



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



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 all 170 Alberta LTC facilities (14,500 beds) in 2014/15. Since 2015 the AUA project has sustained a reduction of more than 30% of antipsychotics across the province.

18.3% of Alberta's long-term care residents (without a chronic mental health condition) are using antipsychotic medications (as of Quarter 3, 2015-16). The national average is approximately 27%.

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. Nine Supportive Living sites are now trialing the resources, and several acute Care sites are participating.

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 excessive 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-professional team 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 medication review process
- 6) Taper residents off potentially inappropriate antipsychotic prescriptions
- 7) Implement 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, pharmacist, prescriber (physician/nurse practitioner), pharmacist, and/or 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:

Behaviours with LIMITED or NO KNOWN benefit from antipsychotic use ^{1,2,3}

- Wandering/exit seeking
- Restlessness/pacing
- Insomnia
- Irritable mood
- Poor self-care
- Impaired memory
- Eating inedible objects
- Hoarding/hiding items
- Repetitive vocalizations: calling, screaming
- Repetitive actions such as clapping
- Fidgeting or nervousness
- Inappropriate elimination
- Indifference to surroundings
- Inappropriate dressing/undressing
- Pushing wheelchair bound residents
- Rummaging

Indications that MAY warrant antipsychotic medication ^{4,5}

1. Confirmed mental health diagnoses

- Schizophrenia and related disorders
- Mania in bipolar disorder
- Adjunctive treatment of major depressive disorder in adult patients with an inadequate response to prior antidepressant treatments in the current episode

In these cases, life-long use of antipsychotics may be appropriate and necessary. Regular medication reviews to monitor and minimize side-effects are recommended.

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

(Severity is evaluated based on the degree of danger, suffering or excess disability).

Antipsychotics may be appropriate when:

- Delirium is not related to anticholinergic burden (Appendix A). Antipsychotics and many other commonly prescribed medications have anticholinergic properties. Five or more medications of any kind increases risk of delirium and number of discharge medications predicts re-hospitalization. Determine first whether it would be more effective to deprescribe other medications rather than add an antipsychotic.
- Delirium is not related to alcohol or benzodiazepine withdrawal.
- Non-pharmacologic strategies to manage behaviours are insufficient.
- Psychotic symptoms and behaviours are an obstacle to treatment.
- The resident appears to be suffering due to the symptoms or there is significant risk of harm to the resident or others.

Aim for antipsychotic monotherapy, lowest effective dose and tapering as soon as possible.

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

- Agitation and aggression may be related to factors such as medication side-effects, pain, changes in medical condition, fatigue, overstimulation and staff approach.
- Continue to explore reasons for the behaviour, as well as person-centred and non-pharmacological strategies.
- 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	Environmental
Stress threshold	Over/under stimulation, boredom
Loneliness	Overcrowding, noise
Depression	Inconsistent routine
Relationships	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 effective non-pharmacologic approaches, 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 for residents being reviewed
3. Clarify the role of each team member: 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 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 and <http://medstopper.com>.⁹

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

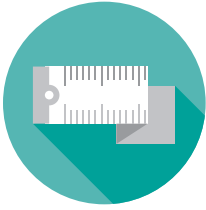
Agitation, activation, insomnia, rebound psychosis, withdrawal-emergent abnormal movements, nausea, feeling of discomfort, sweating, vomiting, insomnia

These symptoms may vary depending on the specific antipsychotic

7. Implement non-pharmacologic strategies

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

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



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:

- Falls
- Restraint use
- Transfers to the Emergency Department
- Hospitalizations
- Incidents of verbal aggression
- Incidents of physical aggression

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
- 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 restraints use
- New or worsening responsive behaviours

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.

Month	Number of residents admitted on antipsychotic this month	Number of residents on unit	Number of residents with Dx of Schizophrenia, Huntington's chorea, Hallucinations, Delusions	Number of residents without indication as per RAI 2.0 definition	Looking ONLY at column C, record the number of residents on antipsychotics	Calculation D/C	Percent of residents receiving an antipsychotic medication without indication as per RAI 2.0 definition	Looking ONLY at Column D, record the number of residents who had an inter-professional team medication review	Calculation E/D	Percent of residents on antipsychotics with a medication review	Looking ONLY at Column E, record the number of residents with Gradual Dose Reduction (GDR)	Looking ONLY at Column F, record the number of residents whose behaviour improved or had no change	Looking ONLY at Column E, record the number of residents who had antipsychotic medication discontinued	Looking ONLY at Column H, record the number of residents whose behaviour improved or had no change	Looking ONLY at columns <u>F</u> & <u>H</u> record the number of residents with worsened behaviours	Looking ONLY at Column D, record the number of family/alternate decision maker who had AUA education	Number of F/T P/T staff on unit	Number of staff who had AUA education
	A	B	A-B=C	D	Calcul.	%	E	Calcul.	%	F	G	H	I	J	K	L	M	
Baseline																		
Month/Year																		
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Goal							<20%			100%		100%		100%	0 - 10%	100%		100%



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
- 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 confusion¹⁰
- 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 \(2013\)](#)

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

- [Quality Improvement: Getting Started](#)

Institute for Healthcare Improvement

- [How to Improve](#)



References

- 1) <http://www.health.alberta.ca/documents/AHTDP-Antipsychotics-LTC-UofC.pdf>
- 2) Optimized Prescribing with Seniors
<http://www.cpsa.ca/evidence-say-risks-benefits-atypical-antipsychotics-dementia/>
- 3) <http://www.albertahealthservices.ca/assets/about/scn/ahs-scn-srs-aea-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
- 5) Alberta Guideline on the Appropriate Use of Antipsychotic (AUA) Medications (2013).
<https://extranet.ahsnet.ca/teams/policydocuments/1/clp-ahs-appropriate-use-antipsychotic-med-ltc-guideline-ps-26-01.pdf>
- 6) Hubbard, Ruth E; O'Mahony, M Sinead; Woodhouse, Kenneth W. Medication prescribing in frail older people European Journal of Clinical Pharmacology, 03/2013, Volume 69, Issue 3
- 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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