



# WEBINAR

Wednesday, 30 March 2022  
7.00–8.00 pm AEDT

**REDUCING THE BURDEN OF MEDICINES WITH  
ANTICHOLINERGIC EFFECTS ON OLDER PEOPLE**



**Anticholinergic burden:  
What comes to mind?**

# Anticholinergic burden: an important QUM issue

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

# 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.<sup>1</sup>
- ▶ High long-term cumulative exposure is associated with poorer cognitive and physical functioning.<sup>2</sup>
- ▶ This burden may be decreased by reducing the number and dose of medicines with anticholinergic and sedative effects.<sup>1</sup>

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.

# Quality Indicator Program

From **1 July 2021**, RACFs must collect and report on new quality indicators under the National Aged Care Mandatory Quality Indicator Program (QI Program).<sup>1</sup>

Quality indicators measure important aspects of quality of care that can affect a resident's health and wellbeing.

Falls and major injury	Medication management
% of residents who experienced <b>one or more falls</b>	% of residents who were prescribed <b>nine or more medications</b>
% of residents who experienced <b>one or more falls resulting in major injury</b>	% of residents who received <b>antipsychotic medications</b>

<sup>1</sup> Department of Health. QI Program. Canberra: Australian Government Department of Health, 2021.



# Anticholinergic effects

## Central effects:

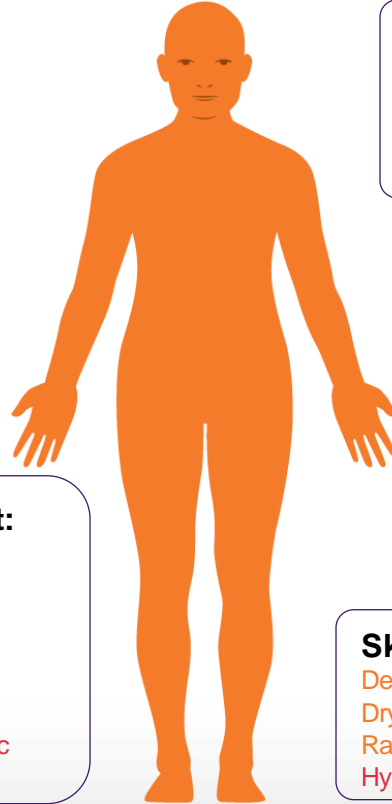
Drowsiness	Cognitive impairment
Fatigue	Falls & accidents
Inability to concentrate	Hallucinations
Restlessness	Delirium
Dizziness	Seizures
Confusion & agitation	Functional decline & increased dependency
Headache & fever	Diminished quality of life
Insomnia	
Memory loss	

## Gastrointestinal tract:

Dyspepsia  
Constipation  
Gastro-oesophageal reflux  
Nausea or vomiting  
Faecal impaction  
Paralytic ileus  
GI obstruction

## Genitourinary tract:

Urinary hesitancy  
Difficulty urinating  
Incontinence  
Urinary retention or obstruction  
Urinary tract infection  
Exacerbation of prostatic hypertrophy



## Eye:

Mild dilation of pupil	Increased risk of angle-closure glaucoma
Dry eyes	
Inability to focus	
Blurred vision	

## KEY System:

Mild  
Moderate  
Severe

## Mouth:

Dry mouth	Malnutrition
Thirst	Difficulty with speech
Oral discomfort	Respiratory infections
Reduced appetite	Dental or denture problems
Difficulty in eating and swallowing	

## Skin:

Decreased sweating  
Dry and flushed skin  
Rash  
Hyperthermia/heat stroke

## Heart:

Tachycardia  
Arrhythmias  
Exacerbation of angina  
Exacerbation of heart failure  
Postural hypotension

# Impact on patient health outcomes<sup>1,2</sup>



Exposure to anticholinergic and sedative burden<sup>b</sup> is associated with a

**60% ↑**

**increase  
in fall-related  
hospitalisations**



Use of medicines with anticholinergic effects for  $\geq 3$  months has a

**50% ↑**

**increased risk  
of dementia  
compared  
to non-use**



Exposure to anticholinergic and sedative burden<sup>b</sup> is associated with a

**30% ↑**

**increase  
in mortality for  
older people**



Cumulative anticholinergic burden may be caused by multiple medicines that are not typically thought of as having anticholinergic effects<sup>7,8</sup>

b. Based on the Drug Burden Index (DBI), which measures cumulative exposure to medicines with anticholinergic and sedative effects<sup>3</sup>  
~ Statistics are approximated

# Meet Colin



Colin is an 81-year-old resident in your facility and has been newly diagnosed with Parkinson's disease. His wife died 2 years ago. His care staff reported that he has been more forgetful and unsteady on his feet. He has also been complaining of dry eyes and constipation.

## Medical history

Parkinson's disease  
Hypertension  
Hyperlipidaemia  
Depression  
Type 2 diabetes  
Chronic back pain  
Osteoarthritis

## Social history

Widowed  
Requires 1x assistance in  
activities of daily living (ADLs)

## Allergies

Nil

## Medicines

metformin 1 g tablet twice daily  
tapentadol 100 mg SR tablet daily  
rosuvastatin 10 mg tablet at night  
sertraline 50 mg tablet daily  
telmisartan 80 mg tablet in the morning  
temazepam 10 mg tablet at night  
levodopa/carbidopa 100 mg/25 mg tablet three times daily  
docusate with senna two tablets twice daily  
Movicol sachet when required  
Optive lubricant eye drops one to two drops in each eye when required

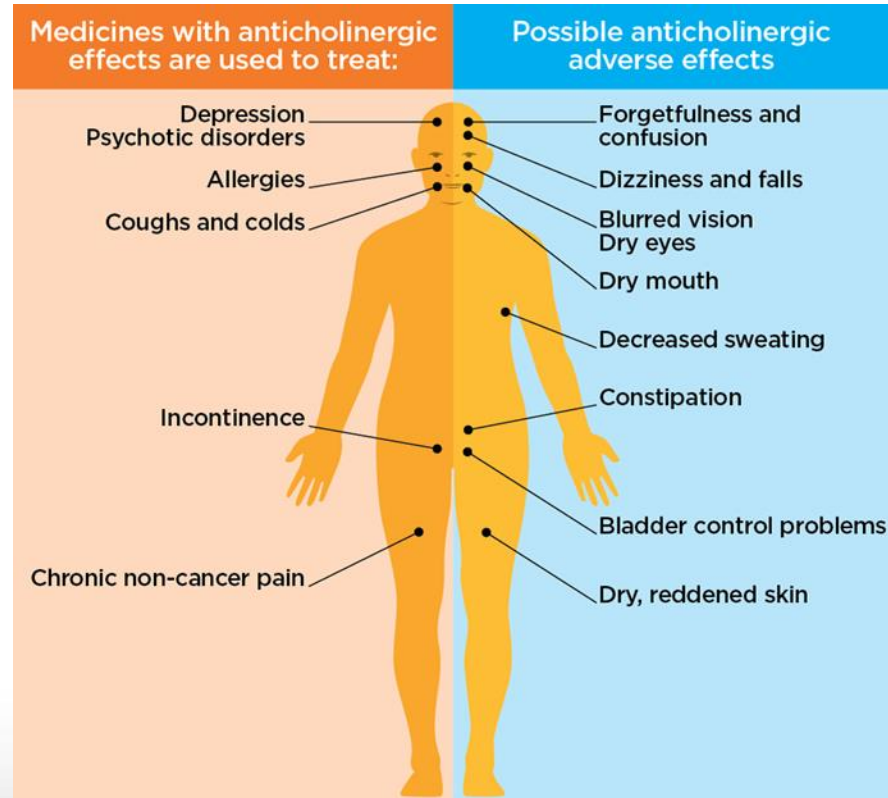




# Case Question 1

- ▶ Which medicines do you think are contributing to Colin's symptoms?

# Indications for medicines with anticholinergic effects and their possible adverse effects<sup>3-5</sup>



# Drug Burden Index Calculator



**G-MEDSS** ©

The Goal-directed Medication  
review Electronic Decision  
Support System

Goal-directed Deprescribing Report

The Drug Burden Index Calculator © Report

**Patient Name:** Colin Urgic  
**DOB:** 01/10/1943  
**Carer Name:**  
**Place of interview:** Residential Care Facility

**Date of Report:** 15/11/2021  
**General Practitioner:** Dr Walters  
**Date of Medication Review:** 12/11/2021

This patient has the following potential anticholinergic and sedative side effects  
Confusion, Constipation, Dizziness, Dry Eyes

## Patient Medication Profile

Medication	Frequency	DBI	Deprescribe?	Medication	Frequency	DBI	Deprescribe?
metformin 1g	BD	-		telmisartan 80mg	Daily	-	
Tapentadol 100 mg	Daily	0.33	⬇️	Temazepam 10 mg	nocte	0.50	⬇️
rosuvastatin 10mg	nocte	-		Levodopa with carbidopa 100 mg 25 mg	TDS	0.50	
Sertraline 50 mg	Daily	0.50	⬇️	docusate senna 50mg 8mg	2 2x daily	-	

**Total DBI for this patient:** **1.83**



**Low risk: DBI = 0**

**Moderate risk:  $0 < \text{DBI} < 1$**

**High risk: DBI  $\geq 1$**

Note: When one medication is entered multiple times, the total DBI is calculated as a cumulative dose. Individual components may not add up to sum total.

# Aggregated Data Figure 1

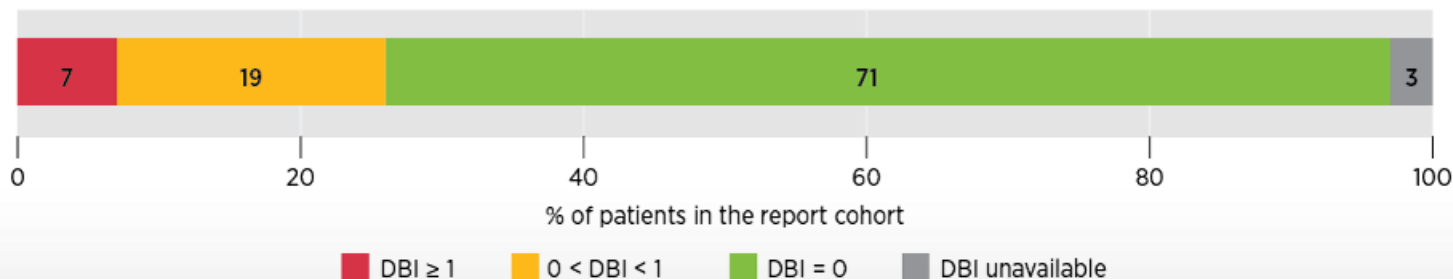
The report cohort includes all regular patients aged over 65 years, or Aboriginal or Torres Strait Islander peoples aged over 55 years, living in the community.

**Drug Burden Index (DBI)** is a measure of the cumulative exposure to anticholinergic and sedative medicines, which impair physical and cognitive function in older adults. A high DBI, (DBI  $\geq 1$ ) is associated with poor clinical outcomes in older people, such as falls, cognitive impairment and an increased risk of all-cause mortality.

DBI score is derived from medicines with anticholinergic and sedative effects prescribed regularly as recorded in the current medicine list in the clinical information system.

## What proportion of patients have a DBI $\geq 1$ ?

Figure 1: DBI scores for those in the report cohort



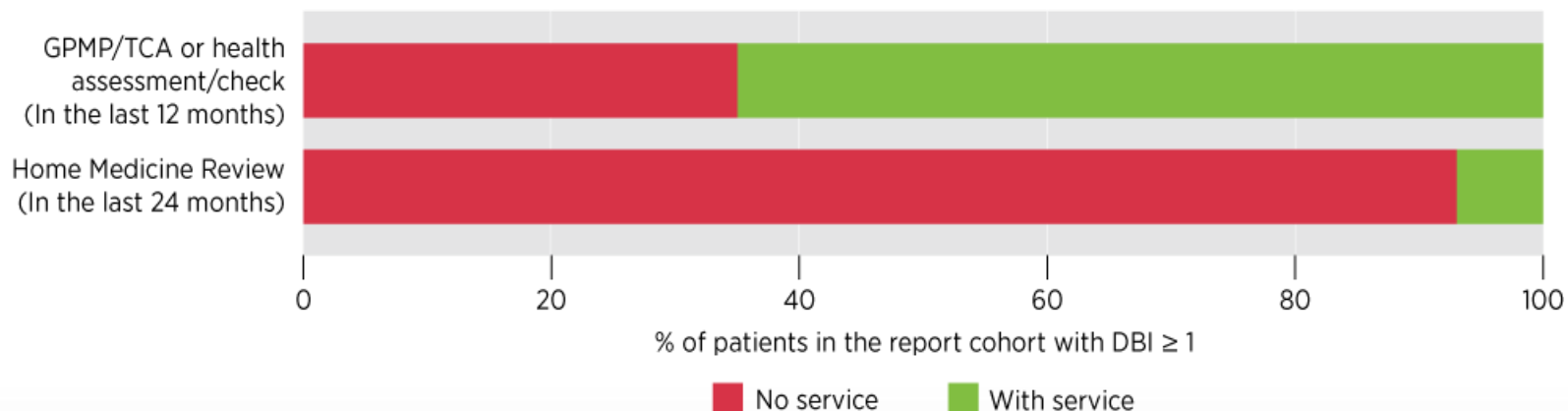
## Case Question 2

- ▶ How would you assess and review Colin's anticholinergic burden?

# Aggregated Data Figure 2

What proportion of patients with a  $DBI \geq 1$  did NOT receive a service that could be used to assess anticholinergic burden?

Figure 2: Services provided for those in the report cohort with  $DBI \geq 1$





# Assess anticholinergic burden using existing systems and tools



## **Health checks**

Review current medicines list when taking patient history



## **Validated assessment tools**

Eg, Drug Burden Index (DBI) Calculator



## **Medication management reviews**

Home Medicines Review (HMR)  
Residential Management Medication Review (RMMR)

# Patient-centred care for older people<sup>9–11</sup>

## WHAT MATTERS TO THE PATIENT



A shared understanding of the patient's personal **goals** and **preferences** may improve health outcomes, facilitate patient-centred HMRs/RMMRs, and drive comprehensive care planning<sup>12,13</sup>

## MEDICINES



Consider **reviewing** the patient's current **medicines list**, including over-the-counter medicines, at least annually and at any transition of care or change in condition<sup>9</sup>

## MOBILITY AND COGNITIVE FUNCTION



Consider anticholinergic burden when making a **differential diagnosis** for presentations such as falls and cognitive decline<sup>9</sup>



# 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**

# RMMR patient consent changes after June 2020

- ▶ Consent must be obtained from the resident or their authorised representative for each individual RMMR.<sup>1</sup>
- ▶ If there is no other suitable person to give consent, the service may still be completed if:<sup>1</sup>
  - ◆ 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.

# RMMR referrals<sup>1</sup>

- ▶ 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.

# A detailed referral will help enable an informative HMR/RMMR

TABLE 1 Information to include in a HMR/RMMR referral (MBS Items 900 and 903)<sup>14-16</sup>

HMRs/RMMRs lead to healthier patients, improved compliance, empowerment and improved confidence to self-manage, and better use of medicines<sup>17-20</sup>



A detailed referral allows for tailored recommendations and improves the chance a HMR/RMMR plan can be put into place<sup>21</sup>

Specifying the <b>reason</b> for the referral could help get the most out of the review process for the patient <sup>22,23</sup>	<p>Include relevant information in the referral<sup>24</sup></p> <ul style="list-style-type: none"><li>▶ Laboratory results</li><li>▶ Medical records</li><li>▶ Previous health assessments</li><li>▶ Care plans</li><li>▶ Case conference summaries</li><li>▶ Patient's personal goals and preferences<sup>12</sup></li></ul>	<ul style="list-style-type: none"><li>▶ <b>Share</b> the HMR/RMMR plan with the patient and pharmacist<sup>22</sup></li><li>▶ In complex situations, two follow-up consultations, conducted by an accredited pharmacist at least a month apart and within 9 months, may be used to support ongoing medication management<sup>25,26</sup></li></ul>
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# Actively involve patients in HMR/RMMR decisions

TABLE 2 Responding to patient concerns<sup>27</sup>

 <b>Some patients may be reluctant to take up a HMR/RMMR if they:</b>	 <b>Explain the purpose and benefits of a HMR/RMMR</b>
<ul style="list-style-type: none"> <li>▶ Don't understand the purpose of the review, its potential benefits or what happens during the process</li> </ul>	<ul style="list-style-type: none"> <li>▶ A HMR/RMMR allows GPs and pharmacists to work together to provide the best care possible for the patient</li> </ul>
<ul style="list-style-type: none"> <li>▶ Are concerned about upsetting the GP or specialist, losing independence, or dealing with a pharmacist they don't know</li> </ul>	<ul style="list-style-type: none"> <li>▶ A HMR/RMMR exists to help patients, by encouraging better and safe medicines use, to reduce risk of adverse effects, and improve disease management</li> </ul>
<ul style="list-style-type: none"> <li>▶ Have privacy/cultural issues about an in-home review</li> </ul>	<ul style="list-style-type: none"> <li>▶ The review should be conducted at the patient's home/aged-care residence unless there is an exemption to conduct it at a neutral venue<sup>26</sup></li> </ul>

# Case Question 3

- ▶ What management strategies would you discuss with Colin to address his anticholinergic and sedative burden?

# Aim to minimise anticholinergic burden<sup>1–3</sup>

TABLE 1A Management guidance<sup>2,4,5</sup>

MEDICINES <sup>a,b</sup>	STARTING MEDICINE	STOPPING MEDICINE	NON-ANTICHOLINERGIC ALTERNATIVE CONSIDERATIONS	NON-PHARMACOLOGICAL OPTIONS (optimise throughout management)
<b>DEPRESSION</b>				
<p><b>SSRIs</b> citalopram escitalopram fluoxetine paroxetine sertraline</p> <p><b>SNRIs</b> desvenlafaxine duloxetine venlafaxine</p> <p><b>Other</b> mirtazapine</p>	<p>Start with low dose; assess response after 2–4 weeks. If response is inadequate and dose adjustment is required, increase gradually (no more than every 2 weeks) until acceptable response is achieved or daily dose limit reached.</p> <p>Response to treatment usually apparent after at least 1–2 weeks; full benefit may take 4–6 weeks or longer.</p> <p>TCAs are usually reserved for treatment-resistant depression and ideally used under psychiatrist guidance.</p> <p><b>Monitoring</b> Monitor patients more frequently at start of treatment as activation and suicidal thoughts are more common during the first 7–10 days.</p>	<p>If an acceptable response is achieved, continue at the same dose for 6–12 months, then consider deprescribing.</p> <p>In recurrent and severe depression, consider longer-term maintenance treatment.</p> <p>Taper over several weeks to avoid discontinuation symptoms. For example, reduce dose by 25–50% every 1–4 weeks until daily dose is half the lowest strength available. Continue at lowest dose for 2 weeks then stop.</p> <p>Some patients may require withdrawal over months.</p> <p>Discontinuation symptoms are usually mild and last 1–2 weeks. If severe, restart the antidepressant at lowest effective dose identified during tapering and use slower dose reduction.</p>	<p>All antidepressants have some degree of anticholinergic or sedative effects.</p>	<p><b>Psychological therapies</b></p> <ul style="list-style-type: none"> <li>▶ CBT</li> <li>▶ IPT</li> <li>▶ Brief psychodynamic psychotherapy</li> <li>▶ Mindfulness-based cognitive therapy</li> <li>▶ Family therapy</li> </ul> <p><b>Lifestyle modifications</b></p> <ul style="list-style-type: none"> <li>▶ Sleep hygiene</li> <li>▶ Adequate physical activity</li> <li>▶ Healthy diet</li> <li>▶ Minimise alcohol consumption</li> <li>▶ Reduce stress</li> <li>▶ Social support</li> </ul>

a. Medicines list selected from top 200 PBS subsidised drugs by prescription volume 2019–2020 b. List is not exhaustive

CBT = cognitive behavioural therapy; CBT-I = cognitive behavioural therapy for insomnia; IPT = interpersonal psychotherapy; SNRI = serotonin and norepinephrine reuptake inhibitor; SSRI = selective serotonin reuptake inhibitor; TCA = tricyclic antidepressant

# Aim to minimise anticholinergic burden

TABLE 1A Management guidance<sup>2,4,5</sup>

MEDICINES <sup>a,b</sup>	STARTING MEDICINE	STOPPING MEDICINE	NON-ANTICHOLINERGIC ALTERNATIVE CONSIDERATIONS	NON-PHARMACOLOGICAL OPTIONS (optimise throughout management)
<b>DEMENTIA WITH CHANGED BEHAVIOUR</b>				
<b>Antipsychotics</b> olanzapine quetiapine risperidone	Only consider using a drug to treat aggression or psychosis of dementia if non-pharmacological management has not alleviated symptoms and the patient is distressed or considered a threat to themselves or others. Use lower starting dose in older people due to increased risk of adverse events, increase gradually to lowest effective dose. <b>Monitoring</b> Review for improvement in behaviours every 4–6 weeks. Review with plan to taper or stop within 12 weeks.	In case of long-term treatment, slowly taper dose, by 25–50% every 1–2 weeks until lowest practical dose is reached, then stop after 1–2 weeks. Consider slower dose reduction if patient is taking a high-dose antipsychotic or initially had severe symptoms. If recurrent/withdrawal symptoms develop, revert to previous lowest effective dose. Re-attempt a slower taper after 12 weeks.	All antipsychotics have some degree of anticholinergic or sedative effects. When stopping an antipsychotic, create a management plan that includes psychosocial interventions.	<b>Person-centred approach</b> <ul style="list-style-type: none"> <li>▶ Person-centred care techniques</li> <li>▶ Behavioural therapies</li> <li>▶ Environmental changes</li> </ul>
<b>INSOMNIA</b>				
<b>Benzodiazepines</b> temazepam	Psychological and behavioural interventions effectively treat insomnia and are first-line therapy. If necessary, use pharmacological treatment for a short period (< 2 weeks, preferably not on consecutive nights) and agree to a definite time limit with the patient. Prescribe a low dose and avoid long-acting agents. <b>Monitoring</b> Older people have an increased risk of over-sedation, ataxia, confusion, memory impairment, falls and respiratory depression. Dependence on hypnotics may occur after as little as 2 to 4 weeks of continuous use. The hypnotic efficacy of benzodiazepines appears to reduce within 4 weeks.	In case of long-term treatment, consider a dose reduction (25% of original dose every 1–4 weeks). A slower decrease can be considered for the final dose reduction, or if problematic discontinuation symptoms occur.	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.	<ul style="list-style-type: none"> <li>▶ Sleep hygiene/education</li> <li>▶ Relaxation techniques</li> <li>▶ CBT-i</li> <li>▶ Sleep restriction</li> <li>▶ Stimulus control</li> </ul>

a. Medicines list selected from top 200 PBS subsidised drugs by prescription volume 2019–2020 b. List is not exhaustive

CBT = cognitive behavioural therapy; CBT-i = cognitive behavioural therapy for insomnia; IPT = interpersonal psychotherapy; SNRI = serotonin and norepinephrine reuptake inhibitor; SSRI = selective serotonin reuptake inhibitor; TCA = tricyclic antidepressant

# Aim to minimise anticholinergic burden

TABLE 1B Management guidance<sup>2,4,5</sup>

MEDICINES <sup>a,b</sup>	STARTING MEDICINE	STOPPING MEDICINE	NON-ANTICHOLINERGIC ALTERNATIVE CONSIDERATIONS	NON-PHARMACOLOGICAL OPTIONS (optimise throughout management)
<b>CHRONIC NON-CANCER PAIN</b>				
<p><b>Opioids</b> codeine fentanyl oxycodone tramadol</p> <p><b>Non-opioids</b></p> <p><b>TCA</b>s amitriptyline nortriptyline</p> <p><b>Gabapentinoids</b> gabapentin pregabalin</p> <p><b>SNRIs</b> duloxetine venlafaxine</p>	<p><b>Opioids</b> Opioids for chronic non-cancer pain provide little, if any, benefit and pain intensity may reduce if opioids are discontinued. Optimise non-pharmacological therapies and non-opioid medicines (such as paracetamol and NSAIDs) before considering opioids.<sup>6,7</sup> If an opioid trial is appropriate, use a lower initial dose (25–50% of usual adult dose) for older people and titrate to effect. When changing opioids, start at 50% equianalgesic dose and titrate to response.</p> <p><b>Monitoring</b> Consider tapering if: treatment for chronic non-cancer pain is inadequate or duration of treatment &gt; 3 months; significant adverse effects occur; opioid has been continued unnecessarily after acute pain treatment; risk of misuse or overdose is identified.</p> <p><b>Non-opioids</b> Initiate non-opioids at low doses to improve tolerability and reduce adverse effects; titrate slowly to maximum tolerated dose.</p>	<p><b>Opioids</b> Rationalise regimen to a single modified-release opioid, then reduce dose when treatment is stabilised.<sup>8</sup> Reduce dose by 10–25% each week (if used &lt; 3 months) and by 10–25% each month (if used &gt;3 months). Monitor laxative requirements.</p> <p><b>Non-opioids</b> If effective, for most patients, continue in the short–moderate term (up to 12 weeks) until patient has achieved a supported self-management approach. Assess efficacy and trial deprescribing every 3–6 months. Some patients with permanent nerve damage may require therapy for longer than 12 weeks. Reduce dose by 25–30% each week (if used &lt; 3 months) and by 25–30% every 2 weeks (if used &gt; 3 months).</p>	<p>Consider an integrated multidisciplinary approach to pain management. Paracetamol and NSAIDs have no anticholinergic or sedative effects. Lidocaine 5% patches are preferred if the patient has localised neuropathic pain.</p>	<p><b>Physical therapies<sup>7</sup></b> ▶ Graded exercise ▶ Activity pacing</p> <p><b>Psychological therapies<sup>7</sup></b> ▶ CBT ▶ Acceptance commitment therapy</p> <p>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.</p>

a. Medicines list selected from top 200 PBS subsidised drugs by prescription volume 2019–2020, except for antihistamines (cyproheptadine, promethazine, cetirizine, fexofenadine, loratadine) b. List is not exhaustive  
CBT = cognitive behavioural therapy; NSAID = nonsteroidal anti-inflammatory drug; SNRI = serotonin and norepinephrine reuptake inhibitor; TCA = tricyclic antidepressant

# Aim to minimise anticholinergic burden

TABLE 1B Management guidance<sup>2,4,5</sup>

MEDICINES <sup>a,b</sup>	STARTING MEDICINE	STOPPING MEDICINE	NON-ANTICHOLINERGIC ALTERNATIVE CONSIDERATIONS	NON-PHARMACOLOGICAL OPTIONS (optimise throughout management)
<b>ALLERGIES</b>				
<b>Antihistamines</b> <b>Sedating</b> cyproheptadine promethazine <b>Less sedating</b> cetirizine fexofenadine loratadine	Avoid use of sedating antihistamines or use a lower dose for older people. <b>Monitoring</b> Monitor carefully due to increased risk of sedation and anticholinergic effects in older people.	Reduce dose of sedating antihistamine slowly, by 25–50% of daily dose each week to month. <sup>9</sup>	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. <sup>9</sup>	<b>Environmental</b> ▶ Minimise contact with allergens <b>Physical<sup>9</sup></b> ▶ Sodium chloride irrigation for eyes/nose ▶ Wet/cold compress ▶ Moisturise skin
<b>URINARY URGE INCONTINENCE</b>				
<b>Anticholinergics</b> oxybutynin	Adverse effects are usually dose related. Start with a low dose and increase cautiously to the lowest effective dose. <b>Monitoring</b> Monitor for adverse effects after 4 weeks and assess for improvement of symptoms.	Stop if no overall benefit after 4 weeks. An alternative medicine could be tried.	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 diary ▶ Bladder retraining ▶ Pelvic floor exercises ▶ Modify fluid intake ▶ Lifestyle (weight loss/smoking cessation) ▶ Incontinence aids ▶ Avoid constipation ▶ Minimise diuretics

a. Medicines list selected from top 200 PBS subsidised drugs by prescription volume 2019–2020, except for antihistamines (cyproheptadine, promethazine, cetirizine, fexofenadine, loratadine) b. List is not exhaustive  
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# Monitoring withdrawal effects when deprescribing<sup>1</sup>



Monitor short term (within 1–3 days)	Monitor long term (> 7 days)
<p><b>Monitor for withdrawal symptoms</b></p> <p>Symptoms can occur within 1–3 days of dose reduction</p>	<p><b>Monitor for recurrence of symptoms</b></p> <p>Recurrence of previous or new symptoms may occur within 1–2 weeks of dose reduction or cessation</p>
<ul style="list-style-type: none"><li>▶ Common withdrawal symptoms when deprescribing medicines with anticholinergic effects include irritability, anxiety, insomnia and sweating.</li><li>▶ Withdrawal symptoms usually mild and can last up to 6–8 weeks.</li><li>▶ If severe symptoms (eg, tachycardia, profuse and persistent sweating, severe anxiety, or severe insomnia) occur, restart at the previous lowest effective dose.</li></ul>	

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

# Managing anticholinergic side effects

- ▶ Review falls as part of the usual falls assessment protocols.
- ▶ Dry mouth management strategies<sup>1,2</sup>
  - Dental products with high fluoride, calcium or casein to help prevent tooth decay
  - White petroleum jelly for dry lips
  - Avoid lollies and alcohol-containing mouthwashes
  - Stabilise dentures with adhesives to prevent ulcers and remove during sleep
  - High pH artificial saliva without citric acid
- ▶ Dry eye management strategies<sup>3</sup>
  - Lubricating eye drops, gels or ointments (best given at night)
- ▶ Constipation management strategies<sup>4</sup>
  - High-fibre diet (eg, prunes)
  - Drinking plenty of fluids (unless there are fluid intake restrictions)
  - Exercising

1 Better Health Channel. Dry mouth. Victoria: Department of Health State Government of Victoria, 2021.

2 Deutsch A, Jay E. Aust Prescr 2021;44:153-160.

3 Better Health Channel. Dry eye. Victoria: Department of Health State Government of Victoria, 2021.

4 Veterans'MATES. What you can do about constipation. Canberra: Australian Government, 2007.



# Switching and stopping guidance

## Antidepressants

[www.nps.org.au/australian-prescriber/articles/switching-and-stopping-antidepressants](http://www.nps.org.au/australian-prescriber/articles/switching-and-stopping-antidepressants)

## Antipsychotics

[www.nps.org.au/australian-prescriber/articles/stopping-and-switching-antipsychotic-drugs](http://www.nps.org.au/australian-prescriber/articles/stopping-and-switching-antipsychotic-drugs)

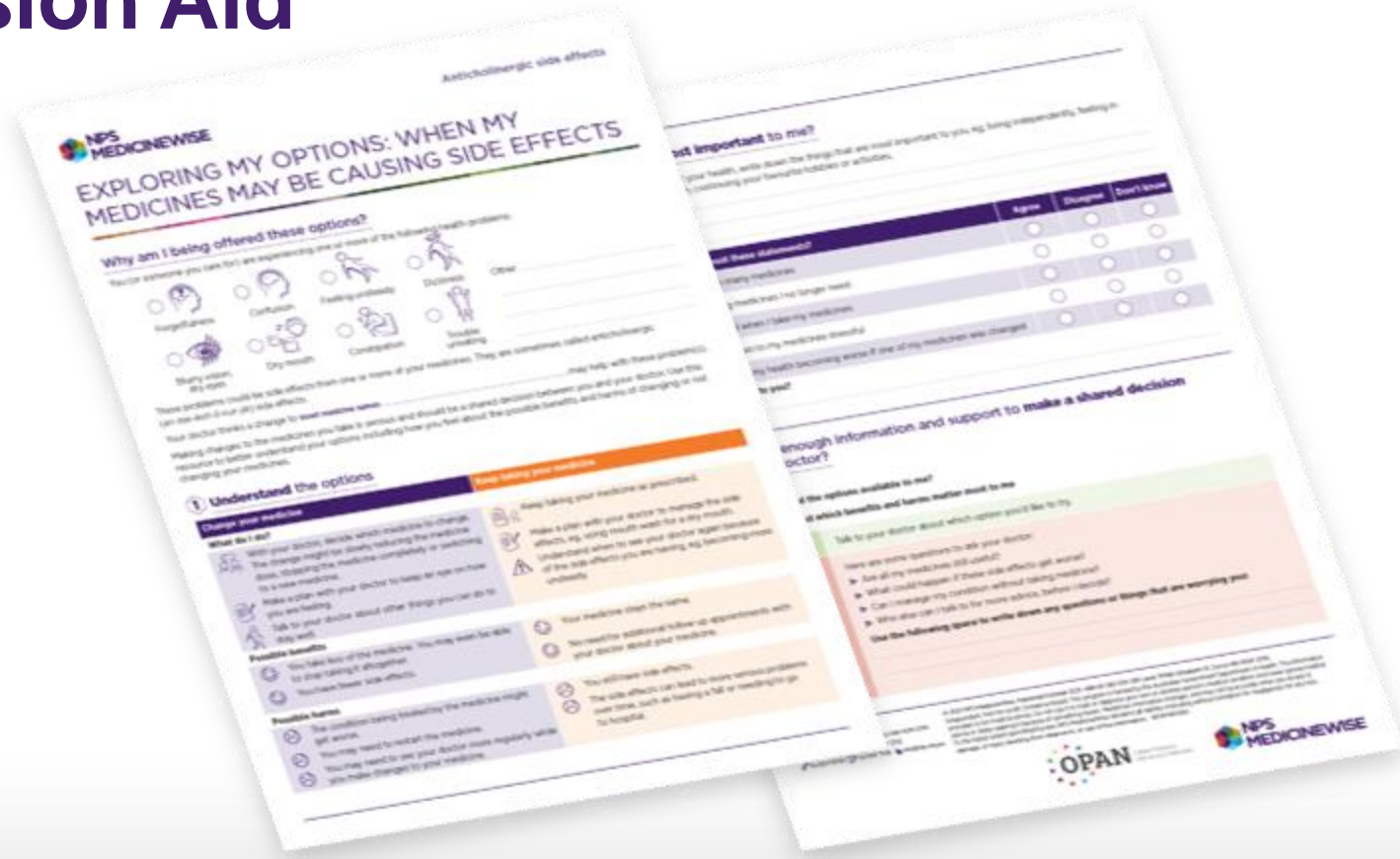
## Benzodiazepines

[www.nps.org.au/news/managing-benzodiazepine-dependence-in-primary-care](http://www.nps.org.au/news/managing-benzodiazepine-dependence-in-primary-care)

## Opioids

[www.nps.org.au/professionals/opioids-chronic-pain](http://www.nps.org.au/professionals/opioids-chronic-pain)

# Decision Aid



# Patient Action Plan



# HMR/RMMR Resource

**NPS MEDICINEWISE**

## HOW A MEDICINES REVIEW IN YOUR HOME CAN HELP YOU GET THE MOST FROM YOUR MEDICINES

Taking medicines can be complicated, especially when you're taking multiple medicines. A medicines review in your home can help make sure your medicines are safe and working well for you.

### What is a home medicines review?

A home medicines review involves you, your doctor and a specially trained pharmacist working together to help you manage your medicines. The pharmacist will visit you in your home and go through your medicines with you or your carer. They will answer any questions and make suggestions for you and your doctor to help you get the best from your medicines.

### What if I, or the person I care for, live in an aged-care home?

This is called a **Residential Medicines Management Review**. Your doctor will need to refer you for the review and the pharmacist will visit you at your aged-care home. They will talk to you, your family, carers, or staff at your aged-care home about your medicines. The pharmacist will write a report for your doctor and health-care team at your aged-care home with any suggestions to improve your medicine management.

### How can these reviews help?

- Personalise advice and information** (Icon: Information symbol)
- Reassure that your medicines are working well for you** (Icon: Two people)
- Simplify your medicine routine** (Icon: Pill bottle)
- Identify and prevent medicine-related problems** (Icon: Shield with X)
- Confidence in how you take, store and dispose of your medicines** (Icon: Pill bottle)
- Feel supported about your medicines, especially** (Icon: Three people)
- Maximise to take and ask questions** (Icon: Two people)
- Consent and provide input on how to manage medicines in your home, or at another location if approved** (Icon: Home building)

### These reviews can be helpful if you (or a person you care for):

- Take multiple medicines
- Take medicines prescribed by different doctors and specialists
- Start a new medicine
- Change medicine doses
- Have recently been hospitalised
- Think you may be having side effects from your medicines
- Have difficulty taking or remembering to take medicines
- Feel confused or worried about your medicines

### What to expect

**is your doctor about a home medicines review?**  
Before a home medicines review would be useful, they will send a referral letter to your local pharmacy or an independent accredited pharmacist. You choose which you think would suit you best.

**the review**  
The pharmacist will call to arrange a time to meet you in your home or aged-care home. You can have a family friend or carer with you during the review.

**the pharmacist visits you**  
The pharmacist will visit you in your home or aged-care home. They will talk to you or your carer about all the medicines you are taking, together with any other medicines you are taking. Remember, this includes over-the-counter medicines, vitamins, supplements and health food items, as well as any inhalers, patches, creams, and eye or ear drops.

**the pharmacist will write a report**  
The pharmacist will write a report to your doctor about the medicines you are taking. They will talk to you or your carer about all the medicines you are taking and answer any questions you have. After the visit, the pharmacist will write a report to your doctor.

**what happens next?**  
Your doctor will discuss the report with you or your carer and write a plan for the management of your medicines. Any changes the doctor makes will be discussed with you in your care, with your consent. A copy of the plan will be sent to your local community pharmacy. Your pharmacist can help you with any changes to your medicines. If necessary, the pharmacist can also contact your aged-care home to help you manage and make up to two follow-up visits.

### Frequently asked questions

**Why do I need a home medicines review if my age?**  
You can have a home medicines review at any age.

**Can I have a home medicines review if I live in a residential care home?**  
Yes, you can have a home medicines review if you live in a residential care home.

**What happens if I don't have a home medicines review?**  
If you don't have a home medicines review, you may not know if your medicines are working well for you. You may not know if you are taking the right medicines or if you are taking too many medicines. You may not know if you are taking medicines that are not safe for you. You may not know if you are taking medicines that are not suitable for you.

**Who does the review?**  
A specially trained pharmacist, called an accredited pharmacist, will do the review. This could be your pharmacist, or your doctor might suggest one. The pharmacist will be trained to help you manage your medicines. They will be trained to help you manage your medicines. They will be trained to help you manage your medicines.

**Can I see the report the pharmacist writes?**  
Yes, a copy of the report can be provided to you, and your carer, together with the plan the doctor completes.

**When can I feel well again?**  
If you think your medicines review would help you get the most from your medicines, talk to your doctor about arranging a review.

**Get more information**  
NPS MedicineWise has information about changing your medicines at [nps.org.au/medicinesmanagement/your-medicines](https://www.nps.org.au/medicinesmanagement/your-medicines)

**Carers Australia** **OPAN** **NPS MEDICINEWISE**



# Choosing Wisely 5 Questions Resource

Anticholinergic side effects

**NPS MEDICINEWISE**

## SIDE EFFECTS FROM YOUR MEDICINES? 5 QUESTIONS TO ASK

Medicines can help you feel better, but they can also cause unwanted effects. If you (or someone you care for) have noticed anything like forgetfulness, confusion or feeling dizzy or unsteady, you might have put it down to getting older. Or maybe you're worried that one of your conditions is worsening. These symptoms might be warning you about side effects from one or more of your medicines. These are sometimes called anticholinergic (or 'AChE') side effects.

**Symptoms you may notice**

**Box 1: These side effects can be caused by medicines used for:**

- sleep problems
- depression
- behaviour or mood changes from dementia
- pain
- bladder control problems
- allergies
- weight and costs

These could be medicines prescribed by your doctor, or over the counter medicines you can buy without a prescription.

For some people these side effects may be only mildly uncomfortable, but they can lead to more serious health problems, such as falling a lot or needing hospital care.

**The side effects from these medicines are more common if you are:**

- Getting older. Your body becomes more sensitive to medicines, even those you have been taking for a long time.
- Taking more than one medicine for the conditions listed in Box 1.
- Starting a new medicine for a condition listed in Box 1.
- Taking a high dose of one or more medicines for the conditions listed in Box 1.
- Taking one or more medicines for the conditions listed in Box 1 for a longer time than is usually recommended.

**QUESTIONS TO ASK**

Are you taking any medicines that you don't need?  
If you notice these side effects, what can you do to manage or avoid them?

**Always talk to your doctor or pharmacist before stopping or changing any of your medicines.**

**Questions to ask your doctor or pharmacist about your medicines**

**1. Am I taking this medicine?**  
Do I really need this medicine? Sometimes a medicine should only be used for a short time. If you're not sure, ask your doctor or pharmacist. They can help you decide if you really need it, and if so, how long you should take it. They can also help you decide if you need any other medicines that you're not taking.

**2. What are the side effects?**  
What are the side effects of this medicine? Your doctor might suggest a change to the dose or a different medicine. A doctor or pharmacist can make your medicines work well with each other. A doctor or pharmacist can also help you manage any side effects.

**3. Can I do anything to manage my side effects?**  
If you're experiencing any side effects, your doctor might suggest a change to the dose or a different medicine. A doctor or pharmacist can make your medicines work well with each other. A doctor or pharmacist can also help you manage any side effects.

**4. Can I do anything to manage my side effects?**  
If you're experiencing any side effects, your doctor might suggest a change to the dose or a different medicine. A doctor or pharmacist can make your medicines work well with each other. A doctor or pharmacist can also help you manage any side effects.

**5. Can I do anything to manage my side effects?**  
If you're experiencing any side effects, your doctor might suggest a change to the dose or a different medicine. A doctor or pharmacist can make your medicines work well with each other. A doctor or pharmacist can also help you manage any side effects.

**Checklist:**

- Get a list of all your medicines from your doctor or pharmacist.
- Check the list against the list of medicines you're taking.
- Ask your doctor or pharmacist if you need any of the medicines on the list.
- Ask your doctor or pharmacist if you can stop any of the medicines on the list.
- Ask your doctor or pharmacist if you can change the dose of any of the medicines on the list.
- Ask your doctor or pharmacist if you can change the way you take any of the medicines on the list.
- Ask your doctor or pharmacist if you can change the time you take any of the medicines on the list.
- Ask your doctor or pharmacist if you can change the brand of any of the medicines on the list.
- Ask your doctor or pharmacist if you can change the strength of any of the medicines on the list.
- Ask your doctor or pharmacist if you can change the way you store any of the medicines on the list.
- Ask your doctor or pharmacist if you can change the way you dispose of any of the medicines on the list.

**Resources:**

- Choosing Wisely Australia
- Careers Australia
- OPAN
- NPS MEDICINEWISE

# Other Resources

## NPS MedicineWise Website

<https://www.nps.org.au/professionals/anticholinergic-burden#hp>

## Drug Burden Index Calculator

<https://gmedss.com/landing>



# Thank you