

Aims
To characterise current practice and perceived effectiveness of laboratory simulations, identify learning gaps, and derive educator-prioritised design requirements for next-generation simulated or blended laboratories.

Methods
A mixed-methods needs analysis was conducted: i) pilot survey with Australian pharmacology educators, then an international pharmacology educator survey callout targeting coordinators and practical leads. Survey domains included purposes of laboratories, tools in use, concepts/skills taught, perceived effectiveness, barriers, desired features, assessment alignment (including OSPE-style tasks), and implementation contexts. A subset volunteered for interviews; quantitative data were summarised descriptively and qualitative responses thematically analysed.

Results
Uptake spans institutions and courses, while depth of use varies: common for concept demonstration and pre-lab preparation, used sparingly when outcomes require technical proficiency or professional judgement. Principal deficits were practice of tacit/technical skills (76%), limited real-time physiological behaviour (60%), and weak alignment to performance assessment (55%). Desired capabilities centred on authenticity and student agency: design-and-iterate experimentation under realistic constraints (time, resources, uncertainty) (80%); dynamic responses with variability and noise (66%); embedded feedback/analytics (65%); and LMS integration (52%). Qualitative data indicated simulations support learning but do not replicate real experimental uncertainty, limiting opportunities to exercise professional judgement.

Discussion
Findings support a blended approach rather than chasing strict ‘lab equivalence’. Priorities are lifelike physiological responses, student-led inquiry with iteration, real-world constraints with clear decision points, and built-in assessment with quick feedback. The work also raises practical questions including what skills belong in undergraduate vs later training, and how AI should support (not replace) lab learning. This study was supported by the APSA Education Grant.

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Ionizable lipid effects on mRNA-LNP pharmacokinetics and biodistribution

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Introduction.
Ionizable lipids play a crucial role in mRNA-lipid nanoparticle (LNP) formulations by facilitating mRNA encapsulation, promoting cell uptake, and enhancing endosomal escape of mRNA-LNPs. Despite their importance in mRNA delivery, the specific effects of ionizable lipids on mRNA-LNP in vivo pharmacokinetics (PK) and biodistribution remain underexplored.

Aims.
This study aims to examine the effect of SM-102, ALC-0315, DLin-MC3-DMA (MC3), and 113-O12B ionizable lipids in mRNA-LNP formulations on plasma PK of lipid and mRNA, and biodistribution of expressed protein following SC and IV administration in mice.

Methods.
mRNA-LNP formulations incorporating each ionizable lipid were constructed with nLuc-GFP mRNA and administered via SC or IV injection in mice. Plasma samples were collected over time to assess mRNA and lipid levels using RT-qPCR and LC-MS/MS, while tissue samples were analyzed for protein expression using AMI HT.

Results.
Altering ionizable lipids markedly affected plasma PK of both mRNA and LNP lipids, as well as tissue biodistribution of expressed protein. SM-102 LNPs showed the highest plasma stability and mRNA bioavailability (~3-fold higher than others after SC injection). ALC-0315 LNPs produced prolonged lipid exposure but lower mRNA plasma levels compared to SM-102 across both routes. MC3 LNPs displayed the longest terminal half-life and delayed mRNA expression. After IV dosing, protein expression localized mainly to the liver, whereas SC dosing yielded higher expression in skin and draining lymph nodes.

Discussion.
Despite differences in PK, SM-102 and ALC-0315 LNPs achieved similar overall tissue protein expression, suggesting the mRNA in LNP in plasma at early timepoints is more available for expression. The distinct biodistribution following SC versus IV administration highlights how route and lipid choice jointly shape therapeutic outcomes.

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Leveraging Pharmacists' Scope of Practice to Improve Access to Gender Affirming Care in Nova Scotia

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Introduction
The transgender and gender diverse (TGD) populations are known to be medically underserved. Pharmacists have the potential to assist the TGD populations by leveraging their scope of practice and providing a more accessible avenue for Gender Affirming Care (GAC)

Aims
The aim of this study is to examine pharmacists' experiences and perceptions about providing GAC products and services to TGD people.

Methods
This was a mixed methods concurrent triangulation study using an online survey and semi-structured interviews of pharmacists practicing in Nova Scotia, Canada. A link to the online survey was sent via the provincial regulatory body to any currently practicing pharmacist. The questionnaire consisted of 36 questions mapped to the constructs of the Theoretical Framework of Acceptability of Healthcare Interventions. Participants were able to voluntarily leave their email address if they wished to be contacted for a follow-up interview. Survey data was analyzed descriptively, and interview data was analyzed via thematic analysis.

Results
A total of 162 pharmacists completed the survey and 11 pharmacists completed the interviews. Acceptability was positive across the constructs of Affective Attitude, Ethicality, and Perceived Effectiveness. Mixed acceptability (both positive and negative) was present within the constructs of Burden, Opportunity Cost, and Self Efficacy, with pharmacists not always seeing themselves as GAC providers. Over 65% of surveyed pharmacists did not feel confident in their knowledge to provide GAC services. Interview data aligned with survey responses with some pharmacists refusing to provide GAC based on political or personal reasons.

Discussion
Pharmacists' perceptions of providing access to GAC was overall positive, with some negative perceptions present based on personal values and beliefs or lack of knowledge in the area. Provision of GAC by pharmacists should be paired with continuing education programs to improve pharmacists' acceptability.

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Patient perspectives of a collaborative pharmacist prescribing model: a cross-sectional mixed methods survey

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Introduction:
Collaborative pharmacist prescribing involves pharmacists working with doctors and patients to prescribe medicines in hospitals. While staff have reported positive experiences, little is known about patient perspectives. Partnering with patients is a key healthcare standard in Australia and globally. Understanding patient experiences is essential to support shared decision-making and improve collaborative prescribing practices.

Aim(s):
To evaluate patient perspectives of a collaborative pharmacist prescribing model (intervention) compared to independent medical prescribing (usual care).

Methods:
A cross-sectional, voluntary, anonymous survey was conducted and reported in line with STROBE guidelines. The survey was disseminated across four hospitals between 09/2023-03/2025. Eligible inpatients were aged ≥ 18 years and able to provide informed consent. Descriptive text responses were collated into themes on NVivo, using the Braun and Clark 6-step thematic analysis framework. Likert scale responses were analysed using SPSS and reported as counts and percentages.

Results:
One hundred intervention and 100 usual care responses were received. Intervention patients reported greater satisfaction with decision-making around their medicines, 80% agreed they felt encouraged to have a say in decisions about their medicines vs 69% in the usual care group. When asked about their level of involvement in decisions, 60% of intervention patients felt involved, vs 14% of usual care patients. Qualitative analysis found patients trust pharmacists' medicines expertise and are confident in pharmacists' ability to collaboratively prescribe. They perceive collaborative pharmacist prescribing to facilitate clearer communication, enhance safety, improve understanding of their medicines, and encourage involvement in medication decisions, reinforcing quantitative findings of increased satisfaction and partnership in care.

Discussion:
Patients reported higher satisfaction, increased confidence, and greater empowerment in medication management with collaborative pharmacist prescribing. These results highlight the need for healthcare services to embed pharmacists in prescribing roles to enhance patient-centred care, support shared decision-making, and improve patient outcomes.

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Swab-Rx: Participant acceptability of community pharmacy-based chlamydia and gonorrhea testing and treatment

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Introduction:
The rates of chlamydia and gonorrhea infections are increasing. Robust testing and treatment options are essential to identify diagnoses, treat infections, and prevent transmission. While community pharmacists are playing increasingly larger roles in the delivery of primary care, their role in testing and treating sexually transmitted infections (STIs) is less established.

Aims:
To describe participants' acceptability of chlamydia and gonorrhea testing and treatment in community pharmacies.

Methods:
The Swab-Rx study enrolled participants to evaluate chlamydia and gonorrhea testing and treatment in four community pharmacies in Nova Scotia, Canada from July 2024 to January 2025. Participants from Swab-Rx were invited to participate in an optional semi-structured interview about their experience. Interview questions were underpinned by the Theoretical Framework of Acceptability (TFA). The interviews were completed by two research team members by telephone, audio recorded, transcribed verbatim, and analyzed by thematic analysis according to TFA constructs.

Results:
Of the 97 participants enrolled, 17 participated in an interview. The interviews took place in May 2025 and were approximately 10 to 40 minutes in length. Identified themes included 1) comfortable environment, 2) de-stigmatized testing, 3) reduced burden from other healthcare professionals, 4) desired expansion to other infections, and 5) importance of privacy and discretion. Participants found the pharmacy comfortable for testing and treatment and highlighted that the setting helped to normalize care. Participants noted a desire for more testing services to be offered at the pharmacy, such as HIV and syphilis, including using different modalities including point-of-care testing and phlebotomy. Participants also believed pharmacists offering this service have the potential to free up clinic and hospital appointments for issues of higher acuity.

Discussion:
Overall, participants found community pharmacist delivered STI care acceptable and reported positive sentiments about their pharmacy-based testing experiences, including potential benefits to their individual health, community health, and healthcare system.

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Implementation of a pharmacist-led chronic kidney disease (CKD) screening service in Australian community pharmacies: baseline data analysis

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Introduction:
The pharmacy-led CKD Screening and Quality Use of Medicines (QUM-CKD) trial aimed to improve CKD detection and optimise medication use through screening in Australian community pharmacies.

Aims:
To describe participants' baseline characteristics and compare CKD risk factors with estimates from the National Health Measures Survey (NHMS, 2011–2012).

Methods:
Eligible participants were aged 35–74 years and had ≥1 CKD risk factor. The QKidney® risk tool was used in combination with blood pressure (BP) levels to stratify patients' 5-year CKD risk as low, moderate or high. Point-of-care (POC) test for estimated glomerular filtration rate (eGFR) was performed only in the intervention arm for participants with moderate-to-high overall risk. Data were organised in Excel and analysed in SPSS (version 31 for Windows), using descriptive statistics.

Results:
Of 1485 participants recruited over two years, 1194 were included in the analysis (552 intervention; 642 control). Most participants were from metropolitan areas (61.1%) and female (56.2%); 3.5% identified as First Nations people. Mean age was 61.3 ± 9.7 years and mean BMI 30.5 ± 6.6 kg/m2. Compared with the NHMS estimates, trial participants had a higher prevalence of overweight/obesity (82%, 95% CI 80–84 vs. 60.5%, 95% CI 56.0–65.0), hypertension (70%, 95% CI 68–73 vs. 34.1%, 95% CI 29.8–38.4) and diabetes (38%, 95% CI 35–40 vs. 16.2%, 95% CI 13.5–18.9), with non-overlapping confidence intervals suggesting significant differences. Overall, 68% of trial participants were at moderate-to-high risk of CKD (58.6% by QKidney®; 30.5% by BP). Among 400 moderate-to-high risk intervention participants, 84 (21%) had reduced kidney function (eGFR <60 mL/min/1.73m2) on POC testing, substantially higher than the national estimate (5.2%, NHMS 2022–2024).

Discussion:
This trial demonstrated that pharmacy-led targeted screening effectively identified patients at increased risk of CKD, reinforcing the opportunity to enhance early detection and management.

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Evaluating the Expansion of Pharmacy Services in a South Australian Public Hospital

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Introduction:
In late 2021, South Australian hospitals faced high occupancy and reduced patient flow. To address this, some hospitals increased pharmacy staffing to strengthen medication management and support patient flow.

Aims:
This study evaluated the effects of increased hospital pharmacy staffing on the provision of admission and discharge services, inpatient length of stay (LOS), 30-day unplanned readmissions and 30-day emergency department (ED) visits.

Methods:
A retrospective repeated cross-sectional study was conducted in general medicine units at two South Australian hospitals (one intervention, one control). The intervention hospital increased staffing by 18.8 full-time equivalent pharmacists, enabling after-hours and weekend services. The control site made no staffing changes. Data were extracted from the hospital's electronic medical record for a pre-intervention period (August–October 2021) and an intervention period (March–May 2022). Outcome measures included the percentage of admissions where pharmacy admission and discharge services were provided, inpatient LOS, 30-day unplanned readmissions, and 30-day ED visits.

Results:
Included were 4,776 admissions involving 4,204 patients. At the intervention hospital, provision of admission services within 24 hours rose by 21% and discharge services rose by 20%, while both declined by 9% at the control hospital. Between-site comparisons showed significant differences across all pharmacy service measures ($p<0.001$), most pronounced among weekend admissions and discharges (43% and 48% differences, respectively). LOS decreased at the intervention hospital during the intervention period (RR=0.90, 95% CI: 0.82–0.98, p=0.015) but was unchanged at the control hospital (RR=1.00, 95% CI: 0.93–1.08, p=0.979). No patient outcomes were significantly different between hospitals at the adjusted threshold ($\alpha=0.003$), with the largest difference (RR=0.81, 95% CI: 0.65–0.99, p=0.044) observed in LOS among weekend admissions.

Discussion:
The expansion of pharmacy services resulted in more patients receiving clinical pharmacy services during their hospital stay and sooner at admission, as well as reduced length of stay.

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Trends and patterns of vaccination in community pharmacies in Australia: A retrospective data analysis

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Introduction:
Pharmacists have become integral to vaccination strategies worldwide and Australia's National Immunisation Program. However, little is publicly available about how pharmacist-administered vaccination trends and uptake vary over time, across demographics, and by locations.

Aims:
This study aimed to analyse trends and patterns of pharmacist-administered vaccinations in community pharmacies of an Australian pharmacy group.

Methods:
A census retrospective descriptive analysis of de-identified routine vaccination records was conducted between 1 January 2021 and 2 April 2025. Temporal trends and seasonal patterns, as well as demographic (age, gender) and geographical distributions (Modified Monash Model classification and proximity to general practice (GP) clinics/medical centres) of vaccine uptake were evaluated.

Results:
Of more than 4 million health services delivered during the study period, >1.1 million vaccination records were analysed for 19 vaccine types. COVID-19 accounted for the largest proportion (59.4%), with a sharp peak between late 2021 and early 2022. Influenza vaccination showed consistent seasonal peaks from March to June, with a notable decline in 2024 compared with other years. The proportion of vaccination was lower among those ≤19 and ≥65 years old and concentrated in metropolitan areas and pharmacies near GP clinics/medical centres, with vaccination administration proportionally distributed between males and females.

Discussion:
Community pharmacists played a vital role in delivering vaccinations, especially during the COVID-19 pandemic and for influenza; their involvement in administering other vaccines is gradually increasing. The findings highlight the need for targeted public campaigns to raise awareness of community pharmacists' role in vaccination, and to encourage uptake across diverse populations and locations. Further research should explore ways to improve uptake in all populations and regions and assess the impact of pharmacy co-location with other vaccination providers.

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Prescription opioid discontinuation and mortality due to suicide or unintentional overdose

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Introduction:
There is a growing focus on deprescribing opioid medicines among long-term users; however, there is limited and conflicting evidence about associations between opioid discontinuation and fatal adverse outcomes.

Aims:
To investigate whether opioid discontinuation is associated with suicide or fatal unintentional overdose among Australians using opioids long-term.

Methods:
The study population included 371,048 people prescribed opioids ≥6-months (≥183-days) following initiation in New South Wales, Australia, between 01/07/2003-31/12/2018. Cases were individuals with a suicide (Study 1) or fatal unintentional overdose (Study 2), matched using risk set sampling to ten controls by age, sex, and date of qualifying into long-term use. Opioid discontinuation, versus ongoing use, was measured using time-varying periods of opioid exposure, quantified from linked dispensing records.

Results:
Over the study period, 523 people died by suicide (median age 50-years (IQR 39-66), 70·4% male) and were matched to 5230 controls (Study 1). Compared to people with ongoing opioid use, opioid discontinuation was not associated with increased odds of experiencing a suicide (adjusted OR 0·88, 95% CI 0·72-1·07). Additionally, 671 people experienced a fatal unintentional overdose (median age 42-years (IQR 35, 50), 58·9% male) and were matched to 6710 controls (Study 2). Opioid discontinuation was associated with reduced odds of experiencing a fatal unintentional overdose (adjusted OR 0·44, 95% CI 0·37-0·54), relative to ongoing use, with the magnitude of this effect increasing the longer people remained unexposed to opioids.

Discussion:
In these population-based studies of people using opioids long-term, opioid discontinuation was not associated with suicide and was associated with reduced odds of fatal unintentional overdose. These findings provide evidence that opioid discontinuation is not necessarily associated with adverse mortality outcomes.

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Evaluating the responsiveness and minimum important change of a tool for measuring medicine-related symptom changes over time.

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Introduction:
Monitoring patient-reported symptoms over time may support early detection of medicine-related harms, but none of the existing tools have been validated for longitudinal use.

Aim:
To assess the responsiveness and minimum important change (MIC) of a tool for longitudinal monitoring of medicine-related symptoms.

Method:
A cohort study was conducted among Australian adults (≥18 years) taking medications. Participants completed the Pharmacotherapeutic Symptom Evaluation-20 (PHASE-20–Australian version), which includes 19 medicine-related symptoms, and one open-ended question rated on an 11-point scale from '0' (no symptom) to '10' (worst possible symptom), at baseline and at four-week follow-up. The Global Rating Scale (GRS) was also completed at follow-up. Responsiveness was evaluated by correlating score changes with the GRS and calculating the area under the receiver operating characteristic (ROC) curve (AUC). MIC was estimated using ROC anchor-based and 0.5 standard deviation (SD) distribution-based methods, then compared with the Smallest Detectable Change (SDC).

Results:
A total of 102 participants completed both baseline and follow-up. Strong correlations were observed for overall score changes (rho = 0.815) with the GRS as well as for 84.2% of individual symptoms (rho = 0.701 to 0.897). The tool demonstrated good to strong discriminative ability (AUC = 0.739 to 0.975 for improvement; 0.764 to 0.977 for deterioration). The MIC values ranged from 0.5 to 1.5 points using the ROC method and from 0.9 to 1.8 points using the 0.5SD method. The estimated MIC values exceeded the SDC for 84.2% of symptoms. Limited responsiveness (rho < 0.7, AUC < 0.7) and MIC values below the SDC were observed for three symptoms.

Conclusion:
PHASE-20–Australian version is responsive for most symptoms, with a clinically meaningful change of approximately 2.0 points on a 0–10 scale. The estimated MIC is applicable at the individual level, although caution is needed for symptoms with an MIC below the SDC.

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Providing Sick Day Medication Guidance to People with Chronic Diseases: A Qualitative Exploration with Health Care Professionals

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Introduction:
Sick day medication guidance (SDMG) involves recommending withholding certain medications during acute dehydrating illness to prevent complications such acute kidney injury (AKI) in people with chronic kidney disease (CKD). Some studies have shown that SDMG practices are poor in Australia, but it is not known why.

Aim:
This study sought to explore the knowledge and sick day practices of healthcare professionals (HCPs), including the frequency and content of advice, and potential barriers and facilitators to provision.

Methods:
Semi-structured interviews were conducted with purposively sampled, HCPs including medical practitioners (MPs), nurses, nurse practitioners (NPs) and pharmacists from November 2024 to July 2025. Interviews underwent inductive thematic analysis via NVivo 15 software.

Results:
Twenty-three interviews were conducted with 9 pharmacists, 5 nurses (including clinical nurse consultants [CNCs]), 5 NPs and 4 MPs. Participants specialised in nephrology (n=7, 33.3%), diabetes (n=7, 33.3%), general practice/medicine (n=5, 23.8%) and other areas. Some specialist nurses and pharmacists felt capable of providing SDMG and have more opportunities than their MP counterparts - but are concerned about practicing within their professional scope. All participants believed that providing SDMG is important, but is a lower priority discussion point. When done, SDMG is mostly delivered through verbal counselling, with occasional reinforcement using tailored action plans. HCPs find SDMG provision challenging for people who use dose administration aids, and those with poor health literacy – with many exercising caution to avoid information overload. HCPs emphasised the need for consistent messaging across HCPs, improved integration into care pathways, and better easier access to clinical resources and tailored, patient-friendly resources.

Conclusion:
While HCPs recognise the importance of SDMG, provision is limited by personal, workplace and system-level barriers. Addressing these barriers will be critical for embedding SDMG into routine chronic disease management.

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National state of harm reduction: findings from a representative sample of community pharmacies

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Background:
Drug-related harms are a global public health concern. In Australia, a range of harm reduction strategies have been implemented, particularly in community pharmacies.

Aim:
This study aimed to map the provision of harm reduction services among community pharmacies.

Methods:
Data were collected via an anonymous online survey of Australian community pharmacists, using a nationally representative sampling approach. Participants provided information about pharmacist and pharmacy characteristics, and the scope of harm reduction services provided and explored pharmacy-level characteristics associated with the provision of greater harm reduction services.

Findings:
The sample comprised 730 pharmacists, representing approximately 12% of Australian community pharmacies. Core harm reduction services within community pharmacy settings included stocking naloxone (73.2%, n= 730), providing a needle and syringe program (51.5%, n= 643), offering opioid agonist treatment (46.2%, n= 686) and supplying hepatitis C (55.0%, n= 660) and HIV medications (66.8%, n= 656). We found notable interstate differences in the provision of opioid agonist treatment and needle and syringe programs (New South Wales; 35% vs Queensland; 77.5%). Pharmacies in less densely populated states (i.e. Queensland (Adjusted odds ratio (aOR): 2.80, 95% confidence intervals (CI): 1.85-4.24) and Western Australia (aOR 2.72, 95%CI 1.65-4.50)) had significantly higher odds of providing a broader range of harm reduction services, compared to pharmacies in Australia's most populous state (New South Wales), as were pharmacies located outside of capital cities (aOR 1.48, 95%CI 1.10-2.03).

Conclusions:
This is the first Australian study to comprehensively explore the provision of harm reduction services in community pharmacies, demonstrating high levels of engagement with most services and significant increases over the past decade, particularly take-home naloxone. Findings highlight the impacts of broad harm reduction policies and services, including where more targeted efforts may be needed to increase service uptake.

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Towards Safer Medication Practices: A Retrospective Analysis of Adverse Drug Reactions

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Introduction:
Adverse drug reactions (ADRs) remain a significant challenge in modern healthcare, raising concerns among clinicians and healthcare systems worldwide. Despite advances in medical research and pharmacology, ADR reporting rates among healthcare providers remain low, primarily due to barriers such as limited time and insufficient knowledge.

Aim:
This study aims to examine the patterns and impact of ADR reporting to the Therapeutic Goods Administration (TGA) using an automated reporting tool embedded within the electronic medical records (eMR).

Methods:
This retrospective study was conducted at Blacktown Hospital, where an automated ADR reporting tool was integrated into the eMR in 2022. The tool captured all the necessary information for regulated TGA reporting. Monthly ADR reports were compiled by the hospital's medication safety committee and submitted to the TGA. ADRs were categorised using the Medical Dictionary for Regulatory Activities (MedDRA), and causality was assessed using the World Health Organization-Uppsala Monitoring Centre (WHO-UMC) criteria.

Results:
In contrast to the 13 reports submitted in 2021, over 1,500 ADR reports were submitted to the TGA from Blacktown and Mt Druitt Hospitals between March 2022 and June 2025 using the automated tool. Analysis of 1,181 reports revealed that 11% of patients experienced two or more distinct ADRs. Anti-infectives (39%) and nervous system drugs (17%) were the most frequently implicated drug classes. Dermatological reactions accounted for the highest proportion of ADRs at 33%.

Discussion:
The findings demonstrate that embedding an automated ADR reporting tool within clinical workflows significantly enhances reporting rates. This digital health solution effectively addresses key barriers faced by healthcare professionals, promoting safer medication practices and improved patient outcomes.

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Cardiovascular safety of DPP-4 inhibitors compared to insulin /sulfonylureas among people with diabetes in residential aged care homes

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Introduction
Evidence on the cardiovascular safety of dipeptidyl peptidase 4 (DPP-4) inhibitors is lacking for individuals living in residential aged care homes (RACHs).

Aim
To examine the cardiovascular safety of DPP-4 inhibitors compared to long-acting insulin or sulfonylurea initiation added to metformin in older people with diabetes in RACHs.

Methods
A new-user multiple active comparator retrospective cohort study of the cardiovascular safety of DPP-4 inhibitors compared to long-acting insulin and sulfonylureas when added to metformin was conducted. Individuals aged ≥65 years with diabetes who entered RACHs between 01/01/2009 and 31/12/2018 were included within the Registry of Senior Australians National Historical cohort. Time to hospitalisation for heart failure or major adverse cardiovascular events (MACE) (a composite of stroke, myocardial infarction or cardiovascular mortality) over a five-year follow-up period was compared between matched DPP-4 inhibitor and long-acting insulin or sulfonylurea users. Fine-Gray models were used to estimate sHR.

Results
Among initiators of DPP-4 inhibitors compared to insulin (n=4,414), the risk of hospitalisation for heart failure was 0.98 (95% CI 0.77-1.25), while the risk of MACE was 0.95 (95% CI 0.83-1.10). Among initiators of DPP-4 inhibitors compared to sulfonylureas (n=2,686), the risk of hospitalisation for heart failure was 1.08 (95% CI 0.79-1.49), while the risk of MACE was 0.93 (95% CI 0.77-1.12). Lower risk of hypoglycaemia (sHR 0.36, 95% CI 0.23-0.56) and all-cause mortality (sHR 0.82, 95% CI 0.76-0.90) was observed in DPP-4 initiators compared to long-acting insulin.

Discussion
Initiation of DPP-4 inhibitors has a similar five-year cardiovascular risk to long-acting insulin or sulfonylurea use when added to metformin in residents of RACHs, but had lower risk of hypoglycaemia and all-cause mortality compared to long-acting insulin. These findings support the preferential use of DPP-4 inhibitors over long-acting insulin as add-on therapy to metformin in older people with diabetes in RACHs.

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Generative AI usage and literacy in pharmacy education: development and validation of an assessment tool

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Introduction
Generative artificial intelligence (GenAI) is increasingly used in pharmacy education, offering opportunities but also raising concerns about accuracy, ethics and responsible use. Despite growing use, few studies assess GenAI literacy in pharmacy education, and validated tools to evaluate pharmacy students' ability to use GenAI responsibly remain limited.

Aims
This study developed and validated an instrument to assess GenAI literacy among pharmacy students and examined patterns of use, satisfaction, and links with literacy, usage and demographic factors.

Methods
A cross-sectional online survey was conducted with students in undergraduate and graduate pharmacy courses at a large Australian university. It gathered demographic factors, GenAI usage and satisfaction, and responses to a 20-item quiz assessing human-centred mindset, ethics, techniques/applications and system design. Analyses used descriptive and inferential statistics, and psychometric properties were examined via classical test theory.

Results
The study received 673 responses. GenAI was most often used to simplify complex concepts (89%) and summarise texts (85%); lowest use was for treatment planning (56%) and group tasks (56%). Satisfaction followed a similar pattern, highest for concept clarification (86%) and lowest for practising oral communication (47%). After screening, 592 students were retained for literacy analysis. The mean literacy score was 14.97 (out of 20), strongest in the human-centred mindset domain and weakest in techniques/applications. Domestic students scored higher than international students, and native English speakers outperformed non-native speakers (both $p < .001$). Reliability was acceptable ($\alpha = 0.68$), supporting the measure's preliminary use.

Discussion
GenAI can reduce cognitive burden, improve understanding of complex material and optimise the learning experience for pharmacy students with language barriers. However, gaps in technical knowledge, ethical reasoning and collaborative application, along with risks of inaccurate content, highlight the need for structured learning and validated assessments to guide responsible GenAI use in pharmacy curricula.

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Game-based learning in Pharmacy: Exploring the utility of a counselling flashcard game

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Introduction:
Pharmacists play a vital role in healthcare—not only as medication experts but also as effective communicators. Development of strong communication skills is essential for pharmacy students, and common educational strategies in development of these skills include patient case simulations and role plays. These approaches provide safe, controlled environments to practice communication with peers or faculty. However, designing diverse and engaging simulations is time-consuming, often resulting in a limited number of cases and less engaging learning experiences.
This study addresses these limitations via development of a novel flashcard game. By combining cards from different decks, the game generates unique cases that promote critical thinking and adaptability. This dynamic approach keeps learning engaging and better equips students for the complexities of real-world patient interactions.

Aim:
This study investigates the impact of a flashcard game on pharmacy students' counselling skills.

Methods:
Sixteen third-year pharmacy students participated in the study. Counselling skills were assessed at the beginning and end of the session using flashcard-generated scenarios. Between assessments, students engaged with the flashcards weekly in class to practice counselling. Pre- and post-game recordings were anonymised and evaluated by the same researcher, and scores were analysed to determine the effectiveness of the flashcard game as a teaching tool.

Results:
A paired-samples t-test demonstrated significant increase in scores from pre-test to post-test, with large effect sizes. Specifically, total scores improved from 8.25 to 12.09 ($p<0.001$, Cohen's $d=1.35$). Similarly, significant improvements were found in specific areas such as knowledge ($p<0.001$, $d=1.02$), communication ($p<0.001$, $d=1.94$), and counselling efficiency scores ($p<0.001$, $d=1.05$).

Conclusion:
The findings demonstrate that the flashcard game is an effective tool for improving pharmacy students' counselling skills. The significant improvements and large effect sizes suggest that this game-based approach is a valuable addition to the pharmacy curriculum, with potential for integration into formal assessment processes.

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Five years' experience of simulation-based learning in the therapy of serious infections: student satisfaction and learning outcomes

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Introduction.
Simulation-based learning (SBL) offers pharmacy students an effective learning opportunity to practice and develop their clinical skills, but can be challenging to maintain long-term.

Aims.
To develop authentic video simulations requiring clinical decision-making regarding appropriate antibiotic selection, to enrich the learning experience for pharmacy students; and to evaluate their impact on student learning and satisfaction.

Methods.
Two scenarios (tuberculosis and polymicrobial infection) were developed with expert input and filmed using professional actors and a small film crew. Students enrolled in a second-year pharmacy program in 2019, and 2022-2024 were invited to participate in SBL activities utilising the videoed scenarios. Evaluation was via pre- and post-tutorial questionnaires.

Results.
Over the five-year period, pre- and post-activity questionnaires were completed by 233 students (62.5%; 233/373) for tuberculosis and 275 (54.9%; 275/501) for the polymicrobial infection. A statistically significant difference between pre- and post-tutorial questionnaire scores was observed in all years except for tuberculosis in 2019. A majority of students reported the tuberculosis (80.0 – 98.2%) and polymicrobial infection SBL activities (82.1 – 93.6%) were outstanding or excellent, with little variation across the five years of the evaluation. Most students reported the SBL activities helped them to acquire critical thinking skills (mean: 90.1% for tuberculosis and 93.2% for polymicrobial infection) and that they helped them learn better (mean: 95.2% for tuberculosis and 97.7% for polymicrobial infection). Almost all (93.6 - 95.0%) agreed that they would like more SBL activities to support their learning in the future. Positive outcomes were consistent across the five-year timeframe.

Discussion.
SBL activities involving video simulations were a sustainable approach to enhancing students' learning experience, and supported consolidation of knowledge about antimicrobial agents and practice of clinical decision-making skills in selecting appropriate antibiotics to treat infectious diseases.

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A scoping review of generative artificial intelligence in healthcare simulation training

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Background:
Simulation has long been established as a critical component of healthcare education, providing learners with the chance to practice clinical skills in safe, controlled environments. While highly effective, conventional approaches to simulation can be costly, difficult to scale, and may lack authenticity. Generative artificial intelligence (GenAI) has recently emerged as a possible way to extend the reach and realism of simulation-based training.

Aim:
This review sought to examine how GenAI is currently being used within simulation training in healthcare, with particular attention to the types of applications developed, the training contexts in which they were implemented, and the outcomes reported.

Methods:
A scoping review was conducted using Joanna Briggs Institute guidance and the PRISMA-ScR checklist. Four databases (MEDLINE, Embase, ERIC, and CINAHL) were searched from inception to March 2025. Records were screened systematically. Eligible studies included those that embedded GenAI into simulation activities designed for training of healthcare students or professionals. Key details relating to participants, technology used, and outcomes were extracted and summarised narratively.

Results:
From 1,390 records screened, 15 studies met inclusion criteria. Most were undertaken in nursing and medical education, commonly in undergraduate university settings. GenAI applications were grouped into four main categories: virtual standardised patients, immersive virtual reality scenarios, conversational avatars for communication training, and AI-assisted procedural simulators. Reported advantages included heightened learner engagement, stronger diagnostic reasoning, improved communication skills, and greater flexibility in accessing training. Despite these benefits, challenges were identified,, including inconsistent descriptions of how the AI functioned, occasional inaccuracies in generated content and reliance on self-reported data.

Conclusion:
Current evidence suggests that GenAI is being used to enhance simulation across diverse healthcare settings. While early findings are encouraging, the field would benefit from clearer reporting, validation of AI outputs, and more robust evaluation methods to support safe and effective integration into education.

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Evaluation of a pharmacy student video learning tool utilising humour and negative knowledge errors in pharmacist-prescriber communication simulations

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Introduction:
Negative knowledge is a type of experiential knowledge gleaned from errors, ie. "what not to do" in a situation, and is theorised to contribute to professional expertise. Little has been published on its application with humour in pharmacy student education.

Aims:
1) Evaluate student perception of the learning value of a humourous recorded demonstration of common errors in simulated pharmacist-prescriber phone calls;
2) Evaluate whether this demonstration had a measurable impact on student performance in assessment.

Methods:
Common errors made by past students in simulated prescriber call assessments were identified using nominal group technique by experienced UniSA tutors. An exaggeration parody video demonstrating these errors from the perspective of a prescriber was recorded using lecturers as actors. Students viewed the learning tool between two assessments, and completed a feedback survey on the teaching method for qualitative evaluation. Relevant errors made by students in the assessments were tallied.

Results:
82 students watched the video, and 52 survey responses were received. Ninety-eight percent of respondants felt their understanding improved, and 92% want to see similar tools in other areas of learning. Thematic analysis of free-text responses identified the humour, interprofessional perspective, presentation format and negative knowledge as positive elements of the learning tool, while the humour and lack of a classic demonstration were viewed negatively by some students. The students' performance in assessments was not measurably improved.

Discussion:
The mixed response to the use of humour in teaching aligns with past international education research, where humour improves engagement and retention but is sometimes distracting. The study was limited by small sample sizes, the lack of an identifiable control group and no longer-term follow-up, which could be addressed in future research.

Conclusion:
The combined use of humour and negative knowledge in pharmacy education was well-received and considered desirable by learners.

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First Nations Peoples' contributions to education for healthcare students and workers: Systematic Review Protocol

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Introduction:
First Nations Peoples have been educating and sharing knowledge with Western healthcare workers since colonisation. There is emerging evidence to highlight the impacts of their contributions being acknowledged internationally. Working with First Nations Peoples in the design, delivery and evaluation of education for healthcare students and workers is crucial to ensure a culturally responsive and safe health workforce.

Aims:
To explore the global evidence pertaining to First Nations Peoples' contributions to education for healthcare students and workers, focusing on the nature, extent and impact of their contributions.

Methods:
This protocol is registered with PROSPERO (CRD420251110565). Review processes will be guided by the PRISMA 2020 checklist. A search strategy for CINAHL, ERIC, Embase, Global Health and Medline databases was developed with an academic librarian. Key concepts include 'First Nations Peoples', 'Healthcare', 'Education', and 'Collaboration'. Publication screening will be conducted in Excel and Covidence. One author will lead screening and data extraction, while a second author will independently screen a proportion at each stage (after de-duplication). Discrepancies will be discussed and resolved with two additional authors. Included publications must describe primary research involving First Nations Peoples' contribution to education (e.g. design, development, delivery, and/or evaluation) for healthcare students/workers. Only English language studies will be included, with no geographical or study design restrictions. Quality assessment will be completed using appropriate tool(s), selected based on study design of included publications. Studies will be synthesised narratively and presented in a data extraction table.

Discussion:
Anticipated findings include impacts on educational outcomes, service delivery and self-reported constructs of healthcare students/workers. Impacts on First Nations Peoples receiving health care services from the students/workers (e.g. health outcomes) may also be reported. Findings are expected to highlight First Nations Peoples' contributions and inform educators in supporting a culturally safe and responsive healthcare workforce.

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Implementing AI into Clinical Practice: Opportunities and Challenges for Clinicians

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Artificial Intelligence (AI) is transforming healthcare, and there are increasing number of machine learning models that have been developed and evaluated for clinicians in hospitals. However model development and implementation in practice presents ethical, practical, safety and regulatory challenges. This symposium will explore AI's current and future role in Australian healthcare and pharmacy practice. Drs Falconer, La Caze and Barras will explore the current landscape with regards to AI implementation, as well as ethical considerations, modelling with patient data and frameworks for evaluation and implementation to ensure safe and effective integration in practice.

Dr Falconer is a lecturer in pharmacy and lead for the Clinical Pharmacy Program Suite at The University of Queensland. Her research interests include risk prediction modelling, and use of AI to improve patient medication outcome.
Session overview:
Successfully integrating AI into clinical practice requires alignment with national guidelines and frameworks. There are numerous high-value use cases of AI for use in clinical practice which are emerging. This presentation will outline pre-implementation considerations. Drawing from our recent studies we will discuss barriers and enablers to AI implementation as well as discussion of a roadmap for the safe implementation of AI in clinical practice.

Professor Michael Barras is the Director of Pharmacy at Princess Alexandra Hospital and a research conjoint at The University of Queensland, with expertise in PK/PD modelling, risk prediction, and machine learning to optimise dosing of high-risk medications.
Session overview:
Michael's presentation will discuss real world applications where Machine Learning models have been developed and are being evaluated to enhance clinical decision making and reduce patient harm. We will focus on two recent local use cases – one for predicting dose of IV unfractionated heparin and another for predicting risk of medication related hospital acquired complications. The cases will illustrate the journey from algorithm development, the importance of a collegial approach, ethical dilemmas, and learnt practical considerations for implementation.

Adam La Caze is an Associate Professor at the University School of Pharmacy. His work focuses on medical ethics, evidence interpretation, and the philosophical foundations of clinical and pharmacy practice. He leads research that examines how ethical reasoning and scientific evidence inform medication safety and quality use of medicines
Session overview:
AI-driven clinical decision making raises issues including bias, transparency and accountability. This presentation will examine the ethical landscape of AI in the Australian Healthcare, focusing on equitable patient outcomes, ethical frameworks and regulatory frameworks needed to ensure responsible AI adoption in pharmacy practice.

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Inclusive Healthcare: Quality Care for Every Community

Chan V, Lim C

Everyone has the right to receiving optimal healthcare to improve their health and wellbeing. It is well documented that health disparities exist in certain vulnerable population groups, including those with the greatest economic and social needs, such as the culturally and linguistically diverse (CALD), Aboriginal and Torres Strait Islander peoples, and those who are LGBTIQA+. Reducing health inequalities and providing care to these groups requires understanding and addressing their unique needs and challenges, as they often face barriers to accessing care through existing services and settings.

This proposed symposium hopes to bring together researchers to share their experiences in helping address the health inequalities in these specific population groups, by helping with the understanding of their needs, or by investigating interventions that addresses these challenges and barriers.

The speaker panel reflects diversity in both career stage and institutional representation. Speakers include a PhD candidate (Speaker 2), an early career academic (Speaker 1), and a senior academic (Speaker 3). They are affiliated with institutions across three states: Victoria, New South Wales, and Queensland. The presentations address various dimensions of cultural diversity, including LGBTIQA+ communities (Speaker 1), Arabic-speaking migrants and refugees (Speaker 2), and Aboriginal and Torres Strait Islander peoples (Speaker 3). The session also demonstrates a commitment to gender equity through balanced chairing roles

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One shot to beat depression: The Future of Mental Health Treatment

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Introduction:
Depression is a prevalent mental health disorder with a significant impact across all age groups, with 42.9% of young Australians experiencing at least one episode during their lifetime. While depression is primarily psychological, its pathophysiology involves imbalances in key neurotransmitters such as serotonin, norepinephrine, and dopamine, classifying it as a neurological condition. Currently available oral antidepressants are limited by poor bioavailability and fluctuating plasma concentrations, resulting in suboptimal therapeutic efficacy and low remission rates.

Aims:
The study aims to develop a single-dose injectable antidepressant (SSRI) formulation with an extended drug release profile, reducing dosing frequency, improving patient adherence, and enhancing treatment outcomes.

Methods:
A polymeric in situ gel was prepared using poly(lactic-co-glycolic) acid (PLGA) as a carrier matrix, using polyethylene glycols and plant-based oils as solubilizers and depot formers. Selective serotonin reuptake inhibitors were chosen as a model drug due to their widespread clinical use. In vitro drug release studies were conducted in phosphate buffer saline (pH 7.4) at 37°C, and drug quantification was performed using a validated HPLC method. Formulation parameters such as viscosity, gelation time, and injectability were also evaluated to ensure clinical feasibility.

Results:
The formulation was optimized to achieve a sustained drug release lasting up to 10 days, based on in vitro release profiling. It demonstrated a sol-gel transition close to physiological temperature and pH, facilitating injectability and rapid depot formation. In vitro release studies revealed a biphasic pattern with initial burst release followed by controlled and extended release for 10 days.

Discussion:
Polymeric in situ gels provide a minimally invasive, sustained-release strategy for managing depression, potentially improving adherence and therapeutic efficacy. While in vitro results are encouraging, further in vivo studies are essential to validate pharmacokinetics. If successful, this long-acting injectable could transform depression management by replacing daily oral dosing with extended therapeutic effect.

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Dual Targeting of Prostate Cancer Cells with Engineered Nanoparticles

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Introduction:
Prostate cancer is a heterogeneous disease that frequently metastasises to bone, lymph nodes, and liver, with recurrence often driven by chemoresistance. Targeted nanomedicine offers a promising strategy to improve drug specificity and reduce off-target effects.

Aims:
This study investigates a dual-targeting approach using ligand-decorated liposomes to deliver synergistic drug combinations directly to prostate cancer cells.

Methods:
Differential gene expression analysis of publicly available RNA sequencing data was conducted to identify G-protein-coupled receptors co-overexpressed in prostate cancer. RT-qPCR and flow cytometry validated their co-expression in the PC3 cell line. Receptor-specific ligands were identified and assessed for binding affinity. Ligand-functionalised liposomes were synthesised to co-deliver two synergistic therapeutic agents via these receptor pathways.

Results:
GRPR and F2R were identified as highly co-expressed receptors in prostate cancer cells, confirmed by RT-qPCR and flow cytometry. Selected ligands showed strong receptor binding affinity. Liposomes functionalised with these ligands are expected to be successfully synthesised.

Discussion:
This study introduces a novel dual-targeting nanomedicine strategy for prostate cancer, utilising liposomes engineered to engage two distinct receptors—GRPR and F2R—co-expressed on cancer cells. Dual-targeted liposomes are expected to outperform single- or non-targeted formulations by enhancing cellular uptake and improving therapeutic outcomes. The identification of GRPR and F2R as viable molecular entry points supports the broader potential of receptor-guided nanomedicine. By decorating liposomes with specific ligands, this approach aims to increase treatment precision while minimising off-target effects. These findings highlight the promise of dual-receptor targeting in advancing more effective and selective cancer therapies.

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Liquid crystal lipid nanoparticles enable synergistic antibiotic and enzyme therapy against E. coli biofilms

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Introduction:
Biofilm infections are significantly more pathogenic and tolerant (up to 1000×) to antimicrobials than planktonic bacteria[1]. Biofilm-dispersing enzymes degrade extracellular polymeric substances (EPS), disperse microbial communities, and enhance antibiotic susceptibility[2]. Clinical translation of these enzymes is limited by degradation, denaturation, and rapid clearance.

Aim:
This study aimed to develop and compare a liquid crystal lipid nanoparticle (LCNP) system for co-delivery of gentamicin (GEN) and rhDNase with conventional liposomes, to enhance biofilm penetration and eradication.

Methods:
LCNPs were formulated using monoolein via hydrotrope dilution, while liposomes were prepared using 1,2-dipalmitoyl-sn-glycero-3-phosphocholine (DPPC) and 1,2-dipalmitoyl-sn-glycero-3-phosphoglycerol (DPPG) via microfluidic NanoAssembler. Antimicrobial efficacy of GEN and rhDNase, both in solution and encapsulated, was evaluated using MBEC, crystal violet, and Alamar Blue assays against strong biofilm-forming E. coli ATCC 25922. LCNP cytotoxicity was assessed on HaCaT cells at therapeutic and 5× doses.

Results:
LCNPs and liposomes were ~170 nm with slight negative zeta potentials, increasing upon drug loading. Cryo-TEM confirmed intact structures. LCNPs sustained gentamicin release and retained rhDNase. Co-loaded LCNPs achieved a 10^5-fold CFU reduction against E. coli biofilms. GEN+rhDNase LCNPs were non-toxic, showing ≤30% reduction in HaCaT cell viability at 5× therapeutic doses.

Discussion:
LCNPs outperformed liposomes due to tight lipid packing and Pluronic F127 shielding, protecting rhDNase from degradation. The synergistic activity highlights their potential as an effective biofilm-targeted therapy with minimal cytotoxicity.

Conclusion:
LCNPs represent an effective platform for co-delivering antibiotics and biofilm-dispersing enzymes. By enhancing enzyme stability and biofilm penetration, this approach overcomes key translational challenges, supporting the clinical potential of LCNP-based therapies for persistent biofilm infections.

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Optimizing Intramuscular In-Situ Forming Implants for Controlled Drug Release in Parkinson's Disease Treatment

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Introduction:
Parkinson's disease is a debilitating neurodegenerative disorder. Conventional therapies available for Parkinson's disease are associated with limitations such as the wearing-off effect, on-off period, episodes of motor freezing, and dyskinesia. Reports suggest that such side effects are mainly due to the fluctuation in the plasma concentration of the drugs, which necessitates multiple doses to attain the therapeutic concentration. The available marketed formulations include oral tablets and capsules, which require multiple administrations due to the short half-life and extensive metabolism of the drug after administration, which becomes inconvenient to older patients. Our current hypothesis is to develop a long-acting injectable gel, which will release the drug for 7 days, avoiding fluctuations in plasma concentration and reducing the dosing frequency.

Method
Formulation involves the preparation of a polymeric solution first. Polymeric solutions were prepared by dissolving PLGA and Eudragit L 100 in the organic solvent N, N-dimethylacetamide at 70°C, with constant stirring at 700 RPM. Once the clear solution was formed, a measured volume of PEG 400 was added until a homogenous solution was obtained. Once a homogenous solution was formed, heating was stopped, and weighed an amount of Levodopa and Carbidopa (4:1 ratio) was added to these solutions under continuous stirring for 30 minutes.

RESULTS AND DISCUSSION

- In-vitro drug release showed less initial burst release of levodopa followed by a sustained release for up to 144 hrs.
- A good correlation was observed between the in-vitro drug release data and ex-vivo drug release, with a correlation coefficient of 0.91 for levodopa.
- The average force required for the formulation was found to be 32.98± 0.72 N by 22G gauge, indicating an acceptable injection force.
- The predicted AUC 0-∞ h for the in-situ forming implant was 22168.43 ng/ml with Cmax, 375.83 ng/ml, and Tmax 24 hours, assuming 100% bioavailability.

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New Horizons in Antimicrobial Drug Development:

A Multidisciplinary Approach from In Silico to In Vivo Validation

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Introduction:
Infectious diseases are a leading cause of death globally, particularly in low-income countries, with antimicrobial resistance (AMR) posing a significant challenge. Microbial pathogens, including the ESKAPE pathogens (Enterococcus faecium, Staphylococcus aureus, Klebsiella pneumoniae, Acinetobacter baumannii, Pseudomonas aeruginosa, and Escherichia coli/Enterobacter species), lead to over 700,000 deaths annually, a figure projected to exceed 10 million by 2050. My project focuses on developing NCL195, a novel small molecule derived from robenidine (NCL812), to combat multidrug-resistant bacterial infections.

Aim:
To develop NCL195 formulation by addressing its limitation of poor aqueous solubility and limited bioavailability.

Methods:
The development of a Supersaturable Self-Emulsifying Drug Delivery System (OSMEDD, where “O” stands for optimized), inclusion complex, and Lipid dispersion formulations, to enhance solubility. In silico characterization via Marvin predicted greater precipitation of NCL195 at higher pH levels, guiding the development of this formulation. Furthermore, In silico Drug Design tools like SWISS ADME and ADMET LAB 3.0 tools were used to explore Quantitative Structure Bioavailability Relationship (QSBR) for better solubility and bioavailability predictions.

Results:
In vitro studies showed a promising antimicrobial effect against S. aureus, and in vivo pharmacokinetic studies in dogs for OSMEDD indicated an 8-fold increase in bioavailability (Area Under Curve or AUC) when compared to a control formulation.

Discussion:
OSMEDD has demonstrated effectiveness in enhancing the solubility and absorption of NCL195, along with promising antimicrobial activity. In silico predictions, including Marvin, SWISS ADME, and ADMET LAB 3.0, provided critical insights into precipitation behaviour and potential analogues, offering a foundation for further optimization to improve therapeutic outcomes in AMR management.

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“Not just labelling medicines”: Pharmacists’ Perspectives on Their Potential Roles within Youth Mental Health Services

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Introduction:
Youth mental illness is a major global health concern, with rising rates of psychological distress and unmet care needs. Despite their expertise in psychotropic medication management, pharmacists remain underutilised in youth mental health services, leaving their potential contributions to multidisciplinary care largely unexplored.

Aims:
This study explored pharmacists’ perspectives on medication use among young people and their potential roles in youth mental health services.

Methods:
Semi-structured interviews were conducted with Australian pharmacists from a range of practice areas. Interviews were transcribed verbatim and analysed using reflexive thematic analysis.

Results:
Eighteen pharmacists shared their insights, generating four key themes: (i) "The Struggle for Equitable Access", highlighting systemic barriers to health service access; (ii) "Medication as a Pillar, Not the Panacea", advocating for balanced psychotropic medication use alongside psychosocial interventions; (iii) "Breaking the Dispensing Box", revealing pharmacists’ aspirations to expand their roles beyond dispensing through greater clinical involvement; and (iv) "Navigating Trust and Stigma," discussing the challenges of building trust with young people amid stigma.

Discussion:
Pharmacists are well positioned to support youth mental health care through their knowledge of medicines and accessibility across health systems. However, role ambiguities, professional hierarchies, and stigma may restrict their contributions beyond “just labelling medicines”. Greater clarity in role definitions, supported by collaborative frameworks and targeted education, is essential to enable pharmacists to engage meaningfully within multidisciplinary youth mental health teams. Addressing entrenched systemic barriers, including fragmentation of care and inequities in service access, is equally critical if pharmacists are to move from peripheral roles to active contributors in delivering safe, holistic, and person-centred support for young people.

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Codesigning a patient-reported measure of medicine experiences and medication-related harm in hospital inpatients

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Introduction:
Person-centred care is fundamental to effective healthcare, yet no existing tools with symptom checklists capture patients' medicine-related outcomes and experiences during hospitalisation. A context-specific patient-reported measure offers a strategy to address this gap.

Aims:
To codesign a patient-reported outcome and experience measure, incorporating a symptom checklist, for evaluating potential medication-related harm and medicine experiences in hospital inpatients.

Methods:
A participatory design approach was applied, encompassing an iterative process comprised of two rounds of workshops with a consumer reference group, and semi-structured interviews with clinicians – both pharmacists and medical officers - and piloting with hospital inpatients. The focus of the codesign process was to ensure the questionnaire was easily understood by consumers and was applicable and feasible to use in an acute inpatient setting. Feedback was analysed using reflexive thematic analysis and incorporated into questionnaire revisions.

Results:
Six consumers participated in the reference group workshops, seven clinicians were interviewed, and 13 inpatients were involved in piloting. The main themes identified across workshops, interviews and piloting included: (1) language used must be unambiguous and patient centric; (2) visual aids with verbal administration could improve patient understanding and engagement; (3) diverse patient voices must be included during development; (4) the measure should contain a comprehensive list of self-reportable symptoms and capture feedback on coordination and responsiveness of care; (5) patients require an opportunity to advocate for high-quality care if they report suboptimal experiences; (6) scales should be consistent and have a neutral midpoint; and (7) questionnaire logistics should balance feasibility with research aims. The complete patient reported measure will be presented at the conference. Consumers reported feeling appropriately included in development of the measure.

Discussion:
The multi-faceted participatory design process meaningfully integrated consumer perspectives to ensure the questionnaire was fit-for-purpose and addressed the needs of key stakeholders.

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Data fields and interface design priorities in a consumer-focused adverse drug event reporting platform: insights from multiple stakeholders

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Introduction:
Underreporting of adverse drug events (ADEs) remains a challenge in pharmacovigilance. While digital tools may help, their design must reflect user needs and priorities.

Aims:
To identify user preferences for data fields, their sequence, and interface features in a digital ADE reporting platform.

Methods:
Three co-design workshops (November 2023) and two rounds of online user testing (April–May 2025) were conducted. Workshops used card sorting exercises with Australian consumers, healthcare professionals, and regulators. Online testing, involving consumers (Australia, US, UK), evaluated two prototype interfaces, a 'hybrid' design (combining familiar user interface patterns with modern visual enhancements) and a 'novel' storytelling-based interactive approach. Participants selected preferred layout and navigation options and gave structured feedback on usability, clarity, and functionality. Analyses included frequency counts and thematic analysis.

Results:
Workshop participants (n=24; 13 consumers, 9 healthcare professionals, and 2 regulators; 16 female) prioritised reporting fields into four tiers. Tier 1 (highest priority) included patient demographics, suspected medication, ADE characteristics (type, severity, timing)—foundational for report initiation. Tier 2 included reporter contact details and perceived causality—important for follow-up. Tier 3 comprised dosing and comorbidities—valuable but not mandatory. Tier 4 contained ancillary items like images and outcomes.
Online users (n= 199; 23 Australia, 142 US, 34 UK; 100 female) preferred the hybrid design (60%), citing more intuitive structure and organisation and easier navigation, task completion, and engagement. Visually rich layouts (76%), icons (64%), and larger text (73%) improved readability and engagement. Pink (56%) was preferred over healthcare blue.

Discussion:
Co-design can guide the development of digital ADE reporting tools that align with users' mental models. Prioritising essential fields early and offering flexibility through tiered structures may reduce burden, improve data quality, and support more timely pharmacovigilance responses. Users valued designs that balanced usability, clarity, and functionality with engaging visuals—over more novel but less intuitive alternatives.

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Exploring Australian Early Career Pharmacists' sources of stress and their coping strategies

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Introduction:
High levels of workplace stress have been shown to be inversely correlated with job satisfaction and, when left unmanaged, can manifest as burnout. Prior research has shown that pharmacists under the age of thirty years, as well as Early Career Pharmacists (ECPs) are at a significantly higher risk of burnout compared to their older and more experienced peers.

Aims:
This study aimed to: (i) explore the experiences of ECPs dealing with stress, (ii) determine the sources of stress and joy experienced by ECPs, and (iii) to explore strategies used by ECPs to reduce stress.

Methods:
ECPs were recruited through social media. Following informed consent, semi-structured interviews based on Critical Incident Technique were conducted in January and February 2025. This interview technique allowed for participants to describe workplace incidents where they felt particularly stressed or pressured.

Results:
The average age of the twenty-four participants was 29 years with an average of four years in the profession, and 75% were female. Eighty critical incidents were identified from the interviews. Notable events triggering critical incidents reported by participants included: 1) feeling unsupported by pharmacy management, 2) placing unrealistic expectations on themselves and 3) not feeling listened to as professionals. The participants sought the feeling of belonging in a community, and shared experiences as a means of stress mitigation.

Discussion:
Many ECPs in the study found the transition from internship to full registration stress, particularly due to increased responsibilities and accountability. The study findings have emphasised a need for more structured support during this transitional period, both to assist with workplace operations and professional isolation. The wellbeing and retention of pharmacists is paramount to an effective healthcare workforce and optimal patient care. These results have highlighted the areas requiring attention for pharmacist wellbeing, career retention and workforce sustainability.

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Development of the OPTMED-D trial digital intervention to support transfer of medicine information from hospital to community settings

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Introduction:
Poor transfer of medicines information from hospital to primary care after discharge contributes to medicine-related harm (MRH). The OPTimising MEDicine information handover after Discharge (OPTMED-D) trial aims to improve medicine handover and reduce MRH through a multi-faceted digital intervention to facilitate communication and information transfer between hospital clinicians, community pharmacists and general practitioners (GPs).

Aim:
To describe the development and engagement process used to produce the digital intervention.

Methods:
OPTMED-D, a pharmacist-led trial, is being conducted across seven public hospitals in Southeast Queensland with plans to recruit 2200 patients at risk of MRH. Design of the digital intervention and accompanying implementation strategies for the trial occurred through key steps: co-creation with stakeholders, system-walkthroughs, and feasibility testing. Through all steps, we focused on feasibility, scope, and contextual factors to ensure implementation success. Results of this process are presented descriptively.

Results:
Between March 2024 and August 2025, 69 clinicians (23 primary care; 46 hospital-based) and 23 consumers participated in a workshop. Fourteen stakeholders participated in consultations. Key findings regarding digital medicine handover included: the need for integration with existing workflows, minimisation of duplication, and adaptability across hospital and primary care settings. Using these data, two patient pathways were devised for high and medium risk patients, and a community pharmacy software vendor was engaged to adapt their platform to support MedsCheck (in-pharmacy medicine review) and communication of MedsCheck results to GPs. System walkthroughs of the digital intervention identified some minor and moderate usability issues which were addressed on subsequent iterations. Feasibility testing confirmed acceptability, while also identifying potential implementation barriers (e.g., time pressures, varying digital literacy, competing clinical priorities).

Discussion:
Engagement with clinicians and consumers throughout design and testing was critical to ensure the OPTMED-D digital intervention was feasible, acceptable, and integrated with existing workflows in both hospital and primary care settings.

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Co-designing medication management resources for people living with dementia in the community and their carers

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Introduction:
People living with dementia (PLWD) in the community are at increased risk of harm from limited guidance and support in medication management. Existing medication management resources for this population lack comprehensiveness in content and have not been collaboratively designed.

Aims:
This study aimed to apply a robust co-design approach to develop medication management guidance resources – one for PLWD and one for carers.

Method:
This multi-methods study was conducted over two sequential phases. During Phase 1, focus groups, interviews and a modified-Delphi study with PLWD, carers and healthcare professionals in Australia were conducted. Phase 1 informed resource content and generated resource prototypes. During Phase 2, additional focus groups, two with carers and two with PLWD, were conducted to evaluate the prototypes to ensure they were user-centred. Feedback was provided on content and design, and resources were updated accordingly.

Results:
In phase 1, four content areas were identified: 1) question prompts and check-list to address information gaps; 2) information about decision-making and informed consent; 3) risk and benefits of common medications; 4) strategies to address complexities in medication management. In Phase 2, PLWD and carers noted that the resource was informative, easy to understand and would be useful following dementia diagnosis. According to PLWD, the question prompts and check list was clear, concise and included questions to facilitate communication with healthcare professionals.

Discussion:
Two new user-centred resources were successfully developed from this study. By working alongside PLWD and carers to determine resource content and refine the resource prototypes, we were able to ensure the resources were tailored to their needs and user-centred. These resources directly address the National Dementia Action Plan indicators, specifically available appropriate resources for people with dementia, information on access to services and supports and increasing medication reviews.

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Psychotropic medication use and review outcomes among older adults in Australia aged care homes: a retrospective study

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Introduction:
The use of psychotropic medications among older adults is widespread, despite concerns regarding their safety and appropriateness.

Aims:
To examine the profile of psychotropic use, medication reviews, and the review outcomes among residents in aged care homes, and to analyse factors influencing the review practice.

Methods:
A retrospective study was conducted using data from 21 aged care homes across Australia. Inclusion criteria were residents aged 65 years and older who had been prescribed psychotropics for a minimum duration of six months. Descriptive analysis was used to determine the profile of psychotropic use, medication reviews, and associated outcomes. Chi-square tests were performed to assess differences in review practices based on resident characteristics, medication classes, and facility profiles.

Results:
Of 1,658 residents, 1,274 (76.8%) were prescribed psychotropic medications. A total of 780 residents met the inclusion criteria, with a mean age of 83 ± 8.4 years. Among 1,560 psychotropic medicines, 1,385 (88.8%) were used simultaneously with other psychotropics. The most used class was antidepressants (530; 34%). Regular use accounted for 1,316 medicines (84.4%). Psychotropics were used as chemical restraints in 208 cases (13.3%), while 201 (12.9%) had a behavioural support plan, and 178 (11.4%) received behavioural monitoring. Medication review implementations ranged from 44.7% to 100%. Most reviews resulted in no change to therapy (1,365; 95.5%), and only 32 (2.2%) led to positive changes. Chi-square analysis revealed significant differences in the practice of review based on the presence of chemical restraint, behavioural support plans, monitoring, and facility characteristics such as size, location, and type ($p<0.05$).

Discussions:
The high prevalence of psychotropic use among older adults in aged care homes warrants attention. The variability in medication review practices across facilities reflects differences in implementation approaches, despite the critical role of reviews in ensuring therapeutic effectiveness and minimising harm associated with psychotropic medications.

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Exploring the activities and clinical contributions of onsite pharmacists in aged care settings: early insights from OPTIMISER3 study

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Introduction:
Medication-related issues in residential aged care homes (RACHs) continue to impact care quality and safety. On-site pharmacists (OSPs) in aged care model shows promise in addressing these challenges. Evidence from PiRACF study conducted in Australian Capital Territory supports pharmacist-led interventions, prompting further study in rural, remote, and regional areas across Australia. This prospective observational study examines OSPs' activities across varied settings and their contribution to medication safety.

Aims:
This study aims to evaluate the types of activities conducted by the OSPs at urban, regional, rural, and remote RACHs.

Methods:
Four pharmacists were employed in urban, regional, rural, and remote RACHs for 12 months as part of phase 1 of the OPTIMISER3 study. A REDCap survey captured the type and nature of OSPs' daily activities.

Results:
Over the initial three months of service at each site, OSPs documented a total of 334 activities across four RACHs. These included medication reviews (n=71,21.3%), education and training (n=30,9.0%), clinical audits (n=7,2.1%), quality improvement initiatives (n=20,6.0%) and medication management-related activities (n=64,19.2%). Notably, 35.0% (n=117) of OSPs' activities involved communication, including interactions with prescribers, other healthcare team members, and residents. Excluding communication-related activities conducted by OSPs, medication reviews accounted for the highest proportion of activities among OSPs working in urban (n=29/90,32.2%) and regional (n=31/109,28.4%) RACHs, compared to OSPs working in rural (n=3/94,3.2%) and remote (n=8/41,19.5%) sites. In contrast, medication management-related tasks comprised a larger share of activities performed by OSPs working in rural (n=28/94,29.8%), remote (n=9/41,22.0%) and urban (n=18/90,20.0%) RACHs, compared to regional (n=9/109,8.3%) sites.

Discussion:
Pharmacist activities varied across urban, regional, rural, and remote RACHs. The observed variation highlights the need for further exploration into the drivers behind such disparities. Despite these differences, pharmacists delivered effective services across all settings.

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A scoping review and environmental scan of models of care to optimise medicine use for First Peoples

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Introduction:
Models of care to optimise medicine use in First Peoples are represented in the literature. Yet a synthesis of culturally appropriate models of care has not been undertaken.

Aim:
To synthesise and examine the implementation and evaluation of international models of care that optimise medicine use among First Peoples in Australia, Canada and New Zealand.

Methods:
A scoping review and an environmental scan using JBI methodology and PRISMA-ScR guideline was conducted. A comprehensive literature search was conducted in CINAHL, EMBASE, and PubMed (2014-2024) using the keywords: 'First Nations', 'models of care', 'medication review', 'transitions of care'. A deductive analysis using an adapted Consolidated Framework for Implementation Research (CFIR) framework and the Strengths-based Approaches (SBA) taxonomy was conducted.

Results:
A total of 2274 references were identified and screened, 78 manuscripts related to 53 models of care were included: 35 from Australia (54 studies), 8 from Canada (10 studies), 10 from New Zealand (14 studies). Of the 53 models of care, 27 (50.9%) employed decolonisation methodology and 40 (75.5%) were co-created with First Peoples/researchers. Holistic care models co-designed in partnership with First Peoples were found to improve First Peoples' physical and mental health.

Discussion:
According to the CFIR-SBA framework, the identified gaps were related to a lack of effective engagement of First Peoples in the shared decision-making process about medicines, limitations of communication strategies employed and limited policy adoption. Effective models of care were built on relationships with trust and empowered patients, their families and communities to engage in collaborative decision-making. The SBA depicted in most studies were decolonisation methodologies, cultural appropriateness, social determinants of health and ecological approaches, holistic care, asset-based approaches and wellness and wellbeing. Overall, implementing a strengths-based approach would improve models of care that optimise medicine use.

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Performative or purposeful? LGBTQIA+ perspectives on Pride symbol displays in community pharmacies

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Introduction:
Community pharmacies occupy a unique space at the intersection of healthcare and commerce. Pride symbols, such as the Pride Flag, are widely recognised as representations of acceptance and inclusion for the LGBTQIA+ (Lesbian, Gay, Bisexual, Transgender, Queer, Intersex, Asexual) community, but community members may interpret these displays differently, especially when they appear performative, seasonal, or disconnected from genuine allyship. Understanding how these symbols are interpreted in the community pharmacy context is essential.

Aims:
This study aimed to explore how LGBTQIA+ community members perceive Pride symbol displays in community pharmacies, and to identify how these perceptions influence their comfort, trust, and engagement with pharmacy services.

Methods:
Thirty semi-structured interviews were conducted with LGBTQIA+ individuals aged 18+ residing in four Canadian provinces. Participants were recruited via social media, email, and community organisations. Interviews were transcribed and analysed using open inductive coding by two independent researchers. Themes were developed collaboratively and supported by anonymised quotes.

Results:
Two overarching themes emerged: Experiences and Expectations.

- Experiences included varied encounters with Pride symbols, with responses ranging from appreciation and comfort to scepticism and discomfort. Symbol characteristics (e.g., location, size, form, timing) influenced perceptions and behaviours, including openness in communication and pharmacy choice.
- Expectations encompassed desires for pharmacist knowledge (e.g., gender-affirming care, inclusive language), meaningful actions (e.g., advocacy, diverse hiring), and thoughtful symbol display.

An incidental theme revealed systemic barriers, including corporate restrictions, societal norms, and lack of inclusive spaces, which hinder the effectiveness of Pride symbol displays.

Discussion:
Pride symbols may foster inclusive care in pharmacies, but only when paired with informed, intentional practice. These findings suggest that pharmacies should engage directly with LGBTQIA+ communities to ensure that symbol displays are authentic, sustained, and supported by inclusive policies and training.

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Temporal dynamics of anticholinergic burden in older adults: a six-year longitudinal study

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Introduction:
Anticholinergic burden in older adults is associated with falls, cognitive decline, and hospitalisation. Anticholinergic burden is not static; prescribing changes over time, and factors such as healthcare utilisation may shape these trajectories. Few studies have accounted for temporal changes or examined subgroup variation, limiting opportunities to identify when medication review and deprescribing may be most effective.

Aims:
To evaluate temporal changes in anticholinergic burden and the influence of general practitioner (GP) visit regularity, while exploring subgroup differences by morbidity and demographics.

Method:
We analysed a cohort of 66,269 older adults aged 65+ in Western Australia (WA) 2012-2019. Data were obtained from the WA Hospital Morbidity Data Collection, the Medicare Benefits Schedule, Pharmaceutical Benefits Scheme, and WA Death Registrations. Anticholinergic burden was calculated annually with validated burden scales, and GP visit regularity was derived for each year. Random-Intercept Cross-Lagged Panel Models were applied to separate stable between-person differences from within-person temporal changes. Multigroup analyses assessed variation by multimorbidity and demographic subgroups

Results:
Anticholinergic burden was highly consistent over time, with individuals maintaining similar levels across years (autoregressive coefficients: 0.522–0.629, $p<0.001$). Between individuals, those with more regular GP visits also had slightly higher average burden ($r = 0.070$, $p<0.001$), possibly reflecting greater healthcare needs. However, when examining changes within person over time, we observed the opposite: greater-than-usual regularity in early years predicted lower anticholinergic burden the following year (year 2 to year 3, $\beta=–0.010$, $p<0.01$), though reverse effects were not observed. Multigroup models indicated stronger temporal associations in males, those living outside major cities, socioeconomically disadvantaged groups, and those with higher multimorbidity.

Conclusion:
Regular GP visits may help reduce anticholinergic burden, especially in early stages of care. Subgroup differences suggest prescribing patterns are more modifiable in some groups, underscoring the need for tailored deprescribing strategies.

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The use of psychotropic medications in autistic and non-autistic children and adolescents in Western Australia

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Introduction:
Autistic children and adolescents are prescribed psychotropic medication at a higher rate than non-autistic children. Prescribing often occurs without clear prescribing guidance. Data about the appropriateness of psychotropic medication prescribing in neurodiverse populations is lacking.

Aim:
This study investigated the usage patterns of psychotropic medications among autistic and non-autistic children and adolescents in Western Australia.

Methods:
A cross-sectional questionnaire collected data through community pharmacies in Western Australia (May 2019 to February 2020), from participants aged <21 with a repeat prescription for a psychotropic medication. The self-report questionnaire assessed demographic characteristics, medication details and severity of anxiety, depression and stress using the Depression, Anxiety and Stress Scale (DASS-21).

Results:
Of 111 completed questionnaires, the mean age was 14.7 years, 33 were self-reported autism spectrum disorder (ASD) and 78 non-autistic respondents. More males had an ASD diagnosis (n=22/33, 66.0%, p= 0.054). Participants with an ASD diagnosis had higher total DASS-21 scores (M=56.2, SD =22.90) than those without an ASD diagnosis (M=46.51, SD =23.51), p = 0.048. Those with an ASD diagnosis had higher stress severity scores than those without an ASD diagnosis (M=23.39, SD=7.34, M=17.15, SD=7.95). Antidepressants were the most prevalent medications prescribed for anxiety and depression. Higher average defined daily doses (DDD) of psychotropic medicines were prescribed to autistic children compared to non-autistic children aged 0-12years. Higher DDDs of antipsychotic medications were prescribed to autistic children/ adolescents compared to non-autistic children/adolescents. Although overall, there was no statistically significant difference in the mean DDD between ASD and non-ASD groups.

Discussion:
Despite higher average daily doses of psychotropic medications, autistic individuals in this study reported higher severity of anxiety and stress than non-autistic peers. This may be indicative of unmanaged behaviours. Further research is needed for the development of effective strategies to optimise mood disorders in autistic and non-autistic children and adolescents.

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Current status of pharmacy law education in Australia: Australian educator perspectives

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Introduction:
An understanding of relevant laws underpins pharmacists' everyday practice; delivery of pharmacy law content shapes students' future practice. Educators are a key influence on development of legal decision-making skills, both through the educational activities they use to train students on this topic and by 'modelling' best practices. However, little research to date has examined educators' views and experiences.

Aim:
This qualitative study explored the views and experiences of Australian educators in teaching law to preregistration pharmacy students to inform future educational practice.

Methods:
Semi-structured interviews were conducted with 15 Australian pharmacy law educators from August to October 2025. These were transcribed verbatim and analysed thematically.

Results:
Most educators had a pharmacy rather than a legal background and described both integrating pharmacy law content throughout the degree and covering this in standalone units, depending on the specific program. Teaching and assessment techniques such as simulations, analysis of real-life cases, didactic lectures, and written and oral exams are utilised. Key themes include greyness (debate as to whether content is black and white or there are areas of ambiguity), relevance to pharmacy practice (efforts to create and emphasise links to real life practice and their own practice informing what and how they teach), and blue sky thinking ("wish list" for teaching and assessing this content). Misalignment between educators' views of optimal legal practice and how students were taught and assessed was seen. A range of challenges—including perceptions that content is dry, boring or irrelevant and competition for limited curriculum space—were identified.

Discussion:
This is the first focussed inquiry into pedagogy used to teach pharmacy law and has produced a rich description of educators' everyday educational practices and experiences. Future research examining how pharmacists' resolve legal dilemmas in practice and the profession's perspectives on adequacy of pre-registration pharmacy law training is warranted.

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Teaching approaches to delivering pharmacy law content to pre-registration pharmacy students: a global scoping review

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Introduction:
An understanding of pharmacy laws underpins everyday practice of pharmacists and the way that this content is covered within pharmacy programs will shape pharmacy students' future practice. While there is a growing literature on pedagogical approaches used in pharmacy education which pharmacy law educators can draw upon, dedicated resources on best practice in pharmacy law education are not available. Therefore, there is a need to systematically explore research on the various teaching approaches used to deliver pharmacy law content and their influence on students' learning to help inform teaching methods used in pharmacy programs.

Aims:
This global scoping review aimed to identify various teaching approaches currently utilised by pre-registration pharmacy programs to teach pharmacy law.

Methods:
Using a scoping review method, a comprehensive search was conducted in the databases Scopus, Medline, Embase and ERIC, using a defined search strategy. The Preferred Reporting Items for Systematic reviews and Meta-analyses extension for Scoping Reviews (PRISMA-ScR) guidelines were adhered to.

Results:
Twenty-five papers were included out of 1146 screened papers. Teaching formats included case scenarios with legal issues in pharmacy practice (n=6), mock hearing simulations (n=3), answering questions testing pharmacy law knowledge and skills (n=3), class discussions (n=3), MyDispense simulations (n=3), suggesting modifications to current laws (n=2), watching videos (n=2), roleplaying in a community pharmacy setting (n=2), and creative approaches such as writing stories (n=1), drawing (n=1) and playing charades (n=1). Commonly reported outcomes after implementation of these teaching approaches include improved knowledge, improved ability to apply content, increased engagement and involvement and improved content recall.

Discussion:
There is variability in the approaches used to teach pharmacy law in pharmacy programs. This review thus highlights the need for further research investigating how teaching approaches affect long-term knowledge and practice and explore educators' characteristics, views and experiences to inform educational practice here.

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Assessing critical thinking in pharmacy curricula

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Introduction:
Critical thinking skills are essential for pharmacy practice. Pharmacy programs must therefore support the development of students' critical thinking skills throughout the curriculum. However, it is currently unclear how effectively pharmacy curricula teach and evaluate critical thinking skills. While general tools to measure critical thinking exist, none are specifically designed for assessing pharmacy curricula. Addressing this gap will support development of critical thinking skills in future pharmacists.

Aims:
Develop a tool to evaluate the range and depth of cognitive skills assessed in an undergraduate pharmacy curriculum. Test the applicability and reliability of the developed tool.

Methods:
Criteria were developed drawing on frameworks such as the American Philosophical Association (APA), Bloom's revised taxonomy and the University of Queensland's Critical Thinking Project (UQCTP). The developed tool, called "PharmCritThink", was used to evaluate the assessments from six second-year courses in an Australian university's undergraduate Bachelor of Pharmacy (Honours) program. Each course was rated independently by two assessors, and the results of these evaluations were compared to determine the consistency and reliability of the criteria across different evaluators.

Results:
PharmCritThink provides criteria and guidance for evaluating the cognitive skills assessed within a pharmacy program. PharmCritThink effectively identified the cognitive skills assessed across the second-year courses in the Bachelor of Pharmacy (Honours) program. Explain and recall were the most frequently assessed cognitive skills, with the majority of skills evaluated being of high complexity. Inter-assessor reliability testing showed a high percentage of agreement among evaluators

Discussion:
PharmCritThink helps to identify the types and complexity of cognitive skills assessed as well as highlight possible areas for improvement, ensuring that students are well-prepared to meet contemporary healthcare challenges. The findings suggest that Year 2 of the undergraduate program assesses a diverse range of critical thinking skills.

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Exploring the mental health literacy of healthcare professionals: a systematic review

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Introduction:
Healthcare professionals (HCPs) with generalist training play a key role in identifying and managing mental illness, especially in settings with limited access to specialised psychiatric care.

Aim:
This review aimed to examine the mental health literacy (MHL) of general HCPs with a focus on (a) their ability to recognise common mental disorders, (b) their knowledge of treatment, intervention and support options, and (c) their attitudes that influence recognition and help-seeking recommendations. Differences across professional groups and regional contexts were also explored.

Method:
A systematic search was conducted across five databases to identify studies reporting MHL outcomes among general HCPs and were included if they contained a quantitative measure of MHL.

Results:
Twenty-nine articles met the criteria for inclusion, with most studies using vignette-based questionnaires to assess MHL. Doctors, pharmacists and nurses were the only HCP groups assessed, and most studies were conducted in China, Turkey, the United Arab Emirates, and Singapore. Recognition of depression was generally high across HCP groups and settings, while much poorer for anxiety disorders, psychotic disorders and post-traumatic stress disorder. Mental health specialists were commonly identified as appropriate support options. Psychological therapies such as cognitive-behavioural therapy and counselling were widely endorsed, while medication was less frequently recommended as a first-line intervention in several studies – except among pharmacists, where both were similarly recommended. MHL was influenced by different cultural models of care across contexts and was also consistently identified to be inversely correlated with stigma.

Discussion:
Gaps in recognition and treatment knowledge for non-depressive disorders highlight the need for condition-specific training, while professional and cultural differences underscore the importance of tailoring MHL interventions to local contexts and roles. Integrating anti-stigma education may also be a key strategy for optimising the MHL of HCPs and promoting best practice and outcomes in mental health care.

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Barriers, enablers and perceived outcomes of post-registration education for pharmacists in Australia: a qualitative descriptive study

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Introduction:
The experiences of pharmacists undertaking post-registration education in Australia remain unclear. To develop high-quality training programs and encourage participation, it is essential to understand the barriers, enablers, and perceived outcomes of education in this context.

Aim/Objective(s):
To identify the perceived barriers, enablers, and outcomes of post-registration education for pharmacists in Australia.

Methods:
A qualitative descriptive study design was employed to remain close to participant experiences. Australian pharmacists who have completed or nearly completed post-registration education programs were recruited using purposive and convenience sampling. Semi-structured one-on-one interviews were undertaken. Inductive and deductive thematic analysis, performed by two researchers followed by discussion and refinement with a third researcher, was employed to collaboratively identify patterns in participant experiences.

Results:
Interviews were undertaken with 19 pharmacists and lasted a mean of 46 minutes. Four overarching themes regarding barriers and enablers to education predominated throughout the interviews: learners benefit from experiential education, through authentic examples and practical experience; learners are supported through mentorship and social supports; learners are intrinsically motivated but require extrinsic mechanisms, supports, and clarity of expectations; and learners require flexibility for their diverse needs.
Reported outcomes for learners included clinical and non-clinical skills, an evolved professional identity, confidence, pride, and a holistic understanding of health systems and person-centred care.

Discussion:
This research reflects existing principles of andragogy (the study and practice of adult learning), most notably cognitive constructivism and social learning. Findings expand on existing criticisms of the common presupposition (popularised by Malcolm Knowles) that adults are not motivated by externalities; although learners are indeed intrinsically motivated, many benefit from external structures and 'lines in the sand'. Acknowledgement of self-determination theory (positing that the dialectic between intrinsic motives and extrinsic forces can facilitate motivation) may support the design of successful educational programs in the future.

249

CORE Leadership: Embedding Student Leadership Development into International Engagement Programs

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Introduction:
International students often face challenges in building confidence, leadership capacity, and social connections when transitioning to study abroad. A strong sense of belonging has been shown to support student motivation, engagement, and retention (Pedler et al., 2021). Recognising this, the Parkville International and Exchange Students (PIES) program was reinvigorated in 2025 with a dedicated leadership pillar to strengthen opportunities for connection and recognition.

Aims:
To design and implement the CORE Leadership Program - a structured initiative enabling international students to earn digital badges in four domains: Connection, Organisation, Reflection, and Example. The program aims to empower students to develop leadership skills, enhance their confidence, and strengthen their sense of belonging within the faculty community.

Methods:
The CORE program was launched mid-year through an interactive event. Before learning about the program and badge requirements, students were invited to draw their own representation of “what leadership looks like,” sparking conversation and peer connection. Students then engaged in workshops and activities aligned with the four CORE domains, including networking events, reflective exercises, and peer-led initiatives.

Results:
Early feedback indicated strong engagement with the program. Students reported that the activities enhanced their confidence, created opportunities for authentic leadership practice, and encouraged connections across year levels and disciplines. Events such as these demonstrate the ripple effect of leadership capacity building.

Discussion:
Embedding the CORE leadership pillar into the PIES program has provided international students with accessible and meaningful opportunities to develop and showcase leadership skills. By framing leadership through the CORE model, the program supports both personal growth and community belonging. This initiative demonstrates how student engagement programs can be expanded to integrate leadership development, offering a transferable model for other faculties and disciplines seeking to support international student success.

300

Trends in psychoactive substance use in Australia by wastewater analysis and injecting paraphernalia

Gerber C

Wastewater-based epidemiology has become a common approach to demonstrate chemical exposure and infectious disease marker load excreted by a catchment population. Consumption of psychoactive substances is of particular interest due to the abuse potential of many pharmaceutical drugs. Illicit drugs and lifestyle markers such as tobacco and alcohol pose specific risks as well.

This presentation will show the scale of use of various substances from the South Australian drug monitoring program, the longest continuous project of its type globally, as well as the Australian drug monitoring program. Wastewater samples have been collected bimonthly up to a 13-year period. Excreted loads were determined using daily flow rates from wastewater treatment plants covering capital cities and main regional centres of Australia. Using catchment populations and pharmacokinetic data, daily loads of excreted target drug residues were back-calculated and expressed as drug consumption to scale drugs of different potencies.
Most pharmaceutical substances were detected in every sample, except fentanyl (>90%), while heroin was measured less frequently in regional centres compared to the capital cities. More recently, the highly potent nitazenes, a pharmaceutical class of drugs which never made it to market due to their potency and side effects, have been detected in 5% of samples. Findings show how wastewater surveillance provide a suitable measure of the success of various intervention programs to minimise harm.

One limitation of wastewater analysis is that polydrug use cannot be determined. Results from a drug residue analysis in paraphernalia and syringes program conducted in Adelaide over a 1-year period will be presented to show the extent of illicit use of pharmaceuticals and other drugs and combinations detected over the course of the study.

301

Consumer voices in research: strategies and success stories

Sluggett J

This will be an inspiring interdisciplinary panel discussion on consumer and community engagement in pharmacy, pharmaceutical science and health services research projects.

Attendees will hear firsthand experiences from two consumers who have collaborated on research projects, discover practicaltips and tricks from researchers involved in medication safety projects, and learn about resources to support consumer engagement in research.

This session will commence with a short presentation (15-20mins) from Prof Steve Wesselingh (NHMRC CEO) on the recent review of the NHMRC's Statement on Consumer and Community lnvolvement in Health and Medical Research. lt will then move to a panel discussion (-70 mins) which will provide attendees to engage with panelists and learn more about how meaningful consumer and community engagement can shape research ideas, refine questions, and drive successful project outcomes

302

e-Health: Harnessing Digital Tools for Better Healthcare

Suppiah V

Globally, healthcare systems are shifting towards more personalized, connected, and data-driven models of care. From medication reminders to mental health management tools, digital technologies are increasingly empowering individuals to take control of their own health. The pharmacy profession must be equipped to contribute meaningfully to patient care in this era of smart healthcare, making the integration of digital health in pharmacy practice essential.

This symposium aims to address the opportunities and challenges in using patient-centred digital health technologies in chronic diseases and wellbeing of healthy individuals.

303

A qualitative evidence synthesis on the unintended consequences of prescription opioid policies

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Introduction:
Opioids are essential medicines for acute and chronic pain management, perioperative and palliative care, and opioid use disorder treatment. However, opioids also carry significant risks, and their potential for harms (e.g. dependence, overdose) contributes to morbidity, mortality, and public health burdens. In response, governments and institutions have introduced policies designed to ensure uniform standards for safer prescribing, equitable access to opioids, and thus reduce harms. However, such measures can also lead to unintended consequences for health systems, clinicians and patients.

Aims:
This qualitative evidence synthesis explored the unintended consequences arising from implementing opioid policies at national and subnational levels, and how these were experienced across different health system levels.

Methods:
We searched 4 databases to identify primary qualitative studies that reported on unintended consequences of opioid policies. These consequences were inductively coded into themes within the following levels: society and health systems (macro), organisations (meso), and individuals (micro).

Results:
The synthesis included 54 studies, consisting of four macro-level themes, such as structural stigma resulting from opiophobia; two meso-level themes including breakdowns in therapeutic and professional relationships (e.g. between pharmacists and physicians); and three micro-level themes, such as the loss of autonomy by both patients and prescribe.

Discussion:
While policies are designed to promote broader public health goals of reducing opioid-related harms, unintended consequences have been identified at multiple levels; consequences affecting individuals often originate from upstream systemic factors. For example, structural stigma embedded within healthcare systems can erode trust between pharmacists and patients. Patients may be scrutinised, and pharmacists may become overly cautious in dispensing decisions. This breakdown in relationships can reduce patient engagement with treatment and worsen health outcomes, such as relapse. Recognising these upstream drivers is essential for designing policies that not only regulate opioid use but also foster supportive, stigma-free environments that enable effective, patient-centred care.

304

Awareness and understanding of the Black Triangle Scheme and its influence in adverse drug event reporting in Australia

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Introduction:
The Black Triangle Scheme, introduced by Australia's Therapeutic Goods Administration in 2018, aims to improve adverse drug event (ADE) reporting for newly approved or repurposed medicines. These medicines, under additional monitoring for safety, are marked with an inverted black triangle (▼) in their product information to prompt reporting. However, awareness of the Scheme and its impact on rates of reporting among healthcare professionals (HCPs) and the public remains unclear.

Aims:
To assess awareness of the Black Triangle Scheme among HCPs and consumers, and its influence on ADE reporting.

Methods:
A mixed-methods study (online questionnaire and one-on-one semi-structured interviews) was conducted among HCPs and consumers in Australia. Descriptive statistics and qualitative data analysis were conducted.

Results:
A total of 405 participants (138 HCPs, 267 consumers) completed the questionnaire; 21 (11 HCPs, 10 consumers) participated in interviews. Awareness of the Scheme was reported by 52% of HCPs and 10% of consumers. Sixty-three percent of HCPs and 11% of consumers saw the black triangle symbol. Most interviewees said the symbol was overlooked due to its design and placement in product leaflets. Suggestions for improved awareness included social media, television, and posters. Once the Scheme was explained, most participants described it as "very important" and a "good initiative" to enhance medicine safety, where 66.2% then reported being likely/very likely to report an ADE related to black triangle medicines. Interviewees otherwise expressed mixed views on the current scheme's impact on their inclination to report ADEs.

Discussion:
Awareness of the Scheme was particularly low among consumers. Once informed, most participants viewed the Scheme favourably and indicated greater likelihood of reporting. However, issues related to the visibility and meaning of the Black Triangle symbol arose. Improvements in symbol design and strategies for over-all consumer awareness may therefore enhance ADE reporting for medicines under additional monitoring.

305

Section 19A in Practice: Assessing the provision of overseas-registered medicines to mitigate the impact of medicine shortages

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Introduction
Medicine shortages are a growing global concern, threatening patient access and healthcare system resilience. In Australia, Section 19A (S19A) of the Therapeutic Goods Act provides a regulatory mechanism for the temporary importation of overseas-registered medicines to mitigate shortages. Despite its increasing use, the real-world role of S19A in sustaining access to essential medicines has not been empirically evaluated.

Aims
This study aimed to evaluate the utilisation of S19A medicines subsidised by the Pharmaceutical Benefits Scheme (PBS) and to assess their effectiveness in maintaining continuity of care during medicine shortages.

Methods
PBS dispensing data were analysed for 15 medicines with PBS-listed S19A alternatives. Time series analyses were conducted to examine dispensing trends before and after the PBS listing of S19A products. Case studies were used to illustrate the clinical and policy impacts of S19A implementation.

Results
In 53% of cases, S19A products accounted for more than half of dispensings in the year following PBS listing, indicating substantial uptake. However, dispensing volumes often did not return to pre-shortage levels, and delays between S19A approval and use were common. Case studies highlighted variability in effectiveness: the desmopressin shortage led to altered prescribing practices, whereas the availability of cefuroxime under S19A prevented a shift to a less safe alternative. Overall, impacts were heterogeneous, with no consistent pattern of recovery across medicines.

Discussion
The S19A pathway is a valuable regulatory tool to mitigate medicine shortages, supporting patient access in times of disruption. However, its effectiveness is limited by delays, inconsistent uptake, and variable recovery in dispensing patterns. Timely regulatory and subsidy coordination, clinician awareness, and logistical readiness are critical to maximising its impact. Future policy should consider anticipatory approvals and improved transparency to strengthen the resilience of Australia's medicine supply.

306

Inappropriate Surgical Antibiotic Prophylaxis and Watch-Class Overuse in Papua: A Two-Hospital Audit Against Indonesian and Australian Guidelines

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Introduction:
Surgical antibiotic prophylaxis (SAP) accounts for a major share of inpatient antibiotic use and, when misused, accelerates antimicrobial resistance (AMR), a priority threat in Indonesia's National AMR Action Plan and WHO (World Health Orgnization)'s global strategy. National SAP adherence data are scarce, and no published audits exist from Papua, a province with persistent health system challenges.

Aims:
To quantify SAP prescribing in two government hospitals in Jayapura, Papua, and evaluate adherence to Indonesian and Australian guidelines, identifying priority stewardship targets.

Methods:
A retrospective review of adult surgical ward patients undergoing surgery (June–November 2023) was conducted in a Type B (intervention) and Type C (control) hospital. Data on antibiotic choice, timing, and duration were extracted. Appropriateness was assessed against the Indonesian Ministry of Health's surgical antibiotic prophylaxis guideline (Permenkes No. 28/2021) and the Australian Therapeutic Guidelines: Antibiotic. Findings were reported as frequencies and percentages.

Results :
A total of 318 patients were included (200 intervention; 118 control); 66.0% and 66.9%, respectively, received SAP. The most common regimens were ceftriaxone (46.5%; 148/280), ceftriaxone + metronidazole (7.9%; 25/280), and cefazolin (4.1%; 13/280). Inappropriate SAP was recorded in 85.5% (171/200) of intervention hospital cases and 69.5% (29/200) of control hospital cases. WHO Watch class agents dominated prescribing (83.8%; 482/575 vs 76.7%; 283/369).

Discussion:
In this first SAP adherence audit from Papua, we have demonstrated high rates of inappropriate antibiotic prophylaxis with considerable reliance on Watch class agents, particularly ceftriaxone, and limited Access class use. The consistency across two hospital tiers indicated system-wide practice gaps despite national guidance. These findings highlight an urgent need for locally tailored stewardship interventions, reinforced perioperative protocols, and education to align practice with national and WHO recommendations, supporting both Indonesia's AMR Action Plan and global targets.

307

Restoring the Gut-Brain Axis: Precision Antipsychotic Delivery via Microbiome-Targeted Nanocarriers

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[1]Unisa

Introduction
The gut–brain axis is an emerging therapeutic frontier in psychopharmacology, yet current antipsychotic formulations overlook this bidirectional pathway. Olanzapine illustrates this limitation: despite clinical efficacy in schizophrenia, its 73% discontinuation rate reflects disruption of enteric homeostasis and gut–brain signalling. The drug perturbs microbiome composition, compromises gastrointestinal barrier integrity, and impairs enteric neurotransmitter synthesis, driving metabolic dysfunction that undermines adherence. Gut-mediated variability in treatment response therefore represents an under-recognised contributor to inequity in mental health outcomes.

Aims
To develop and evaluate a microbiome-targeted nanocarrier platform for olanzapine delivery that restores gut–brain axis integrity, improves pharmacokinetics, and mitigates metabolic side effects.

Methods
We engineered a lipid-based nanocarrier co-delivering olanzapine (7.5 mg/kg) with targeted prebiotics (fructo-oligosaccharides, galacto-oligosaccharides, human milk oligosaccharides). Male and female Sprague–Dawley rats (n=8/group) were treated for 21 days. Assessments included 16S rRNA microbiome sequencing, enteric neurotransmitter quantification, gastrointestinal barrier integrity, pharmacokinetic profiling, and metabolic phenotyping.

Results
The nanocarrier halved olanzapine-induced weight gain while increasing bioavailability four-fold. Microbiome α-diversity was restored, enteric neurotransmitter synthesis enhanced, and small intestinal dopamine and serotonin rose four- and two-fold, respectively. GLP-1 signalling was reinstated, short-chain fatty acid production increased, and pharmacokinetic variability was reduced. These data demonstrate mechanistic links between microbiome restoration and improved therapeutic predictability.

Discussion
This microbiome-targeted delivery system addresses a critical gap in psychopharmacology by treating the gut as a determinant of antipsychotic efficacy and tolerability. By restoring gut–brain axis function, the platform transforms a variable, poorly tolerated therapy into a predictable, personalised treatment. This strategy offers psychiatrists and gastroenterologists a novel approach for optimising psychotropic outcomes through targeted intestinal intervention, signalling a paradigm shift toward gut-centric therapeutics in mental health.

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Evaluation of anti-thymocyte globulin (ATG) dosing to determine optimised strategies in obese patients undergoing stem cell transplantation

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Introduction:
Current weight-based anti-thymocyte globulin (ATG) dosing regimens for graft-versus-host disease prophylaxis in allogeneic haematopoietic stem cell transplantation (allo-HSCT) are largely empirical and fail to consider the product's pharmacokinetic characteristics.

Aims:
Utilising a population pharmacokinetic approach, this research aimed to examine the ability of current and alternate weight-based dosing regimens to meet therapeutic exposure targets across the spectrum of body mass index (BMI) classes.

Methods:
An in-silico patient population of 50,000 individuals was constructed with evenly distributed body weights across five BMI categories. Concentration-time profiles were predicted after administration of ATG according to a standard regimen based on total body weight (TBW), as well as alternate strategies based on adjusted body weight (AdjBW25 & AdjBW40), ideal body weight (IBW) and lean body weight (LBW), from which post-transplant exposure (AUCpost) was determined. Regimens were evaluated for each BMI category based on the probability of target attainment (PTA, %) against an established therapeutic range of 60-95 AU.day/mL.

Results:
When dosing ATG according to TBW, incidence of AUCpost overdosage increased by 15% for every increase in BMI category above healthy weight. All alternate weight-based dosing regimens performed better than TBW in obese individuals, without compromising target attainment in other BMI categories, except for LBW which underdosed non-obese individuals. IBW and AdjBW25 performed best in obesity, with 26% target attainment and AUCpost medians of 71.5 and 81.5 AU.day/mL respectively, which was well within the therapeutic range. Underweight individuals had universally poor target attainment with weight-based dosing, with >70% underdosed.

Discussion:
Current weight-based dosing regimens are not consistent with ATG pharmacokinetics and are unlikely to achieve therapeutic targets. This is particularly apparent in obese individuals, likely due to poor adipose tissue distribution. Use of IBW- or AdjBW25-based regimens is predicted to increase attainment of therapeutic exposure, and may lead to superior outcomes in allo-HSCT.

309

From Printing a Cure to Translating One: Proof of Concept 3D Implants for Liver Cancer

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Background:
Liver cancer remains a major therapeutic challenge with recurrence rates as high as 70%, after resection and dose-limiting toxicities from systemic chemotherapy. Localized, patient-specific drug delivery systems can address these limitations. Recent advances in three-dimensional printing (3DP) offer a pathway to design individualized, biodegradable implants with controlled drug release. Regulatory bodies have launched initiatives to support 3DP in drug development, while industry has shown growing interest in on demand manufacturing of personalised dosage forms, highlighting the translational potential of this technology.

Aims:
Development of 3D printed biodegradable bilayer films for localized chemotherapy in liver cancer and to explore 3DP translational and regulatory implications for clinical and industrial adoption.

Methods:
Bilayer films co-loaded with 5-fluorouracil (5FU) and cisplatin (Cis) were fabricated using semi solid extrusion printing. The films were characterized and their cytotoxicity evaluated using HepG2 cells.

Results:
The optimized implants achieved immediate 5FU release within 24 hours and sustained Cis release for up to 23 days, maintaining stability and mechanical strength. Cytotoxicity studies demonstrated up to 81% inhibition of HepG2 cell viability, with apoptosis confirmed by PARP and caspase-3 activation.

Conclusion:
This study demonstrates proof of concept for the use of 3D printed biodegradable films as localized chemotherapy platforms for liver cancer. These findings highlight the potential for future regulatory alignment, industrial development, and eventual clinical translation of patient-tailored drug delivery systems.

310

Developing Nanoparticle Formulations to Enhance γδ T Cell Activation for Cancer Immunotherapy

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Background:
γδ T cells represent a promising target for cancer immunotherapy due to their ability to recognise and eliminate tumour cells in a non-MHC-restricted manner. However, effective activation of these cells requires efficient delivery of small molecule phosphoantigens, which are often unstable and poorly taken up by cells. Nanoparticle-based delivery systems offer a strategy to overcome these limitations by improving solubility, stability, and targeted cellular uptake.

Aims:
This project aims to develop and characterise nanoparticle formulations for the delivery of phosphoantigens to enhance γδ T cell activation and proliferation.

Methods:
Nanoparticles were synthesised using a microfluidic NanoAssemblr platform and characterised for size, polydispersity, and surface charge. Uptake studies were performed using flow cytometry and confocal imaging in U87 glioblastoma and HFF fibroblast cells. Preliminary cell impedance assays were conducted to assess the in vitro ability of phosphoantigens to sensitise glioblastoma cells to γδ T cell mediated killing over time.

Results:
Initial formulations produced stable nanoparticles with sizes in the 80–120 nm range and narrow polydispersity indices. Flow cytometry and confocal imaging demonstrated successful cellular uptake in both U87 and HFF cells. Early viability and impedance data suggest the formulations are well-tolerated at working concentrations, supporting their suitability for further biological testing.

Conclusion:
These preliminary findings demonstrate the potential of nanoparticle-mediated delivery to improve phosphoantigen stability and uptake, laying the groundwork for subsequent γδ T cell activation studies and in vivo evaluation.

311

Reinforcement, Retention and Readiness: Student Experience with a Blocked Pharmaceutics Curriculum

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Introduction:
Linear delivery of teaching content has been a traditional course design with in-person lectures and students rotating through laboratory practicals not always directly linked to the concurrent theory content topic. Student feedback has long identified this misalignment between theory and practice as a barrier to engagement in pharmaceutics courses. In response, a semester 1 course, Dosage Form Design 1 (DFD1), was redeveloped using an intentional "blocked" curriculum model, aligning tutorials and practical classes in close-proximity. In contrast a semester 2 course, Dosage Form Design 2 (DFD2), which retained a traditional linear structure.

Aims:
To evaluate the impact of a blocked curriculum on student engagement and learning experience compared to traditional linear delivery.

Methods:
Anonymous surveys were administered at completion of DFD1 (SP2, n=63) and DFD2 (SP5, n=29). Students rated teaching modalities using Likert scales and provided open-text reflections. Data analysis included quantitative and qualitative thematically analysis (Braun & Clarke, 2006).

Results:
Regardless of course structure, students rated workshops and practicals as the most engaging modalities. However, students in DFD1 consistently emphasised reinforcement, retention, and confidence gained from the close sequencing of theory and practice. Thematic analysis revealed that blocking created clearer connections, reduced cognitive load, and fostered a sense of preparedness. In contrast, responses from DFD2 highlighted the weaker alignment resulting in greater reliance on student self-learning in preparation for practicals.

Discussion:
Intentional course design through a blocked curriculum demonstrably improves students' perception of coherence and learning support in DFD1. As expected, practicals were valued in both courses, however the blocking of activities in the redevelopment provided a more engaging and confidence-building experience. These findings suggest that course design, not just content, is central to optimising student experience and learning in pharmaceutics.

312

Meeting compounding standards through improved education, training, and compliance strategies in a geographically diverse profession

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Introduction
Pharmacy practice in Australia is shaped by significant clinical and geographical diversity. Access to essential education and training is particularly challenging for compounding, a highly technical practice that carries a substantial risk of patient harm. Recent cases, including the 2024 compounded semaglutide incident, have highlighted deficiencies in compliance and training that can compromise patient safety.

Aims
This study aimed to evaluate current education and training pathways for pharmacists engaged in compounding and to identify practical solutions to improve compliance with compounding standards while ensuring equitable access to training across Australia.

Methods
A review of accredited pharmacy compounding programs was undertaken, focusing on curriculum design, competency assessment, and accessibility. Legislative requirements, continuing professional development (CPD) frameworks, and emerging education modalities were also examined.

Results
Pre-registration pharmacy programs provide limited exposure to compounding, largely restricted to simple preparations. Training opportunities in complex compounding are lacking, predominantly located in metropolitan centres, and often reliant on overseas curricula misaligned with Australian standards. Multiple jurisdictions further complicate standardisation. Pharmacists may self-assess their competence through CPD, yet this approach risks gaps in knowledge and compliance. Practical training opportunities remain limited, particularly for rural and remote practitioners.

Discussion
To mitigate risks of non-compliance and patient harm, a national standardised training framework is essential. Innovative models, including virtual and augmented reality, could provide scalable solutions for skills development, enabling pharmacists to practice in simulated environments before entering compounding laboratories. Consultant pharmacists may also play a role in delivering personalised, accredited on-site training and supporting compliance through facility audits. Improved access to tailored education, combined with structured national standards, is critical to strengthening patient safety in compounded medicines.

313

Embedding career awareness into the second year of the pharmaceutical science bachelor's program via coursework

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Introduction:
Career awareness is a vital component of undergraduate education, particularly in industry-focused programs such as pharmaceutical sciences, where graduates pursue diverse career outcomes.

Aims:
The aim of this study is to investigate the extent to which course-based learning activities contribute to enhancing undergraduate students' awareness of potential career pathways within the pharmaceutical sector.

Methods:
To embed career awareness within the coursework, students were provided with structured career-focused resources. These included (i) one module (three weeks of content) dedicated to pharmaceutical career pathways, (ii) a seminar delivered by an industry professional outlining the pharmaceutical career pathway, and (iii) a short video repository featuring alumni discussing their professional roles and responsibilities. The roles for the video repository were selected to represent diverse career pathways within the pharmaceutical industry. Each alumnus's talks were guided by open-ended questions, which explored their professional role, key responsibilities, challenges encountered, and the aspects of their work they found most engaging.
The impact of these resources on student career awareness was assessed through an assessment task. Students were required to deliver a five-minute face-to-face presentation in class, outlining potential areas of future employment within the pharmaceutical industry. In preparing their presentations, students were expected to critically engage with the provided resources and draw connections between course content and career pathways to inform their reflections.

Results:
Student engagement data and course experience survey feedback indicated a positive impact on students' career awareness.

Discussion:
Developing career awareness early in a degree program is crucial for guiding students' academic choices and professional development. Utilising the alumni network to provide industry insights represents an innovative and authentic teaching approach, offering students both relatable role models and practical perspectives that strengthen their connection to the pharmaceutical industry, while enhancing career awareness.

314

From simulation to bench: a scaffolded, inclusive model for work-ready pharmaceutical laboratory learning

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Introduction.
Large cohorts can push practical classes toward step-following rather than scientific thinking. In MPS5302 (Contemporary Technical Skills), we introduced a scaffolded “simulation to bench” model aligned to real workflows in messenger RNA (mRNA) and lipid nanoparticle (LNP) therapeutics to better prepare students, reduce stress, and protect rigor.

Methods.
Virtual pre-lab activities formed part of the unit’s Discovery material. Students rehearsed procedures and key concepts at their own pace using simulations, including high-performance liquid chromatography (HPLC) analysis and gel electrophoresis, before applying those workflows in the wet lab. Short post-lab inquiry debriefs then focused on analysis, troubleshooting, and experimental design. Evidence for impact draws on facilitator and teaching-assistant testimonials.

Results.
Testimonials described five outcomes. (1) Lab readiness and execution improved: simulations offered a safe space to trial concepts; students arrived better prepared and more confident, enabling deeper discussion and more accurate execution at the bench. (2) Sessions shifted from procedural steps to higher-order inquiry: students asked “why does this happen?” rather than “what do I do next?”, engaged in peer reasoning, and focused on mechanisms and parameter choices. (3) Bench pressure fell and motivation rose; classes felt more dynamic and productive. (4) Inclusivity improved: self-paced preparation lowered anxiety and helped students with diverse backgrounds reach a similar level of readiness. (5) Teaching became more rewarding: staff spent less time on basics and more on experimental design, interpretation, and developing scientific thinking.

Discussion.
These outcomes align with studies showing pre-laboratory simulations improve preparedness and reduce anxiety (Blackburn et al., 2019; George-Williams et al., 2022), and that virtual–physical blends are most effective when simulations precede laboratory sessions (systematic review: Chan et al., 2021). This innovative sequence is a pragmatic way to use simulations to prime learning, reserve in-person time for analysis and design, and scale laboratory teaching while improving readiness and inclusivity.

315

Complementary Medicine in Practice: Safeguarding Usage and Regulatory Challenges

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Complementary medicines represent a significant and rapidly expanding sector of healthcare in Australia, with pharmacies serving as a key point of access and consumer guidance. Ensuring their safe and effective use relies on a robust regulatory framework, established and overseen by the Therapeutic Goods Administration (TGA). This framework includes pathways such as AUST L and AUST L(A), which are tailored to the type of health claims made and the level of scientific evidence required.

For commercial brands, these pathways present both challenges and opportunities in balancing compliance obligations with the drive to innovate and build consumer trust. By leveraging diverse forms of evidence—from clinical trials to real-world data—brands can substantiate on-pack claims while also generating insights into product effectiveness and consumer experience. When communicated clearly, this evidence enhances pharmacy interactions, strengthens transparency, and supports informed consumer choices.

This presentation will examine how regulatory pathways, innovation within compliance, research integration, and pharmacovigilance practices can be aligned to advance consumer education, reinforce trust, and drive responsible growth in the complementary medicine sector.

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Collaborative Pharmacist Prescribing in Australian Hospitals

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Collaborative pharmacist prescribing in hospitals involves credentailed pharmacists working with doctors and patients to create medicine plans and prescribe medicines. Various collaborative pharmacist prescribing models have been trialled and implemeted in Australian hospitals with demonstrated reductions in prescribing discrepancies and errors, reductions in inpatient length of stay and hospital costs. Furthermore, collaborative prescribing has increased pharmacists scope of practice and job statisfaction.

This symposium will provide an overview of collaborative pharmacist prescribing in the Australian hospital setting including pharmacist scope of practice, training and credentialing of prescribers and legislative pathways persued in different jurisdictions in Australia to enable pharmacist prescribing. Preliminary results from pilots of collaborative pharmacist prescribing will also be shared, demonstrating the impact of collaborative pharmacist prescribing on patient outcomes and the healthcare system.

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Comparing characteristics of long- and short-term antidepressant users with non-users using longitudinal data on Australian women

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Introduction:
Antidepressant use is rising, mainly driven by an increasing proportion of long-term users (>1 year). While previous studies have examined socio-demographics, clinical factors and health service use characteristics, differences in functional health (physical and mental) remain unexplored.

Aim:
To compare functional health and characteristics differences between long- and short-term antidepressant users, and with non-users. Findings may assist clinicians identify patients at risk of long-term use and facilitate antidepressant weaning within the recommended treatment timeframe.

Method:
We selected participants from across three age cohorts of the Australian Longitudinal Study on Women's health and categorised them by their antidepressant use status using linked Pharmaceutical Benefits Scheme data (July 2012-survey year). We then analysed survey data (socio-demographics, co-morbidities, health service use and functional health parameters).

Results:
Among 22,308 participants, 15% were long-term and 4% short-term antidepressant users. Both user cohorts had lower socio-economic status, poorer self-reported general and functional health, and more comorbidities than non-users. However, when comparing short- and long-term users, most variables, including functional health (SF-36), showed no significant differences. Long-term users reported more depressive symptoms and diagnoses, yet levels of psychological distress and mental health-related disability were similar to those of short-term users.

Discussion:
Antidepressant users overall demonstrated greater disability in functional health and lower socio-economic status than non-users, but differences between short- and long-term users were minimal, suggesting antidepressant 'ever use' may be a stronger predictor of poorer health characteristics than duration of use. The discrepancy between self-reported depressive symptoms and actual mental health burden between short- and long-term users raises questions about the efficacy of long-term antidepressant use. Given the limited therapeutic benefits and potential negative outcomes from recent literature, strategies to encouraging greater diagnostic rigor prior to initiating antidepressants and deprescribing long-term antidepressants should be considered.

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Stakeholders' perspectives about factors influencing the successful implementation of the Aged Care Onsite Pharmacist (ACOP) program in Australia

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[1]University Of South Australia, [2]Macquarie University, [3]Monash University, [4]Curtin University, [5]University of Tasmania, [6]South Australian Health and Medical Research Institute (SAHMRI), [7]Flinders University

Introduction:
The Aged Care Onsite Pharmacist (ACOP) program was launched in Australia in July 2024 to enable pharmacists to deliver clinical governance, clinical pharmacy and education services in residential aged care homes (RACHs). It is crucial to understand the complex interactions between various factors at the individual and organisational levels to ensure the program's uptake, effectiveness and sustainability at scale.

Aims:
This qualitative study aimed to explore stakeholders' perspectives on medication management, the perceived value of onsite pharmacists, and key considerations for successful program implementation in RACHs.

Methods:
Semi-structured interviews (n=61) were conducted with residents/families, pharmacists, medical practitioners, RACH staff, and individuals involved in policy. Participants were recruited from metropolitan and rural areas across Australia. Interviews were conducted prior to the national rollout of the program. The Consolidated Framework for Implementation Research informed the study design, data collection and analysis.

Results:
Factors influencing the program implementation were grouped into 1) Individuals: factors concerning individuals involved in the program; 2) Innovation: factors related to the program design; 3) Process: implementation process actions; 4) Inner setting: factors relating to the organisational context; and 5) Outer setting: factors pertaining to the policy context. Most participants valued the potential contribution of onsite pharmacists. Program flexibility was noted as essential to increase its uptake and acceptability, particularly in rural and regional areas. A desire for implementation strategies was evident. Workforce, organisational leadership, infrastructure and resources, and broader policy support were noted as critical for the program's success.

Discussion:
The ACOP program represents a promising strategy to enhance medication management in RACHs. However, implementation on a large scale necessitates a thoughtful consideration of various interconnected factors that may affect its uptake and sustainability. This has implications for policymakers and care providers to ensure the program achieves its ultimate goal of enhancing residents' health outcomes.

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Understanding antibiotic disposal in Papua, Indonesia: A window into public health challenges

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Introduction:
The inappropriate use and improper disposal of antibiotics contribute to antimicrobial resistance and environmental contamination. In Eastern Indonesia, behavioural patterns driving informal antibiotic use and disposal are limited.

Aims :
This study investigated the level of knowledge regarding the disposal of unused/ expired antibiotics.

Method:
A cross-sectional study was conducted at a primary health centre in Jayapura, Papua, Indonesia (October–December 2024) using a questionnaire administered to health workers and patients aged 18–65. A structured questionnaire measured demographics, antibiotic use knowledge, and disposal behaviours

Results:
Of 280 returned questionnaires, most were female (66.1%;n=185), aged 18–35 (61.4%; 172) and residing in metropolitan areas (86.4%; 242). Educational attainment was high (85.4% ≥ Senior High School; 239). A total of 185 (66.1%) respondents reported retained leftover antibiotics, often due to early symptom relief (43.9%; 123) or saving for future illness (12.1%; 34). Retention was higher among housewives (74.0%; 57/77) and civil servants (75.9%; 22/29) than among health workers (33.3%;12/36). Among those with leftovers, 92/185 individuals (49.7%) reported using antibiotics themselves for self-medication, and 57/185 (30.8%) reported disposing of antibiotics via household trash or sink flushing.

Discussion:
Despite many participants having a high level of education and urban residence, we found that retention of leftover antibiotics was common, often retained due to early symptom relief or for future use. Retention was especially high among housewives and civil servants, suggesting occupational influence on storage behaviour. Nearly half of those with leftover antibiotics practised self-medication, and one-third disposed of antibiotics inappropriately via household trash or sink flushing. These patterns highlight persistent gaps in public understanding of antibiotic use and disposal, even among educated populations. The findings underscore the need for targeted community-level interventions to address misuse and environmental risks, aligned with national stewardship goals.

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Pharmacist integration in interprofessional ward rounds: A realist synthesis

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Introduction:
Pharmacists' participation in interprofessional ward rounds in inpatient hospital settings has been shown to reduce adverse drug events, improve medication appropriateness and improve communication about medicines. However, pharmacists do not routinely participate in interprofessional ward rounds, with reports of participation varying from 10% to 39%. Knowledge about how, why, and under what circumstances a pharmacist will successfully integrate into interprofessional ward round teams remains limited.

Aim:
A realist synthesis was conducted to explore the underlying causal mechanisms and contexts influencing the success or failure of pharmacists' integration into interprofessional ward rounds.

Method:
Evidence from a literature review focusing on pharmacists and interprofessional ward rounds was synthesised using realist logic. Demi-regularities of contexts, mechanisms, and outcomes relating to pharmacists' participation in interprofessional ward rounds were identified and configured into context-mechanism-outcome configurations to establish causation.

Results:
Thirty-six documents were synthesised into twelve context-mechanism-outcome configurations which supported the development of a program theory of how and why pharmacists integrate successfully into interprofessional ward round teams. The early engagement of multiple internal stakeholders prior to integration of pharmacists in interprofessional ward rounds results in shared solutions which can include discussions of concerns regarding the integration of non-medical practitioners in ward rounds and choosing an appropriate ward or unit for integration. Introduction of the pharmacist to team members by the consultant can initiate building trust amongst all members of the team. Consultants creating shared values and inviting contributions from the pharmacists can create a respectful atmosphere and enable pharmacists to contribute to patient care.

Discussion:
This synthesis advances knowledge by explaining how, why, and when pharmacist integration into interprofessional ward rounds is successful. Early introductions and collaborative planning involving all stakeholders can foster trust, enhance communication, and improve the feasibility and acceptability of pharmacist participation in interprofessional ward rounds.

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Innovative and Emerging Roles for Pharmacists

Stone H[1]
[1]Pharmaceutical Society of Australia

Pharmacists in GP practices and in Aged Care are recent new practice areas for pharmacists. There is a small but growing community of pharmacists influencing practice change. This symposium will highlight recent innovations in South Australia.

Helen Stone was awarded a Churchill Fellowship to investigate the role of Palliative Care Pharmacist in aged care and community care. Concurrently conducting a project in regional South Australia with a consultant pharmacist providing palliative care medication support, we are now running Dementia Care Pharmacist project. We will also take a closer look at Aged Care Pharmacists and look at where next including Aboriginal Health Services, Disability Care and pharmacists with niche roles and competencies.

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Development, Implementation, and Evaluation of Tools to Facilitate Appropriate Medication Prescribing for Older Adults

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[1]The University of Sydney

This symposium will present three innovative studies focused on enhancing medication safety and appropriateness for older adults across diverse healthcare settings. Each study contributes to address the complex challenges of polypharmacy and inappropriate prescribing in ageing populations.
The first presentation introduces prescribing appropriateness criteria (PAC), a tool developed for Sri Lankan older adults. This tool supports prescribers and pharmacists in promoting safe and effective medication use, particularly within resource-limited healthcare settings.

The second presentation will discuss the Australian Potentially Inappropriate Medicines (PIMs) list for older adults. This list helps clinicians and researchers identify medicines with risks that may outweigh their benefits, thereby improving medication management and safety.
The third presentation will outline the national rollout of The Goal-directed Medication review Electronic Decision Support System (G-MEDSS) and the development of My Medicine Goals for people (or carers of people) with polypharmacy.

Together, these studies highlight the critical role of tailored, evidence-based tools in improving medication use and health outcomes for older adults globally.

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Risk of adverse outcomes associated with mirtazapine versus sertraline use among older people living in aged care homes

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Introduction:
Antidepressants are used by 60% of residents of residential aged care homes (RACHs), and 1 in 5 use mirtazapine. Mirtazapine is indicated for moderate-severe major depression, however off-label use for mild depressive symptoms and changes in behaviour or sleep has been reported. Mirtazapine and sertraline are the most commonly used antidepressants, despite little safety information in RACHs.

Aims:
To investigate risk of adverse outcomes (falls, fractures, cardiovascular-, dementia- and delirium-related hospitalisations, all-cause mortality) associated with mirtazapine compared to sertraline use after RACH entry.

Methods:
An active new-user retrospective cohort study included individuals aged 65-105 years entering RACHs in three Australian states from January 2015 to October 2018, who initiated mirtazapine or sertraline ≤60 days post-RACH entry, with follow-up to December 2019. The inverse probability of treatment weighting of individuals' propensity scores was used to adjust Cox and Fine-Gray regression models to estimate the risk of outcomes associated with mirtazapine compared to sertraline use in RACHs. Weighted (adjusted) hazard ratios (aHRs), subdistribution hazard ratios and 95% confidence intervals (95%CIs) are presented.

Results:
5,409 residents initiated mirtazapine (71%, n=3,837) or sertraline (29%, n=1,572) post-LTCF entry, with median follow-up of 258 days (interquartile range 70-634 days). After weighting, mirtazapine was associated with higher risk of mortality (aHR 1.16, 95%CI 1.05-1.29) compared to sertraline. The risk of falls and fractures within 90 days was not statistically significantly different between groups but was lower in mirtazapine users after 90 days. No differences in cardiovascular-, dementia- or delirium-related hospitalisations risk were observed.

Discussion:
This study raises concern about the potential increased risk of harm associated with mirtazapine use in RACHs. This should be balanced with limited evidence for effectiveness when considering antidepressant therapy in RACHs. Pharmacists working with RACHs should consider the place of antidepressants in treatment pathways and safer alternatives and/or discontinuation where appropriate.

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The first clinical practice guideline for MDMA-assisted psychotherapy in post-traumatic stress disorder: What clinicians need to know

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Introduction:
In 2023, Australia became the first country to reschedule methylenedioxymethamphetamine (MDMA) and psilocybin to permit prescribing by authorised psychiatrists for post-traumatic stress disorder (PTSD) and treatment-resistant depression.

Aims:
To describe the Australian Clinical Practice Guideline for the Appropriate Use of MDMA-assisted Psychotherapy (MDMA-AP) for PTSD and highlight the implications for clinicians.

Methods:
The GRADE Evidence to Decision framework was used to develop recommendations and good practice statements. An 18-member multidisciplinary Guideline Development Group (including psychiatrists, psychologists, pharmacists, researchers, and lived experience representatives) worked collaboratively with 17 interest-holder organisations (professional societies, government agencies, peak organisations) and 21 expert advisors.

Results:
The draft guideline included 4 Recommendations, 18 Good Practice Statements, and 11 Research Recommendations. For people living with PTSD, the Guideline conditionally recommends against the routine use of MDMA-AP. If MDMA-AP is used, it should be limited to adults (≥18 years old) with PTSD symptoms for at least 6 months duration postdiagnosis, with moderate or severe PTSD symptoms in the past month (CAPS-5 total severity score ≥28), who have received an adequate trial of first-line evidence-based treatments, and who are not likely to be re-exposed to the index or other significant trauma during treatment.

Discussion:
Individuals living with PTSD may weigh the risks and benefits of MDMA-AP differently based on their previous experience with other established treatments. The Guideline emphasises the critical role of shared decision-making and informed consent processes in providing trauma-informed, participatory, and culturally-responsive care.

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Enhancing undergraduate pharmacy students' readiness for interprofessional practice through simulation-based learning with nursing students

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[1]RMIT University, [2]University of South Australia, [3]University of Adelaide

Introduction:
Interprofessional collaboration is essential in modern healthcare to enhance care quality and improve patient outcomes[1]. However, undergraduate health programs may inadequately prepare students for effective multidisciplinary teamwork. Pharmacy and nursing curricula often lack structured interprofessional learning (IPL) opportunities that simulate real-world practice[1].

Aim:
To examine changes in undergraduate pharmacy students' perceptions of, and readiness for, IPL following a dosage form modification simulation-based IPL between pharmacy and nursing students in a simulated hospital ward.

Methods:
An interprofessional simulation was conducted between undergraduate pharmacy and nursing students using high-fidelity hospital suites. Pharmacy and nursing students, aged ≥18 years, participated in four immersive case-based exercises, managing simulated patients with dysphagia or enteral feeding tubes, and requiring dosage form modification and vehicle selection for administration. Pharmacy students completed the validated Readiness for Interprofessional Learning Scale (RIPLS), a 19-item, 5-point self-reporting Likert scale (min-max score: 19-95) to evaluate perceptions of knowledge, skills, and attitudes regarding their readiness to learn with other healthcare professions, both before and after the simulation. RIPLS scores pre- and post-simulation scores were analysed and statistically compared.

Results:
Post-simulation RIPLS scores (87.0±0.96) were significantly higher than pre-simulation scores (83.5±0.99) among pharmacy students (n=62), indicating increased readiness for IPL ($P<0.001$). Pharmacy students showed significantly improved agreement post-simulation in areas including: value of shared learning ($P<0.05$), importance of learning communication with other healthcare students ($P<0.005$), understanding personal limitations ($P<0.001$), becoming better team workers ($P<0.001$), and increased clarity regarding their professional role ($P<0.0005$).

Discussion:
The interprofessional simulation successfully enhanced pharmacy students' readiness for collaborative practice, deepened understanding of their role within a healthcare team, and promoted understanding of shared responsibilities and communication in clinical settings. The positive outcomes have encouraged further cross-disciplinary IPL initiatives within the School, supporting integration of interprofessional education in health curricula.

[1]Fusco NM & Foltz-Ramos K. J Interprof Care. 2018;32(5):648-652.

405

Stakeholder perspectives on interprofessional collaboration with pharmacists when caring for people living with mental illness in the community

Ng R[1], Duong M[1], Collins J[1], El-Den S[1], O'Reilly C[1]
[1]The University of Sydney School of Pharmacy, Faculty of Medicine and Health, The University of Sydney

Introduction.
People living with mental illness often experience complex medication needs requiring interdisciplinary care. Pharmacists are well-positioned to support this population; however, collaboration with other healthcare professionals in mental health remains limited.

Aims.
To explore healthcare professionals' perspectives on working with pharmacists in community mental healthcare and to identify strategies for enhancing interprofessional collaboration.

Methods.
Semi-structured interviews were conducted with healthcare professionals across Australia. Audio-recordings were de-identified, transcribed verbatim, and analysed thematically. Coding was undertaken by one author and cross-checked by a second author, with discrepancies discussed until a consensus was reached.

Results.
Eleven healthcare professionals were interviewed, including general practitioners (GPs), psychiatrists and psychologists. Interprofessional collaboration in mental healthcare was largely centred on GPs, who were seen as the first point of contact, with psychologists and psychiatrists engaged through formal referral pathways. In contrast, collaboration with pharmacists was described as informal and largely on an ad hoc basis, often restricted to issues related to dispensing or medication misuse. Barriers included time pressures, unclear expectations of pharmacists' roles within the broader mental healthcare team, and the sensitive nature of mental health information, which can hinder data sharing between healthcare professionals. Nonetheless, participants identified opportunities for pharmacists to contribute through initiatives such as screening and medication reviews, which could strengthen interprofessional collaboration if supported by clearer structures and communication pathways.

Discussion.
There are both opportunities and challenges for interprofessional collaboration involving pharmacists in community mental healthcare. While participants acknowledged pharmacists as accessible and knowledgeable in medicines, they also noted that their expertise can be limiting in mental healthcare when collaboration is needed beyond pharmacological care. Future research should explore strategies to develop communication systems that enable information sharing and examine frameworks that can support pharmacists' integration into interprofessional teams.

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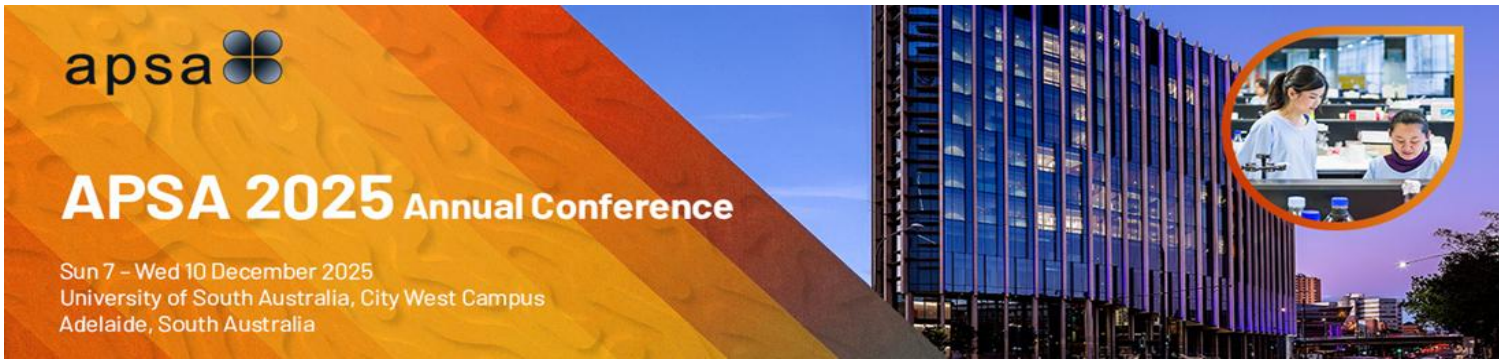

POSTER PROGRAM

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P103	**155 Parent's experience and attitudes towards COVID-19 vaccination and their willingness to have their preverbal children vaccinated.** Mr Ahmed Alhajaj, Curtin University
P104	**73 Barriers and facilitators to internationally trained pharmacist integration in New Zealand: implications for healthcare workforce policy** Dr Mudassir Anwar, University of Otago
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P118	**86 Systematic review of digital health interventions for medication adherence among older people** Mr Kaleab Taye Haile, RMIT University

P119	**74 Discharge interventions and their cultural adaptations for First Nations peoples: a systematic review** Miss Bushra Haque, Wollongong Hospital
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P125	**99 Scoping review of tools and methods used to measure and simplify complex medication regimens in older adults** Miss Amarrah K. Muker, The University of Sydney
P126	**53 Impact of HIV Pre-exposure prophylaxis shortages in Australia** Miss Chieu-Hoang Ly Luong, University of South Australia
P127	**50 Trends in use of direct-acting antivirals for treatment of Hepatitis C viral infection in Australia 2016 to 2024** Miss Chieu-Hoang Ly Luong, University of South Australia
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P129	**22 Views, barriers and facilitators of primary care physicians regarding advance care planning implementation** Prof Pauline Siew Mei Lai, Universiti Malaya
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P131	**49 Paediatric poisoning from extemporaneously compounded medicines in community pharmacies** Ms Jiawen Li, University of Sydney
P133	**159 Barriers to the prescription of opioid-based drugs among health professionals in Makassar, Indonesia: A qualitative study** Dr Sudirman Nasir, Faculty of Public Health, Hasanuddin University
P134	**65 Polypharmacy prevalence in community-dwelling older adults: A scoping review across low- and middle-income Indo-Pacific countries, 2019-2025** Ms Ngoc Anh Thy Nguyen, Centre of Medicine Use and Safety, Monash University
P135	**63 The influence of beliefs and health literacy on medication use among older Koreans living in Australia** Mr Ebuka Nwafor, Rmit University
P136	**160 Medical Opioid Consumption in Indonesia: Examination of Contributing Factors** **Dr Eko Adi Prasetyanto** Dr.iur. Asmin Fransiska, Atma Jaya Catholic University of Indonesia
P137	**138 Indonesian community pharmacies' self-care facilitation for international travellers: A needs assessment** Mr Antonius Pratama, The University of Sydney School of Pharmacy
P138	**46 Integrated Surveillance of Lisdexamfetamine Use: Insights from Dispensing and Wastewater Data** Dr Jack Janetzki, Adelaide University
P139	**158 Pharmacist Archetypes in Community Pharmacy Implementation: Insights from Q Methodology** Ms Veronika Seda, University of Sydney
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Poster Abstract Book

APSA 2025 Annual Conference

Sun 7 – Wed 10 December 2025
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P101

Feasibility of the Optimal AF-HF application (OLa) to promote self-care among patients with atrial fibrillation and heart failure

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Introduction:
Globally, several mobile health applications (MHAs) have been developed to promote self-care among patients with concurrent atrial fibrillation (AF) and heart failure (HF). However, a suitable MHA for use among Malaysians is lacking. We developed the Optimal AF-HF application (OLa) to address this gap, but its feasibility in clinical practice remained unknown.

Aim:
To assess the feasibility of OLa to promote self-care among patients with concurrent AF and HF in a clinical setting.

Methods:
A feasibility study was conducted at a tertiary care hospital. Patients with concurrent AF and HF on oral anticoagulants (OACs) were recruited. Participants downloaded the OLa, entered their personal data, and set medication reminders. A “think-aloud protocol” was used during interviews and captured using audio recorders. The Mobile Health Application Usability Questionnaire (MAUQ) was administered to assess OLa’s usability. Patient engagement was measured via app analytics. An interview was conducted one week later to explore users’ experience with the app's utilities. Data was analysed using thematic analysis.

Results:
15/22 patients were recruited (7 males, median age=62 years). Retention rate for OLa users over one week was 93.3%. Patients used the app from twice a week to daily, each session lasting 5-10 minutes. Five themes emerged: features enhancing self-care, perceived benefits, challenges to adoption, facilitators for adoption, and suggested improvements. Overall median MAUQ score was 6.67/7.00, with 11/15 patients giving a perfect score for user satisfaction. The final app version incorporated personal health information, clinical decision support, and educational modules.

Discussion:
OLa was found to be feasible for use in clinical setting. The strong user retention rate, positive patient experiences, and high usability scores indicate its potential to support self-care in this patient population. The feedback obtained has been instrumental in finalizing the application for broader implementation.

P102

Medication data collection in Frailty Intervention Through Specific Therapies (FITTEST) trial participants: a feasibility study

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[1]University Of Sydney, [2]Kolling Institute of Research, [3]University of Western Australia

Aims.
To assess feasibility and validity of a structured approach for remotely collecting medication data in older people.

Methods.
Informed by literature and investigators' expertise, a data collection tool was developed using Microsoft Excel, to facilitate remote medication data collection for FITTEST trial participants. All participants engaged in structured telephone interviews with a clinical pharmacist. A subset also participated in follow-up video calls to validate the initial self-reported medication list against the 'brown bag' method for clinical trials. Data collected included medication name, dose, frequency, indication, interview duration, data completeness, call completion rate and number of call attempts per participant. Medication regimen complexity index (MRCI), frailty status, medication adherence (using Morisky Green Levine Scale (MGLS-4)) and Drug Burden Index (DBI) were calculated for participants.

Results.
Preliminary findings focused on feasibility measures. Medication data from the first twelve FITTEST trial participants were included in this pilot. Mean participant age was 77 years, 67% (n=8) were female and 83% (n=10) were mildly frail (FI <0.2). Feasibility: 86% of scheduled calls were completed; 92% of participants were reached on the first call attempt; mean interview duration was 33mins. All medication data fields were completed during calls, except for certain generic and brand names (due to confusion between generic versus brand names) and strengths of certain over-the-counter medications. Medication measures: 83% (n=10) of participants were on ³5 regular medications; 42% (n=5) had a DBI>0; MRCI scores ranged from 5 to 43.5; Majority (n=8, 67%) scored 1-2 on the MGLS-4 suggesting moderate levels of medication adherence.

Discussion.
Preliminary findings suggest a structured phone interview is feasible to remotely collect data and calculate medication-related metrics in older people. Analysis of the methodological validity against the gold standard for medication data collection in clinical trials, clinician-observed 'brown bag' is ongoing and will be reported in future work.

P103

Parent's experience and attitudes towards COVID-19 vaccination and their willingness to have their preverbal children vaccinated.

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Introduction:
Childhood vaccination is important in reducing infectious disease morbidity and mortality. However, vaccinations may be associated with adverse drug reactions (ADRs), such as injection site pain, myalgia, and fever. Some ADRs may be difficult for parents to identify in preverbal children (aged 3 years or younger) due to a lack of self-reporting skills. Further, parents' willingness to have their children vaccinated may be influenced by their own personal experience with vaccinations, and may result in vaccination hesitancy.

Aims:
To assess parents' willingness to have their preverbal children vaccinated against COVID-19 and other vaccinations, and to identify factors that may impact this willingness. Methods: This prospective study involved a questionnaire disseminated nationally to target ≃400 parent respondents aged ≥18 years. The five-part questionnaire collected demographic data, as well as data on COVID-19 vaccinations (including perceived benefits and risks, experience of their children following the COVID-19 and other vaccines, and management of post-vaccination pain).

Results:
A total of 402 respondents completed the questionnaire. At least one dose of the COVID-19 vaccine was received by 90.5% (153/169) of preverbal children. Of the 67 who reported ADRs following COVID-19 vaccination, injection site pain was reported in 32/67 (47.8%), muscle pain in 23/67 (34.3%), and headache in 22/67 (32.8%). Similarly, a total of 103 parents who reported ADR after the COVID-19 vaccine, injection site pain was reported in 78/103 (75.7%), muscle pain in 76/103 (73.8%), and headache in 66/103 (64.1%).

Discussion:
In this study, pain-related ADRs following COVID-19 vaccinations appeared to be underreported amongst Australian preverbal children when compared to their parents. Challenges faced by parents in identifying and detecting pain in their preverbal children may lead to underreported and unmanaged pain.

P104

Barriers and facilitators to internationally trained pharmacist integration in New Zealand: implications for healthcare workforce policy

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Introduction:
New Zealand's healthcare system confronts an acute pharmacist workforce crisis, with an estimated shortage of 170 pharmacists and requirements for 15% workforce expansion by 2032. International pharmacist recruitment presents a critical workforce development opportunity; however, regulatory and systemic obstacles limit effective integration of overseas-trained professionals.

Aims:
To explore registration experiences and workplace integration challenges faced by internationally trained pharmacists (ITPs) in New Zealand, with a focus on identifying policy-level barriers and enablers for evidence-based workforce development recommendations.

Methods:
A qualitative descriptive approach utilizing in-depth semi-structured interviews with 24 ITPs who completed registration via Recognised Equivalent Qualification Route (REQR, n=11) and Non-Recognised Equivalent Qualification Route (Non-REQR, n=13) pathways. Data analysis employed systematic thematic coding using NVivo software following Braun and Clarke's methodology.

Findings:
Analysis revealed five primary barrier categories: immigration policy disconnection from professional registration requirements, fragmented multi-agency registration processes, systematic internship placement difficulties, complex healthcare system navigation requirements, and professional workplace integration challenges. Positive facilitators encompassed institutional support mechanisms, successful multicultural workplace integration experiences, and effective organizational diversity policies. Participants consistently recommended coordinated inter-agency approaches, registration pathway simplification, financial barrier reduction strategies, and comprehensive professional support infrastructure development.

Discussion:
Existing policy frameworks significantly impede ITP workforce integration despite critical shortage conditions. Strategic policy interventions emphasizing regulatory coordination, registration process streamlining, and enhanced support mechanisms could substantially improve international pharmacist integration outcomes and contribute meaningfully to addressing New Zealand's healthcare workforce challenges. Findings provide evidence-based recommendations for healthcare workforce policy development, with potential applications across healthcare professional integration initiatives and international workforce development strategies.

P105

The provision of clinical pharmacy services in South Australian Hospitals: a cross-sectional study

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Introduction:
Medication-related problems are the leading cause of patient harm in hospitals. Clinical pharmacy services, including the provision of a medication history and review at admission, inpatient medication assessment, and supporting medication management at discharge, are effective in reducing medication-related problems and harm.

Aims:
This study aimed to evaluate the types, timing, and locations of pharmacy service provision across three South Australian hospitals.

Method:
A retrospective observational study was conducted using de-identified, timestamped data from electronic medical records for all adult inpatients admitted between May and November 2021. Data included the type of clinical pharmacy service provided, day and time of admission and discharge, patient characteristics, and the hospital units to which patients were admitted and from which they were discharged. Descriptive statistics were reported. Chi-square tests of independence were used to assess relationships in service provision across patient groups.

Results:
Of the 21,483 admissions involving 16,939 patients, at least one pharmacy service was provided to 68%, which rose to 77% among patients prescribed regular medications. Admission services were provided in 59% of admissions, of which 43% were provided within 24 hours of admission. Inpatient medication assessment was provided to 21%, and discharge services to 42%.
Weekday admissions were more likely than weekend admissions to have admission services within 24 hours (31% vs 9%, $p<0.001$). Disparities were greatest between Friday admissions and those on other weekdays (15% vs >33%, $p<0.001$), and between Saturday and Sunday admissions (1% vs 19%, $p<0.001$). Similarly, pharmacy discharge services were more likely for weekday discharges than weekend discharges (52% vs 30%, $p<0.001$).

Discussion: Most patients, particularly those on regular medications, received clinical pharmacy services during their hospital stay. However, notable disparities in service provision were evident on Fridays and weekends.

P106

Pharmacist-led metabolic health monitoring for people living with mental illness: the patient and pharmacist experience.

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Introduction:
People living with mental illness have a high prevalence of metabolic syndrome (32.5%). This risk is further compounded by the regular use of second-generation antipsychotics (SGAs). Research on suboptimal metabolic monitoring in this cohort involving pharmacists have mostly been based within tertiary care settings, less is known about the role of community-based pharmacists in addressing this gap.

Aims:
To explore participants' and pharmacists' perspectives and experiences with a community pharmacist-led physical health monitoring service for consumers with mental illness currently taking SGAs.

Methods:
Trained pharmacists provided longitudinal metabolic monitoring and lifestyle advice for individuals living with mental illness and taking SGAs. The service involved three-monthly face-to-face consultations with participants over 12-months.

Semi-structured interviews were conducted with participants and their pharmacists. Interview guides were developed using the RE-AIM framework and data were analysed using reflexive thematic analysis. Participant's satisfaction with the service was measured using the validated Short Assessment of Patient Satisfaction (SAPS) tool.

Results:
Eleven consumers and seven pharmacists participated in the interviews. The study identified three overarching themes, (1) recruitment and participation, (2) feasibility of the service and, (3) participant outcomes. Most participants (62%) either agreed or strongly agreed that the service encouraged them to talk to their doctors about their physical health. The average SAPS was 25.1 (range 19 – 28), indicating a high level of patient satisfaction with the service.

Pharmacists reported that metabolic monitoring within the scope of pharmacy practice and highlighted the need to ensure adequate remuneration to support the sustainability of this service. Challenges include administrative burden associated with follow-up appointments.

Discussion:
Overall, participants and pharmacists perceived the service to be of value, with some highlighting the benefits to their wellbeing. The study design supports the delivery of larger studies that could provide sufficient statistical power to explore the efficacy of the service.

P107

What are the adverse drug withdrawal reactions following deprescribing of cholinesterase inhibitors and/or memantine?

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Introduction:
Cholinesterase inhibitors (ChEIs) and memantine are widely prescribed for dementia, with deprescribing recommended after 12 months if continued treatment is unlikely to provide benefit. However, their discontinuation may lead to adverse drug withdrawal reactions (ADWRs), which remain poorly characterised.

Aims:
To systematically review and evaluate the characteristics of ADWRs following deprescribing of ChEIs and/or memantine.

Methods:
MEDLINE, EMBASE, SCOPUS and COCHRANE were searched up to 25/2/2025. Original studies reporting ≥1 ADWRs following deprescribing of ChEIs and/or memantine in all settings were included. Screening, data extraction and risk of bias assessment were conducted independently in duplicate. A narrative synthesis was conducted.

Results:
Eight studies reporting 10 cases were included. Donepezil-related ADWRs were the most frequently reported (6 cases), followed by memantine (3 cases) and galantamine (1 case). Neuropsychiatric symptoms (e.g. insomnia, agitation, hallucination) were the most commonly reported ADWR symptoms (9 cases). Other symptoms, each reported in a single study, were pyrexia, reduced mobility, paralytic ileus, muscle rigidity (donepezil) and incontinence (memantine). The onset of ADWRs ranged from 2 days to 2 months; onset was shorter with abrupt withdrawal (2 days to 5 weeks; 9 cases) and longer with tapering (2 months; 1 case). ADWR symptoms improved or resolved within 1 day to 4 weeks. In 7 cases the ChEIs or memantine was reinitiated and in 2 cases the symptoms resolved without reinitiation (1 case did not report whether symptoms resolved).

Discussion:
ADWRs following discontinuation of ChEIs and memantine have been reported with neuropsychiatric-related symptoms the most common. The delayed onset of ADWR among the case with tapering, and resolution of symptoms following reinitiation of ChEIs or memantine, highlights the potential role of dose tapering in mitigating ADWRs. Larger, well-designed studies are required to further characterise ADWRs, and to identify optimal tapering strategies that support safe deprescribing.

P108

Exploring policies that support pharmacist-administered long-acting injectable buprenorphine: an Australian and Canadian comparative study

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Introduction:
Patients with opioid use disorder (OUD) face many challenges to accessing effective treatment, including structural stigma, frequent dosing requirements, and patient surveillance. Long-acting injectable buprenorphine (LAIB) is a newer form of opioid agonist therapy with the potential to address some of these barriers. Pharmacists are increasingly involved in administering LAIB in community settings across Australia and Canada, but the nature of policies supporting this administration is unknown.

Aims:
To describe the policies for pharmacist-administered LAIB across two Australian states (New South Wales, Victoria) and four Canadian provinces (Manitoba, Nova Scotia, Ontario, Saskatchewan), and explore the implications for pharmacy professionalism and scope of practice.

Methods:
We conducted a comparative policy analysis using documentary data from national and state/provincial governments and pharmacy professional organisations. Using health systems and professionalism frameworks, data were analysed by creating narrative summaries highlighting governance, financing, resource availability, and the role of professional organisations in supporting pharmacist involvement in OUD treatment delivery.

Results:
Jurisdictions have strengthened resources, including clinical guidance and remuneration, to support pharmacist-administered LAIB. However, the extent to which this facilitates pharmacists' practice varies between and within countries. In Australia, the peak pharmacist professional body developed education resources, providing pharmacists with a recognised and relatively accessible training pathway. Pharmacist remuneration is nationally standardised, but states may offer additional incentives. Across Canadian provinces, there are varying degrees of clinical guidance and remuneration specifically for pharmacists. The training for LAIB delivery is primarily provided by the pharmaceutical sponsor, generating concerns around conflicts of interest.

Discussion:
Given the challenges of both opioid-related harms and health workforce shortages, pharmacist-administered LAIB is an example of expanded scope of practice that addresses a critical health need. Further examination is needed on how pharmacy professionalism, commercial priorities, and political contexts may influence the role of pharmacists in delivering OUD treatment.

P109

Investigating how community pharmacists utilise a patient's discharge medication list

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Introduction:
Care transitions are a vulnerable period for patients, with insufficient handover leading to medication errors and patient harm. Community pharmacies are well-positioned to be involved during this period, however, there is a lack of standardised practice or process. A patient's discharge medication list can enhance community pharmacies' involvement in transitions of care.

Aims:
To understand how community pharmacists utilise a patient's discharge medication list and their perceptions.

Methods:
Cross-sectional study distributing electronic surveys to community pharmacists working in community pharmacies selected by a patient who has recently been discharged from the hospital and was provided a discharge medication list.

Results:
102 community pharmacists agreed to participate in the survey, and 44 (43.1%) responded. From the 39 who saw the list, 27 (73.0%) respondents performed actions with the medication lists, with almost half of them updating their patient's dose administration aid (DAA). Using a 5-point Likert scale, respondents agreed that the medication list provided a good summary of the patients' medication changes whilst in hospital (average rating = 4.6 (SD 0.6), n=36) and that it was easy to follow (average rating = 4.5 (SD 0.5), n=37). Among the 39 respondents, the majority (78.0%) indicated they would like to receive the lists upon discharge from the hospital while 17.1% responded with 'Maybe'. Respondents agreed that the list was accurate and beneficial for their own understanding, however some questioned the relevance of the list for non-DAA patients.

Discussion:
Community pharmacists reported utilising the medication list and found them useful in optimising patient care post-discharge, which was consistent with existing literature. The benefit is most prominent for DAA patients, which could be a rationalisation of the service to maximise resources. More research is needed to improve communication of patients' medicines information on discharge to improve continuity in care.

P110

Tracking stress, job satisfaction and compassion fatigue in early career Australian community pharmacists: A longitudinal study

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Introduction:
Early Career Pharmacists (ECPs) experience higher levels of stress and burnout compared to their more experienced colleagues. Many of these pharmacists began their careers at the height of the COVID-19 pandemic, experiencing heightened demands for immediate services, as well as many rapid changes to legislation and provisions.

Aim:
This study aims to investigate current baseline levels of stress, compassion fatigue and job satisfaction among Australian ECPs, as well as their chosen avenues of managing feelings of stress.

Method:
ECPs were recruited through social media platforms (Facebook and LinkedIn) and through professional and pharmacy banner groups. A QR code linked to an anonymous Qualtrics survey, which collected demographic data, responses to validated questionnaires (PSS-10, JSS, ProQoL Health), and short-answer questions about peer support and stress management. The survey was conducted at three time points: May-July 2023, November 2023- April 2024, and July-September 2024.

Results:
A total of 730 responses were collected from the three surveys. Most pharmacists worked in urban areas (75.2%) and ≥35 hours per week (66.3%). Respondents consistently reported moderate stress levels, with data showing an inverse relationship between PSS-10 scores, age and experience level. ECPs also reported mixed feelings on job satisfaction, valuing collegial relationships but dissatisfied with working conditions. All ProQol Health sub-measures remained within average range. Confiding to colleagues was the preferred stress management strategy. While unfamiliar with formal peer support, many ECPs supported the idea of a dedicated peer support model.

Discussion:
Despite the end of the COVID-19 public health emergency, ECPs continue to report moderate stress levels, potentially influenced by workplace culture and conditions. There is a strong interest in peer support programs, but further research is required to determine their feasibility and effectiveness in this cohort.

P111

A retrospective review of rituximab prescribed for idiopathic nephrotic syndrome at a tertiary children's hospital

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Introduction:
Idiopathic nephrotic syndrome is a common glomerular disease in children, its prevalence being dependent on ethnicity. It is classified as steroid-sensitive or steroid-resistant, based on an initial course of corticosteroids.

Aim:
To examine retrospectively, the use of rituximab under standard clinic conditions in a census sample of children diagnosed with idiopathic nephrotic syndrome and prescribed rituximab at a tertiary children's hospital in Western Australia.

Method:
Data were collected retrospectively from a census sample of hospital patient records between May 2013 and May 2023. Data regarding periods for relapse following each dose, dosing schedules, adverse effects of rituximab treatments and adherence to rituximab monitoring requirements were collected and evaluated.

Results:
The 28 patients enrolled, received 111 doses, usually of 375 or 750 mg/m2 dosages and median (Q1 : Q3) relapse free periods (days) were: 132.5 (15 : 209) for the first dose, 164.5 (61 : 203) for repeated doses however, the last relapse free period was 203.5 (163 : 306) days. There were 23/28 (82.1%) that achieved more than six months remission following an initial or subsequent dose of rituximab. More than half, 16/28 (57.1 %) experienced infusion related events, 10/28 (35.7%) experienced neutropenia and 11/28 (39.3 %) persistent hypogammaglobulinaemia. Tests used to monitor patients before and after rituximab dosing were all recorded when hospitalised, but ranged from 60 to 100% completion when done as outpatients. No serious adverse effects occurred despite many children receiving repeated courses and the wide age range and disease severity of included participants.

Discussion:
This analysis has supported the efficacy of rituximab by inducing more than six month relapse periods in the majority of patients. Further research is required to establish the long-term outcomes of children who received rituximab compared to other steroid-sparing agents.

P112

Interprofessional collaboration with pharmacists in community mental healthcare: a systematic review

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Introduction:
Interprofessional collaboration (IPC) has been shown to optimise patient outcomes within mental healthcare systems. Pharmacists are increasingly being integrated into interdisciplinary healthcare teams globally given their accessibility in primary care. As majority of mental health conditions are managed within the community, it is crucial to explore how IPC involving pharmacists can change patient outcomes within community settings, given that this area is not widely explored.

Aim:
This systematic review aimed to identify, describe, and evaluate IPC interventions involving pharmacists and other healthcare professionals in supporting individuals living with mental illness, and to report on all associated outcomes with the IPC intervention (such as patient reported and clinical outcomes).

Methods:
Studies were eligible if they described an IPC intervention involving pharmacists, reported an outcome as a result of the IPC intervention, and were published in English. Eligible studies were screened with appropriate data extracted for synthesis.

Results:
Thirty-six of the 39 included studies reported improvement in patient outcomes when IPC interventions that included pharmacists were involved, with 15 of those studies reporting on statistically significant improvements in mental health outcomes such as modified Beck Depression Inventory scores. The main mental health conditions included in the studies were depression (n=11), opioid use disorder (n=9), and post-traumatic stress disorder (n=3). Three studies showed no significant differences between intervention and control groups or before/after IPC interventions.

Discussion:
It is evident that pharmacists can play a pivotal role in IPC teams to deliver care to consumers living with mental illness within the community. Future studies should focus on branching out to other severe mental health conditions due to continued fragmented care and allowing for a more holistic approach in improving patient outcomes. In addition, while improvements in patient's clinical outcomes are evident, further consideration into financial analysis is needed for broader implementation.

P113

Bibliometric analysis of knowledge brokers to close evidence-to-practice gaps in healthcare: a role for pharmacists?

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Introduction:
There is an emerging interest in using knowledge brokers to implement clinical practice guidelines. Knowledge brokers are intermediaries who help move knowledge from those who create it (e.g. researchers) to those who use it (e.g. healthcare professionals).

Aims:
The objective was to explore uptake of 'knowledge brokers' by characterising the trends and patterns of use of the term 'knowledge broker' in healthcare.

Methods:
Web of Science, Scopus, MEDLINE, Embase and CINAHL were searched for publications with the term 'knowledge broker' in the title or abstract. Publications which involved a healthcare setting or service, involved healthcare professionals or discussed a health topic were included. Bibliometric analysis was conducted using performance analysis and co-word analysis with network visualisation.

Results:
Overall, 299 publications were included. The term 'knowledge broker' has existed in healthcare since 1994. Almost three-quarters (n=219) of publications were published in the last decade. Only 10 (3%) publications were randomised controlled trials. Keyword analysis revealed emergence of the term in practice settings such as public health, residential aged care, paediatric care and primary care. Keywords in publications included 'knowledge translation' (96 occurrences), 'evidence' (77 occurrences), 'practice' (44 occurrences), 'research' (32 occurrences) and 'implementation' (24 occurrences).

Discussion:
Emergence of the term 'knowledge broker' across a range of practice settings is consistent with awareness of the need for evidence implementation strategies. Innovative workforce models may provide an opportunity for pharmacists to act as knowledge brokers to improve uptake of clinical practice guidelines. There is a need for randomised controlled trial evidence on their effectiveness as an implementation strategy and clear descriptions of knowledge broker-led activities most associated with success.

P114

How accessible are therapeutic opioids in Indonesia: Results from a qualitative study

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Introduction:
Despite its potential benefits for patients, therapeutic opioids continued to be massively under-prescribed in many countries in the Global South, including Indonesia. Few studies had examined factors influencing the low level of opioid-based treatment in the archipelago.

Aims:
To explore regulations, current practice of procurement and management of therapeutic opioids in Indonesia amongst healthcare professionals.

Methods:
Employing qualitative approach, we conducted 84 interviews e.g in healthcare professionals who prescribed, dispensed and delivered opioid-based treatment to patients in Jakarta, Surabaya, Makassar and Denpasar. We also interviewed participants from health professionals organisations and representatives of National Agency for Drug and Food Control. Interviews were conducted from July to December 2024. Data was analysed thematically based on emergent themes from interviews, including themes of procurement and distribution of opioid-based drug. Trainings on data collection and data analysis were provided to team members.

Results:
Lack of availability of opioids-based drugs were found in all study sites though there are regulations to support opioids availability in the country. Only certain pharmaceutical companies have licences from the National Agency for Drug and Food Control to import, produce and distribute Opioids in Indonesia. Pharmacists and staffs monitored stock accuracy in pharmacies on a daily basis. Monthly reports on opioids procurements and used in healthcare facilities is mandatory and the information is sent through application system generated by the Ministry of Health.

Discussion:
There are various factors influencing under prescription of therapeutic opioids in the study sites such as lack of availability as well as cumbersome procurement and reporting requirements that discourage opioid prescription. Strengthening advocacy about the benefits of therapeutic opioids and coordinated efforts to overcome barriers to opioid-based treatment are needed.

P115

Evaluating opioid analgesic prescribing at discharge across five regional public hospitals against national stewardship standards

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Introduction:
Opioid analgesics play a critical role in managing acute pain, particularly in hospital settings. However, inappropriate prescribing at discharge can contribute to opioid misuse, dependence, and harm. In response, the Australian Commission on Safety and Quality in Health Care released the Opioid Analgesic Stewardship in Acute Pain Clinical Care Standard (2022), which includes key indicators to guide safe opioid prescribing.

Aims:
To assess current opioid prescribing practices on discharge from regional public hospitals against the Clinical Care Standard, to facilitate benchmarking and targeted improvement strategies.

Methods:
A retrospective quality assurance audit was conducted across five regional public hospitals. Data were extracted from electronic medical records for patients discharged with opioid analgesics over a month period. The audit measured performance against five discharge-related indicators, focusing on real-time prescription monitoring, formulation type, and duration of supply for opioid analgesics provided to patients at separation from hospital or emergency departments.

Results:
A randomised sample of 250 patients was included in the audit (50 per site). Overall, 21.8% had a Real Time Prescription Monitoring check before discharge, with site rates ranging from 5% to 54.5%. No opioid-naïve surgical patients were discharged with an extended-release formulation. Twenty percent of discharge prescriptions exceeded usage in the previous 24 hours, ranging from 4% to 36% between sites. The audit found 23.1% of patients discharged from ED and 16.7% from inpatient wards exceeded the days of supply recommended in the Clinical Care Standard.

Discussion:
Findings indicate variable compliance across indicators and hospital sites. While formulation type compliance was strong, system-wide and site-specific gaps in opioid stewardship were evident at other discharge points. Site variation highlights opportunities for targeted interventions tailored to local workflows and prescribing cultures. Strengthening adherence to the Clinical Care Standard is essential to promote safer pain management and avoid opioid-related harms for regional patients.

P116

Effect of Renin-Angiotensin System Inhibition on Residual Kidney Function in Peritoneal Dialysis

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Introduction:
Renin-angiotensin system inhibitors (RASIs) are recommended to maintain residual kidney function (RKF) in peritoneal dialysis (PD) patients; however, studies have shown variable impact on RKF.

Aim:
This study aims to assess the effect of RASI on the decline in RKF among patients undergoing PD.

Methods:
This retrospective cohort study included patients receiving PD at a large metropolitan dialysis centre in Australia. Patients were stratified into two groups based on RASI use. RKF was assessed using residual Kt/V and urine volume, defined as the time of RASI initiation for patients on therapy, and the last recorded RKF measurement for patients who discontinued RASI during PD treatment. The primary outcome was the comparison of residual urine volume and residual Kt/V between the two groups.

Results:
231 out of 307 PD patients were included in the analysis after excluding patients who lacked comparative RKF data within the required timeframe. Approximately half (n = 111; 48.1%) were receiving RASI. Patients on RASI were younger than those not on therapy [65 years (IQR 56–74) vs. 72 years (IQR 61–77); p = 0.014]. No significant differences were observed between groups in the decline of residual urine volume (288 mL [IQR 106–802] in RASI users vs. 403 mL [IQR 124–813] in non-users; p = 0.392) or residual Kt/V (0.310 [IQR 0.080–0.730] in RASI users vs. 0.420 [IQR 0.113–0.760] in non-users; p = 0.295). Hospitalisation rates and PD-related infections were also similar between groups.

Discussion:
RASI therapy was not associated with preservation of RKF in patients undergoing PD in this cohort. While previous studies suggested potential renoprotective effects of RASI, our findings align with the recent evidence supporting mixed efficacy in this population. Larger prospective trials are needed to clarify the role of RASI in improving long-term outcomes in PD.

P117

Adverse drug withdrawal reactions following gabapentinoid deprescribing: A systematic review

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Introduction:
Gabapentinoid use is increasing globally; however, not all use is considered appropriate. Lack of evidence and guidance on adverse drug withdrawal reactions (ADWRs) may hinder the implementation of deprescribing in clinical practice.

Aim:
To synthesise evidence on the characteristics, severity, onset, duration, and incidence of ADWRs associated with gabapentinoids.

Methods:
Five databases - MEDLINE, Embase, PsycInfo, Cochrane Library, and Scopus - were searched to 24 February 2025. The review was conducted in accordance with PRISMA guidelines. Reviewers conducted double-screening, data extraction, and quality assessment. A narrative synthesis was performed.

Results:
Of 5,358 records identified, 54 studies met inclusion criteria: 9 randomised controlled trials, 3 uncontrolled pre-post studies, 1 cross sectional study, 1 pharmacovigilance study, 34 case reports, and 6 case series. Behavioural symptoms were the most frequently reported category of ADWRs, particularly agitation, insomnia, and restlessness. Neuropsychiatric/cognitive, autonomic/physical, neurological/sensory, and gastrointestinal symptoms were also reported. Most reactions were mild to moderate, although severe outcomes such as status epilepticus, suicide attempts, and ICU admissions were identified in 4 patients. The onset and duration of ADWRs varied considerably, ranging from immediate occurrence and resolution following deprescribing, to delayed onset (2 months post-deprescribing) and prolonged duration (>6 months). Nine RCTs reported the incidence of gabapentinoid ADWRs ranging from 0-47%. Twenty-eight studies involved abrupt discontinuation, 23 gradual tapering, 2 studies both, and 1 study did not specify.

Discussion:
There was variability in the presentation and incidence of gabapentinoid ADWRs. Much of the available evidence was derived from case reports and series, limiting the generalisability of findings. Further high-quality research is needed to examine the impact of gabapentinoid type, dose, treatment duration, and deprescribing strategies, to inform tapering guidelines and management approaches that reduce withdrawal-related harms.

P118

Systematic review of digital health interventions for medication adherence among older people

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Introduction:
Medication nonadherence is prevalent among older people, and timely and targeted interventions are a major healthcare priority. Digital health interventions (DHIs) offer promising solutions to support medication adherence.

Aims:
To review evidence on the effect of DHIs on medication adherence among older people.

Methods:
Articles were searched from inception to May 2025 in PubMed, Embase, CINAHL, Scopus and Web of Science. Studies were included if they met the following criteria: older people aged ≥65 years; applying any type of DHI(s); compared the intervention with comparator group or before and after the study; medication adherence as an outcome; randomised and non-randomised study designs. Risk of bias was evaluated using the Cochrane risk of bias tools.

Result:
A total of 36 articles were included, including 22 randomised control trials, four quasi experimental design, and three pre-post study designs. Interventions were mostly telephone calls (n=10), mobile applications (n=5), text message (n=4), electronic reminder devices (n=2) and web-based applications (n=2). Additionally, three studies combined two or more DHIs, and seven integrated DHIs with non-digital ones. Of articles that reported effects of size estimates (26/36), half (n=13) showed that the intervention significantly improved medication adherence compared to the control or baseline. Four additional studies favoured the intervention without quantifying effect size. Mobile applications (3/5), robot (1/1), telemonitoring (1/1) and combined DHIs (2/3) showed effectiveness, with reminding or prompting, education and information, monitoring or mixed functionalities being successful strategies. However, results were mixed for telephone-based interventions.

Discussion:
Despite heterogeneity of DHIs and medication adherence measures, this systematic review highlights the potential of DHIs in improving medication adherence through different strategies to older people.

P119

Discharge interventions and their cultural adaptations for First Nations peoples: a systematic review

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Introduction:
Inadequate discharge planning is a key safety issue that increases the risk of patient harm when transitioning from hospital to the community. For First Nations peoples, the risk of negative outcomes at these transitions may be inflated due to a lack of culturally safe healthcare. Evidence-based, culturally safe transition of care frameworks have yet to be established for First Nations peoples.

Aim:
Identify the existing discharge interventions implemented for First Nations peoples and summarise their cultural safety adaptations.

Methods:
A systematic search of databases such as Medline, Embase and Scopus was conducted following the PRISMA guidelines. Studies were included if they were primary research that included First Nations peoples in any country, had an intervention implemented in relation to discharge from hospital, and evaluated patient outcomes after discharge in a quantitative manner.

Results:
A total of 3,320 titles and abstracts against the selection criteria; eight of these studies were included in this review. Five of the intervention components were also considered cultural adaptations: facilitation of connection to community services, inclusion of a First Nations health worker, initiation of staff cultural training, holistic frameworks and culturally sensitive education resources. Two interventions weren't directly cultural adaptations: health and risk screening, and multidisciplinary discharge planning. Two additional cultural safety components identified were the use of cultural imagery, native language and First Nations authorship. Positive outcomes were reported for the rate of adverse events post-discharge, connection to primary care providers, and satisfaction of patients.

Discussion:
This review supports the implementation of discharge interventions that are culturally adapted to inform safe communication and address cultural and social determinants to health that affect First Nations patients' outcomes after discharge. Further controlled primary studies are required to inform evidence-based discharge interventions for First Nations peoples.

P120

Collaborative Prescribing: an intervention-control trial of a team-based pharmacy model, including partnered physician-pharmacist prescribing in general medicine

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Background:
Shifting pharmacy from a reactive to proactive model of care, via team-based care and/or partnered prescribing, has demonstrated a reduction in medication errors, length of stay and hospital costs, particularly when targeting general medical patients at admission to hospital.

Aim:
To evaluate the impact of a pharmacist-physician partnered prescribing model across the general medical patient's entire hospitalisation.

Methods:
The pharmacist-physician partnered prescribing model, Collaborative Optimisation and Ordering of Medications (COOM), involved one pharmacist working collaboratively with one general medical team, at key prescribing moments across the patient's inpatient hospitalisation. COOM was compared to usual care in a prospective, multisite, unblinded, intervention-control trial, in two metropolitan hospitals with an electronic medicine system. Pharmacists and physicians completed informed consent and a waiver of consent was obtained to access patient data. Patients were recruited to COOM or usual care based on their admission to a participating medical team during the 3-month trial. Data was collected on prescribing errors, clinical significance of errors, deprescribing, and implementation metrics informed by the RE-AIM framework.

Results:
In Jul-Oct 2023, 820 patients received care from a trial medical team. COOM was associated with a reduction in the proportion of patients with at least one prescribing error: by 21% at 24 hours from admission, by 40% at discharge, and by 19% for high or extreme risk errors at discharge. COOM had a 13% increase in the proportion of patients with medications ceased during admission. Surveys from doctors, pharmacists and nurses indicated they were satisfied with COOM and would like it translated into everyday practice.

Discussion:
This trial builds on the expanding evidence for transitioning to more proactive pharmacy models of care and the expansion of pharmacist-physician partnered prescribing across the entire continuum of patients' hospital care. Findings from this study will also support translation of research into practice.

P121

From shortage to substitution: Assessing the effectiveness of Serious Scarcity Substitution Instruments in Australia

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Introduction
Medicine shortages are an ongoing challenge to healthcare delivery. Since 2021, the Therapeutic Goods Administration (TGA) has enabled pharmacists to substitute scarce medicines using Serious Scarcity Substitution Instruments (SSSIs). Despite their widespread implementation, the real-world effectiveness of SSSIs in maintaining access to medicines has not been evaluated.

Aims
This study aimed to assess whether SSSIs are effective in mitigating the impact of medicine shortages in Australia.

Methods
A retrospective cohort study was conducted using Pharmaceutical Benefits Scheme (PBS) date of supply data for medicines with an SSSI issued and at least 11 months of post-implementation follow-up. The primary outcome was the percentage change in defined daily dose per 1,000 population per day (DDD/1000/day) in the 11 months after SSSI implementation compared with the two years prior. A reduction of less than 20% in total medicine use at the product level was considered indicative of successful mitigation.

Results
Among 12 medicines with SSSIs, 8 (amoxicillin, cefalexin, estradiol, fluoxetine, insulin degludec with insulin aspart, isosorbide mononitrate, vigabatrin, and warfarin) had reductions of less than 20%, indicating successful substitution. SSSIs were less effective when substitute products were also scarce. For example, dispensings of cefaclor and its substitutes dropped by 68%, while abatacept and its substitutes dropped by 22%.

Discussion
SSSIs appear to be an effective regulatory tool to mitigate medicine shortages and maintain patient access to treatment. However, their effectiveness is reduced when permitted substitutes are also in shortage. Future scarcity responses should incorporate strategies to ensure substitute availability to maximise the impact of this regulatory mechanism.

P122

Exploring medication-related decision making for people with dementia: A systematic review of discrete choice experiments

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Introduction:
Dementia is a progressive neurodegenerative condition that impairs memory, cognition, and decision-making capacity. Understanding treatment preferences can help tailor medication decisions to what matters most to people living with dementia (PLwD) and their caregivers. Discrete choice experiments (DCEs) are a methodology used to elicit and quantify individual preferences.

Aims:
This systematic review aimed to synthesise DCEs that assess medication-related decision making for PLwD.

Methods:
Five databases (MEDLINE, Embase, PsycInfo, CINAHL Complete, and Scopus) were searched to 12 May 2025 for studies using DCE or best-worst scaling (a form of DCE) to elicit medication preferences from PLwD, caregivers, clinicians or the public. Pairs of reviewers screened, extracted, synthesised data and appraised the quality of included studies.

Results:
A total of 2,209 records were identified through database searches. Following title and abstract and full text screening, five studies were included. Only one study involved DCEs administered directly to PLwD, whereas the remaining four studies involved members of the general population, caregivers, or healthcare professionals. PLwD preferred reduced pill burden and simpler dosing. The general population and caregivers were willing to trade-off significant adverse effects, such as stroke, for the preservation of cognitive function and had a preference for quicker clinical benefits, whereas clinicians weighed multifaceted benefits vs risk considerations. All five studies included attributes capturing dementia-related clinical progression and associated clinical risks. Only one study included cost as an attribute.

Discussion:
Findings reveal divergent medication-related preferences among people living with dementia (PLwD), caregivers, public and clinicians, underscoring potential complexities in shared decision-making. Future DCEs should prioritise inclusion of PLwD, consider standardised best-practice DCE design, and include attributes such as cost that better reflect real-world trade-offs.

P123

Artificial intelligence-enabled digital interventions for medication Adherence in kidney and related conditions: An umbrella review

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Background.
Chronic kidney disease (CKD) is a major global health challenge, often driven by comorbidities such as diabetes, obesity, and hypertension. Effective management requires lifestyle modification, pharmacological therapy, and dose adjustments as kidney function declines. With CKD projected to become the fifth leading cause of death by 2050, this review examines AI-enabled digital interventions aimed at improving medication and lifestyle adherence.

Methods:
A comprehensive search across 6 databases yielded 1966 records. After screening and eligibility assessment, 15 reviews were included. Studies were excluded for reasons such as wrong outcomes, study design, or intervention type.

Results. Searches across six databases identified 1,966 records; 15 reviews met inclusion criteria after screening. Included reviews reported diverse AI-driven strategies, such as pharmacist-led mobile apps, AI systems detecting adherence gaps, automated reminders, and digital therapeutics supporting behavioural and pharmacological adherence. Most reviews indicated improved adherence, though lack of baseline data limited effect size estimation. Ethical concerns and limited AI literacy among patients and providers were common barriers.

Conclusion. AI-enabled digital interventions appear promising for improving adherence in CKD and related conditions. Future research should address ethical issues, enhance stakeholder engagement, and establish robust comparative outcomes. Pharmacist-led, AI-integrated models may offer scalable solutions for chronic disease management.

P124

Beliefs about osteoporosis medicines and influence on adherence among patients living with osteoporosis, polypharmacy and taking fall-risk drugs

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Introduction:
The Safer Medicines To reduce Falls and refracture for Osteoporosis (#STOP) evaluates the impact of Home Medicines Review on reducing exposure to fall-risk increasing drugs (FRIDs) and supporting adherence to osteoporosis medicines.

Aim:
To investigate beliefs about osteoporosis medicines and whether that influences medication adherence.

Methods:
Community-dwelling participants living with osteoporosis aged ≥ 50 years, taking ≥ five medicines including FRID were recruited. Participants completed Beliefs about Medicines Questionnaire (BMQ) and Medication Adherence Reporting scale (MARS-5) regarding osteoporosis medicines. Descriptive statistics, univariate associations, and multivariate regression analyses were performed.

Results:
A total of 284 participants (75.5 % female) were included. Higher necessity beliefs were univariately associated with a documented diagnosis of osteoporosis/osteopenia ($p= 0.028$) and a higher number of fractures since the age of 50, along with indicators of overall morbidity including number of comorbid conditions ($p =0.004$) and higher number of medicines consumed ($p < 0.001$). In multivariate regression with bootstrapping, necessity beliefs were predicted by the number of medicines consumed ($\beta = 0.151$, 95% CI, 0.045 - 0.262) and the number of fractures since age 50 ($\beta = 0.142$, 95% CI, 0.001–0.239). Higher specific concerns were univariately associated with lower socioeconomic status ($p =0.009$) and a higher number of medicines consumed ($p =0.036$). In multivariate regression, specific concerns was predicted by socioeconomic status ($\beta=-0.001$, 95% CI, -0.002 to 0.000) only. No significant associations were found between BMQ subscales and MARS-5 score.

Discussion:
The findings suggest that patients who are aware of their condition through documented diagnosis and fracture are more likely to believe that anti-osteoporotic medicine is necessary to prevent future fractures. Patients taking higher number of medicines are more likely to hold higher necessity and concern beliefs. The lack of association between beliefs and self-reported adherence highlights the need for objective measures of adherence.

P125

Scoping review of tools and methods used to measure and simplify complex medication regimens in older adults

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Introduction:
Older adults are a clinically vulnerable group with a high prevalence of multimorbidity and polypharmacy. Medication regimen complexity (MRC) often accompanies polypharmacy and has been associated with hospitalisation, adverse drug events and treatment burden. Various tools and measures have been developed to measure MRC or guide medication simplification for older adults.

Aims:
To identify and describe tools to measure MRC and methods used to simplify medication regimens in older adults.

Methods:
Scoping review with a systematic search in three databases conducted from inception to 2nd April 2025. Inclusion criteria: original studies describing the development and/or validation of tools to measure MRC and/or methods of medication regimen simplification. Two authors independently screened abstracts, full texts and extracted data. References of retrieved articles were scanned to identify relevant papers. Study characteristics and psychometric measures (e.g., validity) were extracted.

Results:
Of 2053 studies screened, 48 were included for analysis (measures of complexity (n=19)) and methods of simplification (n=29)). Preliminary results identified 18 distinct tools as measures of complexity in older adults. Core measures of complexity were consistent across MRC tools (e.g. medication count), however more nuanced features were underrepresented (e.g. “splitting or crushing tablet/capsules”). Only 12 (67%) reported psychometric testing. Of the eighteen MRC tools identified, 6 (33%) were cross-cultural adaptations of the Medication Regimen Complexity Index. Twenty-two methods of simplification were identified and grouped into eleven categories. Only one simplification tool, the Medication Regimen Simplification Guide for Residential Aged CarE (MRSGRACE) had undergone psychometric evaluation. Most simplification methods involved pharmacist-led interventions (n=12), multidisciplinary collaboration (n=6) and the use of combination therapies (n=3).

Discussion:
This review identified multiple tools and methods to measure or simplify MRC. Future research could evaluate whether the use of MRC tools as an intervention could impact clinical outcomes. Future tools could also incorporate a more person-centred focus.

P126

Impact of HIV Pre-exposure prophylaxis shortages in Australia

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The PBS is a government-funded program that subsidizes the cost of the prescription medicines to ensure affordable access for all Australians. Antiretroviral therapy (ART) as pre-exposure prophylaxis (PrEP) and HIV treatment are both PBS-listed and can be prescribed by specialists, and sexual health clinics.

The PBS plays a critical role in Australia's public health strategy, contributing to high PrEP and treatment uptake and low rates of HIV transmission. Tenofovir with emtricitabine has been PBS subsidized for PrEP since 1st April 2018, and there has been strong uptake amongst men who have sex with men who may be at risk of HIV infection.

Approximately 27,000 Australians at risk of HIV infection were receiving PrEP in 2023, used either continuously or on demand. Tenofovir disoproxil (one of the medicines in PrEP) is available in three different salt forms on the PBS: succinate, maleate and fumarate. The salt form of tenofovir disoproxil changes the solubility, stability and bioavailability of the formulation. Alternative salt forms have been developed by pharmaceutical companies to optimise tenofovir disoproxil absorption and stability of their specific formulation. The different salt forms are not considered interchangeable on the PBS.

In 2023-2024, Australia faced significant shortages of tenofovir with emtricitabine (used as both prevention and treatment of HIV), potentially affecting access to therapy. During the time of the shortages, Australia's national medicines regulator, TGA approved an overseas registered product to facilitate continued access to PrEP. Under this arrangement, referred to as Section 19A (S19A) supply, tenofovir disoproxil fumarate with emtricitabine 300mg/200mg tablets could be imported and supplied in Australia from October 2024.

P127

Trends in use of direct-acting antivirals for treatment of Hepatitis C viral infection in Australia 2016 to 2024

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Hepatitis C virus (HCV) of the Flavivirus family, is an infectious blood-borne virus that targets the liver. HCV can be transmitted by sharing injecting equipment, unsterile equipment for medical procedures, tattooing, piercing, and sharing personal hygiene devices such as toothbrushes.

Signs and symptoms of HCV include fatigue, body aches and pain, fever, mood changes, feeling sick in the stomach or less hungry, rashes, diabetes, and jaundice. If HCV remains in the liver for more than six months, it becomes chronic Hepatitis C. Chronic Hepatitis C develops in 75-85% of cases and, in 2023, more than 68,890 people in Australia had chronic hepatitis C however they were often asymptomatic.

Without treatment, HCV can cause progressive liver fibrosis contributing to liver failure, cirrhosis, and hepatocellular carcinoma. Early treatment is important as it promotes better response to antiviral therapy and, if a person has cirrhosis, early treatment can help prevent decompensation, lessen risk of liver cancer and improve long-term survival and quality of life. The goal of HCV treatment with DAAs is to achieve sustained virological response such that HCV is unable to be detected in the blood 12 weeks after completing a course of treatment.

DAAs were first subsidised on Australia's national medicine formulary, the Pharmaceutical Benefits Scheme (PBS) in March 2016. The PBS-listing of DAAs coincided with Australia adopting the World Health Organisation's (WHO) target of eliminating HCV by 2030. In the first year of DAA availability alone, 43,360 of the 230,000 Australians living with HCV (19%) HCV initiated DAA treatment. Between 2016 and the end of 2020, 88,790 people received treatment for HCV. The initial DAAs listed on the PBS in 2016 were oral products; however, patients were required to have specific HCV genotypes to be eligible for PBS subsidised DAAs
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P128

Scoping Review of Large Language Models in Adverse Drug Events Extraction: The Case of Transformer-based Language Models

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Introduction:
Extracting adverse drug events (ADEs) from unstructured clinical and public text data can enhance pharmacovigilance and improve medication safety but remains a challenging task. Transformer-based Large Language Models (LLMs) have shown promise for automatic ADE extraction due to their natural language understanding capabilities. However, a comprehensive synthesis of this research landscape remains limited despite increasing interest from the research community.

Aims:
This scoping review examined the current state of research regarding the application of transformer-based language models in ADE extraction, encompassing existing challenges and limitations relevant to stakeholders in pharmacovigilance and medical LLM research.

Methods:
The review was conducted following the guidelines of the Preferred Reporting Items for Systematic Reviews and Meta-Analyses Extension for Scoping Reviews (PRISMA-ScR). A comprehensive literature search was conducted across seven electronic databases, including two databases specifically for conference papers and preprints, covering the period from January 1, 2020, to April 11, 2025.

Results:
Thirty-nine studies met the inclusion criteria. Over half (20/39, 51%) focused on refining BERT (Bidirectional Encoder Representations from Transformers) family encoders, followed by decoder-based models (15/39, 38%) for ADE extraction. Only 23% utilized domain-specific models. Full fine-tuning with encoder-based models was the dominant approach (24/39, 61.5%). Encoder-based models were optimal for precise entity recognition in clinical electronic health records, while decoder and encoder-decoder models were advantageous for public health surveillance involving social media and patient reports. Dataset Bias and Domain-Specific Overfitting, model limitations, computational constraints, and generalizability issues were identified as key barriers to LLM-based ADE extraction.

Discussion:
While LLMs demonstrate promise for ADE extraction, challenges persist regarding annotated clinical data availability, computational demands, and privacy concerns. Future research should focus on developing parameter-efficient modelling approaches, creating comprehensive domain-specific datasets, and employing specialized biomedical models to enhance accuracy.

P129

Views, barriers and facilitators of primary care physicians regarding advance care planning implementation

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Introduction:
Advance care planning (ACP) is neither legislated nor widely discussed among community-dwelling adults. Primary care physicians (PCPs) are ideally positioned to implement ACP but often refrain from initiating conversations for fear of destroying hope and due to lack of experience. Although older adults may not have heard of the term "advance care planning", they are receptive to its concept. There is a lack of studies exploring barriers and facilitators of ACP implementation among PCPs in developing countries.

Aims:
To explore the views, barriers, and facilitators of ACP implementation among PCPs.

Methods:
Focus group discussions and in-depth interviews were conducted among PCPs. Convenience sampling was used to recruit participants with diverse backgrounds until data saturation was achieved. This study was guided by the Implementation Outcome Model. Written informed consent was obtained. All interviews were audio recorded, transcribed verbatim, and analysed using thematic analysis.

Results:
Thirteen and two PCPs participated in the focus group discussions and in-depth interviews (IDIs); respectively. Data saturation was achieved at the third focus group. Two further IDIs were conducted to ensure that there were no new emerging themes. Median age of participants was 33 years. PCPs from major ethnicities and religions were included. Four themes emerged that concurred with the implementation outcomes model: acceptance towards ACP, appropriateness of ACP, feasibility of implementing ACP in clinical practice, and uptake of ACP. PCPs perceived patients' knowledge regarding ACP as low. They cited lack of guidelines for ACP implementation in clinical practice. During typical consultations, PCPs viewed ACP as lower priority compared to managing clinical conditions. However, they believed there was a role for them regarding ACP and wanted more training to increase competency.

Discussion:
Factors influencing ACP implementation depend on acceptance and willingness of PCPs. Efforts should be made to strengthen its relevance, delivery, and overall adoption.

P130

Advancing personalised prescribing through clinical integration of dihydropyrimidine dehydrogenase (DPYD) genotype testing services in a tertiary hospital

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Introduction:
Dihydropyrimidine dehydrogenase (DPYD) genotype screening for targeted variants prior to fluoropyrimidine treatment represents a critical advancement in personalised chemotherapy. Despite availability of pre-emptive genetic testing to identify individuals with dihydropyrimidine dehydrogenase (DPD) enzyme deficiency, clinical implementation remains limited within Australia.

Aims:
To evaluate integration of a pre-emptive DPYD genotyping service in real-world clinical practice, including utility of DPYD genotype-based fluoropyrimidine dosing strategies and impact on short-term patient clinical outcomes.

Methods:
Targeted DPYD genotype testing was implemented in a tertiary hospital, from which service and short-term patient outcomes were examined. Data collected included administered fluoropyrimidine doses, treatment-related toxicity, patient and disease characteristics. Toxicity was assessed using the Common Terminology Criteria for Adverse Events, Version 5.0. Clinical dosing of fluoropyrimidines was evaluated against recommendations from the Clinical Pharmacogenetics Implementation Consortium (CPIC) guideline.

Results:
Between 1 June 2022 and 31 December 2023, a total of 225 patients were screened, of whom 20 (8.89%) patients were DPYD variant carriers. Of the 20 patients, 19 were heterozygous carriers and received fluoropyrimidine chemotherapy; one patient was a homozygous c.1236G>A/HapB3 carrier and received alternate treatment. Initial (Cycle 1) dose reductions were reported in 17/19 variant carriers; however, significant variation in dose intensities was observed. Most variant carriers did not experience Grade ≥3 toxicity. No Grade 5 toxicity was reported.

Discussion:
The clinical integration of DPYD genotype-based dosing to personalise fluoropyrimidine chemotherapy was successful. However, given the heterogeneity in dosing requirements, additional strategies such as expanded DPYD genotyping and/or quantification of fluoropyrimidine exposure may be required to comprehensively inform personalised dosing for fluoropyrimidines.

P131

Paediatric poisoning from extemporaneously compounded medicines in community pharmacies

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Introduction:
Extemporaneously compounded medicines are widely used in paediatric patients. However, the associated extent and nature of adverse events from these products remained unclear.

Aims:
To summarise the characteristics of adverse events reported from the use of compounded medicines in children and determine the types of adverse events, medications most frequently involved, and reasons for medication errors.

Methods:
A search was performed in Medline via Ovid, CINAHL, Embase, Scopus and the ISMP Canada Safety Bulletins to identify studies that described adverse drug events associated with community pharmacy compounded medicines. There were no restrictions based on country or publication date. Two authors independently screened titles, abstracts, and full texts of studies of the studies found and extracted data with a standardised extraction table. Information extracted included study characteristics, details regarding the compounded medicine and clinical characteristics.

Results:
We identified 38 cases across 25 studies. There were 31 cases of compounding errors, 5 cases of administration errors, 1 case of dispensing error and 1 case with unspecified errors. The most common compounding error types were incorrect concentration in the formulation, substitution or addition of an active ingredient that was not prescribed. The most commonly reported medicines were clonidine (n = 7) and flecainide (n = 5). The median age of children involved was 2 years (IQR 0.9 – 5.5 years). Two deaths were reported, following exposures to baclofen and tacrolimus.

Discussion:
This review highlights the importance of thoroughly verifying active ingredients and their concentrations when compounding paediatric formulations in community pharmacies.

P132

Prevalence of mental illness and psychotropic medications in South Australian prisons

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Prison healthcare faces major challenges in improving the health of People In Custody (PIC) due to mental illness and its treatment. This study aimed to estimate the prevalence of mental illness and the prescription of psychotropic drugs in South Australian Prisons. 250 medical notes of people who had been in custody at one of South Australia's prisons in the previous 12 months were surveyed for their diagnoses and medications. 61 % of PIC (95 % CI: 55 – 67 %) were diagnosed with at least one mental illness at discharge.

The prevalence of depressive disorders, anxiety disorders and schizophrenia spectrum or other psychotic disorder was 36 % (95 % CI: 30 – 42 %), 33 % (95 % CI: 28 – 39 %) and 17 % (95 % CI: 13 – 22 %) respectively. 44 % (95 % CI: 38 – 50 %) of PIC were prescribed at least one psychotropic medication at discharge. 32 % (95 % CI: 27 – 38 %) were prescribed regular antidepressants. Of the antidepressants, mirtazapine was the most prescribed medication. 18 % (95 % CI: 13 – 23 %) were prescribed regular antipsychotics. Of the antipsychotics prescribed, olanzapine was the most prescribed medication. During the PICs time in custody, weight increased, but blood glucose levels and diastolic blood pressure tended to decrease.

The prevalence of mental illness in prisons is significantly greater in prison populations than in the community and hence there is more widespread prescribing of psychotropic medications. Of concern is the sedating and metabolic consequences of some of the most prescribed medications such as olanzapine and mirtazapine in this population.

P133

Barriers to the prescription of opioid-based drugs among health professionals in Makassar, Indonesia: A qualitative study

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Introduction:
Opioid-based drugs continue to be significantly under-prescribed in many countries in the Global South, including Indonesia.

Aims:
The study aims to explore barriers to therapeutic opioid among health professionals in Makassar, a city in eastern Indonesia.

Methods:
Employing qualitative approach, we conducted 18 interviews with various healthcare professionals who are involved in opioid-based treatment to patients in Makassar and with representatives of health professionals' organisations. Interviews were conducted from July to December 2024. Data was analysed thematically based on emergent themes from interviews. Training on data collection and data analysis was provided to team members.

Results:
There is a lack of availability of opioids-based drugs though there are regulations to support opioids availability in the country. There are variations related to drugs availability in which larger hospitals generally have higher drugs supply and availability. Only certain specialities are allowed and more frequently prescribe certain types of opioid-based drugs such as anaesthesiologists for pain management and oncologists for cancer patients. This study also found that anaesthesiologists usually prescribed pethidine and morphine injections before surgery, meanwhile MST, fentanyl and codeine were more commonly prescribed by oncologists for cancer patients. Opioid based drugs continued to be under-prescribed since most physicians employ multimodal pain management and opioid-based drugs perceived as the last resort. Moreover, some reported hesitance to prescribe opioid-based drugs is due to lack of familiarity, lack of training, and fear of unexpected adverse drugs reactions.

Discussion:
There are various barriers influencing underutilisation of opioid-based drugs e.g. lack of availability, lack of capacity of health professionals to manage therapeutic opioids and views that opioid-based drugs as the last resort. Improving opioid-based drugs availability, strengthening capacity of health professionals and enhancing advocacy about the benefits of therapeutic opioids as well as coordinated efforts to overcome barriers to opioid-based treatment are needed.

P134

Polypharmacy prevalence in community-dwelling older adults: A scoping review across low- and middle-income Indo-Pacific countries, 2019-2025

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Introduction:
Polypharmacy is associated with various adverse health outcomes and is particularly prevalent among older adults. Despite Asia having the fastest-growing ageing population, data on polypharmacy in the Indo-Pacific region remain limited.

Aims:
To investigate the point prevalence of polypharmacy in community-dwelling older adults across low- and middle-income countries (LMICs) in the Indo-Pacific region, using studies published from 2019 to 2025.

Methods:
A scoping review was conducted using MEDLINE, PubMed, Scopus, and CINAHL for studies published between January 2019 and March 2025. Eligible studies were published in English and met the following criteria: (1) clear quantitative definition of polypharmacy; (2) reported or extractable prevalence data; (3) conducted in community or primary care settings; and (4) participants aged ≥60. Quality assessment was also performed using the JBI Checklist for Prevalence Studies.

Results:
Nineteen studies were included from four of 33 LMICs: India (n=6), Malaysia (n=6), Vietnam (n=4), and Thailand (n=3). Identified studies spanning 2019 to 2025, with most published prior to 2022. No studies were identified from other low-income countries. Reported prevalence ranged from 4.1% to 65%, with median rates highest in Malaysia (43.6%), followed by Thailand (40.4%), India (35.2%), and Vietnam (14.1%). Studies applied varying definitions of polypharmacy, with ≥5 medications being the most used threshold.

Discussion:
It is challenging to establish current polypharmacy rates due to limited post-2022 data. Inconsistent definitions of polypharmacy likely contribute to substantial variability in reported prevalence and complicate direct comparisons across studies. Nevertheless, findings indicate a high overall prevalence, particularly in Malaysia, with nearly half of older adults in the community having polypharmacy. Polypharmacy prevalence appears to correlate with national economic development. Given the rapidly aging population in the Indo-Pacific region, where efforts have been largely focused on improving medication access, it may now be important to prioritise strategies to prevent a polypharmacy pandemic.

P135

The influence of beliefs and health literacy on medication use among older Koreans living in Australia

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Introduction:
Koreans represent a small but growing ethnic community in Australia. However, little is known about how beliefs and health literacy affect the medication use of older Korean adults living in Australia. This study explored the associations between beliefs, health literacy, and medication use behaviours in this population.

Aims:
This study aims to investigate the associations between beliefs, health literacy, and medication use among older Korean adults living in Australia.

Methods:
Older Korean adults living in metropolitan Melbourne were recruited via bilingual outreach. Validated tools used included the SEAMS, BMQ, rPATD, and HLQ. Pearson correlation analyses were conducted to assess the associations between variables, including polypharmacy, and potentially inappropriate medications (PIMs).

Key findings:
This observational study included 30 older Korean adults (mean age=70 ± 3.3 years). SEAMS scores were low (M=20.5, SD=6.5), indicating limited self-efficacy. Higher self-efficacy for medication adherence (SEAMS) was strongly associated with better health literacy, particularly feeling understood and supported by healthcare providers ($r=0.638$, $p<0.001$) and understanding health information ($r=0.630$, $p<0.001$). BMQ overuse correlated negatively with SEAMS ($r=–0.553$, $p=0.002$), and positively with polypharmacy ($r=0.420$, $p=0.026$), while harm beliefs were linked to PIM use ($r = 0.479$, $p=0.010$). Polypharmacy was linked with both greater concern ($r = 0.433$, $p=0.022$) and stronger perceived necessity ($r=0.622$, $p<0.001$) for medications. Across HLQ scales, higher literacy was consistently linked to greater self-efficacy for medication adherence and lower polypharmacy and PIM use, with appraisal of health information ($r=–0.679$, $p<0.001$) and active engagement with healthcare providers ($r = –0.519$, $p = 0.006$) showing the strongest negative associations with medication burden.

Conclusions:
Medication beliefs and health literacy showed a significant relationship with medication use (adherence, polypharmacy, and PIM). Culturally tailored strategies are needed to enhance medication safety and support among older Korean adults in Australia.

P136

Medical Opioid Consumption in Indonesia: Examination of Contributing Factors

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This study investigated the factors influencing medical opioid consumption in Indonesia, specifically focusing on regulatory frameworks, healthcare provider perceptions, and systemic barriers. Using a mixed-methods approach, the research involved a secondary analysis of opioid consumption data and a survey of various stakeholders.

The findings indicate that Indonesia's low opioid consumption is driven by a combination of stringent regulations, systemic inefficiencies, and a shortage of specialized doctors. Despite recognizing the clinical value of opioids, healthcare professionals often underprescribe them due to concerns about misuse. The issue is exacerbated by a state-controlled market monopoly and recurring nationwide stockouts, which severely harm patients by disrupting their treatment.

To improve pain management in Indonesia, this study recommends harmonizing regulatory frameworks, enhancing provider education, and addressing the monopolized market to ensure consistent access to these essential medications without increasing dependency risks.

P137

Indonesian community pharmacies' self-care facilitation for international travellers: A needs assessment

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Introduction:
Community pharmacies are often international travellers' first stop for self-care. Assessing the needs of community pharmacies in a non-English speaking tourist destination like Indonesia is essential to help improve quality service provisions for international travellers who have culturally and linguistically diverse backgrounds.

Aims:
This study aims to assess the needs supporting the readiness of Indonesian community pharmacies to facilitate self-care for international travellers.

Methods:
This study uses a qualitative needs assessment with a gap analysis. Two-wave online individual interviews were conducted in May-June 2023 and March-June 2025. Purposively approached participants were community pharmacy staff (pharmacists and technicians) and stakeholders, including academics, professional organisation representatives, policymakers, travel health practitioners and tourism operators. Three verbatim transcripts were initially open-coded by two researchers independently, followed by a code clustering consensus and an axial coding. Coded texts were used to identify the current and desired performance before gap analysis. The gaps equate the needs.

Results:
The study included 15 community pharmacy staff (10 females) and 11 stakeholders (4 females) from nine Indonesian cities. The preliminary results showed 23 gaps. Some of them included commitment of pharmacists to stand by, improvement of language and communication skills, expansion of existing or creation of new self-care promotion programs targeting travellers, network establishment with tourism operators, identification of the supply chain's bottleneck, and formalisation of travel health pharmacy service.

Discussion:
Despite the absence of formal recognition, self-care facilitation has been a regular service of community pharmacies in popular tourist destinations, with more support needed for those in non-popular destinations. Support from multiple stakeholders, including business management, professional organisations, academia, and multisectoral government agencies, is required to address the gaps and improve community pharmacy readiness. Further studies are needed to prioritise the gaps and determine the causal factors.

P138

Integrated Surveillance of Lisdexamfetamine Use: Insights from Dispensing and Wastewater Data

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Introduction
Lisdexamfetamine is a long-acting stimulant used for the treatment of Attention-Deficit Hyperactivity Disorder (ADHD). Since late 2023, Australia has experienced sustained shortages of this medicine, raising concerns about treatment continuity, potential misuse, and impacts on patient wellbeing.

Aims
This study aimed to assess the population-level impact of lisdexamfetamine shortages using integrated data from prescription dispensing and wastewater-based epidemiology (WBE).

Methods
Monthly Pharmaceutical Benefits Scheme (PBS) dispensing data for lisdexamfetamine and dexamfetamine from February 2022 to December 2024 were analysed and converted to defined daily doses (DDD) per 1,000 population in South Australia (SA) and Western Australia (WA). In parallel, bimonthly wastewater samples were collected from major metropolitan sites in both states. Amfetamine concentrations were quantified using liquid chromatography–mass spectrometry, and consumption estimates were population-normalised. Wastewater trends were then compared with dispensing trends to assess the impact of medicine shortages.

Results
Both SA and WA showed increases in stimulant dispensing over the study period, with DDD/1,000/day rising from ~8 to 18 in WA and from 1.5 to 6 in SA. In SA, reductions in wastewater-detected amfetamine occurred during shortage periods, despite stable or increasing dispensing rates. In contrast, WA demonstrated overall higher stimulant consumption with less fluctuation in wastewater trends.

Discussion
Integrating dispensing and wastewater data provides a nuanced understanding of medicine use during supply disruptions. The observed reductions in wastewater amfetamine in SA may reflect stockpiling, dose rationing, or reduced actual use, while differing patterns between SA and WA could be due to regional prescribing practices or differences in supply chain resilience. WBE offered real-time insight into stimulant consumption that may not be captured by dispensing data alone, highlighting the value of complementary surveillance systems for informing timely public health and policy responses to medicine shortages.

P139

Pharmacist Archetypes in Community Pharmacy Implementation: Insights from Q Methodology

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Introduction:
Professional services have long been part of community pharmacy practice in Australia, yet their implementation remains variable. Understanding the motivations of implementation champions may support successful and sustainable implementation.

Aims:
To characterise the types of community pharmacists which enable the successful and sustainable implementation of professional services.

Methods:
Q methodology was used to explore subjectivity of award-winning Australian pharmacists (innovators) regarding their perceived importance of service implementation elements. A Q set of 63 statements was developed from interviews with high-performing pharmacists (early adopters) and literature, mapped to CFIR domains. Award-winning pharmacists completed an online Q sort, ranking statements on a forced importance-choice grid (-6 to +6) and providing qualitative justifications. Data were analysed using PQMethod software and thematic analysis.

Results:
Findings from 24 pharmacists show that there are four pharmacist phenotypes identified: 'The Capacity-conscious strategist', 'The vision-driven reformer', 'The purpose-driven practitioner', and 'The culture-driven collaborator'. The analysis is also suggesting that implementation success may be influenced more by internal and personal drivers than by external or procedural factors.

Discussion:
This study demonstrates the feasibility of applying Q methodology to implementation science in pharmacy. Understanding pharmacist-champion profiles offers an opportunity to move beyond one-size-fits-all approaches and develop tailored strategies that improve fidelity, quality, and outcomes of professional services.

P140

Navigating ethical dilemmas experienced by healthcare professionals during vaccination of children and adolescents: a scoping review

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Introduction:
Vaccination saves millions of lives annually, yet ethical dilemmas in vaccinating children and adolescents remain challenging, especially as more healthcare professionals (HCPs) beyond traditional vaccinators, including pharmacists, become involved.

Aims:
This scoping review aimed to explore ethical dilemmas experienced by HCPs during vaccination of children and adolescents, contributing factors, decision-making strategies, and the role of biomedical ethics in guiding HCPs' decisions.

Methods:
The review followed the PRISMA-ScR checklist and employed the Population, Process, and Context (PPC) framework. The review applied Arksey and O'Malley's methodology. A comprehensive search was conducted across six major databases and Google Scholar from July–October 2024 using terms related to ethics, vaccination, HCPs, and children/adolescents.

Results:
Eighty-six studies published between 1995 and 2024 were analysed. Commonly described ethical dilemmas included balancing adolescent autonomy versus decision-making capacity, parental autonomy with children's best interests, individual rights versus public health goals, and HCP duties versus personal vaccination beliefs and skills in dealing with dilemmas. Contributing factors were themed into child/adolescent-related (e.g., decision-making capacity), parental/family-related (e.g., hesitancy, cultural and religious objections, safety concerns), HCP-related (e.g., attitudes, skills), and system-related (e.g., mandates, jurisdictional variations). Decision-making strategies included communication, education, interprofessional collaboration, digital support, and policy advocacy. Decisions were consistently guided by the ethical principles of autonomy, beneficence, non-maleficence, and justice.

Discussion:
Ethical complexities in child and adolescent vaccination require that all HCPs across all disciplines are equipped to respond. Ethical decisions should consider child maturity and best interest, family context, cultural values, and systemic constraints to ensure equitable, respectful care.

P141

The impact of virtual antimicrobial stewardship rounds on antimicrobial appropriateness and usage at a rural NSW hospital

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Introduction:
Antimicrobial Stewardship (AMS) refers to a coordinated strategy across health settings in response to growing antimicrobial resistance. Many rural hospitals lack the resources to implement effective AMS systems

Aims:
To evaluate the impact of a virtual AMS rounds (VAMSR) intervention on antimicrobial appropriateness and usage at a rural NSW hospital.

Methods:
A pre-post quasi-experimental design study with a focus on quantitative data was undertaken between November 2024 to May 2025 at a 52-bed rural hospital. At weekly VAMSR via 'Microsoft Teams' reviewed inpatients at the hospital prescribed antimicrobials at the time of the round. VAMSR data was collected in REDCap using a purpose-built auditing tool and baseline data was obtained from national AMS surveys. The Consolidated Framework for Implementation Research (CFIR) was retrospectively applied to explore contextual determinants.

Results:
A total of 128 reviews captured 190 antimicrobial prescriptions. Appropriateness increased from 52% during rounds to 69% at 48-hours post-round. Reductions in the use of commonly prescribed antimicrobials were observed over the 6-month study period. Use of CFIR identified key facilitators such as stable locum engagement and multidisciplinary input, alongside barriers including workload burden and limited resources.

Discussion:
VAMSR are a feasible and effective strategy to improve antimicrobial prescribing in rural hospitals. Use of video calls enables the infectious disease expertise of Infectious disease physicians and antimicrobial stewardship pharmacists to be available at a rural hospital on a regular basis. Implementation of VAMSR at other rural hospitals could improve AMS and patient outcomes across Australia.

P142

Public perceptions of community pharmacists' roles in infant nutrition, feeding support and medication advice

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Introduction:
Breastfeeding offers significant health benefits; exclusive breastfeeding is recommended for the first six months, continuing for two or more years[1]. Several factors can adversely impact the establishment of breastfeeding, and may require formula or mixed feeding[1]. Community pharmacies are accessible and pharmacist support/advice can influence decisions to breast- or formula-feed, and use medicines safely during lactation[2]. While prior research has largely focused on pharmacists' own perspectives[2 3], limited literature exists on public perceptions of pharmacists' roles in infant nutrition, feeding support, and medication advice.

Aim:
To explore public perceptions of the role of community pharmacists in providing infant nutrition, feeding support, and medication advice.

Methods:
Adults aged 18-50 years, with a child born within the past five years, were invited to complete a paper-based survey at 12 sites (September-November 2024) across Victoria, South Australia and Western Australia. Sites included metropolitan pharmacies (n=8), regional pharmacies (n=2), and early learning centres (n=2). Descriptive statistics were used to analyse survey responses. Ethical approval was obtained.

Results:
Of 180 participants (81% female; mean age=33±5 years) who completed the survey, 131(73%) breastfed, 108(60%) bottle-fed (breastmilk), and 79(44%) used formula. Most common purchases included formula (n=110;61%), bottles (n=94;52%), and infant/breast-related over-the-counter products (n=94;52%). Over half (n=100;56%) sought pharmacist advice on medication safety during lactation (n=100;56%), and most treatments were for sore (n=59;33%) and cracked (n=46;26%) nipples. Pharmacists were considered most knowledgeable about medication safety, and least about breastfeeding positioning/attachment. Only 61(34%) participants accessed support services from pharmacists. The most recognised role for pharmacists was infant-related over-the-counter and prescription medication advice. Ten participants (6%) indicated pharmacists had no role in infant nutrition.

Discussion:
Community pharmacists are trusted for medication advice during lactation, however, public awareness of their broader potential to support infant feeding and nutrition remains limited.
[1]World Health Organization(2024) [2]Leung et al.(2018) [3]Prosperi-Porta et al.(2019)

P143

Artificial intelligence in medication reviews: Evidence synthesis and pilot case applications

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Background.
Artificial intelligence (AI) has become increasingly integrated into healthcare, particularly in supporting clinical decision-making. In medication review services, AI provides opportunities to enhance quality and efficiency. However, evidence on its practical application in this context remains limited, creating uncertainty about its role in streamlining workflows and improving outcomes.

Objectives.
To synthesize current evidence on AI integration in medication review, pilot the use of AI models to assess their potential in improving review quality and efficiency, and identify opportunities and limitations for implementing AI in pharmacist-led medication review services.

Methodology.
A two-phase approach was applied. Phase I involved a literature review using Embase, PubMed, and Scopus to identify studies on AI applications in medication review. Phase II was a pilot study using two case vignettes in the form of Home Medicines Review (HMR) to compare outputs from two AI systems (ChatGPT and Microsoft Copilot). Each system generated letters to referring general practitioners, which were analysed for accuracy, comprehensiveness, and ethical considerations.

Results.
Phase I: From 1,093 articles screened, nine met inclusion criteria, highlighting AI's strengths in data processing, clinical decision support, and personalised care, alongside limitations such as lack of transparency, ethical concerns, and the need for human oversight. In Phase II, both AI systems identified major medication-related issues but lacked specificity regarding dose adjustments, tapering strategies, and non-pharmacological interventions. ChatGPT produced more comprehensive, patient-centred letters, while Copilot was concise and clinically focused. Neither system incorporated patient cultural or social context.

Conclusion.
AI-based tools show promise in enhancing medication review processes and streamlining services. Their integration into medication reviews like HMR could improve prioritisation of problems and help generate broader recommendations. However, current limitations such as lack of contextual understanding and the need for human oversight underscore that AI should complement, not replace, pharmacist-led reviews.

P144

Exploring the attitudes of health professionals towards mental illness in the South Pacific Region – A systematic review

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Introduction:
Mental health conditions are some of the most prevalent non-communicable disorders and contribute substantially to the burden of disease in the South Pacific Region (SPR). Healthcare professionals, especially general practitioners (GPs), nurses and pharmacists, who are often the first point of contact within the healthcare system, are integral to the management of these conditions. Their attitudes towards people living with mental illness can influence help-seeking and overall health outcomes.

Aim:
This systematic review aimed to explore the attitudes of GPs, nurses and pharmacists towards mental illness in the SPR and compare perspectives between professions and countries.

Methods:
A systematic search of four electronic databases; Medline, Embase, CINAHL and PsycINFO was conducted. Primary publications exploring the attitudes of GPs, nurses and/or pharmacists within the SPR were eligible for inclusion.

Results:
A total of 3258 unique records were retrieved, of those 20 studies were included. These comprised cross-sectional (n=19) and pre- and post-intervention (n=1) studies. Studies were conducted in Australia (n=17), New Zealand (n=2) and Fiji (n=1) and covered the attitudes of GPs (n=8), nurses (n=8) and pharmacists (n=3), with one exploring the perspectives of both GPs and nurses. Psychotic disorders were associated with greater stigma than affective disorders across all three professions. Nurses demonstrated a more positive outlook regarding consumer outcomes compared to GPs and pharmacists.

Discussion:
Attitudes towards people living with mental illness are influenced by a multitude of factors including cultural and geographical differences, healthcare resource availability and mental health training. A significant majority of existing research is conducted in Australia therefore, further research exploring the perspectives of healthcare professionals in smaller island nations of the South Pacific Region is required to address this gap.

P145

Impact of packaging aids on medication errors in outpatient settings: a systematic scoping review

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Introduction:
Medication errors pose a significant threat to public health, especially in outpatient settings, where close monitoring is often not feasible. Packaging aids, which organise doses by date and/or time, are widely used to improve adherence. However, evidence regarding their impact on medication errors remains limited in the literature.

Aims:
To assess the effect of packaging aids on medication errors, compared to original packaging, in outpatient care.

Methods:
We searched the Cochrane Central Register of Controlled Trials, Medline, CINAHL, Embase, and Scopus from inception to 17 April 2025. We also searched the reference lists from relevant articles. We selected studies that met the following criteria: (1) conducted in outpatient settings, (2) measured medication errors, (3) involved a packaging aid, such as an automated medication dispensing system, monitored dosage system, or daily dose reminder, for medications in solid oral dosage form, and (4) contained an English title and abstract. Full texts not published in English were translated using Google Translate.

Results:
Four studies were identified from 2206 titles/abstracts and 45 full text articles. All were non-randomized, observational studies, with quality rated as moderate to good using the Newcastle-Ottawa Scale. Three studies were conducted in long-term residential care facilities, whereas one was undertaken in a youth camp. Outcomes included medication administration errors and discrepancies between general practitioners and home care records. The use of packaging aids resulted in a statistically significant reduction in risks of medication errors, relative risk = 0.42 (95% CI 0.25 to 0.71). Notable heterogeneity was observed among these studies I2 = 72.8%.

Discussion:
Packaging aids may provide a simple and convenient approach to improving medication safety in the outpatient settings. Further methodologically robust trials are warranted to evaluate the impact of different types of packaging aids and their respective fillers on various categories of medication errors.

P146

Understanding the implementation of sick day medication guidance by health care professionals: a quantitative evaluation

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Introduction:
Using certain medications including during acute illness can increase the risk of acute kidney injury in people with chronic kidney disease. These medications include sulfonylureas, ACE inhibitors, diuretics, metformin, ARBs, NSAIDs and SGLT2 inhibitors (SADMANS). Guidelines recommend providing patients with sick day medication guidance (SDMG), to withhold SADMANS medications during such illnesses, but implementation is poor (<15%). No studies have been conducted in Australia to evaluate the implementation of SDMG.

Aims:
This study sought to evaluate healthcare professionals' (HCPs) SDMG practices including contents, frequency, delivery modes, and barriers and facilitators to practice.

Methods:
HCPs were purposively sampled from July 2024 to August 2025 and surveyed via REDCap. Descriptive statistics were generated using Excel and qualitative data underwent conventional content analysis.

Results:
Overall, 113 surveys were collected, 24 were incomplete and 89 were included for analysis. Participants included medical practitioners (n=23, 25.8%), nurses (n=29, 32.6%) and pharmacists (n=37, 41.6%), who specialised in general practice (n=28, 43.1%), nephrology (n=13, 20%) and other. Despite 93.1% (n=81) of participants believing that SDMG is important, only 58.4% (n=66) reported providing SDMG. On average, provision was “often” for all SADMANS medications, with priority given to select, high-risk patients (n=47, 72.3%). SDMG was often in the form of verbal counselling (n=52, 80.0%), with reinforcement using a sick day action plan (n=40, 61.5%). Challenges with implementation included HCPs being time poor, difficulties adjusting dose administration aids, and concerns about patient health literacy and capacity to adhere to SDMG. Participants believed that guidelines (n= 57, 66.3%), a decision support tool (n=54,62.8%), further training (n=66, n=76.7%) and written resources (n=60, 69.8%) could potentially support better practice.

Discussion:
HCPs recognise the importance of SDMG and are willing to provide it but face significant barriers. Further research is needed to address these challenges before SDMG can be embedded into standard practice.

P147

Antibiotic overexposure at surgical discharge in eastern Indonesia: a missed stewardship opportunity

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Introduction:
Excessive antibiotic prescribing at hospital discharge is an overlooked driver of antimicrobial resistance and undermines global stewardship targets. In Indonesia, the Ministry of Health's surgical antibiotic prophylaxis guideline covers in-hospital prophylaxis but there is limited national or locally adapted guidance for post-discharge antibiotic therapy.

Aims:
To investigate post-surgical discharge antibiotic prescribing in two hospitals in Papua, Eastern Indonesia, for appropriateness with respect to indication, dose and duration of therapy.

Methods:
A retrospective audit of 318 adult surgical discharges (June–December 2023) from two government hospitals analysed prescriptions by agent, WHO (World Health Organisation) AWaRe classification, duration, and diagnosis. Antibiotic exposure was expressed as defined daily doses (DDD) and DDD/100 discharges. χ^2/Fisher's exact tests compared AWaRe choice and duration between hospitals. In the absence of diagnosis-specific guidelines, stewardship-oriented proxy measures (spectrum class and duration thresholds) were applied

Results:
Patients' mean age was 38.2 ± 13.7 years, 60.7% were male, with similar demographic profiles across hospitals. Antibiotics were prescribed at discharge to 96.9% of patients (336 prescriptions). Watch class agents accounted for 85.1% of prescriptions, with cefixime contributing 79.4% (1,383.5 DDDs; 435.1 DDD/100D). Access class use was low and dominated by metronidazole and cefadroxil. Nearly all courses (98.2%) lasted ≥ 5 days. The most frequent diagnoses was benign neoplasms (13.5%). No significant differences in AWaRe profile or duration were observed between hospitals. Total antibiotic exposure was high (1,771.1 DDDs; 556.3 DDD/100D).

Discussion:
Post-surgical discharge prescribing in Papua is near universal, prolonged, and dominated by cefixime, reflecting entrenched province-wide norms in the absence of national or locally adapted guidance. Proxy measures suggest probable overuse in prophylaxis of likely surgeries. This first baseline for Eastern Indonesia highlights a missed stewardship opportunity and the urgent need for context-appropriate interventions to narrow the spectrum and shorten the duration, consistent with national and WHO policy objectives

P148

How did we do it? Transforming Pharmacy-based Sexual Health Services in Canada

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Introduction:
There is an increasing rate of sexually transmitted infections, including HIV, in populations worldwide. Community pharmacies and other pharmacy-based services may offer an effective alternative to traditional sexual health care providers for prescribing, management, and follow up for treatment and prevention of sexually transmitted infections.

Aims:
This study aims to evaluate the success of numerous pharmacy-based sexual health care initiatives in Nova Scotia, Canada that have resulted in scope of practice changes that have transformed the access and nature of sexual health in Canada.

Methods:
This was a reflective evaluation study of four sexual health care initiatives (HIV-PrEP prescribing, community pharmacy based swabbing and prescribing for chlamydia and gonorrhoea, point of care testing for HIV, hepatitis C, and syphilis, and a hospital pharmacy consult service for prevention and management of sexually transmitted infections) conducted in Nova Scotia, Canada. Investigators met to reflect on the success and challenges of these interventions to determine a list of facilitators that resulted in policy and practice changes in Nova Scotia.

Results:
Key considerations identified through the reflective evaluation process included 1. Outer Setting Factors, 2. Team Composition, 3. Community Engagement 4. Clinical Landscape, and 5. Pharmacists' Education.

Discussion:
This study summarizes the main factors that led to the successful policy changes to advance pharmacists' scope to provide comprehensive sexual health care in Nova Scotia. Findings are relevant to settings and jurisdictions beyond Nova Scotia that may improve access to health care for patients requiring sexual health care, including prevention and treatment of sexually transmitted infections.

P149

Development of online medication support tools for older people: a systematic review

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Aims.
To systematically review and describe existing online medication support tools for older people, their development and how they have been evaluated.

Methods.
Five electronic databases (MEDLINE, EMBASE, CINAHL, Scopus and Web of Science) were searched from inception to October 2024 for studies describing the development and/or evaluation of online medication support tools for older people aged ≥65 years, or their informal caregivers. The mixed-methods appraisal tool was used for quality assessment. Two authors completed the screening, data extraction and quality assessments independently and subsequently discussed any conflicts. Extracted data was analysed descriptively in line with PRISMA guidelines.

Results.
A total of 1,621 studies were identified, and 29 studies met the inclusion criteria. Over 80% (n=21) of the tools were mobile health apps or websites. The most common development approach involved user-centred design methodologies (comprising user needs assessments, focus groups, interviews, and user experience workshops). Usability testing using questionnaires and surveys (n=13 tools) were the most common evaluation techniques followed by think aloud protocol (n=9 tools), interviews and focus groups (n=9 tools). Findings across 22 studies suggest that user satisfaction of the developed online tools was high. The remaining seven studies did not measure usability of the final prototype or explicitly report on usability.

Discussion.
This review summarises online medication support tools for older people and carers and the approaches used to develop and evaluate them. Findings suggest that iterative refinement driven by user feedback may be more influential than any one approach for developing high usability tools. A responsiveness to user feedback and employing development approaches that incorporate iterative prototyping, is essential to ensuring these tools are both effective and satisfactory to their users.

P150

Metabolic Monitoring for Adults Living with a Serious Mental Illness on a Second-Generation Antipsychotic Agent: A Scoping Review

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Introduction:
Despite global consensus and treatment guidelines, metabolic monitoring for people living with severe mental illness and using antipsychotics remains suboptimal. It is important to understand current metabolic monitoring patterns in routine clinical practice to improve the management and care of severe mental illness.

Aim:
Summarise and map existing metabolic monitoring practices, highlight current gaps in practice and provide directions for future research initiatives.

Methods:
Database search of: Medline, Embase, CINAHL, the Cochrane Library, PsycInfo and Scopus (English only). The target group was adults (aged ≥ 18) diagnosed with severe mental illness (including bipolar disorder, major depressive disorder and psychotic disorders) and taking second-generation antipsychotics. The review utilised published studies' descriptions of existing baseline monitoring rates and procedures (that is, without the influence of study interventions) as proxy measures.

Results:
In total, 44 studies from 14 countries were retrieved. Most hospital-based studies did not report on metabolic monitoring practices. Notably, the roles and responsibilities of healthcare professionals in metabolic monitoring for severe mental illness were infrequently described, and parameters such as waist circumference and body mass index were generally infrequently measured. Nurses were often involved in screening and/or physical assessments, while pharmacists had limited involvement in patient metabolic monitoring.

Discussion:
At an organisational level, policymakers could facilitate frequent metabolic monitoring through implementation of mandatory clinical guidelines and policies. At a practice level, clinicians should recognise that patients may not receive regular metabolic monitoring as suggested by existing guidelines. Consideration for the need and potential value of metabolic monitoring should be considered during patient interactions, and if necessary, reviews should be initiated. Further, the role of the pharmacist in metabolic monitoring should also be further explored. Moreover, there is a need for ongoing research, particularly in the community setting, to promote increased accessibility to metabolic monitoring for severe mental illness.

P151

Opinions of clinicians on pharmacist-physician collaborative prescribing in digital hospitals: A qualitative study using the Theoretical Domains Framework

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Introduction:
Research into pharmacist-physician collaborative prescribing has demonstrated positive impacts, despite this, many hospitals are yet to translate this research into practice. Implementing new practices requires changes in behaviour, which can be facilitated by understanding the influence of determinants of behaviour, via the Theoretical Domains Framework.

Aims:
This study aimed to determine clinician (doctor and pharmacist) perspectives on pharmacist-physician collaborative prescribing and the barriers, and facilitators for implementation in the internal medicine units of hospitals with an electronic medicine management system (EMM).

Methods:
After written informed consent was obtained, semi-structured interviews were conducted, by one of two investigators, with doctors and pharmacists with experience working in internal medicine, from two Australian hospitals operating with an EMM. Interviews were recorded, transcribed verbatim, and qualitatively analysed inductively to identify themes, which were mapped deductively to the Theoretical Domains Framework (TDF). Each transcript was analysed independently by two investigators, refinement and reduction occurred until a final list of codes was obtained and agreed by investigators.

Results:
A total of 27 interviews were conducted (11 doctors, 16 pharmacists) to reach data saturation and distribution of clinician experience. Interviews lasted an average of 22.46 minutes. Twelve of the fourteen TDF domains were identified, with the most frequently reported domains being 1) environmental context, 2) social influences, 3) beliefs about consequences, and 4) beliefs about capabilities. The most reported perceived motivators were pharmacists already have the skills/knowledge required for prescribing, and the positive patient safety and health care efficiency outcomes. The most reported perceived barriers were the EMM and existing pharmacy and physician workloads, availability, priorities and workflows.

Discussion:
Overall, pharmacists and doctors identified the desire for pharmacist-physician collaborative prescribing in the internal medicine units of hospitals with an EMM and identified key targets for successful implementation.

P152

Consumers' experiences and perspectives on reporting adverse drug reactions using digital tools: a qualitative study

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Introduction:
Spontaneous adverse drug reactions (ADRs) are underreported. Digital reporting systems are increasingly used to address this issue; however, limited knowledge exists about the barriers and facilitators influencing their use by consumers.

Aims:
To explore facilitators and barriers influencing consumers' use of digital tools for ADR reporting.

Methods:
An exploratory qualitative descriptive study using semi-structured in-depth interviews was conducted among Australian adults who self-reported having experienced an ADR. Interviews were conducted face-to-face or via Zoom, audio-recorded, transcribed verbatim, and analysed inductively using reflexive thematic analysis. NVivo 14 software was used to assist with data coding and themes development. Themes were mapped onto domains of the Combined Technology Acceptance Model and Theory of Planned Behaviour (C-TAM-TPB) framework.

Results:
Fourteen participants were interviewed. Consumers expressed positive intentions to use online ADR reporting tools. Identified facilitators included user-friendly and accessible tools that are simple to complete, the use of images to aid comprehension, integration with existing patient health records, the ability to submit one report online that is shared with both healthcare professionals and regulators, and a tool designed specifically for consumers using layperson language. Identified barriers included lack of awareness that consumers could report ADRs directly to the regulator online, registration or login requirements, lengthy and complex reporting forms, excessive text and small font sizes, the use of technical medical terminology, compulsory questions, and the absence of feedback or follow-up after submitting a report.

Discussion:
Consumers were willing to use online ADR reporting tools but were largely unaware of their existence. Enhancing usability through user-friendly design, and reporting forms specifically designed for consumers may increase engagement. Addressing barriers such as lack of awareness, registration requirements, medical jargon, and lack of feedback is essential to improve usability and strengthen pharmacovigilance systems.

P153

Uptake and user characteristics of novel migraine therapy: A population-based study in Australia

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Introduction:
Monoclonal antibody calcitonin gene-related peptide (CGRP) antagonists are novel migraine preventive treatments. Although clinical trials demonstrate efficacy, their full safety profile remains uncertain. In Australia, CGRP antagonists are subsidised but restricted to patients who have trialled at least three prior preventive medicines.

Aims:
To quantify uptake of CGRP antagonists, describe characteristics of new users, and examine overall treatment patterns of migraine preventive medicines among Australians.

Methods:
National dispensing claims for a random 10% sample of Australians were used. Patients ≥18 years dispensed at least one CGRP antagonist of interest (2018–2024) were included. Incidence and prevalence rates of use were estimated over time. Patient age and gender and cardiovascular medicines dispensed at CGRP antagonist initiation were described. Overall migraine treatment patterns were determined.

Results:
Incidence of CGRP antagonists increased by 138% following market introduction. Prevalence of use increased by 238% until late 2023 when shortages of galcanezumab occurred. Fremanezumab autoinjector had a higher uptake than the syringe formulation. Nearly 50% of females were dispensed galcanezumab or fremanezumab, with the most common age groups ranging between 20 and 49 years. Over 76% of galcanezumab initiators and 88% of fremanezumab initiators had been dispensed at least one cardiovascular medicine. 9% had CGRP antagonists as their first-line treatment.

Discussion:
Uptake of CGRP antagonists increased over time until medicine shortages occurred. Treatment patterns indicate switching potentially driven by preferences for fremanezumab autoinjector and medicine shortages, reflecting patient and prescriber willingness to switch, despite limited comparative evidence. Use is common in women of childbearing age and those with cardiovascular comorbidities, populations for whom safety evidence remains largely unknown. While most initiations aligned with prescribing restrictions, a notable minority received CGRP antagonists without prior preventative therapy. Future research should prioritise monitoring of safety issues in specific populations and investigate outcomes of switching between formulations.

P154

Sustainable practice model for a dementia support pharmacist in regional South Australia

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Introduction:
Dementia is the second leading cause of death in Australia and the leading cause of death for women. Dementia is also the leading cause of burden of disease in Australia. Medication management for people living with dementia can be very complex, not only due to cognitive decline. Polypharmacy related to co-morbidities, inability to recognise or articulate adverse effects of medications, reliance on others to assist with medications, and intentional or un-intentional non-adherence to medications, are some of the problems encountered.

Aims:
To develop a sustainable practice model for a dementia support pharmacist in regional South Australia aiming to enable people living with dementia to stay at home and in the community for longer.

Methods:
Initial focus was on building networks with key stakeholders and hosting information and education sessions. The focus then became providing a flexible service directly for and with patients by removing barriers from referral pathways, travel restrictions, number of times patients could seek support from the pharmacist, mode of access and identifying gaps in rural health care. Through comprehensive medication management, personalised support and collaborative care, the pharmacist works with the person living with dementia, their families and/or carers and other health professionals to enhance quality of life, reduce hospitalisations & medication-related harm and support end of life care.

Results:
In 150 direct client interactions, collaboration has occurred with other health professionals in 2/3 of cases. Over 20% of clients have benefited from medication optimisation through medication simplification and over 63% have had deprescribing recommended.

Discussion:
Health professional staff acknowledge the pharmacist as a valued part of the primary health care team and they, their clients and their clients' carers/families report increased medication knowledge confidence and satisfaction with the service

P155

Investigating the differences in how CALD students versus non-CALD students perform in oral clinical assessments

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Introduction.
Effective oral communication is a vital skill for pharmacy students, allowing them to convey recommendations clearly and empathetically to both patients and other professions in the workplace. Students from Culturally and Linguistically Diverse (CALD) backgrounds may require additional support to develop communication skills that align with workplace expectations.

Aims.
To examine differences in oral clinical communication between CALD and non-CALD students by analysing a series of Objective Structured Clinical Examination (OSCE) videos.

Methods.
A sequential explanatory mixed methods study guided by Professional Communication in Intercultural Contexts (PCIC) model to guide the analysis. PCIC look at the emotional, logical and moral dimensions of professional communication and considers how students develop the ability to build a therapeutic relationship (emotional), display clinical reasoning (logical) and demonstrate professionalism (moral). Quantitative data analysis was conducted using first year OSCE results and Academic Language Skills Analysis (ALSA) scores. These scores then informed the sample of OSCE videos for qualitative data analysis. OSCE videos of students interacting with a simulated patient were analysed by Conversational analysis through ELAN.7 using Jeffersonian transcription conventions.

Results.
Overall, 36 videos samples were chosen (18 non-CALD vs 18 CALD) and were matched based on same examiner and case. Statistical analysis revealed a higher communication score for non-CALD students compared to CALD students. Moreover, average ASLA scores for non-CALD students were also higher than for CALD students. Video analysis revealed differences in the way students deliver advice in particular, advice format, fitting of prior advice to prior talk, epistemics, patient agency vs direct advice, dealing with sensitivity, dispreference, conditionals, accounting for advice.

Discussion.
According to the findings, students' CALD status can impact on how students perform in clinical oral assessments and this study provides some insights into how we could tailor interventions to support CALD student to ensure they are workforce ready.

P156

Attitudes and experiences of undergraduate pharmacy students toward research after completion of research courses

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Introduction:
Traditional approaches for research methods courses in health science disciplines are primarily focused on quantitative analysis techniques. However, pharmacy practice research requires skills in both quantitative and qualitative methodologies to ensure the depth of patient experience is captured. Moreover, previous study has shown that pharmacy students understand the value of research but lack confidence to undertake professional practice research activities (1, 2).

Aims:
This study aimed to explore student attitudes about undertaking research, as well as student experience with the developed qualitative data analysis module.

Methods:
Final year undergraduate pharmacy students at RMIT University were invited to participate in this study. The survey included three key sections: demographics, attitudes to research and experiences of qualitative data analysis module.

Results:
In total 23 students responded to the survey (25% response rate) after completing the research methods course. All students agreed that research is important for their profession. However, only 69% agreed that research training is necessary in the undergraduate pharmacy curriculum. In addition, only 43% agreed that research training should be incorporated into clinical placements. Only 57% of the students felt confident in their ability to design a research project at the conclusion of this course. The majority of the participants enjoyed the qualitative research module.

Discussion:
The relatively low confidence of this cohort in undertaking research projects is comparable to the levels reported by Kritikos et al (2). Future studies should consider factors that contribute to developing student confidence and interest in undertaking research activities.

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P157

3D-Printed Drug Delivery Systems for Site-Specific and Precise Cancer Therapy

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Introduction:
Cancer continues to be a significant global health issue, frequently associated with unfavorable outcomes and high rates of recurrence following surgical intervention. Although surgery remains one of the most common treatments for cancer, residual tumor cells at the surgical margins frequently cause relapse. Adjuvant chemotherapy targets these cells but faces limitations like systemic toxicity, uneven drug distribution, and resistance. This has led to increased interest in localized drug delivery systems that release medication directly at the surgical site, minimizing side effects. Among these, 3D-printed drug delivery platforms offer precise, customizable implants for controlled, sustained drug release, enhancing treatment efficacy and safety.

Aims:
Exploring localized drug delivery for enhanced precision and reduced toxicity by evaluate 3D-printed systems for site-specific therapy. Moreover, assessing 3D printing's role in customizable, controlled-release platforms.

Methods:
Biodegradable, anticancer drug-loaded systems were fabricated using 3D printing. Physicochemical properties were characterized via DSC, XRD, FTIR, TGA, and SEM. Stability under various storage conditions was assessed. Drug content uniformity was evaluated, and varying infill densities were tested to control drug release profiles through structural design.

Results:
Biodegradable 3D-printed bilayer films loaded with 5-fluorouracil (5-FU) and cisplatin (Cis) were developed for localized chemotherapy. Film design enabled distinct release profiles where 5-FU released over 24 hours, Cis over 12–23 days. A 3D-printed drug-loaded stent for 5-FU delivery showed sustained release over 110 days, with confirmed permeability through esophageal tissue, supporting long-term localized therapy.

Discussion:
Post-surgical cancer recurrence remains a challenge due to residual cells. Localized chemotherapy targets these with less systemic toxicity. Our biodegradable, customizable 3D-printed system offers precise drug delivery, enabling personalized treatment to improve post-surgical outcomes and reduce recurrence risk.

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