

# Appropriate Use of Antipsychotic Medications in Long-Term Care



Handbook





The Institute for Safe Medication Practices Canada (ISMP Canada) is a national, independent, and not-for-profit organization that purposefully partners with organizations, practitioners, consumers, and caregivers to advance medication safety in all healthcare settings. Our team of experts analyze reports of medication errors from across the country and provide resources, education, and consulting services to improve medication safety.

Additional information about ISMP Canada, and its products and services, is available at [ismpcanada.ca](https://ismpcanada.ca)



Strengthening  
Med Safety in  
Long-Term Care

ISMP Canada led the development of the Handbook for the *Strengthening Medication Safety in Long-Term Care* initiative, that is funded by the Ontario Ministry of Long-Term Care. Views expressed are the views of ISMP Canada and do not necessarily reflect the views of the province.

## Disclaimer

The utmost care has been taken to ensure the accuracy of information presented in this report. Recommendations are based on current evidence, including expert opinion. Any person seeking to apply or consult the Handbook is expected to use independent judgement in the context of individual circumstances to determine if any of the advice, recommendations, tools or other resources should be used in the care of their residents and families.

## Acknowledgements

We thank the [Innovator Homes](#) in Ontario that have selected the Appropriate Use of Antipsychotics as a goal for quality improvement in the [Strengthening Medication Safety in Long-Term Care Ontario](#) initiative. They will receive the Handbook as a targeted resource to support their work.

During the development of the Handbook, a wide variety of references were identified that have been developed on this topic by leading Canadian organizations. It was not possible to include all of the information in this document, however a number of references have been highlighted to support local teams in their work. See [page 34](#) for a list of the identified organizations and a link to their websites.

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# Call to Action



The potentially inappropriate use of antipsychotics in long-term care (LTC) homes across Canada has been recognized for more than a decade. The Canadian Institute for Health Information (CIHI) reported a decline in the percentage of LTC residents receiving antipsychotics without a diagnosis of psychosis from 27.2% in 2014-2015 to 20.2% in 2019-2020 [1]. This change was attributed to major efforts locally and regionally to address the behavioural and psychological symptoms of dementia by other means [1].

However, since the onset of COVID-19, the rate of antipsychotic use has been on the rise, reaching 24.5% in the most recent year (2023-2024) [2] and reversing much of the previously achieved progress across the sector [1]. In comparison, national rates elsewhere are 10% in the United States, 15% in Sweden, and 18% in Australia [1].

Importantly, there is significant variation among jurisdictions, and across LTC homes, in the prescribing practices for these medications. Across Canada, the reported provincial/territorial rate ranges from 20.5% in Ontario to 29.3% in British Columbia and 35.3% in Yukon [1]. Rates reported for LTC homes across the country range from zero to over 80% [1].

A variety of factors led to the increase in use of antipsychotics during and after the pandemic, including staff shortages and high workload. Many residents receive these medications in the absence of an appropriate clinical indication. For example, among residents without psychosis, quetiapine and risperidone were the most common antipsychotic medications prescribed (accounting for over 70% of prescriptions) [3]. The use of antipsychotics is associated with significant risks to residents, including stroke and death [4].



## Call to Action



Inappropriately prescribed antipsychotics increase the risk of adverse drug events and preventable harm [4]. Other psychotropic medications, such as benzodiazepines and certain antidepressants and antiseizure medications, have also been used, often with no or limited evidence of benefit [4]. Furthermore, certain manifestations of the behavioural and psychosocial symptoms of dementia (BPSD) may not be amenable to pharmacologic treatment [5], [6]. There is now a renewed call to action to address these risks to residents.



# Purpose of the Handbook



*The objective is to ensure that antipsychotic medications are only prescribed for the right resident, at the right time, and for the right duration of time.*

The Handbook is designed to support teams in LTC homes to advance the appropriate use of antipsychotic medications for the safety and well-being of their residents.

It offers a comprehensive yet user-friendly approach to this work, integrating information with practical tools. It is primarily designed for organizational leaders, physicians, nurse practitioners, frontline care providers, pharmacists/pharmacy service providers and other health system partners. Residents and their families/caregivers interested in further information may also find some of the content and recommended resources helpful. Specifically, residents and families may be better positioned to ask questions and engage locally in this work with staff at their home.

An attempt has been made to integrate the latest evidence available for the Canadian long-term care context into the Handbook. **It is important to recognize that there are relatively few high-quality studies on many aspects of managing behavioural and psychosocial symptoms of dementia.** As the literature evolves, it is essential that health care providers regularly assess for key developments on this topic. Homes are encouraged to adapt the Handbook for local use and update as applicable.

**The Handbook does not include detailed prescribing information about each antipsychotic medication.**

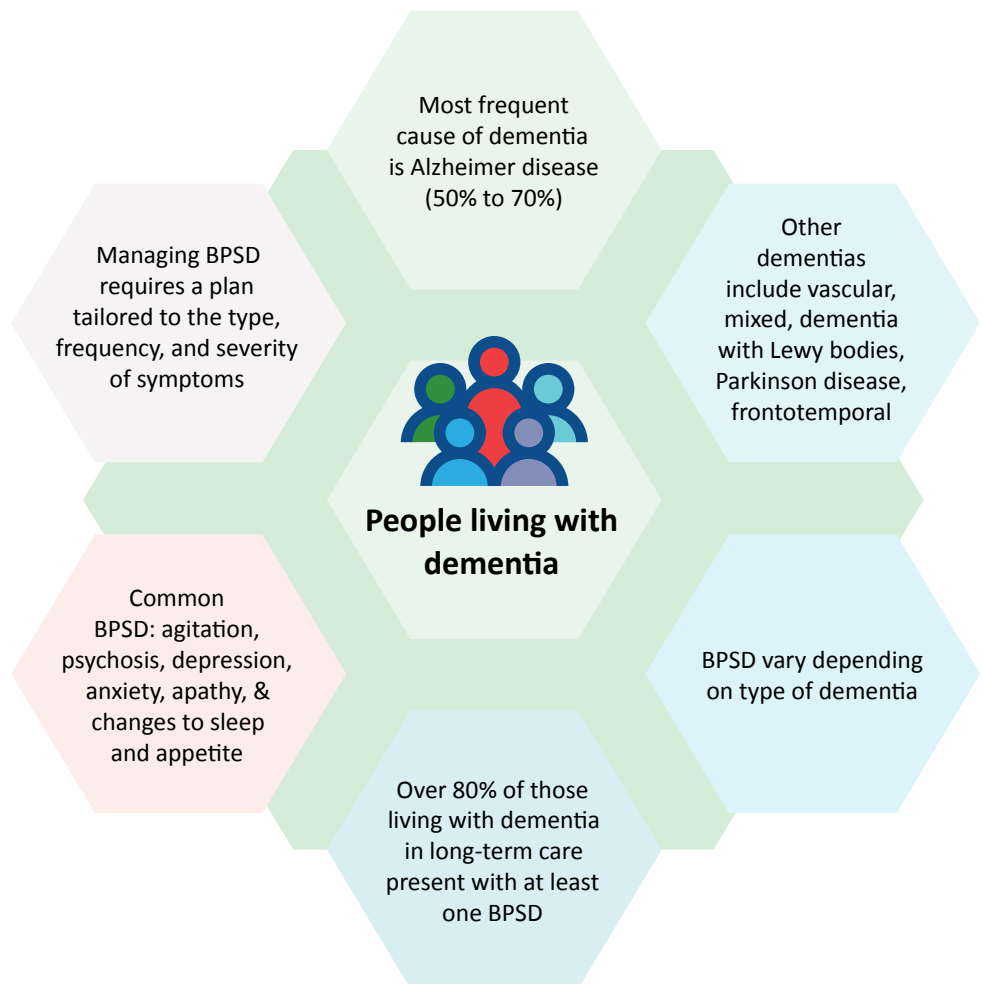
The Handbook can be a support to healthcare providers in making informed decisions with residents and families through fostering a collaborative care environment. ***Ultimately, this work will reduce preventable harm related to medications and improve resident quality of life.***



# People Living with Dementia



Advancing the appropriate use of antipsychotic medications begins with an understanding of the diagnosis and relevant symptoms of dementia. Dementia is a syndrome characterized by deterioration in memory, thinking, behaviour, and ability to perform the activities of daily living [7]. Figure 1 describes some of the causes of dementia and presents some insights into the behavioural and psychosocial symptoms that may occur [4].



**Figure 1. Causes of and insights related to dementia.**  
**BPSD = behavioural and psychosocial symptoms of dementia.**

# People Living with Dementia



## Behavioural and Psychosocial Symptoms of Dementia

The BPSD are noncognitive symptoms of dementia, including changes to behaviour and mood. BPSD are associated with poor mental health outcomes for people living with dementia, as well as increased caregiver burden and decreased quality of life and mental health among caregivers [4].

BPSD often occur as a result of the interactions among an individual's biology, their prior life experiences, and their current social and physical environment. Their personal expressions (words, gestures, actions, body language) all have meaning and are mechanisms to communicate their needs and concerns [8].

## Need for an Individualized and Person-Centred Care Plan

Developing an individualized and person-centred care plan for people living with dementia is essential for effectively managing BPSD [4].

Nonpharmacologic interventions would be implemented first to support persons with BPSD, **with pharmacologic strategies considered only if the BPSD become distressing and/or potentially dangerous to the resident or others.**



# Setting the Stage for Successful Improvement



## Governance and Leadership

Leaders in the following roles are key to setting the stage for successful improvement:

- administrative (e.g., home administrator, executive director)
- physician (e.g., medical director, medical lead)
- nursing (e.g., director of care, director of nursing, nurse practitioner)
- pharmacy (e.g. pharmacist lead)

Leaders should establish expectations and effective operational mechanisms that reinforce clear policies, procedures, and processes for maintaining consistent, safe, and appropriate use of medications.

Leaders need to “walk the talk”, demonstrating their commitment through both word and action, as they play crucial roles in ensuring accountability for themselves and others. Leadership action includes providing sufficient resources to attain and maintain priority goals. In addition, leaders foster the appropriate use of antipsychotics by ensuring that everyone understands their respective roles and responsibilities.



### Reflection...

What do the staff, prescribers, residents, family, and caregivers need to support effective teamwork and to ensure the appropriate use of antipsychotics?

# Setting the Stage for Successful Improvement



## Teamwork

### The Resident Care Team

Each resident and their family have a group of health care providers assigned to deliver the individualized plan of care. This team consists of one or more physicians, nurse practitioners, nurses, personal support workers (also known as PSWs), continuing care assistants (also known as CCAs), and pharmacists.

Other health care providers may also be engaged, including an occupational therapist (OT), physiotherapist (PT), music therapist, or recreational therapist, to optimize care and address the resident's unique needs.

Regular communication and collaboration across the entire team are essential to the goal of appropriate prescribing of antipsychotics.

### Education and improvement resource for the Resident Care Team

The PIECES™ Approach is a commonly used leading practice for health care professionals supporting older persons at risk of or living with complex chronic conditions and experiencing changes in behavioural expressions associated with neurocognitive disorders (including but not limited to the dementias) and other neurological conditions; mental health and substance use disorders; and physical health conditions [9]. This approach, based on the PIECES™ 3-Question Template, provides a practical, reflective approach to collaborative engagement, shared clinical assessment, and supportive care.

The PIECES™ acronym (physical, intellectual, emotional, capabilities, environment, and social) is an integral component of the PIECES™ 3-Question Template to help focus the team in their exploration of possible contributing factors. Applying the PIECES™ Approach in its

# Setting the Stage for Successful Improvement



entirety focuses the team (beginning with the person and any care partners) on prevention, early detection, and a continuous shared process for finding solutions, monitoring progress, and minimizing disability.

See [Appendix 1](#) for the PIECES Job Aids, the PIECES™ 3-Question Template, and the PIECES™ Team Mobilization, which are copyrighted and cannot be altered. More information about the PIECES™ Learning and Development Program and the development of PIECES Practitioners is available at the organization’s website: [www.piecescanada.com](http://www.piecescanada.com)

Leveraging the entire team’s combined experiences, expertise, and knowledge about each resident will allow more effective identification of underlying issues contributing to BPSD. Through effective teamwork, BPSD can be more effectively managed.

If the Resident Care Team is being asked to implement strategies for the appropriate use of antipsychotics, they must be supported to do the right thing for each resident and family. This support includes timely, evidence-informed leading practices, such as person-centred approaches to care, relevant education, and other targeted resources such as nonpharmacologic interventions.

“Front-line staff members are often in a better position to assess the behaviour’s underlying need. Is the patient scared? Bored? Recoiling from a food they don’t like on their lunch plate?

This is tough work, but it has a noble goal. It’s one of the mountains worth climbing because people do better off antipsychotics than they do on them.”

**Dr. Andrea Moser**, Baycrest Geriatric Health Sciences [3]

# Setting the Stage for Successful Improvement



## Quality Improvement Stories

- The team at Midland Gardens Care Community (Scarborough, Ontario) formed an interdisciplinary Antipsychotics Reduction Team to implement a quality improvement project aimed at reducing the percentage of residents receiving antipsychotics without an appropriate diagnosis; the specific goal was a reduction from 36% to 25% by July 31, 2023. They shared their quality improvement story during a [Strengthening Medication Safety in Long-Term Care webinar \[10\]](#). Interventions included establishing the Behavioural Support Ontario (BSO) team, providing education, offering training in Integrated General Persuasive Approaches, increasing one-on-one engagement, and holding team huddles. As a result, the team successfully tapered antipsychotics for 24 of 52 residents, and 6 residents had their antipsychotics successfully discontinued [10].
- The team from the Minoru Residence, Vancouver Coastal Health (Richmond, British Columbia), shared their improvement story at the December 2023 [Reimagining Long-Term Care BC Collaborative Webinar 5](#), hosted by Health Quality BC and Healthcare Excellence Canada [11]. Their focus was on enhancing relational interactions with residents as a way to reduce the use of antipsychotic medications in a target group by 10% (from 17 to 15 doses per day). Strategies included medication reviews; modified PIECES huddles that included families, care aides, nurses, housekeeping staff, and allied health professionals; and updates to individualized care plans. Results included reduced use of antipsychotics and fewer responsive behaviours. View the webinar for their story and more great quality improvement stories [11].

A step-by-step guide for successful quality improvement can be helpful to support the process of reducing the use of antipsychotics in long-term care. Such a guide is presented in the sections that follow.



# Getting Started: A Step-By-Step Guide to Successful Improvement

- STEP 1** Review the Handbook and launch the Quality Improvement Team  
([see pages 14 to 18](#))
- STEP 2** Establish measurement, monitoring, and oversight for improvement  
([see page 19](#))
- STEP 3** Establish appropriateness criteria for antipsychotic use  
([see pages 20 to 21](#))
- STEP 4** Identify one or more residents and apply the appropriateness criteria  
([see page 22](#))
- STEP 5** Obtain, review, and discuss a recent assessment for resident(s) identified in Step 4 ([see pages 23 to 24](#))
- STEP 6** Identify the BPSD and their contributing factors  
([see page 25](#))
- STEP 7** Review and implement psychosocial interventions for BPSD  
([see pages 26 to 27](#))
- STEP 8** Assess the resident's medications  
([see pages 28 to 29](#))
- STEP 9** Consider deprescribing antipsychotics  
([see page 30](#))
- STEP 10** Carefully implement changes and increase intensity of observation  
([see page 31](#))
- STEP 11** Celebrate and share the learning  
([see pages 32](#))
- STEP 12** Sustain success!  
([see pages 33](#))

## STEP 1: Launch the Quality Improvement Team



The first step in advancing system-wide improvement at the LTC home is to assign an interdisciplinary team, including resident/family representatives, to work collaboratively on understanding how the home is managing BPSD, including the use of antipsychotics. Other members of the team will include a physician, a nurse practitioner (if on staff), regulated nursing staff, a personal support worker, a pharmacist, allied health staff (such as recreation staff and/or behavioural specialist, if available), and a manager or director. It is important to formalize the terms of reference for this group, to describe respective roles and responsibilities. For more information, see the applicable section in the [Enhance the Medication Review Process tool](#) developed by Alberta Health Services [12].

The Quality Improvement Team may take the following actions:

- Raise awareness of the appropriate use of antipsychotics in the LTC home and the potential risks to residents
- Gather and analyze data (see [Appendix 2](#) for sample metrics and indicators)
- Set improvement goals
- Implement education about nonpharmacologic interventions and antipsychotics, as well as other psychotropic medications
- Coordinate Plan-Do-Study-Act (PDSA) cycles (see [Appendix 3](#) for a PDSA overview and [Appendix 4](#) for a PDSA worksheet; other [ISMP Canada worksheets](#) are available to support local quality improvement efforts)
- Ensure that other medications (e.g., benzodiazepines, sedating antidepressants) are prescribed appropriately to address BPSD
- Adjust interventions until established goals have been achieved
- Celebrate successes with residents, families, staff, and prescribers.

The tools and worksheets within this Handbook can be used as reference materials for both initial and ongoing assessments of residents. These

# STEP 1: Launch the Quality Improvement Team



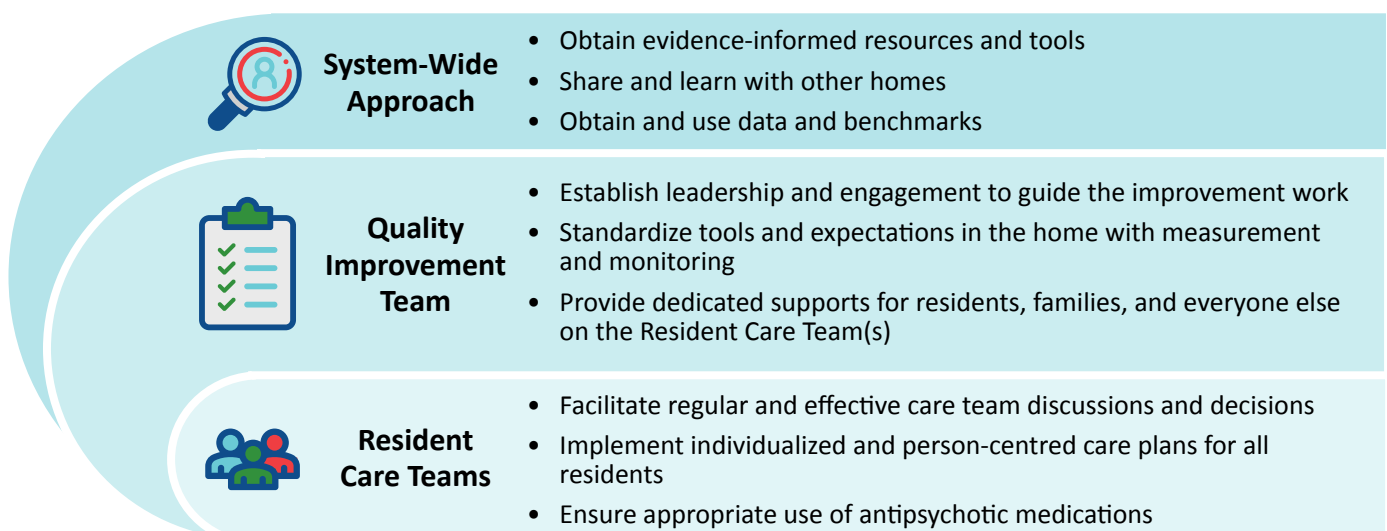
resources will be particularly useful when considering the initiation, monitoring, or discontinuation of medications.

## Positioning the Quality Improvement Team for Success

Many excellent resources are available to support the Quality Improvement Team in advancing the appropriate use of antipsychotics, yet not all residents and families have benefited from this evidence. The time is right to take action on this goal, and a great place to start is by establishing and/or advancing a systematic approach to this complex work.

- Use system-wide resources and supports from leading organizations
- Establish a Quality Improvement Team
- Support Resident Care Teams to do the right thing, for every resident

See Figure 2 for an overview of these components for moving from evidence to action.



**Figure 2. From evidence to action: ensuring the appropriate use of antipsychotics in long-term care homes.**

# STEP 1: Launch the Quality Improvement Team



## Prescriber Engagement

The regular engagement of physicians and nurse practitioners in all Resident Care Teams and the Quality Improvement Team is essential to the successful management of BPSD for each resident.

- By actively involving a prescriber in each Resident Care Team, regular medication reviews will be better informed by the team's assessments of use, appropriateness, and effectiveness of, as well as responses to, treatment. In addition, medication adjustments will be based on the resident's current (i.e., most up to date) health status.
- By actively involving prescribers in the work of the Quality Improvement Team, greater success will be achieved in terms of setting organizational improvement goals and strategies, implementing effective education sessions, formalizing evaluation processes, and maintaining successful changes.

See [Appendix 5](#) for a model policy, drawn from the Strengthening Medication Safety in Long-Term Care initiative, which can be adapted to guide local quarterly medication assessments [\[14\]](#).



# STEP 1: Launch the Quality Improvement Team



## Regular Medication Review Process [13]

1. Obtain a list from pharmacy to identify residents who are taking regularly scheduled and PRN antipsychotics
2. Appoint a lead to set up meetings, prioritize residents for review, and request behaviour tracking/mapping for residents being reviewed
3. Ensure that each member of the team has a specific role in terms of bringing and sharing relevant information for the review (e.g., resident/family input, personal support worker feedback and documentation, review of the medication administration record, Minimum Data Set outcomes)
4. Communicate any changes, with rationale, to resident/family, staff, pharmacy, and others as appropriate
5. Ensure resident is reassessed regularly for response to dose reductions
6. Measure and monitor use of antipsychotics for all residents and share results



***“Nothing about me without me”***

## Resident and Family Engagement

The work of both the Resident Care Teams and the Quality Improvement Team must be directly informed by input from residents and family members.

Ensure that residents and their families are empowered to participate in shared decision-making that aligns with their individual preferences and goals [15]. The term “family” can encompass caregivers, substitute decision-makers, friends, and anyone else in the resident’s circle of care, other than health care providers.

## STEP 1: Launch the Quality Improvement Team

By engaging residents and families in quality improvement initiatives focused on medication safety, LTC homes will promote a culture of transparency, accountability, and continuous learning. ISMP Canada has developed a variety of resources that LTC homes can use to [engage residents and families](#) in strengthening medication safety [16], including targeted handouts that have been translated into 14 languages. In addition, Alberta Health Services has a [sample AUA project information letter for residents and family](#) [17]. Residents and family members often have great insights into how to recognize and address BPSD. Their perspectives must be solicited and integrated into individualized care plans.



The Deprescribing.org website describes key concepts, approaches, and strategies for engaging residents and families in LTC on their medication safety journey. Among its resources is a [shared decision-making guide](#), which defines roles and responsibilities and includes lists of powerful questions to promote better communication among residents, families, and the interdisciplinary team [18].

The Appropriate Use of Antipsychotics resources developed by the [Centre for Effective Practice](#) [19] and [Healthcare Excellence Canada](#) [20] also leverage person-centred approaches to care. These organizations provide targeted handouts on this approach for families and care partners, health care leaders, and prescribers.

Pause for thought ... Do residents and families make shared medication decisions with providers at the home?  
And how would you know?

## STEP 2: Measurement, Monitoring, and Oversight for Improvement



A key responsibility of the Quality Improvement Team will be to establish and nurture effective measurement, monitoring, and oversight processes for medication management in the LTC home. These processes will rely on a variety of data sources, such as resident assessments (e.g., Resident Assessment Instrument Minimum Data Set), incident reports and associated learning, resident/family insights, and input from various staff members (e.g., prescriber, nurses, personal support worker, pharmacy service provider).

It is important to measure and monitor a combination of indicators that encompass both intended and unintended outcomes, such as increased verbal or physical aggression, the incidence of falls, the use of physical restraints, and any changes in emotional or cognitive functioning. See [Appendix 2](#) for examples of measures in the Alberta Health Services [data collection template](#).

A structured approach to measurement and monitoring, with expert coaching in quality improvement and learning with teams from other organizations, is recommended to help homes build capability and capacity in these processes.

## STEP 3: Establish Appropriateness Criteria for Antipsychotic Use



Antipsychotic medications should be prescribed only for residents who meet the following criteria:

- a clinical indication is present
- applicable nonpharmacologic interventions have been ineffective
- the residents' behaviour poses a risk to themselves or others

It is also important to obtain informed consent from the resident or their substitute decision-maker before initiation of antipsychotic therapy.

To ensure a consistent and standardized approach to prescribing antipsychotics, homes should identify leading examples of criteria for appropriate antipsychotic use and adapt for implementation locally.

**Shown below are the Alberta Health Services appropriateness criteria, as presented in the Choosing Wisely resource entitled [\*When Psychosis Isn't the Diagnosis. A Toolkit for Reducing Inappropriate Use of Antipsychotics in Long-Term Care\*](#) [13].**



### **Antipsychotics are NOT appropriate to treat/may worsen:**

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



## STEP 3: Establish Appropriateness Criteria for Antipsychotic Use

### Indications that MAY be appropriate for antipsychotic medication

- 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 or 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-pharmacologic 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.

## STEP 4: Identify Resident(s) and Use the Appropriateness Criteria for Antipsychotic Use



Identify a resident or group of residents for further review. For example, consider residents who are taking antipsychotic medications but do not have a diagnosis of psychosis or residents on long-term antipsychotic therapy who have not had a recent review for potential tapering of doses.



## STEP 5: Obtain, Review, and Discuss Recent Resident Assessment(s)



*See the “[All About Me](#)” resource available from the Alzheimer Society of Canada for more information about helping people living with dementia to share information about their personhood [21].*

Ensuring effective management of BPSD for the resident or residents in the target group starts with an initial systematic and holistic assessment followed by regular reassessments according to the frequency and severity of symptoms. The initial assessment should include a thorough review of the personhood of the person living with dementia, including their sex, gender, sexual orientation, language, race, ethnicity, cultural background, work history, social history, trauma history, religious or spiritual beliefs, and any other relevant factors [4], [21].

It is also important to define the underlying cause and stage of dementia, as some treatments vary in safety and effectiveness according to the underlying cause [4].

In addition to the PIECES™ Approach described above and in [Appendix 1](#), additional tools are available for completing a resident assessment, including the following:

- Dementia Observation System, including instructions for use, from Behavioural Supports Ontario (BSO-DOS®) [22] (see [Appendix 6](#))
- Interior Health Dementia Observational System tool [23]
- Cohen Mansfield Agitation Inventory [24]
- Neuropsychiatric Inventory [25]
- ABC Monitoring Chart (Surrey Place Developmental Disabilities Primary Care Program) [26] (see [Appendix 7](#))

A detailed resident assessment should include evaluation of potential biological contributors to BPSD, such as assessments for delirium, medical and mental health conditions, and pain; a review of resident’s use of medications and other substances; hearing and vision assessments; and any other relevant contributors [4].

Psychosocial factors (e.g., cognitive and sensory stimulation) and environmental factors (e.g., noise, temperature, and/or lighting) can also affect the development of BPSD [4].

## STEP 5: Obtain, Review, and Discuss Recent Resident Assessment(s)

The following activities and resources may be suitable for targeted assessments:

- Assessment of pain in people living with dementia [27].
- Maintenance of a detailed medication list and history throughout the resident's care journey: upon moving into the home, during care conferences, or during transitions back from hospital. [The Best Possible Medication History Interview Guide \[28\]](#) is a useful tool to inform medication reconciliation (MedRec) and medication reviews for all admissions and readmissions to the LTC home. The Best Possible Medication History should focus on identifying potentially inappropriate medications, including those that may impair cognition and/or those without a clear and appropriate indication [28].
- [My Transitional Care Plan](#)® [29], which summarizes meaningful information that can help to facilitate successful transitions across sectors for older adults presenting with, or at risk of, responsive behaviours or personal expressions associated with dementia, complex mental health conditions, substance use, and/or other neurological conditions.
- Any applicable provincial/territorial regulator requirements.

## STEP 6: Identify BPSD and Their Contributing Factors



Each resident has a unique combination of personal preferences, physical needs, psychosocial dynamics, medical history, and medications, and each is subject to specific environmental stimuli. Assess and document the resident's baseline BPSD (as outlined in [Step 5](#), above), including the severity of symptoms and the level of harm/distress to self and others.

Using this information, the Resident Care Team can work to identify factors contributing to BPSD and evidence-informed psychosocial strategies to address the unique needs of each resident in the target group.

See Table 1 for a summary of potential contributing factors for BPSD [\[4\]](#).

<b>Basic Physical Needs</b>	<ul style="list-style-type: none"><li>• Discomfort (too hot or cold, itchy)</li><li>• Elimination (constipation, unable to find or recognize bathroom)</li><li>• Fatigue (interrupted night time sleep, need for rest)</li><li>• Hunger, thirst (e.g., availability and fit of dentures)</li><li>• Visual or hearing impairment (e.g., availability and use of glasses or hearing aids)</li></ul>
<b>Medical/Biological</b>	<ul style="list-style-type: none"><li>• Medication side effects</li><li>• Dehydration</li><li>• Delirium, depression, dementia progression</li><li>• Chronic or acute pain (dental, digestive, headache, back pain)</li><li>• Disease processes (e.g., diabetes)</li></ul>
<b>Psychosocial</b>	<ul style="list-style-type: none"><li>• Stress threshold</li><li>• Loneliness</li><li>• Depression</li><li>• Relationships</li></ul>
<b>Environmental</b>	<ul style="list-style-type: none"><li>• Over-/under- stimulation, boredom</li><li>• Overcrowding, noise</li><li>• Inconsistent routine</li><li>• Provocation by others</li></ul>

***Table 1: Potential Contributing Factors for BPSD [4]***

## STEP 7: Review and Implement Psychosocial Interventions for BPSD



The goal of this step is to address the factors potentially contributing to BPSD by integrating effective psychosocial interventions into every aspect of daily care and activity. Addressing the unique needs of each resident in the target group allows them to feel safe and valued. This approach is then documented in the resident's care plan and allows integration of interventions in the delivery of personal care, thus enabling choice, optimizing independence where feasible, and creating and maintaining familiar environments (e.g., photos, mementos, memory boxes). See Table 2 for a summary of potential psychosocial interventions for BPSD, as described in the [Canadian Clinical Practice Guidelines for Assessing and Managing Behavioural and Psychological Symptoms of Dementia \(BPSD\)](#) [4].



Alternatives to the use of antipsychotic medication should always be considered as the first step in managing behaviours, as such strategies offer tremendous benefits. They must be determined on a case-by-case basis and must reflect the availability of educated staff members and the consistent commitment of members of the Resident Care Team.

Each approach presents its own unique set of advantages and challenges; however, the importance of a tailored, individualized, interdisciplinary approach that is consistently implemented and that involves the resident and family is fundamental.

Getting to know you... Is there a truly holistic picture of the Resident?



# STEP 7: Review and Implement Psychosocial Interventions for BPSD

<p><b>Psychosocial interventions for all BPSD, either alone or in combination with pharmacological treatments</b></p> <p><b>Note: These interventions are generally considered safe and have efficacy similar to or greater than the effects observed for pharmacological treatments. [4]</b></p>	
<p>A personalized plan for each resident is based on their interdisciplinary assessment and involves consideration of contributors to behaviours and supports available to the care team for implementation and evaluation.</p> <p>Multiple psychosocial interventions may be more effective than one, and they may vary over time</p>	<div><ul style="list-style-type: none"><li>• Music therapy with preferred music</li><li>• Animal-assisted therapy</li><li>• Exercise therapy</li><li>• Massage / touch therapy</li><li>• Aromatherapy</li></ul></div> <div><p>Seclusion and physical restraints are not recommended</p></div>

*Table 2: Evidence-Informed Psychosocial Interventions for BPSD [4]*

## STEP 8: Assess the Resident's Medications



The Resident Care Team will assess each resident's medications and determine their effectiveness as well as appropriateness for managing the BPSD, including consideration of the potential for adverse effects.

Antipsychotics can cause serious adverse effects, which may include the following:

- Drowsiness or mental confusion, cognitive decline, oversedation, aspiration pneumonia
- Weight gain, constipation, high blood glucose, high cholesterol
- Shaking or tremors
- Cardiovascular events, such as stroke or heart attack
- Increased risk of falls, fractures
- Hospitalization and death

The approach to prescribing antipsychotics varies according to whether the symptoms are urgent or non-urgent.

### Urgent

For acute (urgent) distress requiring short-term treatment, refer to [Appendices 8, 9, 10](#), and [11](#) for specific considerations relating to agitation, psychosis, depression, and anxiety in the context of dementia.

## STEP 8: Assess the Resident's Medications

### Non-Urgent

For longer-term behaviour modification, antipsychotics should be considered only after thorough assessment and failure of nonpharmacologic interventions. Regular reviews and goal setting are crucial [4].

- Start with the lowest effective dose and titrate cautiously.
- Monitor closely for efficacy and adverse effects, with the aim of using the minimum effective dose for the shortest possible duration.
- Careful titration and regular review are essential to achieve the desired therapeutic effect while minimizing adverse effects. Common adverse effects include sedation, weight gain, metabolic syndrome, and extrapyramidal symptoms.
- Monitoring includes regular assessments of mental status and physical health, as well as laboratory tests to detect and manage adverse effects promptly.



## STEP 9: Consider Deprescribing Antipsychotics



If appropriate, the Resident Care Team will discuss the potential for reducing or stopping the antipsychotic medication(s) with the resident and/or family. A few of the key indications, considerations, and related strategies for deprescribing of antipsychotics are presented below [4]. See [Appendix 12](#) for additional guidance and an algorithm (from [deprescribing.org](https://deprescribing.org)).

### Consider deprescribing antipsychotics...

<b>Consider for residents</b>	<ul style="list-style-type: none"> <li>• Who do not have a history of severe agitation or psychosis or another potentially appropriate indication for antipsychotic medications</li> <li>• Who had a previous diagnosis of moderate/severe agitation or psychosis and their symptoms have now improved</li> <li>• Who are assessed as appropriate candidates for deprescribing based on a current assessment and consideration of their medication doses and duration of treatment</li> </ul>
<b>Adjusting the antipsychotic: taper to discontinue, taper to lower dose, or switch</b>	<ul style="list-style-type: none"> <li>• Consider decreasing the dose by 25% to 50% every 1 to 2 weeks until discontinued</li> <li>• During tapering, initiate increased monitoring of behavioural symptoms to identify potential escalation/worsening of symptoms during taper period (see resident assessment tools)</li> <li>• Stop tapering and adjust to lowest effective dose if BPSD worsen</li> <li>• If BPSD not improving with use of an antipsychotic medication, and/or side effects occur, consider switching to a different recommended medication if clinically indicated</li> </ul>
<b>Integrate with other strategies</b>	<ul style="list-style-type: none"> <li>• Educate family physicians, nurse practitioners, staff, residents/family, and pharmacists</li> <li>• Perform pharmacy/physician/nurse practitioner-led interdisciplinary medication reviews that include discussions with nursing staff and residents/family</li> <li>• Ensure that regular and standardized reassessments of BPSD are completed, documented, and reviewed to determine need for changes in approach</li> </ul>

## STEP 10: Carefully Implement Changes and Increase Intensity of Observation



*Taking action ...  
What is the best option for  
the resident?*

An essential component of the deprescribing process for any resident is ongoing and standardized monitoring by the Resident Care Team to recognize and address any withdrawal symptoms and/or worsening of BPSD. Risks should be evaluated and carefully considered before and during any adjustments to the resident's medication regime.

### Pros

- Lowering or discontinuing antipsychotics can reduce the risk of adverse effects such as oversedation, falls, weight gain, and other systemic issues.
- Deprescribing may lead to improvements in cognitive function, mobility, and overall quality of life.
- Decreasing or stopping the use of antipsychotics can result in cost savings by reducing the need for additional monitoring resources or management of adverse effects.

### Cons

- There is a risk of recurrence of BPSD, especially if the underlying condition is not adequately managed through nonpharmacologic interventions.
- Some residents may experience withdrawal symptoms during the tapering process, including anxiety, insomnia, and agitation.
- Caregivers may face challenges in managing BPSD with tapering or discontinuation of antipsychotic medications, and additional resources, including care staff, may be required.

## STEP 11: Celebrate and Share the Learning



Recognize the role the Resident Care and Quality Improvement Teams have played in improving the quality of life of the residents.

Celebrate the successes you have had in creating a rich and fulfilling environment for staff and residents!

Learning about medication safety can be shared through various strategies that foster internal collaboration, provider/resident/family education, and external networking. All strategies promote a culture of safety and continuous improvement in the home.

### Learning Strategies

- Internal meetings and case reviews to discuss medication safety issues and share learning from specific cases. During these meetings, the Resident Care Teams can review medication-related incidents, near misses, and adverse drug reactions; identify contributing factors; and develop strategies to prevent similar occurrences in the future.
- Education and training programs for staff at every level, with up-to-date knowledge and skill development on topics such as resident assessment tools and processes, medication administration protocols, and deprescribing practices.
- Quality improvement initiatives and collaborative networks focused on medication safety, both locally and nationally, which could involve sharing best practices, tools, experiences, and collaborative learning activities.

See [page 34](#) for list of selected provincial and pan-Canadian organizations that are supporting the appropriate use of antipsychotics.



## STEP 12: Sustain Success!



Sustainment activities are crucial to the long-term success of any quality improvement initiative.

### Strategies for Sustaining Success

- Regular audits to ensure that process changes have been reliably and consistently implemented
- Run charts for regular data reviews and reports to senior leadership
- Dissemination of updates through newsletters or bulletin boards
- Regular updates to resident and family councils

These activities ensure that the gains achieved during the initial phases of the project are not only maintained but also built upon over time. In this regard, it is vital to protect initial investments in the project by embedding the new practices into the fabric of the organization, such that they become “just the way we work”.

A strong focus on measurement and monitoring is key. By continually assessing performance against key metrics, organizations can identify issues and take prompt corrective actions. A proactive approach will help prevent any regression and will ensure that the initiative remains on track.

# RESOURCES

**Selected resources available from provincial and pan-Canadian organizations supporting the appropriate use of antipsychotics in long-term care**

[Alberta Health Services](#): Appropriate Use of Antipsychotics (AUA) Toolkit

[Behavioural Supports Ontario](#): resources for family members

[Canadian Coalition for Seniors' Mental Health](#): Canadian Clinical Practice Guidelines for Assessing and Managing Behavioural and Psychological Symptoms of Dementia

[Centre for Effective Practice](#): resources for physicians

[Canadian Medication Appropriateness and Deprescribing Network](#) (CADeN): resources promoting safe and appropriate use of medications

[Choosing Wisely Canada](#): Rising Rates. Antipsychotic Use in Canada's LTC Homes [report]

[Deprescribing.org](#): deprescribing research and guidelines

[Healthcare Excellence Canada](#): resources to improve health care safety and quality

[Health Quality BC](#): resources to improve high-quality and sustainable health care in British Columbia

[PIECES Canada](#): resources to improve knowledge, care, support, and quality of life for older persons and their care partners

Registered Nurses' Association of Ontario: [Delirium, Dementia, and Depression in Older Adults: Assessment and Care \[clinical practice guideline\]](#)

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## APPENDICES

### Appendices

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# APPENDIX 1: PIECES™ Approach Using the PIECES™ 3 Question Template

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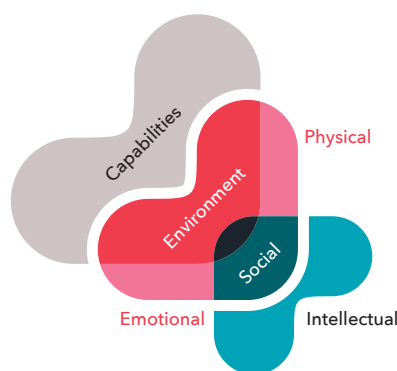
## Pieces Canada

### PIECES™ 3-Question Template

#### Guiding Collaborative Engagement, Shared Assessment and Supportive Care

PIECES is a holistic, relationship focused approach to collaborative engagement and supportive care with older Persons at risk or living with complex chronic conditions.

Using the PIECES 3-Question Template guides an evidence informed Team approach to collaborative assessment and shared care, building on the Person's unique strengths, promoting optimum health, and preventing unnecessary disability; always considering the Person's: **Physical**, **Intellectual** and **Emotional** health, strategies to support their **Capabilities**, their social and physical **Environment** and **Social** self (life story, social network, cultural, spiritual, sexuality, gender identity).



### PIECES 3-Question Template

- Q1** What are the **priority** concerns; is it a **change** for the Person?
- Q2** What are the **RISKS** and possible **contributing factors**?  
**Think PIECES**  
Avoid Assumptions! Think Atypical!
- Q3** What are the **actions**?
- Investigations
  - Interactions
  - Interventions

#### The PIECES 3-Q Template is very practical and **versatile**, focusing Team collaboration:

- In-the-moment
- During Team huddles
- In urgent situations, especially to guide the assessment/care planning over the next several, 24, 48 hours, etc.
- To guide ongoing shared assessment/care planning
- To guide care conferences
- Across the continuum of care
- Using a framework into which other best practices/assessment protocols can easily be integrated



The **Team** always begins with the Person and Care Partner, and includes all Team members working in collaboration to achieve shared goals, within and across settings.

A

# APPENDIX 1: PIECES™ Approach Using the PIECES™ 3 Question Template

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## Q1 What are the priority concerns; is it a change for the Person?

**Priority** concerns could be related to the Person's behavioural, emotional, cognitive, or physical health.

For each priority concern(s), ask; is it a **change** for the Person?

- Is it new and, if so, in what way?
- If previously existing, is it different and, if so, how?
- Whether new or different, when did the change(s) emerge?

Avoid making assumptions and moving too quickly to actions before the Team has a shared understanding of the **priority** concerns.

### Remember!

When a Person is living with complexity, the priority concerns will vary over time; What are we seeking to understand now?

## RISKS Acronym

### Roaming

(e.g. searching, seeking exit)

### Imminent harm

Frailty, Falls, Fire, Firearms

### Suicide Ideation

**Kinship** relationships (risk of harm by the Person or to the Person by others; includes avoidance of the Person)

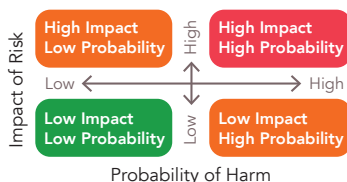
### Substance use Self-neglect,

### Safe driving, Security

(e.g. finances, housing, food)

## Assessing Degree of RISKS

Impact – Probability Tool



- Requires immediate attention
- Not imminent; but if understood and addressed will contribute to best possible care and prevention
- No significant concern at this time

## Q2 What are the RISKS and possible contributing factors? Think **PIECES**

To prioritize RISKS (related to the priority concerns):

- Use the **RISKS acronym** to identify the areas of RISKS.
- For each RISKS identified, use the **Impact/Probability** tool for Assessing Degree of RISKS.

What are the possible **contributing factors**? Think **PIECES**

Avoid assumptions! Think Atypical!

To help **prioritize** the exploration:

- Use RISKS assessment information.
- Screen for delirium if there has been an acute change (Q1), which may require immediate attention.

## Q3 What are the actions?

- Investigations
- Interactions
- Interventions

Based on what has surfaced in Q1 and Q2:

### Investigations

- What **priorities** has the Team identified in Q2 for investigation of RISKS and possible contributing factors (**PIECES**)?
- What is the plan for implementation and sharing findings?

### Interactions

- What communication strategies will be most supportive?
- How will Team members interact to continue learning and sharing information?

### Interventions

- What are the **priority** care strategies that will;
  - Minimize RISKS
  - Build on the Person's strengths
  - Prevent unnecessary decline and/or reoccurrence, especially during transitions?

### Remember!

How will the Person, Care Partner and all other Team members act together to monitor and evaluate the priority plan of care?

Are we continuing to engage the Person; honouring their values, preferences, and right to autonomy?

## What do we currently know (including strengths) and what do we need to find out?

- Physical:** Delirium, Disease, Discomfort, Drugs, Disability
- Intellectual:** Neurocognitive changes; 7 A's
- Emotional:** Mood, Adjustment, Suicidality, Substance Use, Psychosis, Trauma
- Capabilities:** Abilities overwhelmed/strengths underused
- Environment:** Enabling/disabling factors, transitions
- Social:** Life story, social network, cultural, spiritual, sexuality, gender identity

## What screening or assessment tools would contribute to the clinical evidence?

B

# APPENDIX 1: PIECES™ Approach Using the PIECES™ 3 Question Template

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## Pieces Canada

### PIECES™ Team Mobilization

#### Moving Forward with the Care Plan!

Acting on information/clinical evidence gathered using the 3-Q Template requires incorporating the Investigations, Interactions, and Interventions into the Person's care plan; mobilized into action, and monitored, maintained and modified as needed!

#### **Q3** What are the **actions**? Investigations. Interactions. Interventions

Think about the following to help the Team move the care plan forward

- Have Team members been identified to lead mobilization of the care plan?
- Has the plan for Investigations, Interactions, Interventions been shared, beginning with the Person and Care Partner? Who else needs to be included?
- Has a plan for monitoring key strategies been developed, including triggers for review?
- What has the Team learned from the monitoring?
  - Is there need for additional information to be gathered, including feedback, and from whom?
  - What care strategies need to be maintained, what needs to be modified, how will this information be communicated?
  - How will Team members check-in to identify the need for further review and possible modification?

If a transition in care is indicated for the Person, how will the Team partner across the continuum of care:

- In the development and shared understanding of the transition plan?
- To help clarify roles and responsibilities, including communication and coordination of care?
- To ensure the Person and Care Partner remain supported and fully engaged?
- To support the well-being of the Person and minimize risks associated with transitions in care (e.g. medication safety, unique vulnerabilities, missing information, possible stressors related to the environment)?

### PIECES 3-Question Template

Guiding Collaborative Engagement, Shared Assessment, and Supportive Care

- Q1** What are the **priority** concerns; is it a **change** for the Person?
- Q2** What are the **RISKS** and possible **contributing factors**?  
**Think PIECES**  
Avoid Assumptions! Think Atypical!
- Q3** What are the **actions**?
  - Investigations
  - Interactions
  - Interventions

# APPENDIX 1: PIECES™ Approach Using the PIECES™ 3 Question Template

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## Pharmacological Interventions: Evidence Informed Decision Making

Clinical evidence gathered by the Team using the **PIECES 3-Question Template** informs **any** pharmacological intervention, and is particularly important in the use of psychotropic medications given associated risks in the older Person. When using pharmacological interventions in the support of the older Person living with complexity, it should always be in combination with other biopsychosocial **Interventions** and supportive **Interaction** strategies.

### Use **Detect – Select – Effect** to:

- Highlight specific information gathered using the **PIECES 3-Question Template** (including evidence from assessment tools) to inform decision making.
- Identify need for a pharmacological intervention, contribute to the selection of the right medication for the Person, and monitor response.
- Support all components of the care plan including biopsychosocial interventions and interaction strategies.
- Include a monitoring and communication plan specific to pharmacological interventions, anticipated effect on symptomatology, and potential side effects.

### How to apply **Detect – Select – Effect** to inform pharmacological interventions using **psychotropic medications**:

**Detect:** What information has been gathered to identify the need for a psychotropic medication?

A psychotropic medication should be used or considered following Team understanding of **priority** concern(s), **RISKS**, and **contributing factors** which support:

- Treatment of a specific mental health disorder (e.g. major depression, schizophrenia)
- Treatment of specific behavioural expressions associated with a mental health or neurocognitive disorder
- An adjunct/supportive intervention (e.g. in a delirium)

When being considered for treatment of behavioural expressions, only if one or more of the following is present:

- Risk of harm to the Person and/or others
- Significant distress
- Excess disability

**Select:** What information has been gathered to contribute to the selection of the right medication for the Person?

- Considering treatment for specific symptoms (as detected), as well as potential benefit in treatment of co-occurring symptoms/health challenges (e.g. selecting medication for anxiety that may also treat a co-occurring sleep disturbance or pain)
- Considering unique vulnerabilities and risk factors (e.g. falls, hypotension) to help mitigate side effects and optimize response in relation to the medication being considered

**Effect:** How are we going to monitor the effect of the medication selected?

- **Expected response** – In context of the priority concerns, **RISKS** and contributing factors i.e. why the medication is being prescribed (e.g. mitigate **RISKS**, decrease distress, improve function and well-being); and the anticipated response of the specific medication selected
- **Side effects** – Associated with the selected medication and the Person's unique vulnerabilities and risk factors

# APPENDIX 2: Example Metrics and Indicators

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Measures of Success of AUA Project (Scorecard)

QUALITY DIMENSIONS:	APPROPRIATE	EFFICIENT	SAFE	EFFECTIVE	ACCEPTABLE	ACCESSIBLE
SELECTED						
MEASURE:	% of residents on antipsychotics in absence of psychosis ( RAI 2.0 - DRG01 definition) collect by unit every month	% of residents on antipsychotics reviewed monthly by IDT team	Unintended outcomes: % of increased verbal/physical aggression, physical restraint, started another tranquilizer (e.g. benzodiazepine)	% of residents whose behaviour improved or had no change	% of family/alternate decision maker who had education on AUA	% of staff who had AUA education
PERFORMANCE LEVEL: ▼	Project required data		Monitoring the effects		Ideal target based on what can be realistically achieved in 9 mths	
10 (Targeted Ideal)	Less than 20%	100%	0%	100%	100%	100%
9						
8						
7						
6						
5						
4						
3 (“AS IS” at Start)						
2						
1						

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

Last updated July 2014

# APPENDIX 2: Example Metrics and Indicators

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## Measures of Success of Appropriate Use of Antipsychotics (AUA)

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

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

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 section 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 Section 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 Section E, record the number of residents with Gradual Dose Reduction (GDR)	Looking ONLY at Section F, record the number of residents whose behaviour improved or had no change	Looking ONLY at Section E, record the number of residents who had antipsychotic medication discontinued	Looking ONLY at Section H, record the number of residents whose behaviour improved or had no change	Looking ONLY at Sections F & H record the number of residents with worsened behaviours	Looking ONLY at Section D, record the number of family/alternate decision maker who had AUA education	Number of F/T staff on unit	Number of staff who had AUA education
		A*	B	A-B=C	D	Calcd	%	E	Calcd	%	F	G	H	I	J	K	L	M
Baseline																		
Month/Year																		
Month/Year																		
Month/Year																		
Month/Year																		
Month/Year																		
Month/Year																		
Month/Year																		
Month/Year																		
Month/Year																		
Month/Year																		
Month/Year																		
Month/Year																		
Goal							< 20%			100%		100%		100%	0 - 10%	100%		100%

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

Last updated

Nov-16



## APPENDIX 3: A Systematic Approach to Designing and Testing Changes for Improvement

One method that can support the testing of possible improvement changes is the Model for Improvement, developed by [Associates in Process Improvement](#)<sup>1</sup>. It is a simple yet powerful framework for accelerating improvement.

The Model for Improvement has two parts:

1. A series of three fundamental questions, which can be addressed in any order.
  - a. What are we trying to accomplish?
  - b. How we will know that change is an improvement?
  - c. What change can we make that will result in improvement?
2. The Plan-Do-Study-Act (PDSA) cycle to test and adapt changes to ensure they result in the desired improvement, as outlined in [Appendix 4](#).



- Conduct a full and comprehensive medical, physical, behavioural, psychiatric, and social history to identify underlying issues
- Review all current medications for potential adverse effects or interactions that might contribute to responsive behaviours
- Work with the resident, family, and care team to create a resident-specific care plan and communication strategy
- Tailor interventions to the individual needs and preferences of the resident, respecting their history, personality, likes, and dislikes
- Continuously monitor the resident's behaviour and response to interventions using behavioural logs to track changes and identify patterns and trends over time

<sup>1</sup> Model for improvement. Associates in Process Improvement; 2024 [cited year month day]. Available from: <https://www.apiweb.org/>  
AUA Handbook

# APPENDIX 4: PDSA Worksheet

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## Plan, Do, Study, Act (PDSA) Worksheet



**Project Title:**

**PDSA Cycle No. (start small and complete several cycles):**

**Start Date:**

**End Date:**

**Aim/Objective (be specific):**

Describe the Test of Change (ToC)	Who (responsible)	When (completion date)	Where (location)

### Plan

List the tasks needed to set-up and implement the ToC	Who (responsible)	When (completion date)	Where (location)

Predict what will happen when the ToC is carried out	Data to determine if predictions succeed

**Do** – Describe what actually happened during the ToC. Capture data/measurements, document problems and unexpected observations.

- (Describe what was actually done during the test)

**Study** – What were the results of the ToC. Analyze data/measurements, compare to predictions & summarize learnings.

- (Summarize the data and results)

**Act** – Describe what modifications to the plan will be made for the next cycle from what you learned. Are you going to adopt, adapt or abandon?

- (List the changes that will be made for next time)

# APPENDIX 4: PDSA Worksheet

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## Plan, Do, Study, Act (PDSA) Worksheet



### HIERARCHY OF EFFECTIVENESS

SYSTEM-Based

**High Leverage**

**MOST EFFECTIVE**

**Forcing functions and constraints**

(e.g., removal of a product from use)

**Automation or computerization**

(e.g., automated patient-specific dispensing)

**Medium Leverage**

**MODERATELY EFFECTIVE**

**Simplification and standardization**

(e.g., standardized paper or electronic order sets)

**Low Leverage**

**LEAST EFFECTIVE**

**Rules and policies**

(e.g., policies to prohibit borrowing doses from other areas)

**Education and information**

(e.g., education sessions on high-alert medications)

**Reminders, checklists, double checks**

(e.g., independent double checks for high-alert medications)

PERSON-Based



ISMP Canada (2013)

# APPENDIX 5: Model Policy for Quarterly Medication Assessments

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Strengthening Medication Safety in Long-term Care

## Model Policy 4 for Testing

To support LTC Homes in their review and updating of medication management policies

## Quarterly Medication Assessments

### Purpose:

This policy outlines the process at the Home for completing resident quarterly medication assessments to optimize medication-related outcomes for residents as per *Ontario Regulation 246/22, section 146* which states:

“At least quarterly, a documented reassessment of each resident's drug regime.”

### Scope:

This policy applies to all prescribers, nursing staff, consultant pharmacists, and long-stay residents\* admitted to the Home. Residents admitted for short stay or respite care are exempt.

\*Where a resident is unable to participate, their Medical Power of Attorney/Caregiver will be consulted.

### Overview of Process:

#### Nursing Staff and/or Pharmacy Service Provider (PSP):

1. Identifies residents for which a quarterly medication assessment is necessary. These should be staggered as much as possible so that all residents do not fall on the same month (i.e., a third of residents fall in month 1, a third in month 2, and a third in month 3 of a quarter).
2. Identifies and confirms with the prescriber the intended date of the medication assessment.
  - a. Creates the initial version of quarterly medication assessment on the day of or within a maximum of one week of the quarterly review date. Forms created earlier have a risk of being outdated by the time of the review unless there is a robust process of reconciliation/updating in place until the medication assessment date.

# APPENDIX 5: Model Policy for Quarterly Medication Assessments

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Strengthening Medication Safety in Long-term Care

## Model Policy 4 for Testing

To support LTC Homes in their review and updating of medication management policies

## Quarterly Medication Assessments

### Nursing Staff

1. Reviews the resident chart order sheets the day before the medication assessment to determine if any recent medication changes have occurred. If so, the form is updated and provided to the prescriber.
2. Collates pertinent data that may inform the assessment including:
  - a. recent specialist notes,
  - b. BP readings,
  - c. Blood glucose readings,
  - d. Recent lab work
  - e. Monitoring information for responsive behaviours
  - f. Pharmacy recommendations
  - g. Any other information reflecting on the resident clinical status.
3. Assists the prescriber in completing the assessment.
4. Processes the new orders or changes.

### Prescriber

1. Identifies and confirms with the Nursing staff or PSP the intended date of the medication assessment.
2. Reviews the medication assessment form in the context of the resident's clinical status, pertinent vitals signs or lab values, goals of care, paying particular attention to potentially inappropriate medications, situations that may indicate potential preventable harm from medications, and other highlighted concerns related to medications.
3. Engages the care team and resident (or POA/Caregiver as applicable) in decision-making accounting for the resident's goals of care.
4. Completes the new orders on assessment form.
5. Ensures appropriate follow-up of changes as necessary (e.g., vital sign monitoring, lab values).

# APPENDIX 5: Model Policy for Quarterly Medication Assessments

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Strengthening Medication Safety in Long-term Care

## Model Policy 4 for Testing

To support LTC Homes in their review and updating of medication management policies

## Quarterly Medication Assessments

### Pharmacy Service Provider (PSP)

1. Where possible, performs a Medication Review<sup>4</sup> in the 2 weeks prior to the medication assessment.
2. Assists the prescriber in completing the assessment.
3. Processes the new orders or changes on the assessment form.
4. Assists with ensuring appropriate follow-up of changes as necessary.

### Glossary of Key Terms:

Term	Definition
Quarterly medication assessment	<p>A resident's current medication and treatment plan is reviewed, updated if applicable, and information documented on the Quarterly Medication Assessment Form. The review and documentation must include pertinent resident demographics, allergy and sensitivity information, as well as pertinent organ function (e.g., Glomerular Filtration Rate, presence of Liver Disease).</p> <p>Features of a good assessment that are also documented include:</p> <ul style="list-style-type: none"> <li>• medications that appear on a potentially inappropriate medication list (e.g. Beers List, START STOPP Criteria)<sup>2,3</sup>,</li> <li>• recently changed medications,</li> <li>• medications for potential deprescribing,</li> <li>• medications that may benefit from clinical review (i.e., antipsychotics, benzodiazepines, opioids, etc.),</li> <li>• recent use of PRN medications,</li> <li>• pertinent medical information (diet, crushed meds),</li> <li>• an appropriate indication for every medication,</li> <li>• medications as a result of prescribing cascades or those that are causing side effects.</li> </ul> <p>The assessment form also acts as an order sheet containing all legal requirements of a prescription – resident information, prescriber signature, date, quantities etc. The date of the previous assessment is noted on the form.</p>



# APPENDIX 5: Model Policy for Quarterly Medication Assessments

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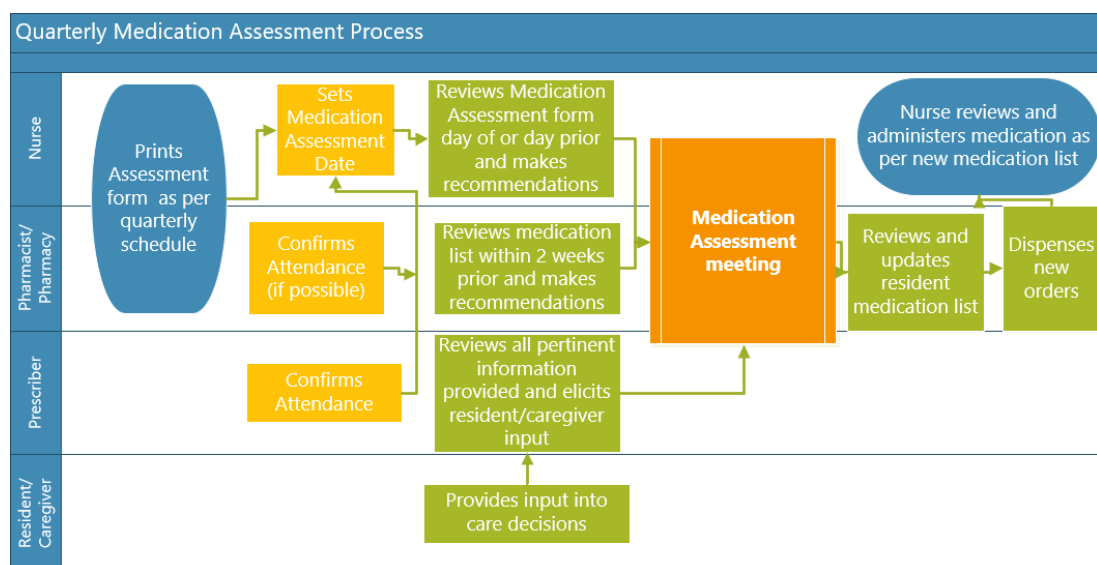
Strengthening Medication Safety in Long-term Care

## Model Policy 4 for Testing

To support LTC Homes in their review and updating of medication management policies

## Quarterly Medication Assessments

### Process Map:



### References:

1. Ontario Regulation 246/22, section 146
2. Beer's List of Potentially Harmful Drugs in the Elderly  
<https://www.pharmacyquality.com/wp-content/uploads/2019/05/Beers-List-350301.pdf>
3. STOPP/START criteria for potentially inappropriate medications/potential prescribing omissions in older people: <https://pubmed.ncbi.nlm.nih.gov/31790317/>

### Revision History:

Revision Number	Effective Date	Reason for Change	Version Number
1			
2			

# APPENDIX 6: Behavioural Supports Ontario – Dementia Observation System

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**BSO-DOS®**

Behavioural Supports Ontario-Dementia Observation System

## Worksheet

### Step #1: Background (Complete prior to Data Collection Sheet)

Reason for Completing BSO-DOS®:

- |   |  |
|---|--|
| <input type="checkbox"/> Baseline/Admission     | <input type="checkbox"/> Implementation of a new strategy/intervention |
| <input type="checkbox"/> Transition/Move        | <input type="checkbox"/> Adjustment of medications                     |
| <input type="checkbox"/> New behaviour: _____   | <input type="checkbox"/> Support for urgent referral/transfer          |
| <input type="checkbox"/> Change in behaviour(s) | <input type="checkbox"/> Other: _____                                  |

BSO-DOS® start date: \_\_\_\_\_ Section completed by (print name): \_\_\_\_\_

BSO-DOS® stop date: \_\_\_\_\_ Signature: \_\_\_\_\_

### Step #2: Complete the Data Collection Sheet & highlight the numbers according to the colour-coded legend

### Step #3: Analysis & Planning (Use completed Data Collection Sheet)

		Total the Blocks for Each Day (Add up the number of blocks for each category per day)						Total the ½ Hour Blocks (Add up the number of blocks for each category over 5 days)			Calculate the Average Hours Per Day (Divide the total ½ hour blocks by 10) Hint: Move the decimal point one space to the left		Concerns		
		Day #1	Day #2	Day #3	Day #4	Day #5							Frequency	Duration	Risk
1	Sleeping						=			+10			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2	Awake/Calm						=			+10			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3	Positively Engaged						=			+10			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4	Vocal Expressions						=			+10			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5	Motor Expressions						=			+10			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6	Sexual Expression of Risk						=			+10			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7	Verbal Expression of Risk						=			+10			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8	Physical Expression of Risk						=			+10			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9							=			+10			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10							=			+10			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

What the BSO-DOS® data reveal (e.g. types of behaviours expressed, patterns, time of day, broken sleep): \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Possible causes and contributing factors (consider collected context and personhood information): \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Next Steps (check all that apply):

- |  |   |
|--|---|
| <input type="checkbox"/> Continue BSO-DOS® for another 5 days              | <input type="checkbox"/> Medication adjustment/review                 |
| <input type="checkbox"/> Repeat BSO-DOS® in 4-6 weeks                      | <input type="checkbox"/> Non-pharmacological interventions suggested: |
| <input type="checkbox"/> No further BSO-DOS® completion at this time       | _____   |
| <input type="checkbox"/> ABC charting around particular events/behaviour   | <input type="checkbox"/> Care plan updated                            |
| <input type="checkbox"/> Clinical huddle/meeting                           | <input type="checkbox"/> Referral: _____                              |
| <input type="checkbox"/> Progress note written                             | <input type="checkbox"/> Other: _____                                 |
| <input type="checkbox"/> Consult/meet with Substitute Decision Maker (SDM) |   |

Section completed by (print name): \_\_\_\_\_ Signature: \_\_\_\_\_

# APPENDIX 6: Behavioural Supports Ontario – Dementia Observation System

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BSO-DOS®

Behavioural Supports Ontario-Dementia Observation System

## Data Collection Sheet

	Observed Behaviour	Context	Initials*	Observed Behaviour	Context	Initials*	Observed Behaviour	Context	Initials*	Observed Behaviour	Context	Initials*	Observed Behaviour	Context	Initials*
D/M/Y															
0700															
0730															
0800															
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0600															
0630															

**\*Mandatory column**

**Observed Behaviours**

**1** Sleeping

**2** Awake/Calm

**3** Positively Engaged

*For #3-8 check as you observe:*

☐ Activity

☐ Conversing

☐ Hand holding

☐ Other:

☐ Hugging

☐ Singing

☐ Smiling

**4** Vocal Expressions (Repetitive)

☐ Crying

☐ Grunting

☐ Humming

☐ Moaning

☐ Other:

☐ Questions

☐ Requests

☐ Sighing

☐ Words

**5** Motor Expressions (Repetitive)

☐ Banging

☐ Collecting/Hoarding

☐ Disrobing

☐ Exploring/Searching

☐ Fidgeting

☐ Other:

☐ Grinding teeth

☐ Pacing

☐ Rattling

☐ Rocking

☐ Rummaging

**6** Sexual Expression of Risk

☐ Explicit sexual comments

☐ Public masturbation

☐ Touching others - genitals

☐ Touching others - non-genitals

☐ Other:

**7** Verbal Expression of Risk

☐ Insults

☐ Screaming

☐ Other:

☐ Swearing

☐ Threatening

**8** Physical Expression of Risk

☐ Biting

☐ Choking others

☐ Grabbing

☐ Hair pulling

☐ Hitting

☐ Kicking

☐ Pinching

☐ Other:

☐ Punching

☐ Pushing

☐ Scratching

☐ Self-injurious

☐ Slapping

☐ Spitting

☐ Throwing

**9**

**10**

**Context**

**A** Alone

**L** Loud/busy environment

**Q** Quiet environment

**F** Family/visitors present

**C** Personal Care (e.g. bathing, incontinent care, toileting)

**N** Nutrition - eating/drinking

**M** Medication for behaviours given

**P** Pain medication given

**T** Treatment (e.g. wound care, creams)

**R** Expressions directed at Resident/patient/visitor(s)

**S** Expressions directed at Staff

**X**

**Y**

# APPENDIX 7: ABC (Antecedent\Behaviour\Consequence) Monitoring Chart

© Surrey Place Developmental Disabilities Primary Care Program.

## Monitoring Chart: ABC (Antecedent/Behaviour/Consequence)

Surrey Place Developmental  
Disabilities Primary Care Program

<b>Patient Name</b>		<b>Date of Birth</b>	<b>Results to be reviewed and analyzed with:</b>
First	Last		

Use this observational tool to record information on behaviours that challenge. The aim of using this chart is to better understand what the behaviour is communicating. Be as objective as possible when describing behaviour. Describe what you see and hear. Check for occasions or triggers where the behaviour is most likely to occur. Look at what consequences might be maintaining the behaviour. Based on the observation, develop a plan.

### Pre-existing conditions

Factors that increase vulnerability or sensitivity to triggers. Think HELP factors: Health or medical problems (H), Environmental stressors (E), Life events or trauma (L), Psychiatric disorder (P)

### Antecedent

What happened just before the behaviour occurred and might have triggered it? Include setting and activities.

### Behaviour

Describe the behaviour as accurately and specifically as possible. Include frequency, duration, and intensity on a scale of 1 to 5 (5 is most severe).

### Consequence

Things that happened immediately after the behaviour occurs, and make it more of less likely to happen again.

Occasion	Pre-existing conditions	Antecedent	Behaviour	Consequence
<b>Example</b> Date Feb 6/10 Time 6:30-7:10pm Observer Rene - evening staff vendor	H: John had a toothache. L: John's mother was in hospital with a broken hip and could not visit. L: John's usual primary staff volunteer was on holidays.	E: John was eating supper in the kitchen when another resident bumped into him when passing food.	John started to yell and throw his plate across the table. He ran out of the room, screamed for 40 minutes and threw cushions around living room. The intensity was 4/5.	<ul style="list-style-type: none"> <li>Staff made a change to the environment, reviewing the resident, to create a calming space, to help reduce sensory overload.</li> <li>Staff wanted and acknowledged the life stressors for John and that he is likely feeling overloaded and distressed, visiting his mother and primary sorter.</li> <li>Staff said sorry for having been bumped into during supper. Staff showed empathy for John's difficulty.</li> <li>Staff offered John a soft sandwich, which was easier for him to eat, recognizing that the current meal was hard to chew and likely painful for him. A dental appointment has been booked.</li> </ul>
Date Time Observer				

## APPENDIX 8: Assessing and Managing Agitation in Dementia

In addition to the approaches already described in the Handbook, other evidence-informed, targeted strategies may be considered when assessing and managing agitation in dementia [1]. An important consideration is that the prescriber be familiar with the drug coverage available in the applicable province.

Diagnosis / Assessment	
Use evidence-informed criteria to diagnose agitation in dementia, e.g., International Psychogeriatrics Association <sup>a</sup>	
Use evidence-informed tools to identify, assess, and reassess evidence of agitation (Neuropsychiatric Inventory – Agitation) <sup>a</sup>	
Psychosocial Interventions	
Health care provider education on how to individualize plan of care for agitation in dementia	
Medications	
Consider	Not Recommended
Consider citalopram for treatment of moderate to severe agitation	Recommend against initiation of cholinesterase inhibitors and memantine for moderate to severe agitation
Consider quetiapine for severe agitation if symptoms are refractory to other pharmacologic treatments or those treatments are not tolerated	
For severe agitation, consider <ul style="list-style-type: none"> <li>• aripiprazole</li> <li>• brexpiprazole</li> <li>• risperidone</li> </ul> Note: risk of adverse drug events (ADEs)	Recommend against use of trazodone, sertraline, mirtazapine, fluoxetine, paroxetine, fluvoxamine, and tricyclic antidepressants
Consider other typical antipsychotics if symptoms do not respond	Recommend against use of olanzapine (except possibly as a short-term, emergency treatment for severe agitation)
Consider carbamazepine for severe agitation if symptoms are refractory to other meds	Generally recommend against the use of combinations of medications (polypharmacy) due to risk of ADEs
Consider short-acting antipsychotics (oral and intramuscular) for emergency treatment, on a short-term basis, when there is a risk of physical harm to self or others	Recommend against use of valproic acid or sodium divalproex
Consider short-acting benzodiazepines for the emergency treatment of severe agitation when there is a risk of physical harm to self or others or if other medications are unavailable or contraindicated	Generally recommend against use of long-acting injectable antipsychotics for agitation in dementia
Other	
Consider synthetic cannabinoids if symptoms are severe and refractory to other pharmacologic treatments	

<sup>a</sup> For further details about diagnostic criteria of the International Psychogeriatrics Association and the Neuropsychiatric Inventory – Agitation, see page 12 of the Canadian Clinical Practice Guidelines for Assessing and Managing Behavioural and Psychological Symptoms of Dementia (BPSD) [1].

## APPENDIX 8: Assessing and Managing Agitation in Dementia

### Discontinuation of Pharmacologic Interventions for Managing Agitation

If a pharmacologic intervention for agitation in dementia is ineffective after 8 weeks of treatment, including at least 2 weeks at a therapeutic dose, consider deprescribing the treatment [1].

### Reference

[1] Guideline Panel (Seitz D, Watt J, co-chairs). Canadian clinical practice guidelines for assessing and managing behavioural and psychological symptoms of dementia (BPSD). Toronto (ON): Canadian Coalition for Seniors' Mental Health; 2024 [cited February 1, 2025]. Available from: [https://ccsmh.ca/wp-content/uploads/2024/05/DIGITAL\\_CCSMH\\_BPSD-Clinical-Guidelines\\_May2024\\_ENG.pdf](https://ccsmh.ca/wp-content/uploads/2024/05/DIGITAL_CCSMH_BPSD-Clinical-Guidelines_May2024_ENG.pdf)



## APPENDIX 9: Assessing and Managing Psychosis in Dementia

Symptoms of psychosis may occur in patients who are experiencing symptoms of dementia. Symptoms of psychosis typically consist of hallucinations and/or delusions.

### Hallucinations

- Hallucinations are incorrect perceptions of objects or events involving any of the senses, but they are most often either visual (seeing something that is not actually there) or auditory (hearing noises or voices that do not actually exist). They are false perceptions that can result in either positive or negative experiences for the person with dementia [1].

### Delusions

- Delusions are false beliefs. For example, a person with dementia who is living alone may have the delusion that someone else lives in their home or a person with dementia may believe that others are “out to get them” [1].

Possible causes of hallucinations and delusions are sensory changes, medications, physical illness, unrecognized environment or caregivers, inadequate lighting, disruption of routines, and removal of items (such as money or jewellery) from the person [1].

To manage the symptoms of psychosis, eliminate any unnecessary stimuli that may reinforce delusions and/or hallucinations. Additionally, ensure that eyeglasses and hearing aids are worn properly to optimize the person’s ability to perceive the environment as accurately as possible.

Not all symptoms of psychosis need to be treated with medications. In general, if a hallucination or delusion is not upsetting the person, don’t intervene [1].

See the table below for a summary of considerations in addressing and managing psychosis.

# APPENDIX 9: Assessing and Managing Psychosis in Dementia

The table below, based on the Canadian Coalition for Seniors' Mental Health guidelines for behavioural and psychological symptoms of dementia [2], summarizes considerations for assessing and managing psychosis in dementia.

Diagnosis / Assessment	
Use evidence-informed criteria to diagnose agitation in dementia, e.g., International Psychogeriatrics Association [1]	
Use evidence-informed tools to detect symptoms of psychosis, e.g., the Neuropsychiatric Inventory	
Psychosocial Interventions	
Health care provider education on how to individualize plan of care for psychosis in dementia	
Medications	
Consider	Not Recommended
Consider citalopram for treatment of psychotic symptoms of moderate severity	
For symptoms of psychosis that are severe or not responding to other treatments, consider	
<ul style="list-style-type: none"><li>• aripiprazole</li><li>• risperidone</li></ul>	
Note: risk of adverse drug events	
Other	
Occupational therapy provided by qualified occupational therapists (OTs) is recommended	
The Ontario Society of Occupational Therapists has an overview of the unique role of OTs in advancing the management of behavioural and psychosocial symptoms of dementia [3].	

## References

- [1] Delusions and hallucinations. Alzheimer Society of Canada; n.d. [cited February 1, 2025]. Available from: <https://alzheimer.ca/en/help-support/im-caring-person-living-dementia/understanding-symptoms/delusions-hallucinations>
- [2] Guideline Panel (Seitz D, Watt J, co-chairs). Canadian clinical practice guidelines for assessing and managing behavioural and psychological symptoms of dementia (BPSD). Toronto (ON): Canadian Coalition for Seniors' Mental Health; 2024 [cited February 1, 2025]. Available from: [https://ccsmh.ca/wp-content/uploads/2024/05/DIGITAL\\_CCSMH\\_BPSD-Clinical-Guidelines\\_May2024\\_ENG.pdf](https://ccsmh.ca/wp-content/uploads/2024/05/DIGITAL_CCSMH_BPSD-Clinical-Guidelines_May2024_ENG.pdf)
- [3] Occupational therapy and behavioural symptoms of dementia. Ontario Society of Occupational Therapists; n.d. [cited February 1, 2025]. Available from: [https://www.osot.on.ca/docs/practice\\_resources/OT\\_Dementia.pdf](https://www.osot.on.ca/docs/practice_resources/OT_Dementia.pdf)

## APPENDIX 10: Assessing and Managing Depressive Symptoms and Depression in Dementia

The table below, based on the Canadian Coalition for Seniors' Mental Health guidelines for behavioural and psychological symptoms of dementia [1], summarizes considerations for assessing and managing depressive symptoms and depression in dementia.

Diagnosis / Assessment	
Use evidence-informed criteria to diagnose depression in dementia, e.g., those of the National Institute of Mental Health	
Use evidence-informed tools to detect depressive symptoms in dementia, e.g., Cornell Scale for Depression in Dementia	
Psychosocial Interventions	
Health care provider education on how to individualize plan of care for depression in dementia	
Medications	
Consider	Not Recommended
Consider antidepressants for treatment of moderate to severe depression in dementia if person is unresponsive to psychosocial interventions	Recommend against using pharmacologic interventions for treatment of depressive symptoms in dementia when a concurrent diagnosis of depression is not present
Other	
Occupational therapy provided by qualified occupational therapists is recommended	
<ul style="list-style-type: none"> <li>• Animal therapy</li> <li>• Robotic pets</li> <li>• Cognitive stimulation therapy</li> <li>• Massage and touch therapy</li> <li>• Physical exercise</li> <li>• Reminiscence therapy (positive reminders of the resident's past or their family members)</li> </ul>	

### Reference

[1] Guideline Panel (Seitz D, Watt J, co-chairs). Canadian clinical practice guidelines for assessing and managing behavioural and psychological symptoms of dementia (BPSD). Toronto (ON): Canadian Coalition for Seniors' Mental Health; 2024 [cited year month day]. Available from: [https://ccsmh.ca/wp-content/uploads/2024/05/DIGITAL\\_CCSMH\\_BPSD-Clinical-Guidelines\\_May2024\\_ENG.pdf](https://ccsmh.ca/wp-content/uploads/2024/05/DIGITAL_CCSMH_BPSD-Clinical-Guidelines_May2024_ENG.pdf)

# APPENDIX 11: Assessing and Managing Anxiety in Dementia

The table below, based on the Canadian Coalition for Seniors' Mental Health guidelines for behavioural and psychological symptoms of dementia [1], summarizes considerations for assessing and managing anxiety in dementia.

Diagnosis / Assessment	
Use evidence-informed criteria to diagnose anxiety in dementia, e.g., Diagnostic and Statistical Manual of Mental Disorders-5-Text Revision (DSM-5-TR) criteria for anxiety disorders	
Use evidence-informed tools to detect anxiety symptoms in dementia, e.g., RAID	
Psychosocial Interventions	
Health care provider education on how to individualize plan of care for the management of anxiety in dementia	
Medications	
Consider	Not Recommended
Consider citalopram for management of moderate to severe anxiety	Recommend against pharmacologic interventions for the treatment of depressive/anxiety symptoms in dementia when a concurrent diagnosis of depression is not present
Other	
Cognitive behavioural therapy for management of anxiety (for those with mild to moderate dementia)	
Music therapy with person's preferred music	

There is little or no evidence to support the use of antipsychotics or other psychotropics for the following behavioural and psychosocial symptoms of dementia [2]:

- Wandering
- Hiding and hoarding
- Vocally disruptive behaviour
- Spitting out food
- Resistance to personal care
- Eating inedible objects

# APPENDIX 11: Assessing and Managing Anxiety in Dementia

## References

- [1] Guideline Panel (Seitz D, Watt J, co-chairs). Canadian clinical practice guidelines for assessing and managing behavioural and psychological symptoms of dementia (BPSD). Toronto (ON): Canadian Coalition for Seniors' Mental Health; 2024 [cited February 1, 2025]. Available from: [https://ccsmh.ca/wp-content/uploads/2024/05/DIGITAL\\_CCSMH\\_BPSD-Clinical-Guidelines\\_May2024\\_ENG.pdf](https://ccsmh.ca/wp-content/uploads/2024/05/DIGITAL_CCSMH_BPSD-Clinical-Guidelines_May2024_ENG.pdf)
- [2] Behaviours that are not likely to respond to medication. BC Patient Safety & Quality Council; updated 2019 [cited February 1, 2025]. Available from: <https://bcbpsd.ca/docs/part-2/Behaviors%20Are%20Not%20Likely%20to%20Respond%20to%20Medication%20-%20Updated%20June%202019.pdf>

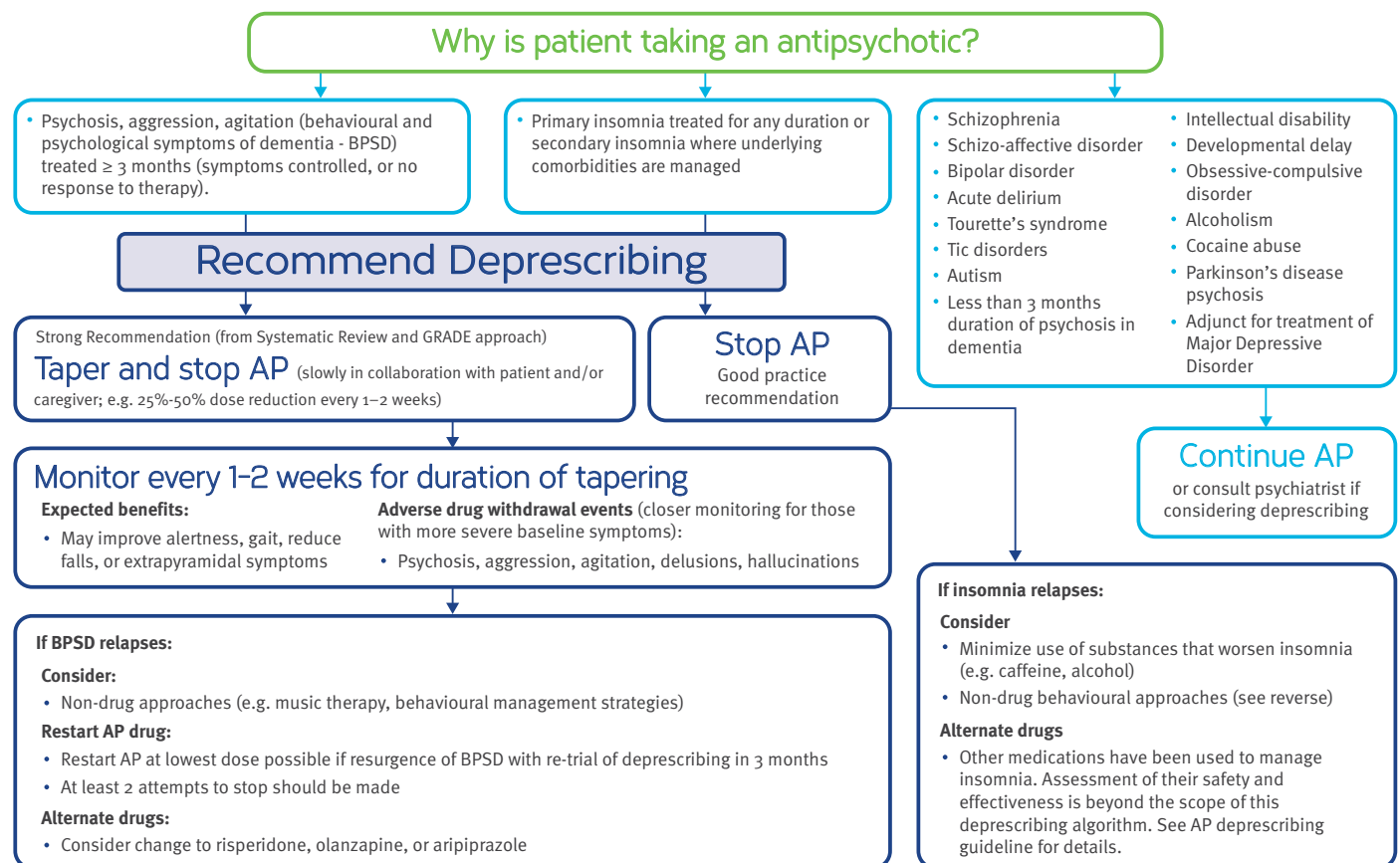
# APPENDIX 12: Antipsychotic Deprescribing Algorithm

Reproduced from: Bjerre LM, Farrell B, Hogel M, Graham L, Lemay G, McCarthy L, et al. Deprescribing antipsychotics for behavioural and psychological symptoms of dementia and insomnia: evidence-based clinical practice guideline. Can Fam Physician. 2018;64(1):17-27. <https://www.cfp.ca/content/64/1/17?etoc> Licensed under CC 4.0.



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## deprescribing.org | Antipsychotic (AP) Deprescribing Notes

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### Commonly Prescribed Antipsychotics

Antipsychotic	Form	Strength
Chlorpromazine	T IM, IV	25, 50, 100 mg 125 mg/mL
Haloperidol (Haldol®)	T L IR, IM, IV LA IM	0.5, 1, 2, 5, 10, 20 mg 2 mg/mL 5 mg/mL 50, 100 mg/mL
Loxapine (Xylac®, Loxapac®)	T L IM	2.5, 5, 10, 25, 50 mg 25 mg/L 25, 50 mg/mL
Aripiprazole (Abilify®)	T IM	2, 5, 10, 15, 20, 30 mg 300, 400 mg
Clozapine (Clozaril®)	T	25, 100 mg
Olanzapine (Zyprexa®)	T D IM	2.5, 5, 7.5, 10, 15, 20 mg 5, 10, 15, 20 mg 10mg per vial
Paliperidone (Invega®)	ER T PR IM	3, 6, 9 mg 50mg/0.5mL, 75mg/0.75mL, 100mg/1mL, 150mg/1.5mL
Quetiapine (Seroquel®)	IR T ER T	25, 100, 200, 300 mg 50, 150, 200, 300, 400 mg
Risperidone (Risperdal®)	T S D PR IM	0.25, 0.5, 1, 2, 3, 4 mg 1 mg/mL 0.5, 1, 2, 3, 4 mg 12.5, 25, 37.5, 50 mg

IM = intramuscular, IV = intravenous, L = liquid, S = suppository, SL = sublingual, T = tablet, D = disintegrating tablet, ER = extended release, IR = immediate release, LA = long-acting, PR = prolonged release

### Antipsychotic side effects

- **APs associated with increased risk of:**
  - Metabolic disturbances, weight gain, dry mouth, dizziness
  - Somnolence, drowsiness, injury or falls, hip fractures, EPS, abnormal gait, urinary tract infections, cardiovascular adverse events, death
- **Risk factors:** higher dose, older age, Parkinson's, Lewy Body Dementia

### Engaging patients and caregivers

#### Patients and caregivers should understand:

- The rationale for deprescribing (risk of side effects of continued AP use)
- Withdrawal symptoms, including BPSD symptom relapse, may occur
- They are part of the tapering plan, and can control tapering rate and duration

### Tapering doses

- No evidence that one tapering approach is better than another
- Consider:
  - Reduce to 75%, 50%, 25% of original dose on a weekly or bi-weekly basis and then stop; **or**
- Consider slower tapering and frequent monitoring in those with severe baseline BPSD
- Tapering may not be needed if low dose for insomnia only

### Sleep management

#### Primary care:

1. Go to bed only when sleepy
2. Do not use your bed or bedroom for anything but sleep (or intimacy)
3. If you do not fall asleep within about 20-30 min at the beginning of the night or after an awakening, exit the bedroom
4. If you do not fall asleep within 20-30 min on returning to bed, repeat #3
5. Use your alarm to awaken at the same time every morning
6. Do not nap
7. Avoid caffeine after noon
8. Avoid exercise, nicotine, alcohol, and big meals within 2 hrs of bedtime

#### Institutional care:

1. Pull up curtains during the day to obtain bright light exposure
2. Keep alarm noises to a minimum
3. Increase daytime activity and discourage daytime sleeping
4. Reduce number of naps (no more than 30 mins and no naps after 2pm)
5. Offer warm decaf drink, warm milk at night
6. Restrict food, caffeine, smoking before bedtime
7. Have the resident toilet before going to bed
8. Encourage regular bedtime and rising times
9. Avoid waking at night to provide direct care
10. Offer backrub, gentle massage

### BPSD management

- Consider interventions such as: relaxation, social contact, sensory (music or aroma-therapy), structured activities and behavioural therapy
- Address physical and other disease factors: e.g. pain, infection, constipation, depression
- Consider environment: e.g. light, noise
- Review medications that might be worsening symptoms

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