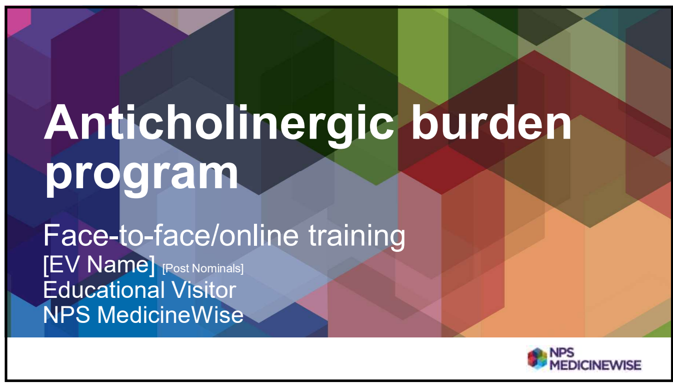

Anticholinergic burden program

Face-to-face/online training
[EV Name] [Post Nominals]
Educational Visitor
NPS MedicineWise

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1

Today

- Introduction (to each other, and this activity)
- Program overview
- Reviewing and assessing anticholinergic burden
- Using a person-centred approach
- Strategies to manage anticholinergic burden
- Case study
- Next steps

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What is quality use of medicines?[1]

1. Use a medicine only when necessary.
2. If it is necessary, use the right medicine at the right dose for the right duration.
3. Use medicines in a way that ensures a safe and effective outcome.

1 Australian Government. The National Strategy for Quality Use of Medicines – Plain English Summary. Canberra: Australian Government, 2002.

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Anticholinergic burden: an important QUM issue

- Anticholinergic burden is the cumulative effect on a person from taking one or more medicines with anticholinergic effects.[1]
- Cumulative burden may be caused by multiple medicines including those not typically thought of as having anticholinergic effects.[2,3]
- The impact on patient health outcomes includes large increases in fall-related hospitalisation, the risk of dementia and mortality,[4,5] and overall reduced quality of life.

1 Kouladjian O'Donnell L, et al. J Pharm Pract Res 2017;47:67-77.
2 Parkinson L, et al. Med J Aust 2015;202:91-4.
3 Veterans'MATES. Medicines: the hidden contributor to falls and hip fractures. Canberra: Australian Government, 2018.
4 Nishtala PS, et al. Pharmacoepidemiol Drug Saf 2014;23:753-8.
5 Dmochowski RR, et al. Neurourol Urodyn 2021;40:28-37.

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Compounding effects of anticholinergic and sedative medicines

- Medicines with anticholinergic or sedative properties may cause adverse events by contributing to an older person's anticholinergic or sedative burden.[1]
- High long-term cumulative exposure is associated with poorer cognitive and physical functioning.[2]
- This burden may be decreased by reducing the number and dose of medicines with anticholinergic and sedative effects.[1]

1 Bell JS, et al. Aust Fam Physician. 2012;41:45-9.
2 Wouters H, et al. J Gerontol A Biol Sci Med Sci. 2020;75:357-65.

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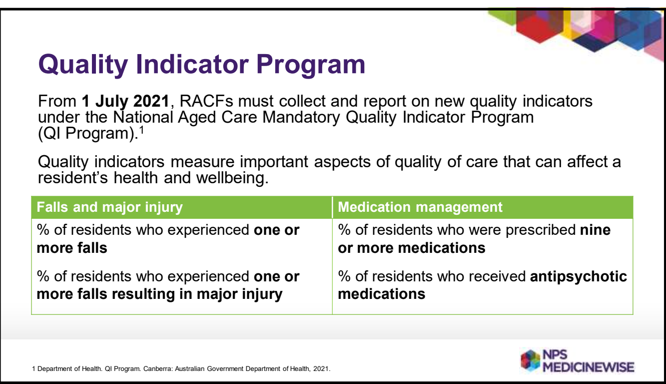

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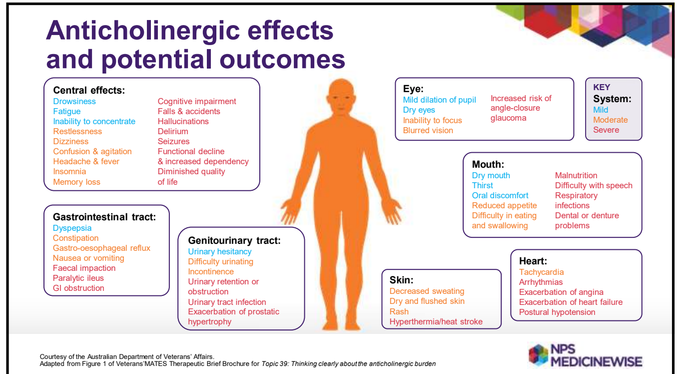

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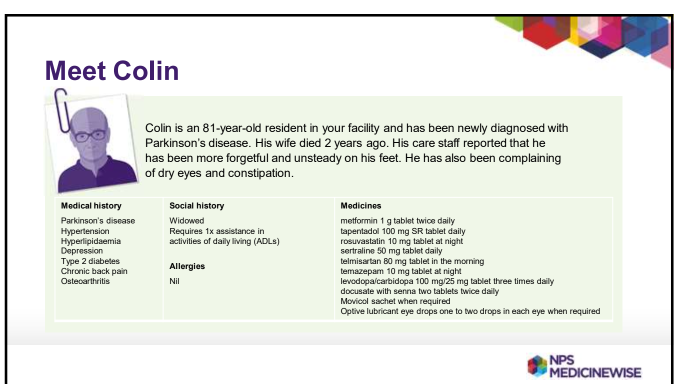

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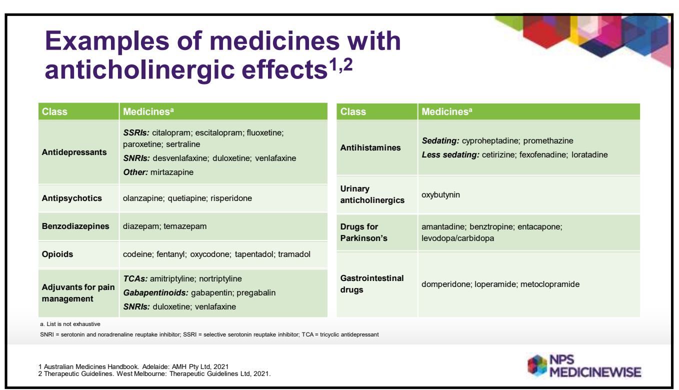

Class	Medicines[a]
Antidepressants	***SSRIs:*** citalopram; escitalopram; fluoxetine; paroxetine; sertraline ***SNRIs:*** desvenlafaxine; duloxetine; venlafaxine ***Other:*** mirtazapine
Antipsychotics	olanzapine; quetiapine; risperidone
Benzodiazepines	diazepam; temazepam
Opioids	codeine; fentanyl; oxycodone; tapentadol; tramadol
Adjuvants for pain management	***TCAs:*** amitriptyline; nortriptyline ***Gabapentinoids:*** gabapentin; pregabalin ***SNRIs:*** duloxetine; venlafaxine

Class	Medicines[a]
Antihistamines	***Sedating:*** cyproheptadine; promethazine ***Less sedating:*** cetirizine; fexofenadine; loratadine
Urinary anticholinergics	oxybutynin
Drugs for Parkinson's	amantadine; benztropine; entacapone; levodopa/carbidopa
Gastrointestinal drugs	domperidone; loperamide; metoclopramide

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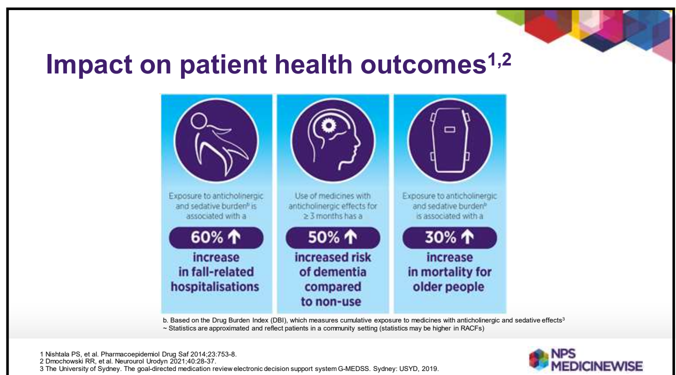

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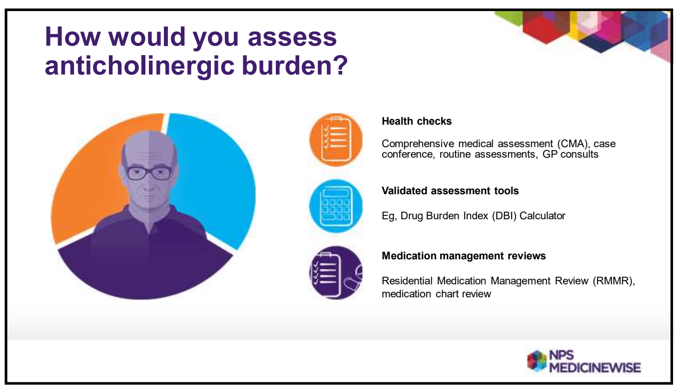

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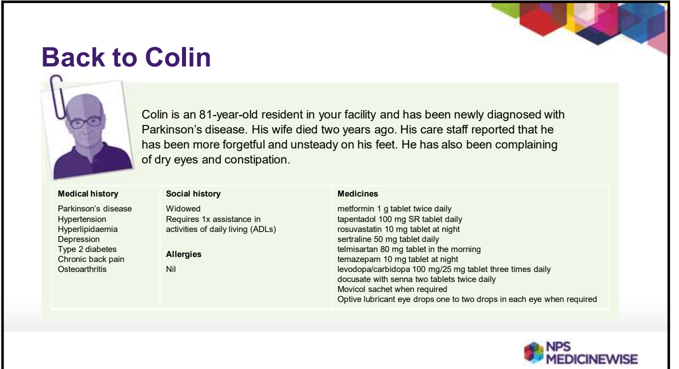

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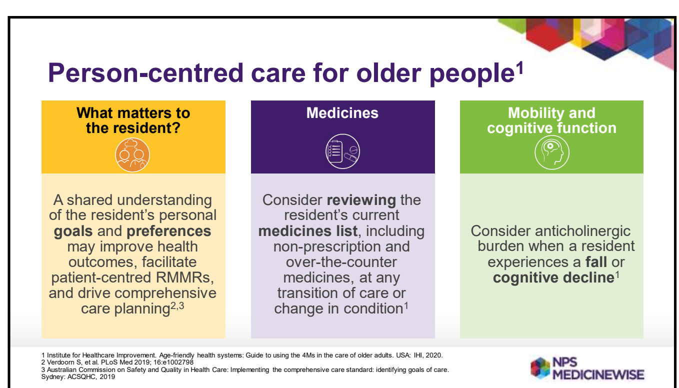

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Multidisciplinary opportunities

Multidisciplinary opportunities may support person-centred care and help address any concerns or issues.

- **Case conferences**
- **RMMRs**
- **Medication Advisory Committee (MAC) meetings**
- **Quality Use of Medicine (QUM) services**

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RMMR patient consent changes after June 2020

- Consent must be obtained from the resident or their authorised representative for each individual RMMR.[1]
- If there is no other suitable person to give consent, the service may still be completed if:[1]
  - the resident's physical or mental health or safety may be significantly and detrimentally impacted
  - the resident may be exposed to a potentially life-threatening situation
  - the resident might reasonably be exposed to serious injury or illness.

1 Pharmacy Programs Administrator. Residential medication management review patient consent. Victoria: PPA, 2020.

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RMMR referrals[1]

- A recommendation based on the resident's clinical need may be provided by the medical practitioner, pharmacist, nursing staff, the resident or their carer. However, a medical practitioner is required to provide the initial referral.
- The referral should include the reason for referral and all relevant prescribing and clinical history.
- Accredited pharmacists need to ensure that appropriate consent has been gained prior to conducting the RMMR.
- The resident interview (if relevant) must take place within 90 days of the date of the referral to be remunerated under the RMMR program.

1 Pharmaceutical Society of Australia. Guidelines for pharmacists providing Residential Medication Management Review (RMMR) and Quality Use of Medicines (QUM) services. Sydney: PSA Ltd, 2017.

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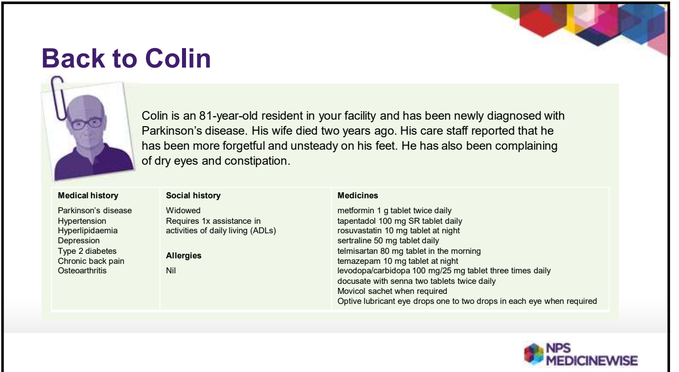

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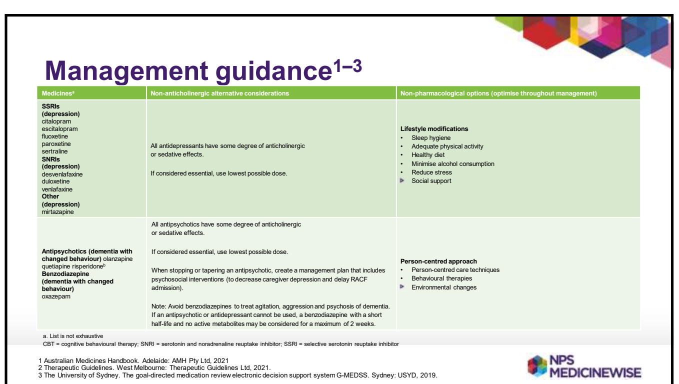

Management guidance[1–3]

Medicines[a]	Non-anticholinergic alternative considerations	Non-pharmacological options (optimise throughout management)
SSRIs (depression) citalopram escitalopram fluoxetine paroxetine sertraline **SNRIs (depression)** desvenlafaxine duloxetine venlafaxine **Other (depression)** mirtazapine	All antidepressants have some degree of anticholinergic or sedative effects. If considered essential, use lowest possible dose.	**Lifestyle modifications** • Sleep hygiene • Adequate physical activity • Healthy diet • Minimise alcohol consumption • Reduce stress • Social support
Antipsychotics (dementia with changed behaviour) olanzapine quetiapine risperidone[b] **Benzodiazepine (dementia with changed behaviour)** oxazepam	All antipsychotics have some degree of anticholinergic or sedative effects. If considered essential, use lowest possible dose. When stopping or tapering an antipsychotic, create a management plan that includes psychosocial interventions (to decrease caregiver depression and delay RACF admission). Note: Avoid benzodiazepines to treat agitation, aggression and psychosis of dementia. If an antipsychotic or antidepressant cannot be used, a benzodiazepine with a short half-life and no active metabolites may be considered for a maximum of 2 weeks.	**Person-centred approach** • Person-centred care techniques • Behavioural therapies • Environmental changes

a. List is not exhaustive
CBT = cognitive behavioural therapy; SNRI = serotonin and noradrenaline reuptake inhibitor; SSRI = selective serotonin reuptake inhibitor

1 Australian Medicines Handbook. Adelaide: AMH Pty Ltd, 2021
2 Therapeutic Guidelines. West Melbourne: Therapeutic Guidelines Ltd, 2021.
3 The University of Sydney. The goal-directed medication review electronic decision support system G-MEDSS. Sydney: USYD, 2019.

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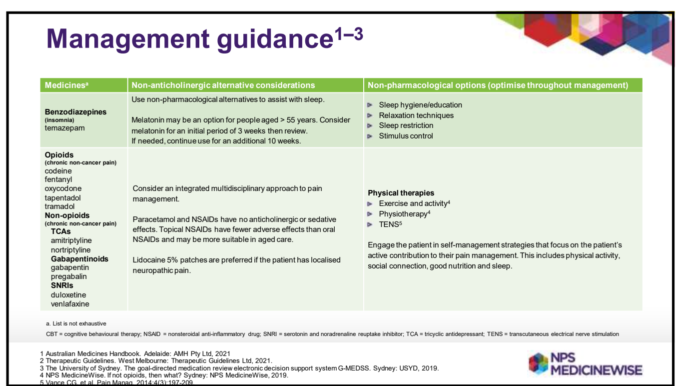

Management guidance[1–3]

Medicines[a]	Non-anticholinergic alternative considerations	Non-pharmacological options (optimise throughout management)
Benzodiazepines **(insomnia)** temazepam	Use non-pharmacological alternatives to assist with sleep. Melatonin may be an option for people aged > 55 years. Consider melatonin for an initial period of 3 weeks then review. If needed, continue use for an additional 10 weeks.	▶ Sleep hygiene/education ▶ Relaxation techniques ▶ Sleep restriction ▶ Stimulus control
Opioids **(chronic non-cancer pain)** codeine fentanyl oxycodone tapentadol tramadol **Non-opioids** **(chronic non-cancer pain)** **TCAs** amitriptyline nortriptyline **Gabapentinoids** gabapentin pregabalin **SNRIs** duloxetine venlafaxine	Consider an integrated multidisciplinary approach to pain management. Paracetamol and NSAIDs have no anticholinergic or sedative effects. Topical NSAIDs have fewer adverse effects than oral NSAIDs and may be more suitable in aged care. Lidocaine 5% patches are preferred if the patient has localised neuropathic pain.	**Physical therapies** ▶ Exercise and activity[4] ▶ Physiotherapy[4] ▶ TENS[5] Engage the patient in self-management strategies that focus on the patient's active contribution to their pain management. This includes physical activity, social connection, good nutrition and sleep.

a. List is not exhaustive

CBT = cognitive behavioural therapy; NSAID = nonsteroidal anti-inflammatory drug; SNRI = serotonin and noradrenaline reuptake inhibitor; TCA = tricyclic antidepressant; TENS = transcutaneous electrical nerve stimulation

1 Australian Medicines Handbook. Adelaide: AMH Pty Ltd, 2021
2 Therapeutic Guidelines. West Melbourne: Therapeutic Guidelines Ltd, 2021.
3 The University of Sydney. The goal-directed medication review electronic decision support system G-MEDSS. Sydney: USYD, 2019.
4 NPS MedicineWise. If not opioids, then what? Sydney: NPS MedicineWise, 2019.
5 Vance CG, et al. Pain Manag. 2014;4(3):197-209.

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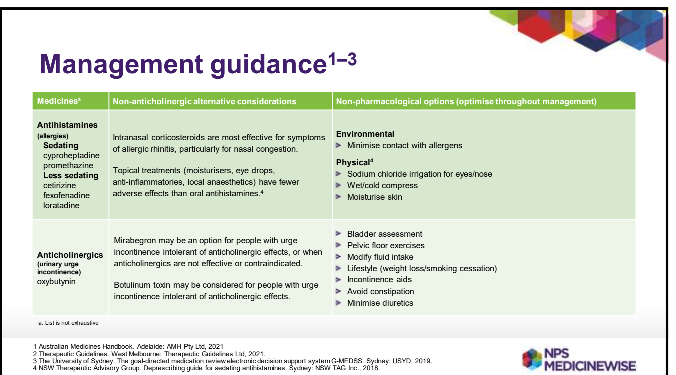

Management guidance[1–3]

Medicines[a]	Non-anticholinergic alternative considerations	Non-pharmacological options (optimise throughout management)
Antihistamines **(allergies)** **Sedating** cyproheptadine promethazine **Less sedating** cetirizine fexofenadine loratadine	Intranasal corticosteroids are most effective for symptoms of allergic rhinitis, particularly for nasal congestion. Topical treatments (moisturisers, eye drops, anti-inflammatories, local anaesthetics) have fewer adverse effects than oral antihistamines.[4]	**Environmental** ▶ Minimise contact with allergens **Physical[4]** ▶ Sodium chloride irrigation for eyes/nose ▶ Wet/cold compress ▶ Moisturise skin
Anticholinergics **(urinary urge incontinence)** oxybutynin	Mirabegron may be an option for people with urge incontinence intolerant of anticholinergic effects, or when anticholinergics are not effective or contraindicated. Botulinum toxin may be considered for people with urge incontinence intolerant of anticholinergic effects.	▶ Bladder assessment ▶ Pelvic floor exercises ▶ Modify fluid intake ▶ Lifestyle (weight loss/smoking cessation) ▶ Incontinence aids ▶ Avoid constipation ▶ Minimise diuretics

a. List is not exhaustive

1 Australian Medicines Handbook. Adelaide: AMH Pty Ltd, 2021
2 Therapeutic Guidelines. West Melbourne: Therapeutic Guidelines Ltd, 2021.
3 The University of Sydney. The goal-directed medication review electronic decision support system G-MEDSS. Sydney: USYD, 2019.
4 NSW Therapeutic Advisory Group. Deprescribing guide for sedating antihistamines. Sydney: NSW TAG Inc., 2018.

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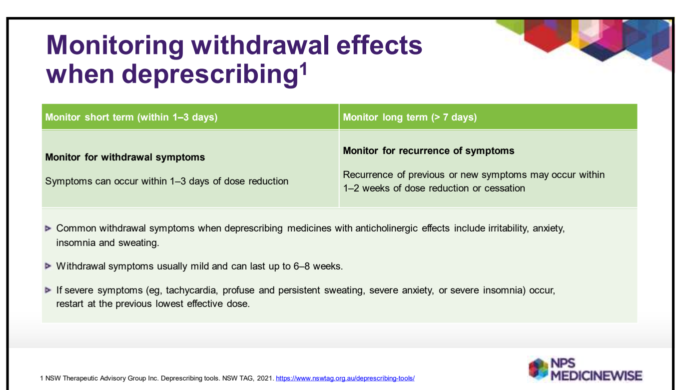

Monitoring withdrawal effects when deprescribing[1]

Monitor short term (within 1–3 days)	Monitor long term (> 7 days)
Monitor for withdrawal symptoms Symptoms can occur within 1–3 days of dose reduction	**Monitor for recurrence of symptoms** Recurrence of previous or new symptoms may occur within 1–2 weeks of dose reduction or cessation

- Common withdrawal symptoms when deprescribing medicines with anticholinergic effects include irritability, anxiety, insomnia and sweating.
- Withdrawal symptoms usually mild and can last up to 6–8 weeks.
- If severe symptoms (eg, tachycardia, profuse and persistent sweating, severe anxiety, or severe insomnia) occur, restart at the previous lowest effective dose.

1 NSW Therapeutic Advisory Group Inc. Deprescribing tools. NSW TAG, 2021. https://www.nswtag.org.au/deprescribing-tools/

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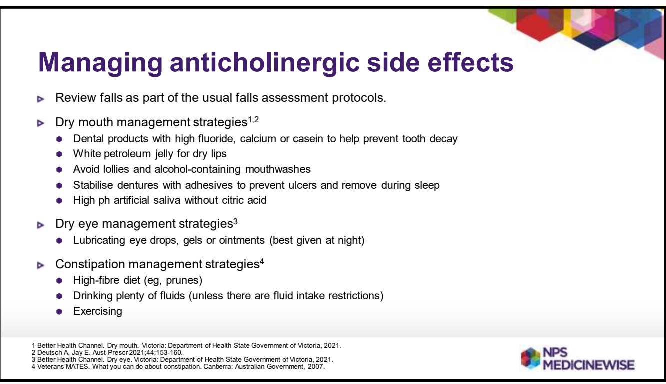

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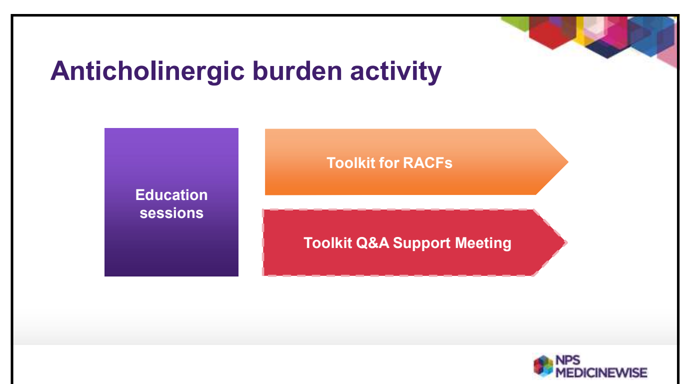

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Anticholinergic burden: a toolkit to improve resident outcomes in aged care facilities

Aim

- To help RACFs improve health outcomes for residents with identified anticholinergic burden, by reducing side effects such as dry mouth and constipation, and by decreasing the risk of falls due to dizziness. Reducing falls can assist with meeting quality indicators in the QI Program.

Objectives

- Raise awareness amongst RACF staff of anticholinergic burden and its impact on residents, such as increasing falls risk, cognitive impairment and other adverse effects.
- Improve current RACF processes to support a person-centred multidisciplinary approach to reduce anticholinergic burden.
- Optimise the use of non-pharmacological and pharmacological (where appropriate) alternatives to medicines with anticholinergic effects to reduce medicine-related harm in aged care residents.

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Anticholinergic burden: a toolkit to improve resident outcomes in aged care facilities

Benefits

- Improve current workflow and processes to improve resident outcomes

Content

- Identifying anticholinergic burden
- Assessing anticholinergic burden
- Managing anticholinergic burden
- Using a person-centred approach

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Toolkit: identifying and assessing anticholinergic burden

- Identifying residents at risk of anticholinergic burden
  - infographic of anticholinergic effects, table with examples of medicines, NPS MedicineWise resources (presentation template, online information session, webinars), guidelines for medication management, QUM services and polypharmacy in RACFs
- Assessing anticholinergic burden – existing systems, services and tools
  - Drug Burden Index (DBI) calculator, falls risk assessment tool (FRAT), guidelines for falls assessment
- Assessing anticholinergic burden - RMMRs
  - NPS MedicineWise resources (RMMR patient fact sheet), guidelines for RMMRs

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Toolkit: managing anticholinergic burden

- Deprescribing medicines with anticholinergic effects, managing withdrawal and optimising non-pharmacological options
  - examples of guidance to manage anticholinergic effects of medicines, deprescribing tools and guidelines, NPS MedicineWise resources (deprescribing patient action plan)
- Managing symptoms of anticholinergic burden (falls, constipation, dry mouth)
  - guidelines for managing falls, constipation and dry mouth

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Toolkit: using a person-centred approach

- Multidisciplinary opportunities for collaboration within RACFs (RMMRs, case conferences, QUM services, MACs)
  - toolkit Q&A support meeting, guidelines for collaboration within RACFs
- Person-centred care for aged care residents
  - NPS MedicineWise resources (Choosing Wisely 5 questions, patient decision aid, online case study), 4Ms guideline, Aged Care Quality Standards guideline

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