



# **WHEN PSYCHOSIS ISN'T THE DIAGNOSIS**

**A Toolkit for Reducing Inappropriate Use  
of Antipsychotics in Long Term Care**

**Don't use antipsychotics as first choice to treat behavioural and psychological symptoms of dementia.**

Canadian Geriatrics Society,  
Choosing Wisely Canada recommendation #4

**Don't routinely use antipsychotics to treat primary insomnia in any age group.**

**Don't use antipsychotics as first choice to treat behavioural and psychological symptoms of dementia.**

Canadian Academy of Child and Adolescent Psychiatry,  
Canadian Academy of Geriatric Psychiatry,  
Canadian Psychiatric Association,  
Choosing Wisely Canada recommendation #5 and #12

**Don't use antipsychotics as first choice to treat behavioural and psychological symptoms of dementia.**

**Don't continue or add long-term medications unless there is an appropriate indication and a reasonable expectation of benefit in the individual patient.**

Long Term Care Medical Directors Association of Canada  
Choosing Wisely Canada recommendation #2 and #5

**Don't start or renew drug therapy unless there is an appropriate indication and reasonable expectation of benefit in the individual patient.**

**Question the use of antipsychotics as a first-line intervention to treat primary insomnia in any age group.**

Canadian Pharmacists Association  
Choosing Wisely Canada recommendations #3 and #5

**Don't continue medications that are no longer indicated or where the risks outweigh the benefits.**

Canadian Society of Hospital Pharmacists  
Choosing Wisely Canada recommendation #1

**Don't recommend antipsychotic medicines as the first choice to treat symptoms of dementia.**

Canadian Nurses Association  
Choosing Wisely Canada recommendation #7

**Don't use restraints with older persons unless all other alternatives have been explored.**

Canadian Nurses Association and Canadian Gerontological Nursing Association  
Choosing Wisely Canada recommendation #5



## Inspiration for this Toolkit

In 2013, 11 early adopter long-term care (LTC) sites across Alberta set out to reduce antipsychotic use. As a result of their efforts, the Appropriate Use of Antipsychotics (AUA) project was introduced to more than 170 Alberta LTC facilities (14,500 beds) in 2014/15.

Alberta has sustained a 35% reduction in LTC antipsychotic use. 17.0% of Alberta's long-term care residents (without a diagnosis of psychosis) are using antipsychotic medications (as of Quarter 3, 2018/19). The national average is approximately 21%.

Families are pleased that loved ones are happier, more alert, independent and communicative. LTC teams report residents are calmer, more active and easier to care for.

More than 170 Assisted Living facilities were introduced to the AUA Project in 2017/18, resulting in a provincial decrease in antipsychotic use from 20% to 17% (based on prescription data).

The AUA resources have since been introduced to 12 hospitals (Elder Friendly Care Project) where teams are reporting a decreased length of stay for frail older adults.

This toolkit was co-authored by Verdeen Bueckert, Mollie Cole and Duncan Robertson, who were among the key individuals involved in the AUA initiative.



## Introduction

This toolkit was created to support interventions to reduce the inappropriate use of antipsychotic medications in long term care facilities. Its content is derived from the Appropriate Use of Antipsychotics (AUA) Toolkit developed by Alberta Health Services. It can be used by physician groups, clinical services or organizations to help achieve reductions in antipsychotic prescribing.



## Make sure this toolkit is right for you

This toolkit is well suited for your facility if you have confirmed that overuse of antipsychotics exists due to failure to reassess longstanding prescriptions. Residents admitted to long-term care frequently arrive on antipsychotics for which the clinical indication is not described, is no longer relevant, or lacks clinical evidence. The antipsychotic may have been started for sleep, for psychotic symptoms in delirium, as a chemical restraint, or for responsive behaviours.



## Key ingredients of this intervention

If the description above accurately reflects your current environment, this module may help your facility reduce antipsychotic use by introducing the following changes:

- 1) Establish an inter-disciplinary team (IDT) to assess antipsychotic appropriateness
- 2) Agree on appropriateness criteria for antipsychotic use
- 3) Educate care staff
- 4) Inform and involve families
- 5) Establish a regular pharmacologic restraint review process
- 6) Taper residents off potentially inappropriate antipsychotic prescriptions
- 7) Develop an individualized care plan that includes supportive/non-pharmacologic strategies

## 1. Establish an inter-professional team

A team of 3-5 people is suggested, and may include a registered nurse, licensed practical nurse, health care aide, prescriber (physician/nurse practitioner), pharmacist, and allied health staff.

Antipsychotics are often requested by nursing staff for responsive behaviours such as agitation and aggression. It is essential to involve the care team in decisions to gradually reduce or discontinue antipsychotic medications since alternative approaches require an assessment of potential underlying causes and unmet needs.

Antipsychotic medications may be appropriate in some situations, thus it will be essential for the care team and family to monitor for improvement or deterioration in resident behaviour following any dosage adjustments.

## 2. Agree on appropriateness criteria

An important step to antipsychotic de-prescribing is first achieving consensus on appropriate indications for use. The criteria used by Alberta Health Services are provided as a starting point for these discussions:

### Antipsychotics are NOT appropriate to treat/may worsen: <sup>1,2,3</sup>

- Paces, appears upset/fearful, restless, wanders
- Sleep disturbance, sun downing
- Shouting, screaming, calling out, cursing
- Repetitive questions
- Social or sexual disinhibition e.g. spitting, masturbation
- Aggressive behaviour during personal care (consider distraction, approach/re-approach, offering choices)
- Protective of territory, hoarding

### Antipsychotics Indications that MAY be appropriate for warrant antipsychotic medication: <sup>4,5</sup>

- Confirmed mental health diagnosis (e.g. schizophrenia, delusional disorder, major depression, Psychiatrist involvement recommended for dosage adjustments, traumatic brain injury or pervasive developmental disorders where there is chronic aggression and related psychosis).
- Distressing hallucinations and delusions (first assess for delirium, attempt non-pharmacologic strategies)
- Behaviour that places self/others at risk of injury (Short term use may be appropriate while person-centred approaches are explored)

#### 1. Severe psychotic symptoms, such as delusions and hallucinations, in delirium and/or dementia

(Severity is evaluated based on the degree of resident distress).

- Antipsychotics are not a treatment for delirium; assess and treat underlying causes.

- Consider deprescribing other medications rather than adding an antipsychotic.
- Dosages are much smaller for frail older adults experiencing psychosis in delirium e.g. 0.25 -0.5 mg haloperidol. For more information, see [Delirium Seniors Inpatient Clinical Knowledge Topic](#)
- Discontinue antipsychotic as behaviours stabilize.
- Aim for antipsychotic monotherapy, lowest effective dose and tapering as soon as possible.

## 2. Behaviours that place the resident or others at risk of injury

- Aggression may be related to factors such as medication side-effects, pain, changes in medical condition, delirium, fatigue, overstimulation and staff approach.
- Continue to explore reasons for the behaviour, as well as person-centred and non-pharmacological strategies. Discontinue antipsychotic as behaviours stabilize.
- Number needed to treat: Between 5 and 14 people need to be treated with an antipsychotic for 3 months.

## 3. Educate care staff

The alternatives to antipsychotics are person-centred strategies to increase trust, reduce stress and address reasons for responsive behaviours:

### Possible reasons for responsive behaviours:

#### Basic Physical Needs

Discomfort (too hot or cold, itchy)  
 Elimination (constipation, unable to find or recognize bathroom)  
 Fatigue (interrupted night time sleep, need for rest)  
 Hunger, thirst

#### Medical/Biological

Medication side effects  
 Dehydration  
 Delirium, depression, dementia progression  
 Chronic or acute pain (dental, digestive, headache, back pain)  
 Disease processes (e.g. diabetes, blood sugars too tightly controlled)

#### Psychosocial

Stress threshold  
 Loneliness  
 Depression  
 Relationships

#### Environmental

Over/under stimulation, boredom  
 Overcrowding, noise  
 Inconsistent routine  
 Provocation by others

The AUA Toolkit contains many valuable resources to support the shift towards more person-centred care. These include videos, links, interactive learning modules and quality improvement strategies/resources. Staff members educated in dementia care are better able to assess behaviours together, identify strategies and develop person-centred care plans for each resident.

#### **4. Inform and involve families**

Families and alternate decision makers should be included in discussions around risks, benefits and side-effects of antipsychotic medications. Families may have ideas and suggestions about supportive strategies, and are also able to observe and report changes in behaviour following dosage adjustments. Resources to support family discussions include:

- [Choosing Wisely Canada: \*Treating disruptive behaviour in people with dementia\*](#)
- [MyHealth.Alberta.ca: \*Antipsychotic medicine\*](#)
- [MyHealth.Alberta.ca: \*Responsive behaviours\*](#)

#### **5. Establish a regular medication review process**

Monthly inter-professional antipsychotic medication reviews are a key component of the intervention. An efficient medication review process requires prior preparation and allows care teams to review 4-12 residents during a 60-90 minute medication review meeting. Where there are large numbers of residents on antipsychotics, it may be necessary to hold medication review meetings weekly or bi-weekly until numbers of residents on antipsychotics can be reviewed in one monthly session.

##### **Steps for Developing an Antipsychotic Medication Review Process**

1. Obtain a list from pharmacy to identify residents on regularly scheduled and PRN antipsychotics
2. Identify who will set up meetings, prioritize residents for review and request behaviour tracking/mapping for residents being reviewed
3. Clarify the role of each team member: in the IDT review process: e.g. obtain input from family/alternate decision-maker, health care aides and programming staff; obtain medication administration record; review Minimum Data Set (MDS) outcome scales; document, communicate changes in medications to staff, family, etc.
4. Measure and share progress with families and staff: e.g. reductions in inappropriate antipsychotic use, resident responses to dose reductions



Additional resources for developing/implementing an antipsychotic medication review can be found at the links below:

- [Suggested Steps for Developing an Antipsychotic Medication Review Process](#)
- [Enhance the Medication Review Process](#)
- [Antipsychotic Medication Review Worksheet](#)

## 6. Taper residents off potentially inappropriate antipsychotic prescriptions

Successful antipsychotic reductions reassure care teams this is a safe and beneficial intervention – begin slowly and monitor the response. Attempt antipsychotic reductions on 1-2 residents initially.

The suggested strategy is to begin antipsychotic medication reductions in less challenging cases first and with the benefit of experience, gradually progress to more challenging cases.

### Strategies for Successful Antipsychotic Medication Reduction

- Discontinue unused PRNs where there is no scheduled antipsychotic
- Taper/discontinue antipsychotic medication for residents without behaviours
- Taper/discontinue antipsychotic medications for residents who are over-sedated
- Taper/discontinue antipsychotic medication prescribed for behaviours unlikely to respond (e.g. repetitive vocalizations, restlessness)
- Taper/discontinue antipsychotic medication for agitation or aggression that has stabilized
- Taper/discontinue antipsychotics on new admissions immediately (especially if prescribed for psychosis in a resolved delirium) or within 4-6 weeks
- Review more challenging residents last, accompanied by dementia education

Resources for deprescribing specific antipsychotic medications can be found below, and at [deprescribing.org](http://deprescribing.org) and <http://medstopper.com>.<sup>9</sup>

### Suggested Taper Approach for antipsychotics (e.g. risperidone, olanzapine, quetiapine, aripiprazole, haloperidol)

If used daily for more than 3-4 weeks: Reduce dose by 25% every week (i.e. week 1: 75%, week 2: 50%, week 3: 25%). This can be extended or decreased (to 10% dose reductions) if needed.

If intolerable withdrawal symptoms occur (usually 1-3 days after a dose change), go back to the previously tolerated dose until symptoms resolve and plan for a more gradual taper with the patient. Dose reduction may need to slow down as one gets to smaller doses (i.e. 25% of the original dose). Overall, the rate of discontinuation needs to be balanced by the response of the person taking the medication.

### Possible Symptoms when Stopping or Tapering

Agitation, activation, insomnia, rebound psychosis, withdrawal-emergent abnormal movements, nausea, feeling of discomfort, sweating, vomiting, insomnia

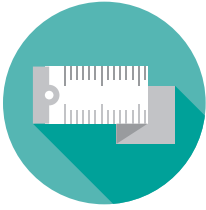
These symptoms may vary depending on the specific antipsychotic



## 7. Implement supportive strategies

De-prescribing antipsychotics is best done in combination with supportive strategies that help lessen some of the stressors experienced by residents. The table below provides some examples of strategies to reduce responsive behaviours, sleep disturbances and delirium – common reasons for residents being on antipsychotic medications.

Issue	Supportive Strategies	Resources for implementation
Responsive Behaviours	<ul style="list-style-type: none"> <li>• Consistent care providers to establish relationships with residents, assess behaviour triggers and discover effective approaches for each resident</li> <li>• Flexible breakfast times to allow residents to wake up and eat when ready</li> <li>• Reduce overstimulation from alarms, overhead paging, dining room noise</li> <li>• Individualize sleeping and waking routines</li> </ul>	<ul style="list-style-type: none"> <li>• Alberta Health Services <a href="#">AUA Toolkit</a> (section on Responsive Behaviour Prevention: Dementia Friendly Environments)</li> <li>• Alzheimer Knowledge Exchange: <a href="#">Design and Dementia</a></li> <li>• Pioneer Network: <a href="#">Engaging staff in Individualizing Care Starter Toolkit</a> <ul style="list-style-type: none"> <li>• Consistent assignment</li> <li>• Individualizing mornings</li> <li>• Flexible times for dining</li> <li>• Promoting mobility, reducing falls and alarms</li> <li>• Shift hand-off huddles video clip</li> </ul> </li> </ul>
Sleep Disturbances	<ul style="list-style-type: none"> <li>• Daytime: increase light and activity, shorten rest periods, position near window</li> <li>• Evening: decrease evening light, engage residents in quiet activities to keep them awake a little later; keep warm and comfortable, non-caffeinated beverage</li> <li>• Night: reduce noise, light and interruptions; avoid waking residents for scheduled care except when absolutely necessary; allow for cooling when sleeping</li> </ul>	<p>Alberta Health Services <a href="#">AUA Toolkit</a> (section on QI Project: Support Sleep in Dementia)</p> <ul style="list-style-type: none"> <li>• <a href="#">AUA Responsive Behaviours and Sleep PowerPoint</a> and <a href="#">webinar</a></li> </ul> <p>RxFiles</p> <ul style="list-style-type: none"> <li>• <a href="#">Chronic Insomnia in Older Adults</a></li> </ul> <p>Therapeutics Initiative: UBC</p> <ul style="list-style-type: none"> <li>• <a href="#">Is use of quetiapine for sleep evidence-based?</a></li> </ul>
Delirium Prevention	<ul style="list-style-type: none"> <li>• Reduce anticholinergic and pill burden (number of medications)</li> <li>• Hydration and nutrition</li> <li>• Implement sleep strategies (see above)</li> <li>• Antimicrobial stewardship</li> <li>• Pain management</li> <li>• Reduce stress of noise and overstimulation</li> <li>• Ensure use of visual and hearing aids</li> <li>• Support orientation and relaxation activities</li> <li>• Maintain or increase mobilization; minimize use of physical restraints</li> </ul>	<p>Alberta Health Services <a href="#">AUA Toolkit</a> (section on QI Project: Prevent Delirium on Dementia)</p> <ul style="list-style-type: none"> <li>• <a href="#">Delirium Seniors Inpatient Clinical Knowledge Topic</a></li> <li>• <a href="#">Elder Friendly Care Delirium and Dementia Toolkit</a></li> <li>• <a href="#">Hospitalized Elder Life Program (HELP)</a> (consider applicability of HELP program resources for your facility)</li> </ul>



## Measuring your performance

### Choose a family of measures

**Outcome measures:** These are the main improvement outcomes you are trying to achieve with your deprescribing initiative. An example is the proportion of residents on an antipsychotic medication in absence of psychotic and related conditions. Other clinical measures may include:

- Increased social engagement
- Staff and family satisfaction
- Reduction in severity and incidents of agitation and aggression
- Reduction in ambulatory admissions

**Process measures:** These measures are developed to ensure each aspect of the intervention is being carried out and delivered as intended. Examples include:

- Proportion of residents on antipsychotics who received a monthly medication review and behaviour tracking
- Number of staff who received education about antipsychotics and person-centred care
- Number of families or alternate decision-makers who received education about antipsychotics and person-centred care

**Balancing measures:** Any intervention may create unintended consequences that need to be monitored. Here are some suggested balancing measures:

- Rates of use of other psychotropic medications such as benzodiazepines or antidepressants
- Rates of physical (mechanical) restraints use
- Injuries (staff, other residents)
- New or worsening responsive behaviours
- Impaired sleep

Behaviour monitoring following deprescribing is crucial. Continue to monitor the behaviour with each dosage change and upon discontinuation for at least one month. If there is no change in the responsive behaviour upon discontinuation, avoid re-starting the medication.

### Determine a data collection method

Decide who is the best person to collect and track data. This may be:

- Resident Assessment Instrument (RAI) Coordinator
- Pharmacist
- Nurse Practitioner
- Prescriber
- Care Manager
- Registered Nurse
- Licensed Practical Nurse

Report measures of progress along with success stories to staff – e.g. include as standing agenda item at monthly staff and care manager meetings.

Below is the data collection template developed by Alberta Health Services. It enables teams to graph and track antipsychotic usage, adherence to medication reviews, and other process and balancing measures.

Click [here](#) to get actual spreadsheet.



Site & Unit Name: \_\_\_\_\_

\*Indicate what type of bed and # you are reporting on: SL4 \_\_\_\_\_, SL4D \_\_\_\_\_, SL3 \_\_\_\_\_, LTC \_\_\_\_\_

Month	Number of residents admitted on pharmacologic restraint this month	Number of residents on unit	Number of residents receiving a pharmacologic restraint	Percent of residents receiving a pharmacologic restraint	Looking ONLY at column B, record the number of residents who had an inter-disciplinary pharmacologic medication review	Percent of residents on pharmacologic restraint with a medication review	Looking ONLY at Section B, record the number of residents with Gradual Dose Reduction (GDR)	Looking ONLY at Section B, record the number of residents who had a pharmacologic restraint discontinued	Looking ONLY at Sections D & E record the number of residents with worsened behaviours
		A*	B	%	C	%	D	E	F
Baseline									
Month/Year									
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Goal				< 15%		100%			0 - 10%

Developed for use in the AHS Appropriate Use of Antipsychotics Project in LTC, sponsored by the Seniors Health and Strategic Clinical Networks



## Sustaining early successes

Once the de-prescribing intervention has been implemented and refined, consider implementing strategies to sustain positive change:

- Build accountability systems into practice, e.g. review all new antipsychotic orders within 24 hours (especially orders obtained on evenings and weekends)
- Enter new antipsychotic orders as one time or prn doses rather than regularly scheduled doses, or include a clearly defined review date
- Schedule reviews of antipsychotics for newly admitted residents within 30 days
- Regularly review all medications with the intent to deprescribe to minimize medication side-effects, tablet burden, drug interactions and physical/cognitive burden (e.g. on admission and quarterly)
- Taper and discontinue nighttime sedatives, which show no evidence of benefit for long term support of sleep, and cause daytime drowsiness, falls and confusion<sup>10</sup>
- Provide dementia and AUA education to new staff ([AUA Toolkit](#), Dementia Education Resources)
- Monthly staff education on topics such as communication and dementia, bathing, resistance to care ([AUA Toolkit](#), Dementia Education Resources)
- A Quality Improvement board with new information each month (e.g. graph of progress with antipsychotic reductions and medication reviews, articles on appropriate use of antipsychotics, one-pagers on topics to support person-centred dementia care)



## Additional Resources

### Antipsychotic Resources:

AUA Toolkit: <http://www.albertahealthservices.ca/scns/auatoolkit.aspx>

- [Clinical Indications for prescribing antipsychotic medication](#)
- [Prescriber and Pharmacist Frequently Asked Questions](#)
- [Physician Update on Appropriate Use of Antipsychotics Project](#)
- [Alberta Guideline on the Appropriate Use of Antipsychotic \(AUA\) Medications \(2013\)](#)
- [Behaviour Mapping Chart](#)

Articles:

- College of Physicians & Surgeons of Alberta
  - [Optimized Prescribing with Seniors](#)
  - [Polypharmacy: Appropriate and Problematic](#)

Deprescribing.org

- [Antipsychotic Deprescribing Algorithm](#)
- [Helpful Links](#)

Health Canada Advisories

- 2015: atypical antipsychotics
- 2015: risperidone – new restrictions
- 2005: risperidone, quetiapine, olanzapine
- 2004: olanzapine
- 2002: risperidone

Medstopper: <http://medstopper.com>

RxFiles: <http://www.rxfiles.ca>

- Dementia Overview
- Behaviour Management in Dementia: Where do Antipsychotics Fit?
- Chronic Insomnia in Older Adults

### **QI resources:**

Health Quality Ontario, QI Tools & Resources

<https://quorum.hqontario.ca/en/Home/QI-Tools-Resources/QI-Essentials>

Institute for Healthcare Improvement, Model for Improvement

<http://www.ihl.org/resources/Pages/HowtoImprove/default.aspx>



### **References**

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<http://www.cpsa.ca/evidence-say-risks-benefits-atypical-antipsychotics-dementia/>
- 3) <http://www.albertahealthservices.ca/assets/about/scn/ahs-scn-srs-aaa-prescribing-antipsychotic.pdf>
- 4) <http://ccsmh.ca/booklet/> and the National Guidelines for Seniors' Mental Health [http://ccsmh.ca/wp-content/uploads/2016/03/NatlGuideline\\_Delirium.pdf](http://ccsmh.ca/wp-content/uploads/2016/03/NatlGuideline_Delirium.pdf)
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- 7) Wimmer, Barbara C; Dent, Elsa; Bell, J Simon; et al. Medication Regimen Complexity and Unplanned Hospital Readmissions in Older People. Annals of Pharmacotherapy, 09/2014, Volume 48, Issue 9
- 8) Schneider LS, Dagerman K, Insel PS. Efficacy and adverse effects of atypical antipsychotics

for dementia: Meta-analysis of randomized, placebo-controlled trials. Am J Geriatric Psychiatry 2006;14:191-210.

9) Medstopper. Available at <http://medstopper.com/>

10) Insomnia and anxiety in older people: Sleeping pills are usually not the best solution

## **Appendix A**

### **Medication classes with anticholinergic properties**

Antipsychotics

Antidepressants

Antihistamines/antipruritics

Antibiotics

Antiemetics/antivertigo

Antiseizure

Antispasmodics

Antiparkinsonian

Gout medications

Benzodiazepines

Cardiovascular agents

Gastrointestinal agents

Immunosuppressants

Inhaled COPD/respiratory

Muscle relaxants

Opioids

Warfarin

For more information, see <http://www.rxfiles.ca>, Dementia Overview

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