Medication Without Harm

WHO Global Patient Safety Challenge

MEDICATION WITHOUT HARM
Global Patient Safety Challenge

World Health Organization

MEDICATION WITHOUT HARM
Global Patient Safety Challenge

World Health Organization

Practical examples - Addressing medication safety in polypharmacy at the national level

Steve Waller
Senior Project Officer – Medication Without Harm
eHealth and Medication Safety team at the Australian Commission on Safety and Quality in Health Care

Sydney, Australia

12 July 2022

WHO Global Patient Safety Challenge: *Medication without harm*

Webinar 6: Medication Safety in Polypharmacy

An Australian perspective

Tuesday, 12 July 2022

Presenter: Steve Waller

AUSTRALIAN COMMISSION
ON **SAFETY** AND **QUALITY** IN **HEALTH CARE**

Background - Australia

- Population: 25,766,605 (Source: Aust Bureau of Statistics 31-Dec- 2021)

- Population 65 years and older: 4,185,311 (16.2%) (Source: Aust Bureau of Statistics 31-Dec- 2021)

- Population living in residential aged care facilities: 245,000 (1%) (Source: Royal Commission into Aged Care Quality and Safety. Final Report: Care, Dignity and Respect. [Internet] Canberra: Commonwealth of Australia; 2021)

- Australia has one of the highest life expectancies in the world, at 83.0 years in 2020 for males and females at birth combined

Australia's population is ageing

More than 938,000 people have moved into the 65 to 84 years age band in the 10 years to 2020.

Medicine use in Australia

- In 2019-20, 208.8 million Pharmaceutical benefits Scheme subsidised prescriptions were dispensed *~ 8.1 Rx per person*

- Australians are also high consumers of complementary and over-the-counter medicines[1]

- A 2012 Australian study[2] examined medicines use in a 24 hour period

    - Use by 50 years and older cohort - *87.1%*

    - Use of 5 medicines of any type – *43.3%*

    - Use of 10 or more medicines of any type – *10.7%*

- In Australian hospitals the average number of medicines prescribed for older patients is *9-10 per patient*, with an average of 5 to 7 medicine changes made between admission and discharge.[3]

Polypharmacy in Australia

- Up to *91%* of people in Australian residential aged care facilities (RACFs) are prescribed more than five concomitant medicines, and up to *74%* of care recipients take more than nine medicines[4]

- Prevalence of polypharmacy in Australians 70 years and older had increased from *33.2%* in 2006 to *36.2%* in 2017 amongst Pharmaceutical Benefits Scheme (PBS) concession cardholders[5]

- In 2017–18, one in two Australians had one or more of 10 recognised chronic conditions and one in five had two or more of these chronic conditions[6]

- Given Australia's burden of disease, the medication management needs of people living in RACFs are now more complex than they were in 2012

People are living in their homes for longer and this delayed entry to residential aged care means that people will be older, more frail and sicker when they do enter a RACF[7]

Polypharmacy in Australia

Definitions

- Polypharmacy – use of *five or more* medicines at the same time, including prescribed, over-the-counter and complementary medicines

- Hyper-polypharmacy - use of *ten or more* medicines at the same time, including prescribed, over-the-counter and complementary medicines

ACSQHC work

- Focus on *inappropriate polypharmacy*

  - WHO Global Patient Safety Challenge: Medication without harm - Australia's response (Jan 2020)

  - National baseline report Quality Use of Medicines + Medication safety (10th National Health Priority): Phase 1 Residential aged care (Nov 2021)

- Aged Care Draft Clinical Standards project

  - Address medication safety – recommendation of Royal Commission into Aged Care Quality and Safety (Mar 2021)
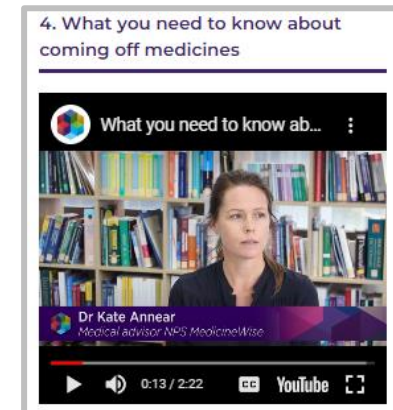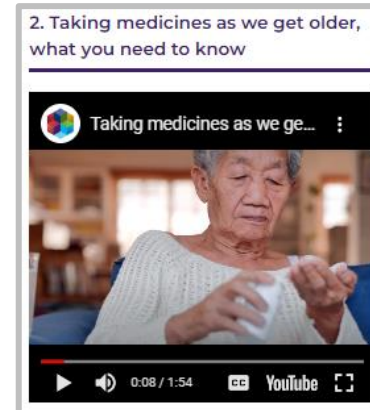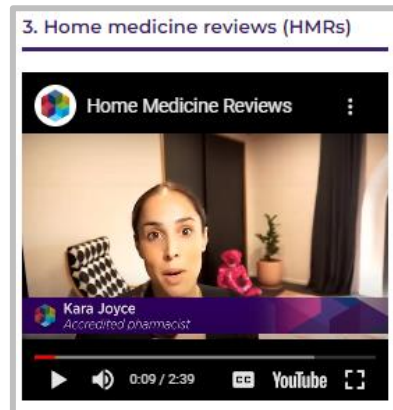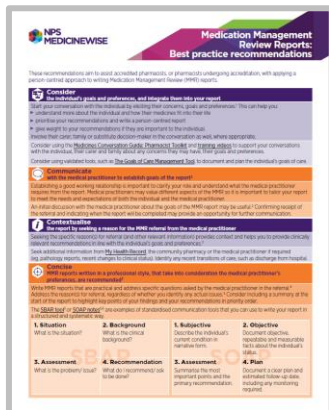
Programs to address inappropriate polypharmacy

- Best possible medicines history
  - [Pharmacist Shared Medicines List](#) in My Health Record
- Increased frequency of medication reviews[8] to identify potentially inappropriate medicines
  - Residential Medication Management Review (RMMR)
  - Domiciliary Medication Management Review (DMMR), also known as a Home Medicines Review (HMR)
  - Interdisciplinary case conferencing involving health practitioners meeting face-to-face with the resident has been shown to achieve reductions in unnecessary medicines
- Monitoring and Deprescribing
  - [Resource Kit for Measuring Strategies to Reduce Harm from Polypharmacy in Australian Hospitals](#): QUM Indicators, Patient Reported Experience Measures (PREMs) and Risk Stratification Tools (March 2022)
  - [Australian Deprescribing Network](#)
  - [*Anticholinergic burden – the unintended consequences for older people*](#) program
- Updated national Quality Use of Medicine guidelines (July 2022)
  - Guiding Principles for Medication Management in Residential Aged Care Facilities
  - Guiding Principles for Medication Management in the Community
  - Guiding Principles to Achieve Continuity in Medication Management
  - User Guide: The Role of a Medication Advisory Committee

Inappropriate polypharmacy – Key project

Anticholinergic burden – the unintended consequences for older people program

- Anticholinergic medications have a high prevalence in older patient populations and many older adults accumulate anticholinergic burden through polypharmacy[9] and may impact quality of life[10]

- Side effects include visual disturbance, dry mouth, heat intolerance, constipation, urinary retention, cognitive impairment and increased heart rate

- Education and training interventions with general practitioners and health professionals in residential aged care facilities to improve prescribing and administration, review and deprescribing of medicines with anticholinergic effects, including regular GP visits, "deep dive" GP visits, RACF visits, webinars, on-line case studies

- Health professional resources, tools and check-lists for best practice RMMRs

- Consumer resources "Falls, confusion … is it my medicine?"

Inappropriate polypharmacy – Key project

Anticholinergic burden – the unintended consequences for older people program

Results

- 5099 general practitioner visits (1-Oct-2021 to 30-Jun-2022) *~ 16.5% of all GPs … 93% of goal*

- 95% "entirely satisfied" rating in responses from GPs; high relevance rating 93%

- 507 Residential Aged Care Facility visits (1-Oct-2021 to 30-Jun-2022) *~ 18.8% of all RACFs … 101% of goal*

- 100% "entirely satisfied" rating in responses from RACF nurses; high relevance rating 92%

- 80% "entirely satisfied" with webinar experience; relevance rating 74%

- Utilisation of online case study was disappointing (n=31); relevance rating 74%

- Preliminary evaluation findings show positive impacts on health professional knowledge, confidence and practice

- Longer term evaluation would aim to determine the impact of prescribing through analysis of data on "deep dive" GP visits and utilisation of the Drug Burden Index tool

Key learnings

- As populations age and older patients present with increasingly complex and chronic medical conditions often with comorbidities, they are vulnerable to medication-related adverse events

- Inappropriate polypharmacy occurs in and across sectors - acute care, aged care, disability care, and primary care

- At every point of contact in the healthcare system there is an opportunity for medication reconciliation and review and for interdisciplinary collaboration on medicines management and planning

    - GPs, registered nurses and pharmacists key to reducing anticholinergic burden in aged care

- Supervised withdrawal of potentially inappropriate medicines, or medicines no longer needed, is safe, may improve the quality of life, and reduces costs to the healthcare system

    - Decreases medicines cost

    - Reduces medication-related ED presentations and hospital admissions

- Embedding new polypharmacy QUM indicators in health service organisations practice takes time

References

1. Von Conrady DM. Patterns of complementary and alternative medicine use and health literacy in general practice patients in urban and regional Australia. Aust Fam Physician 2017; 46, 5:315–320. Available from https://pubmed.ncbi.nlm.nih.gov/28472578/

2. Morgan TK, Williamson M, Pirotta M, Stewart K, Meyers SP, Barnes J. A national census of medicines use: One 24 hour snapshot of Australians aged 50 years and older. Med J Aust 2012; 196:50–53. Available from https://www.mja.com.au/system/files/issues/196_01_160112/mor10698_fm.pdf

3. Elliott RA, Booth J. Problems with medicine use in older Australians: a review of recent literature. J Pharm Prac Res 2014; 44:258–271. Available from https://onlinelibrary.wiley.com/doi/full/10.1002/jppr.1041

4. Jokanovic N, Tan ECK, Dooley MJ, Kirkpatrick CM, et al. Prevalence and factors associated with polypharmacy in long-term care facilities: A systematic review. J Am Med Dir Assoc 2015; 16:535.e1-535.e12. DOI: 10.1016/j.jamda.2015.03.003

5. Page AT, Falster MO, Litchfield M, Pearson SA, et al. Polypharmacy among older Australians, 2006–2017: a population-based study. Med J Aust 2019; 211(2):71–75. DOI: 10.5694/mja2.50244

6. Australian Institute of Health and Welfare. Chronic disease. 21 October 2021. Available from https://www.aihw.gov.au/reports-data/health-conditions-disability-deaths/chronic-disease/overview

7. Royal Commission into Aged Care Quality and Safety. Final Report, Dignity and Respect. Canberra: Commonwealth of Australia 2021. Available from https://agedcare.royalcommission.gov.au/publications/final-report

8. Medication management reviews, Australian Government Department of Health and Aged Care. Available from https://www1.health.gov.au/internet/main/publishing.nsf/Content/medication_management_reviews.htm#:~:text=The%20Residential%20Medication%20Management%20Review,benefit%20from%20such%20a%20service.

9. Kouladjian L, Gnjidic D, Chen TF, Mangoni AA, Hilmer SN. Drug Burden Index in older adults: theoretical and practical issues. Clin Interv Aging. 2014 Sep 9; 9:1503–15. DOI: doi.org/10.2147/CIA.S66660

10. Harrison SL, O'Donnell LK, Bradley CE, Milte R, et al. Associations between the Drug Burden Index, potentially inappropriate medications and quality of life in residential aged care. Drugs Aging 2018; 35:83–91. DOI: 10.1007/s40266-017-0513-3