

# Canadian Guidelines for the Assessment and Treatment of Anxiety in Older Adults

2024



## Acknowledgements

This guideline has been made possible through a financial contribution from the Public Health Agency of Canada. The guidelines were developed independent of and without influence from the funding body. The CCSMH gratefully acknowledges the financial contribution of funders for their ongoing support and continued commitment to the area of older adults' mental health.

We would like to thank our Expert Guidance Group members, Dr. Carmen Andreescu, Dr. Delores Mullings, Dr. Nancy Pachana, Dr. Julie Wetherell, and Dr. Viviana Wuthrich, for sharing their expertise throughout the guidelines development process.

We would like also to thank Dr. Keri-Leigh Cassidy, Claire Checkland, Dr. David Conn, Dr. Christopher Kitamura, and Dr. Dallas Seitz for their support in reviewing the guidelines and providing their perspectives.

Next, we are grateful for the input of the Lived Experience Advisory Panel members from across Canada: Adrian Baldwin, Ross Barlow, L. C., Dagmar, T. Marshall, Francine Quenneville, Odette Raymond, Rosaire, and Lise Viens. Their knowledge and insights around anxiety have contributed significantly to this work.

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We would like to acknowledge Jessica Babineau (University Health Network Library and Information Service) for her work on the literature search. We are also grateful to Fiona Barnes-Brisley for her support with the graphic design of figures, and the students who helped with the systematic reviews: Isaac Adedeji, Mahnoor Akram, Juliette Mojgani, Iulia Niculescu, Béatrice Raymond, and Abitha Suthakaran.

The CCSMH would also like to acknowledge the continued dedication of its Steering Committee members and the outstanding contributions of our project staff. We acknowledge the support of CCSMH's Executive Director, Claire Checkland, the Knowledge Mobilization team, Peter Snow, Larissa D'Silva and Dr. Lauren Albrecht; and Director, Brenda Martinussen. The CCSMH is a project of the Canadian Academy of Geriatric Psychiatry.

Finally, a special thanks to the co-leads and individual working group members who dedicated countless hours and engaged with enthusiasm in the creation of the guidelines.

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### Suggested citation:

Canadian Coalition for Seniors' Mental Health. (2024).  
*Canadian Guidelines for the Assessment and Treatment of  
Anxiety in Older Adults*. Toronto, Canada.

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A full list of competing interests of guidelines development group members and how they were addressed can be found at [ccsmh.ca/wp-content/uploads/2024/01/COI-ENG-Summary-Table-FINAL.pdf](https://ccsmh.ca/wp-content/uploads/2024/01/COI-ENG-Summary-Table-FINAL.pdf)

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## Summary of Recommendations

In this guideline, we used two methods to signal the strength of evidence underlying our recommendations. The first method was applied to the recommendations addressed by systematic reviews and includes a rating of the certainty of evidence and the direction and strength of the recommendation. For best practice recommendations and those which were not directly related to our systematic review questions, we assigned a letter grade to the recommendation based on the level of evidence used to support it (from A for systematic review to D for expert opinion). Full details are provided on page 17 and in Table 1.

### Recommendation #1

Health care providers should be familiar with risk factors for anxiety in older adults. (D)

### Recommendation #2

Health care providers should familiarize themselves with tools to detect anxiety symptoms and disorders in older adults and consider using these tools to facilitate case finding in individuals at risk or who describe symptoms of anxiety. (D)

### Recommendation #3:

We recommend the use of the Geriatric Anxiety Inventory - 20 item version (GAI-20) for identifying clinically important anxiety symptoms or disorders within clinical settings and for individuals at risk. (GRADE Certainty of Evidence: Moderate; Strength of recommendation: Strong)

### Recommendation #4

Consider the use of the Geriatric Anxiety Inventory – 20 item version (GAI-20) or short-form (GAI-SF) for case-finding for GAD within clinical settings and for individuals at risk. (GRADE Certainty of Evidence: Low; Strength of recommendation: Conditional)

### Recommendation #5

We recommend the use of Rating Anxiety in Dementia (RAID) for identifying clinically important anxiety symptoms in older adults with dementia within specialty care settings. (GRADE Certainty of Evidence: Moderate; Strength of recommendation: Strong)

### Recommendation #6

Health care providers should ask about fear of falling and activity avoidance as part of the geriatric falls risk assessment. (D)

### Recommendation #7

Older adults who screen positive for anxiety, or who are presenting with new or worsening anxiety that affects their daily functioning or well-being, should undergo a comprehensive assessment, including a history, physical examination, and appropriate investigations. (D)

### Recommendation #8

The anxiety history should include the nature of the symptoms, their onset and duration, the severity of the symptoms (in terms of impact on daily functioning, presence of avoidance behaviours, and degree of distress associated with symptoms), the psychosocial stressors contributing to the symptoms, and the past mental health history. (D)

### Recommendation #9

Older adults presenting with anxiety should be screened for depression and suicidality. (D)

### Recommendation #10

A medical history and physical examination should be used to identify medical conditions that may be contributing to the symptoms of anxiety. Consider investigations that may help to rule out the presence of medical conditions that can cause symptoms of anxiety. (D)

### Recommendation #11

A medication and substance-use history should be gathered in all older adults presenting with anxiety, including prescribed, over-the-counter and recreational drugs, and caffeine. (D)

### Recommendation #12

Non-pharmacological interventions should be offered first, given the potential risk of adverse events associated with pharmacotherapy, except in circumstances dictated by patient preference, severity of symptoms and risk assessment. (D)

### Recommendation #13

Stepped care, beginning with bibliotherapy, psychoeducation, and/or self-guided Cognitive Behavioural Therapy (CBT), should be considered to reduce anxiety symptoms and prevent the development of anxiety disorders in older adults. (B)

### Recommendation #14

Psychosocial support should be offered to older adults presenting with anxiety symptoms, tailored to address risk factors and contributing stressors. (D)

### Recommendation #15

Treatment response and efficacy should be monitored using standardized rating scales. (D)

### Recommendation #16

Psychotherapy should be made available to older adults with anxiety in all settings (community, long-term care, etc.). (D)

### Recommendation #17

CBT should be offered to older adults to treat anxiety. (GRADE: Certainty of Evidence: Low; Strength: Strong)

### Recommendation #18

Both individual and group CBT are effective and can be offered to treat anxiety in older adults. (A)

### Recommendation #19

Both brief and full CBT are effective and can be offered to treat anxiety in older adults. (A)

### Recommendation #20

Remote CBT is effective and should be offered as a treatment option for anxiety in older adults. (GRADE: Certainty of Evidence: Low; Strength: Strong)

### Recommendation #21

Specific CBT strategies can be used on their own to treat anxiety in older adults including exposure, relaxation therapy, abdominal breathing, cognitive restructuring, and problem-solving training. (B)

### Recommendation #22

CBT should be delivered by or under the supervision of mental health professionals (e.g., registered psychologists, psychotherapists, psychiatrists, social workers, nurses) with appropriate training. (D)

### Recommendation #23

Clinicians should consider the use of CBT for older adults who are experiencing a fear of falling, particularly for individuals whose function or quality of life is severely limited due to anxiety around falls. (GRADE: Certainty of Evidence: Very Low; Strength: Conditional)

### Recommendation #24

Mindfulness interventions may be used to effectively treat anxiety in older adults. (GRADE: Certainty of Evidence: Low; Strength: Conditional)

### Recommendation #25

Other forms of psychotherapy or psychosocial treatments (e.g., supportive therapy, acceptance and commitment therapy, reminiscence therapy, relaxation therapy) may be offered to older adults with anxiety. (GRADE: Certainty of Evidence: Very low; Strength: Conditional)

### Recommendation #26

Exercise, including both aerobic exercise and strength training, reduces anxiety and may be recommended to older adults with anxiety symptoms. (GRADE: Certainty of Evidence: Very Low; Strength: Conditional)

### Recommendation #27

Exercise, including Tai Chi and yoga, is effective to reduce fear of falling and may be recommended to older adults with fear of falling. (A)

### Recommendation #28

Selective serotonin reuptake inhibitors (SSRIs) and serotonin and norepinephrine reuptake inhibitors (SNRIs) should be used as the first-line pharmacologic treatment for anxiety disorders in older adults. (GRADE: Certainty of Evidence: Low; Strength: Strong)

### Recommendation #29

Benzodiazepines should not be used in the management of anxiety in older adults, except where non-pharmacological interventions and first-line pharmacological alternatives have failed, or for short-term use (2-4 weeks) until first-line treatments become effective. (GRADE: Certainty of Evidence: Very low; Strength: Conditional against)

### Recommendation #30

Buspirone may be considered for the treatment of mild-to-moderate generalized anxiety disorder in older adults, in individuals where first-line treatments are not effective or tolerated. (GRADE: Certainty of Evidence: Low; Strength: Conditional)

### Recommendation #31

Quetiapine should not be routinely used in the management of anxiety disorders in older adults, except where non-pharmacologic and first-line treatments have failed. (GRADE: Certainty of Evidence: Low; Strength: Conditional against)

### Recommendation #32

Pregabalin should not be routinely used in the management of anxiety in older adults, except where non-pharmacologic and first-line treatments have failed. (GRADE: Certainty of Evidence: Very low; Strength: Conditional against)

## Overview

The objective of these guidelines is to provide practical and evidence-based guidance on the prevention, diagnosis, and management of anxiety in older adults. The target audience is health care providers caring for the mental health of older adults, including primary care physicians, nurses and nurse practitioners, psychiatrists, psychologists, social workers, and other allied health professionals.

Anxiety is a reaction to stress and danger. It can be adaptive when it motivates someone to take the necessary steps to manage their stress or to reduce risk-taking to avoid real danger. Anxiety is maladaptive when it is excessive based on the actual stress or risk, is persistent, and leads to the avoidance of situations that are harmless (American Psychiatric Association, 2013). When anxiety is excessive or prolonged, it can have a large impact on older adults' quality of life and their ability to function day-to-day. It can interfere with relationships, activity levels, social engagement, and well-being (Porensky et al., 2009). Anxiety also has a negative impact on other aspects of health, including increasing the risk of heart disease and dementia (Burton et al., 2013; Roest et al., 2012). While many older adults will have had lifelong anxiety, some anxiety disorders begin in late-life. Late-life anxiety is often associated with depression, aging-related stressors and physiological changes such as medical illness, disability, and cognitive decline.

Anxiety disorders represent the most common mental health problem across the lifespan, including in late life. Every year, 18% of older Canadians experience symptoms of anxiety or depression that they find difficult to cope with (Canadian Institute for Health Information, 2022), and 6% of older Canadians have a diagnosed anxiety disorder (Statistics Canada, 2021), with generalized anxiety disorder (GAD) and phobias being the most common (Grenier et al., 2019). While guidelines exist for the treatment of anxiety disorders in the general adult population, older adults require special considerations. For example, differences in presentation of anxiety,

ageism and stigma contribute to under-recognition and under-diagnosis of anxiety disorders in older adults (Bower et al., 2015). Older adults are less likely to report mental health struggles and seek care, and less likely to be referred for care (Cosco et al., 2022). The relationship between anxiety and medical diseases of aging can be complex. There are also challenges in balancing the potential benefits and harms of treatments for anxiety in older adults.

Evidence-based clinical practice guidelines for anxiety specific to older adults have the potential to improve care by increasing awareness of best practices and promoting a more consistent delivery of quality mental health services. In addition to older age, other determinants of health that contribute to disparities in mental health care include sex, race/ethnicity, indigeneity, migration, geography, sexual and gender identity, physical disability, educational attainment and socioeconomic status. These determinants are interdependent and interact to marginalize certain groups within our health care system. There is a need to create mental health resources that are accessible to underserved populations, by addressing structural and cultural barriers, mistrust, and stigma.

As part of our review of the evidence within the Grading of Recommendations Assessment, Development and Evaluation (GRADE) methodology (Schünemann et al., 2013), the working group considered issues of accessibility of interventions and the impact of recommendations on health equity. The geography and population distribution of Canada presents specific equity challenges which contributed to our decision to examine the evidence for remote delivered interventions. We also considered the indirectness of our evidence to disadvantaged groups, who are dramatically under-represented in clinical trials. Overall, we identified a significant gap in research on the assessment and treatment of anxiety in older adults from disadvantaged groups.

## Scope

For the purpose of these guidelines, we focused on symptoms of anxiety and DSM-5 anxiety disorders in older adults, specifically generalized anxiety disorder (GAD), panic disorder, agoraphobia, specific phobia, and social anxiety disorder (social phobia). Thus, posttraumatic stress disorder (PTSD) and obsessive-compulsive disorder (OCD) were not included, though they are important topics that warrant consideration in future guidelines. We have also included recommendations about fear of falling, which is an important cause of anxiety later in life, with its own unique clinical features and treatment approaches.

Given the challenges in diagnosing anxiety disorders in older adults, and the recognition that subthreshold anxiety symptoms can still cause significant distress and suffering (Grenier & Richer, 2021), we chose to include studies of clinically important anxiety symptoms in older adults in our literature search and review of evidence.

## Definition of Key Concepts

For the purpose of these guidelines, older adults are defined as those 65 and older, although we have included studies with a cut-off of 60 and older, to ensure that all of the relevant evidence in older adults was captured.

Throughout this document, as appropriate, we either name the specific anxiety disorder (e.g., GAD), use the term "anxiety disorders" to refer to

DSM-5 anxiety disorders, or use the term "anxiety symptoms" for clinically important but subthreshold anxiety symptoms. For brevity, when referring to both clinically important anxiety symptoms and anxiety disorders, we use the term "anxiety" alone (e.g., "older adults with anxiety").



## Methods

The guidelines process followed the Guidelines International Network (GIN)-McMaster Guideline Development checklist (Guidelines International Network & McMaster University, 2002). A working group of multidisciplinary experts on seniors' mental health and anxiety disorders was gathered from across Canada and established the scope of the guidelines and the main

questions to be addressed. A priority setting exercise was conducted by the working group, with input from an expert guidance group to define the scope of the guidelines, specific PICO research questions, and priority outcomes. The guidelines questions were as follows:

## Prevention/Identification

1. What factors are associated with risk for anxiety in older adults
2. What are effective tools to detect anxiety in older adults in a clinical setting?\*
3. What is known about a comprehensive approach to diagnosing anxiety in older adults?

## Treatment

4. Does cognitive behavioural therapy reduce symptoms of anxiety in older adults compared to control?\*
5. Does remote cognitive behavioural therapy reduce symptoms of anxiety in older adults compared to control?\*
6. Does cognitive behavioural therapy reduce symptoms of fear of falling in older adults compared to control?\*
7. Does mindfulness or meditation reduce symptoms of anxiety in older adults compared to control?\*
8. Does psychotherapy (other than cognitive behavioural therapy) reduce symptoms of anxiety in older adults compared to control?\*
9. Does physical activity reduce symptoms of anxiety in older adults compared to control?\*
10. Do antidepressants, antipsychotics, benzodiazepines, buspirone, and/or gabapentinoids reduce anxiety in older adults compared to placebo?\*

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For questions where there was no recent high-quality systematic review available (indicated with asterisks above), we conducted our own systematic reviews. The full protocols for these reviews are registered in PROSPERO (CRD42023407837, CRD42023432100, CRD42023444208). References to these systematic reviews can be found here: [ccsmh.ca/anxiety-publications/](https://ccsmh.ca/anxiety-publications/).

For the systematic literature search, "anxiety" was defined as both anxiety disorders (e.g., a diagnosis of Generalized Anxiety Disorder) and symptoms of anxiety and included specific search terms for fear of falling. Criteria for inclusion in the treatment systematic reviews were: 1) randomized controlled trials; 2) older adults (defined as eligibility criteria aged 60+ or mean age of sample 65+), and 3) studies where reduction in anxiety was the primary outcome. A rapid review on risk factors for anxiety was also undertaken. The remaining question (#3) on assessment and diagnosis of anxiety was addressed with a librarian-guided, focused search of best practice databases (BMJ Best Practice, CPG Infobase, TRIP Medical Database, JBI EBP Database, Ageline EBSCO), AccessMedicine (McGraw), and MEDLINE/PubMed (NLM) for literature on best practices in the diagnosis of anxiety disorders in older adults.

We used two methods in this guideline for signaling the strength of evidence underlying our recommendations. The first method was applied to all screening and treatment recommendations addressed through systematic review (those with asterisks above).

The certainty of evidence from our systematic reviews and meta-analyses was evaluated using the GRADE methodology (Table 1; Schünemann et al., 2013). GRADEPro software was used (GRADEpro GDT, 2023). The evidence was graded as high-, moderate-, low-, or very-low certainty, based on how likely future research would change the confidence of the working group in the estimate of the effect. Working group members met and voted on the direction and strength of recommendations, which reflected the extent to which the panel was confident that the desirable effects of an intervention outweighed the undesirable effects.

For best practice recommendations and those which were not directly addressing a systematic review question, we used an approach similar to previous CCSMH guidelines to signal the strength of the recommendation based on the level of evidence used to guide it (Shekelle et al., 1999). The available evidence was reviewed and its level classified based on its susceptibility to bias. These recommendations and their strength were voted on by working group members. The draft recommendations were reviewed by the external expert guidance group, a panel of older adults and caregivers with lived experience of anxiety, and in consultation with health care providers and academic experts.

Table 1. Strength of recommendations in this guideline.

Screening and treatment recommendations – GRADE from Schünemann et al. (2013).		
Certainty of evidence		
High	Research provides a very good indication of likely effect. The likelihood that the effect will be substantially different is low.	
Moderate	Research provides a good indication of likely effect. The likelihood that the effect will be substantially different is moderate.	
Low	Research provides some indication of likely effect. However, the likelihood that it will be substantially different is high.	
Very Low	This research does not provide a reliable indication of the likely effect. The likelihood that the effect will be substantially different is very high.	
Direction		
Strength	For intervention	Against intervention
Strong	Most individuals will benefit from this intervention	Most individuals will not benefit from this intervention
Conditional - need to consider the individual patient circumstances, their values and preferences	Some individuals may benefit from this intervention	While risks outweigh benefits in most cases, there may be circumstances where this intervention may be considered
Best practice recommendations		
Strength of recommendation		
A	Based on systematic review or meta-analyses of evidence	
B	Based on controlled studies	
C	Based on non-experimental/observational studies	
D	Based on expert opinion or extrapolated from other categories of evidence above	

# Risk Factors and Case-Finding

## Recommendation #1

**Health care providers should be familiar with risk factors for anxiety in older adults. (D)**

Case-finding for anxiety is most effective when targeted at higher risk older adults. The presence of risk factors associated with anxiety may prompt clinicians to consider the use of a screening tool to support case-finding or to inquire further about symptoms that comprise the diagnostic criteria for anxiety disorders. In a rapid review, we identified a number of factors associated with anxiety and/or fear of falling in older adults. These include (in alphabetical order):

- Cognitive impairment or decline
- Depression
- Female sex
- Functional limitations
- Insomnia
- Multimorbidity
- Pain
- Polypharmacy
- Poor health status (objective or subjective)
- Social isolation or loneliness
- Older age\*
- History of falls or impaired balance\*

*\*factors associated only with fear of falling*

One or a combination of these factors may contribute to the risk of anxiety or fear of falling which increases with age. These risk factors can cause heightened feelings of vulnerability and danger, worry about independence, or compromised ability to cope or access support (Brenes et al., 2008; Silva et al., 2022; Vink et al., 2008).

Aging on its own is not a risk factor for anxiety, other than for fear of falling. However, the relationship between multimorbidity and symptoms of anxiety in older adults is well described (Creighton et al., 2017; Vo et al., 2023). Chronic conditions, such as high blood pressure, COPD, cardiac disease, sleep disorders, and Parkinson's disease, or impairments, such as vision or hearing loss, are associated with an increased risk of anxiety (Silva

et al., 2022; Vink et al., 2008). Further, there is a known link between pre-frailty or frailty in older adults and symptoms of anxiety (Tan et al., 2023). The specific medical and psychiatric comorbidities associated with anxiety, in particular depression and cognitive impairment, are discussed in more detail in the Assessment and Diagnosis section below.

High levels of stress, whether acute or chronic, are also associated with anxiety. For example, there is some evidence that psychosocial stressors such as living with low income, living in precarious housing, having unmet care needs, or experiencing ageism or discrimination, contribute to anxiety in older adults (Carden et al., 2022; Kang & Kim, 2022). There is a gap in evidence around risk factors for anxiety specific to ethnically and culturally diverse older populations. The mental health impacts, in Indigenous communities, of racism, colonialism and the residential school system, and the resulting social and economic disadvantages and loss of cultural ties, are well documented (Nelson & Wilson, 2017). The mental health of older Black and racialized adults is impacted by their lifetime experiences of racism and the effects of racism on their lives, including fewer economic opportunities and higher rates of trauma (L. L. Brown et al., 2020; D. R. Williams et al., 2003, 2010).

Immigrant older adults are also at risk for mental health issues, related to language and cultural barriers, and to intersecting factors such as poverty and discrimination (Lin, 2023).

Importantly, in our rapid review, we found some known protective factors for anxiety in older adults, including life satisfaction or described meaning in life, positive affect, and positive attachment (Hwang et al., 2020; Pai et al., 2019). Spirituality or religious affiliation is an important protective factor, particularly in the lives of Black and ethnically diverse older adults, where religious involvement supports social integration within a group centered around similar values and traditions (Nguyen, 2020). Social and community ties, and connection to culture are also key protective factors for Indigenous Elders.

## Case-finding

### Recommendation #2

**Health care providers should familiarize themselves with tools to detect anxiety symptoms and disorders in older adults and consider using these tools to facilitate case finding in individuals at risk or who describe symptoms of anxiety. (D)**

The use of clinical history is the cornerstone of medical care, but variations in practice can lead to mental health concerns being easily overlooked. Anxiety disorders in older adults are under-diagnosed, so a rigorous approach is needed (Bower et al., 2015). The use of screening tools can help clinicians complete a thorough assessment and support patients in recognizing symptoms of anxiety.

General population screening of anxiety symptoms or disorders among older adults cannot be recommended due to a lack of evidence that demonstrates a favourable balance of the benefits, risks, potential costs and feasibility. However, we recommend a case-finding approach whereby health care providers target screening for anxiety based on risk factors (in those with higher prior probability of having anxiety). Compared to the

general population of older adults, the prevalence of anxiety symptoms increases when there are other risk factors (see list of risk factors in prior section). When assessing an older adult, if risk factors are present, either inquire about potential anxiety symptoms or use a detection tool. This approach allows for providers to be systematic in their approach to anxiety while also considering each patient as an individual.

It is important to note that most evidence-based anxiety assessment tools were developed in the English language and using Western medical and cultural frames. While translations into different languages are available, few have been culturally adapted or validated cross-culturally, and thus should be used with appropriate considerations across different ethnic and cultural groups (Bellamy & Hardy, 2015).

### Recommendation #3

We recommend the use of the Geriatric Anxiety Inventory – 20 item version (GAI-20) for identifying clinically important anxiety symptoms or disorders within clinical settings and for individuals at risk. (GRADE Certainty of Evidence: Moderate; Strength of recommendation: Strong)

### Recommendation #4

Consider the use of the Geriatric Anxiety Inventory – 20 item version (GAI-20) or short-form (GAI-SF) for case-finding for GAD within clinical settings and for individuals at risk. (GRADE Certainty of Evidence: Low; Strength of recommendation: Conditional)

To enable a case-finding approach, clinicians need accurate tools to detect anxiety symptoms in older adults. It is important to recognize that these tools are not diagnostic and are instead a first step to detect clinically important anxiety symptoms and the need for further assessment.

In a systematic review of tools for the detection of anxiety symptoms and disorders as compared to a reference standard (e.g., DSM-5 criteria), we identified 32 studies examining 23 unique tools. Based on this review, we identified that the Geriatric Anxiety Inventory - 20 item version (GAI-20) with a cut-off score of  $\geq 9$  can be used to screen broadly for clinically important anxiety symptoms and anxiety disorders ([Suppl. Table 1](#)). The GAI-20 also had the highest accuracy for identifying GAD in older adults, although the cut-offs studied varied between  $\geq 11-14$  ([Suppl. Table 2](#)). The Geriatric Anxiety Inventory - Short Form (GAI-SF) is a brief version of 5 items, which has similar accuracy for identifying GAD using a cut-off of  $\geq 3$  ([Suppl. Table 3](#); Pachana et al., 2007).

Another tool that is commonly used in older adults is the Hospital Anxiety and Depression Scale - Anxiety Subscale (HADS-A; Zigmond & Snaith, 1983). With a cut-off of  $\geq 8$ , it can also be used to screen for

clinically important anxiety symptoms and disorders, although our review identified that it is less accurate than the GAI-20.

Other tools commonly used in general adult populations either have few validation studies in older adults, such as the Generalized Anxiety Disorder Assessment (GAD-7; Spitzer et al., 2006) or were found to be less accurate in older adults; for example, the Penn State Worry Questionnaire (PSWQ; Meyer et al., 1990). While these screening tools are not specifically recommended, clinicians without access to the GAI-20 may use them with the understanding that there is less evidence for their validity.

When considering the use of case-finding tools, there are several requirements to consider, including time and feasibility within clinical practice. A potential barrier to the use of any tool is access and cost. The GAI is copyrighted with a cost for clinical use, which is a barrier in resource limited settings. Other tools such as the GAD-7 and PSWQ are freely available for use, and further study is needed on these and other tools to support their validity in older adults. Other requirements regarding the use of case-finding tools include ensuring that providers are trained on the use of the tool and integrating the use of tools within the clinical workflow.

### Recommendation #5

We recommend the use of Rating Anxiety in Dementia (RAID) for identifying clinically important anxiety symptoms in older adults with dementia within specialty care settings. (GRADE Certainty of Evidence: Moderate; Strength of recommendation: Strong)

Individuals with dementia may have difficulty recalling or describing their symptoms. An informant-rated scale may be more appropriate in these circumstances. Tools that incorporate both the patient's views as well as those of the care-partner have better validity. The most studied and accurate tool is the Rating Anxiety in Dementia (RAID) scale (Shankar et

al., 1999; [Suppl. Table 4](#)). A cut-off of  $\geq 11$  best optimized its sensitivity. The RAID has mostly been validated in nursing homes and specialty clinics (Geriatrics, Memory and Veterans' clinics); thus, further evidence is needed to recommend its use in other clinical settings.

### Recommendation #6

Health care providers should ask about fear of falling and activity avoidance as part of the geriatric falls risk assessment. (D)

A falls history and falls risk assessment are key elements of the comprehensive geriatric assessment. Important screening questions for fear of falling are: "Are you afraid of falling?" and if yes, "Have you restricted any activities because of this fear?" (Belloni et al., 2020). These questions can help to identify older adults at risk of developing significant fall-related psychological issues or avoidance behaviours who may benefit from

intervention. For a more comprehensive assessment of fear of falling, the falls efficacy scale-international (FES-I; 16- or 7-item) has strong evidence to support its validity (McGarrigle et al., 2023).

## Assessment & Diagnosis

### Recommendation #7

Older adults who screen positive for anxiety, or who are presenting with new or worsening anxiety that affects their daily functioning or well-being, should undergo a comprehensive assessment, including a history, physical examination, and appropriate investigations. (D)

### Recommendation #8

The anxiety history should include the nature of the symptoms, their onset and duration, the severity of the symptoms (in terms of impact on daily functioning, presence of avoidance behaviours, and degree of distress associated with symptoms), the psychosocial stressors contributing to the symptoms, and the past mental health history. (D)

Older adults with anxiety most often present in primary care settings, but may not specifically endorse anxiety (Moult et al., 2020). Anxiety in older adults tends to manifest with more somatic symptoms and health worry (Hunt et al., 2003). Older adults may experience panicky feelings but are less likely to endorse full symptom panic attacks than younger people (Sheikh et al., 2004).

Older adults' changing social environment and roles mean that they can often find ways to avoid anxiety-provoking factors. Assessment of these avoidance behaviours can be difficult, particularly when it comes to distinguishing activity restrictions that are due to anxiety from those related to physical limitations. Older adults may not recognize that they are having symptoms of anxiety (Wetherell et al., 2009) and it is important to provide education about anxiety symptoms without stigmatizing or invalidating their experience. Collateral information from caregivers is useful in understanding the extent and impact of anxiety on daily function.

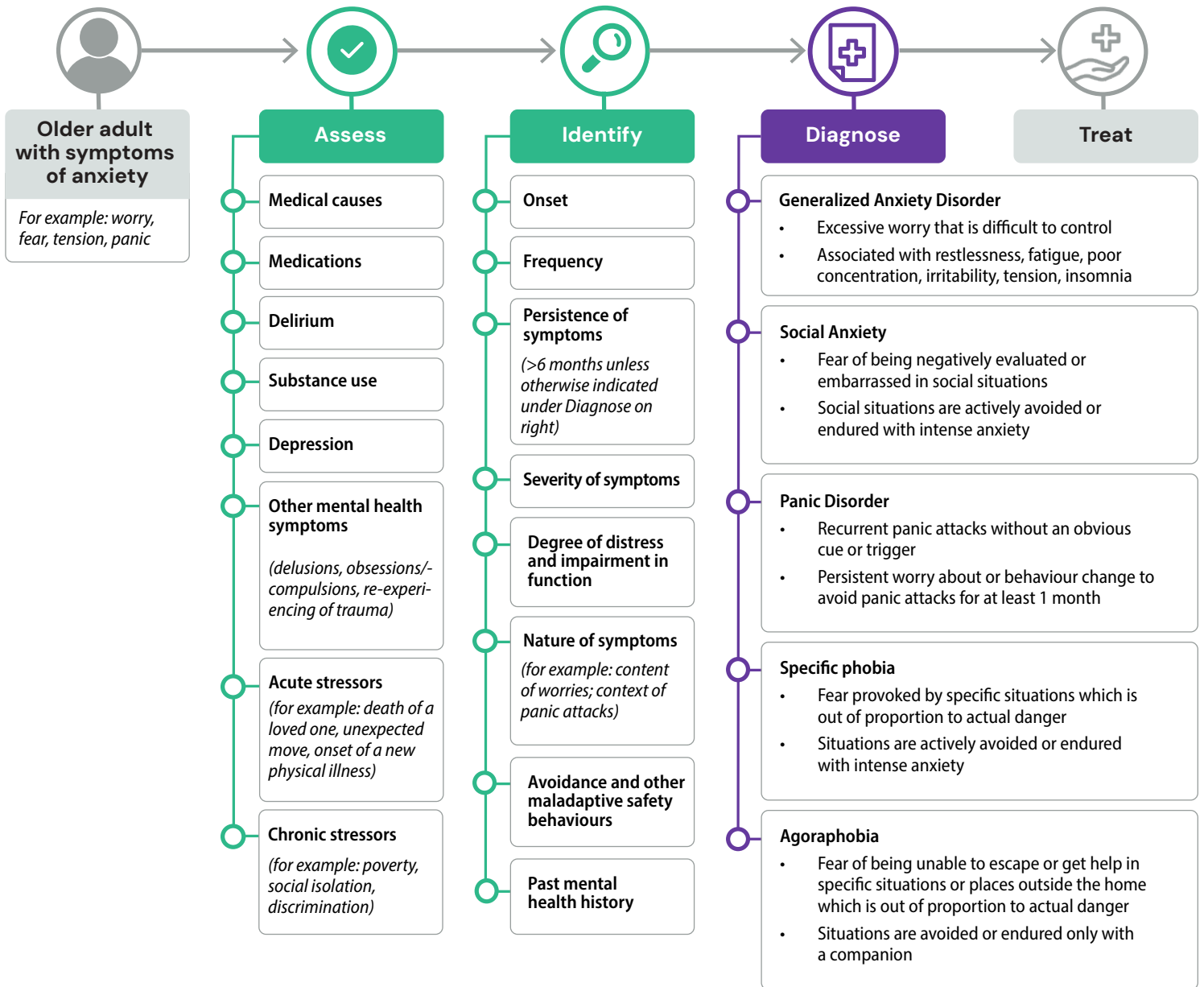
Ageist beliefs can also be a barrier to identifying that a fear is excessive or unreasonable or that avoidance behaviours are present. This is particularly challenging when some risk is present. An example is assessment of fear of falling in someone who has recently had a fall. Clues that fear may be

excessive is when the person's appraisal of the risk is out of keeping with their actual risk, based on objective findings on examination. For example, older adults may adopt a hypervigilant or overly cautious gait that is inconsistent with their actual deficits in strength and balance.

Different cultural understandings around mental health also impact on reporting of symptoms, with many Indigenous and non-Western cultures drawing fewer distinctions between the mind and body, resulting in the experience of emotional distress through physical symptoms (Kim et al., 2012; Marques et al., 2011). Stigma around mental illness, language barriers, preferences to confide in someone familiar, and mistrust based on discriminatory healthcare experiences are all important factors that can serve as barriers to an assessment of anxiety symptoms in racialized and Indigenous older adults (Goetz et al., 2023; Lin, 2023; M. T. Williams et al., 2013).



Figure 1. Diagnostic Algorithm



## Recommendation #9

**Older adults presenting with anxiety should be screened for depression and suicidality. (D)**

New onset of anxiety symptoms such as intense worry or panic may be a symptom of depression in older adults. About half of older adults with depression have a comorbid anxiety disorder, while 20% of those with a primary anxiety disorder will also meet criteria for depression (Wolitzky-Taylor et al., 2010). It is crucial to assess for depression in an older adult with new or worsening anxiety symptoms.

Anxiety is also a risk factor for suicide, both in conjunction with depressive symptoms and in the absence of depressive symptoms (Beghi et al., 2021; Fernandez-Rodriguez et al., 2022). CCSMH guidelines for assessment and treatment of depression and suicidality are available to support care (CCSMH, 2021; CCSMH, 2006).

## Recommendation #10

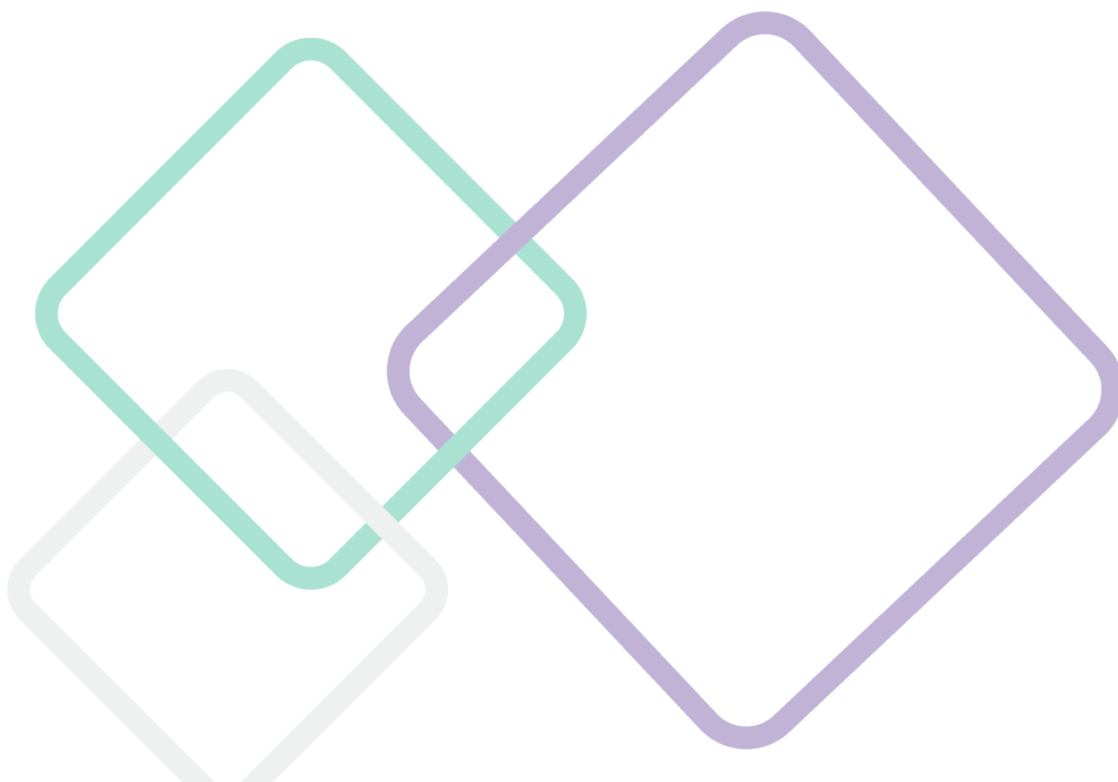
**A medical history and physical examination should be used to identify medical conditions that may be contributing to the symptoms of anxiety. Consider investigations that may help to rule out the presence of medical conditions that can cause symptoms of anxiety. (D)**

Maintaining a broad differential diagnosis for late-life anxiety is important, as symptoms can be a prodrome or manifestation of medical or neurological disorders (e.g., Parkinson's disease, dementia, arrhythmias, thyroid disorders, obstructive sleep apnea; Ann et al., 2023; Gallagher et al., 2011; Schrag et al., 2015). There are multiple ways in which anxiety and medical illness are related (American Psychiatric Association, 2013). For example:

1. Anxiety symptoms can be a direct physiological consequence of a medical condition, such as sensations of breathlessness in COPD or wearing-off symptoms in Parkinson's disease.
2. From a psychological perspective, anxiety can be a symptom of adjustment to a medical condition or disability.
3. An exacerbation of illness can lead to delirium which often presents with anxiety.
4. Anxiety can be persistent after resolution of an acute illness. For example, anxiety is common and can persist for months post-COVID infection (Bull-Otterson et al., 2022).

Older adults with medical comorbidities can also develop a primary anxiety disorder unrelated to their medical condition, with physical symptoms that they may or may not attribute to an existing medical condition. Anxiety is important to address in the context of other medical conditions as it can exacerbate certain conditions (e.g., cardiovascular disease) and impact older adults' ability to participate in and tolerate treatment (e.g., medical phobias).

To help understand the relationship between anxiety and medical conditions in older adults, it is important to take a history about the onset of anxiety and relationship to the course of the medical illness and any changes in treatment. Acute or subacute late-onset anxiety with atypical features (e.g., neurological findings, acute cognitive changes, loss of consciousness, incontinence, among others) should raise suspicion for anxiety due to a medical condition.



**Table 2. Medical conditions associated with anxiety in older adults**

Category	Example of medical conditions	
<b>Endocrine</b>	<ul style="list-style-type: none"> <li>• Hyperthyroidism</li> <li>• Hypothyroidism</li> </ul>	<ul style="list-style-type: none"> <li>• Adrenal disease (including pheochromocytoma)</li> <li>• Parathyroid disease</li> </ul>
<b>Cardiovascular</b>	<ul style="list-style-type: none"> <li>• Myocardial infarction</li> <li>• Heart failure</li> </ul>	<ul style="list-style-type: none"> <li>• Angina</li> <li>• Arrhythmia</li> <li>• Heart valve disease</li> </ul>
<b>Respiratory</b>	<ul style="list-style-type: none"> <li>• COPD</li> <li>• Asthma</li> </ul>	<ul style="list-style-type: none"> <li>• Pneumonia</li> <li>• Obstructive sleep apnea</li> </ul>
<b>Metabolic</b>	<ul style="list-style-type: none"> <li>• Vitamin B12 deficiency</li> <li>• Hypoglycemia</li> </ul>	<ul style="list-style-type: none"> <li>• Electrolyte abnormalities</li> </ul>
<b>Neurologic</b>	<ul style="list-style-type: none"> <li>• Parkinson’s disease</li> <li>• Dementia (e.g., Alzheimer’s, vascular)</li> <li>• Delirium</li> </ul>	<ul style="list-style-type: none"> <li>• Vestibular dysfunction</li> <li>• Seizure disorder</li> <li>• Central lesion (brain tumor)</li> <li>• Encephalopathy</li> </ul>

*Adapted from American Psychiatric Association (2013) and Romanazzo et al. (2022).*



There is an important bidirectional relationship between anxiety and cognitive impairment in older adults. A cognitive screening assessment should thus be considered when assessing anxiety symptoms. High levels of anxiety have a negative effect on cognitive performance by impairing attention and executive function. Anxiety can also be an early presenting symptom of dementia, in part arising out of awareness of and the stress of worsening memory slips and mistakes. It can be a signal that the cognitive demands of daily life are now exceeding an individual's capacities. There is also evidence that chronic anxiety, resulting in prolonged exposure to physiological stress responses such as hypothalamic-pituitary-adrenal (HPA) axis hyperactivity, sustained autonomic reactivity and immune system response, has a negative impact on brain and vascular health, and is a risk factor for dementia (Brosschot et al., 2006).

There are no routine investigations for late-life anxiety, although some medical conditions can be difficult to identify through physical examination alone. Indicated investigations depend on the patient presentation and assessment, and could include:

- Complete blood count, electrolytes (including calcium, magnesium, and phosphate), renal, liver and thyroid function tests, vitamin B12, glucose
- Urinalysis
- Oxygen saturation (pulse oximetry), chest x-ray
- Drug screening (urine or serum)
- Electrocardiogram, Holter monitor
- Cognitive screening assessment, for example; the Montreal Cognitive Assessment (MoCA; Nasreddine et al., 2005) and the Mini Mental Status Examination (MMSE; Folstein et al., 1975)
- Neuroimaging (e.g., head CT) is not usually indicated in the work-up for anxiety, unless separately indicated as part of the work-up for a related condition (e.g., cognitive impairment), or if there are focal neurological findings on history or examination.

## Recommendation #11

**A medication and substance-use history should be gathered in all older adults presenting with anxiety, including prescribed, over-the-counter and recreational drugs, and caffeine. (D)**

Anxiety symptoms can be secondary to medications or recreational drugs. It is important to take a thorough medication history to establish a temporal relationship (if any) between medication initiation and onset of anxiety symptoms. As an example, some psychotropic medications can cause akathisia which can be experienced or described as anxiety. Medication adherence is also important to assess in older adults, particularly where medication errors might lead to delirium/toxicity presenting as anxiety (i.e., thyroid medication, insulin) or where missed medication doses may result in withdrawal (i.e., benzodiazepines, opioids, antidepressants).

It is also important to screen for substance use (e.g., alcohol, cannabis, nicotine use) and any potential role of substance intoxication, withdrawal, and chronic use on symptoms of anxiety. Ask about the use of over-the-counter medications, in particular anticholinergic agents. Recreational substances and over-the-counter medications are commonly misused to self-medicate for anxiety or other symptoms such as insomnia. Other natural products with psychoactive properties can also contribute to anxiety, such as ginseng and ginkgo biloba (Le et al., 2022).

**Table 3. Medications and substances that may contribute to anxiety symptoms in older adults**

Medications		
Class	Examples	Comments
<b>Anticholinergics</b>	<ul style="list-style-type: none"> <li>• atropine</li> <li>• benztropine</li> <li>• bladder anticholinergics (e.g., oxybutynin)</li> <li>• antihistamines (e.g., diphenhydramine)</li> </ul>	Anticholinergics can cause systemic side effects including tachycardia, hypertension, anxiety, and delirium.
<b>Antidepressants</b>	<ul style="list-style-type: none"> <li>• SSRIs (e.g., paroxetine)</li> <li>• SNRIs (e.g., venlafaxine)</li> <li>• TCAs (e.g., amitriptyline)</li> </ul>	Stimulating effects of some antidepressants can mimic anxiety causing restlessness or agitation, especially in the early stages of treatment.
<b>Antimalarials</b>	<ul style="list-style-type: none"> <li>• chloroquine</li> <li>• hydroxychloroquine</li> <li>• mefloquine</li> </ul>	Antimalarial medications can cause insomnia, vivid dreams, anxiety, depression, panic attacks, and hallucinations.
<b>Benzodiazepines</b>	<ul style="list-style-type: none"> <li>• alprazolam</li> <li>• lorazepam</li> </ul>	Benzodiazepines may cause anxiety in the context of withdrawal symptoms.
<b>Beta-2 receptor agonists</b>	<ul style="list-style-type: none"> <li>• salbutamol</li> </ul>	Common adverse effects of salbutamol are tremors (10-20%) and anxiety (9-20%).
<b>Cardiac drug therapies</b>	<ul style="list-style-type: none"> <li>• diuretic class</li> <li>• digoxin</li> <li>• amiodarone</li> <li>• beta-blockers</li> </ul>	In observational research, there is a 10-20% increased odds of anxiety in people on cardiovascular medications such as diuretics, nitrates, lipid-lowering drugs, digoxin, and beta-blockers (Rotvig et al., 2022).
<b>Corticosteroids</b>	<ul style="list-style-type: none"> <li>• prednisone</li> <li>• dexamethasone</li> </ul>	Corticosteroid therapy has been associated with non-specific psychiatric symptoms including psychosis, hyperactivity, irritability, anxiety, insomnia, and depression.
<b>Dopamine receptor antagonists</b>	<ul style="list-style-type: none"> <li>• antipsychotics</li> <li>• metoclopramide</li> </ul>	Dopamine receptor antagonists can cause akathisia, which may manifest as psychomotor agitation and anxiety.
<b>Dopamine receptor agonists</b>	<ul style="list-style-type: none"> <li>• levodopa</li> <li>• pramipexole</li> </ul>	Anxiety and panic attacks are potential side effects of dopaminergic agonists.

Medications		
Class	Examples	Comments
Antiretrovirals	<ul style="list-style-type: none"> <li>• efavirenz</li> </ul>	Neuropsychiatric adverse effects, including anxiety occur in 25-70% of people living with HIV treated with efavirenz.
Stimulants	<ul style="list-style-type: none"> <li>• amphetamine</li> <li>• methylphenidate</li> </ul>	Anxiety is a common adverse effect related to stimulants.
Endocrine	<ul style="list-style-type: none"> <li>• thyroid hormone (e.g., levothyroxine)</li> <li>• insulin</li> <li>• testosterone</li> <li>• estrogen (e.g., estradiol)</li> </ul>	Supplemental hormones can contribute to symptoms of anxiety, as can discontinuation of hormones.
Opioids	<ul style="list-style-type: none"> <li>• hydromorphone</li> </ul>	Opioids can cause confusion and delirium presenting as anxiety. Opioid withdrawal can include symptoms of anxiety.
Substances		
Alcohol	<ul style="list-style-type: none"> <li>• beer</li> <li>• wine</li> <li>• spirits</li> </ul>	Small amounts of alcohol stimulate GABA and cause feelings of relaxation. Heavy drinking depletes GABA, causing increased tension and feelings of panic. Alcohol withdrawal can also cause symptoms of anxiety.
Caffeine	<ul style="list-style-type: none"> <li>• coffee</li> <li>• soft drinks</li> <li>• energy drinks</li> <li>• tea</li> </ul>	Caffeine is a central nervous system stimulant and can cause restlessness, feelings of uneasiness, and rapid heartbeat that mimic anxiety.
Cannabis	<ul style="list-style-type: none"> <li>• THC</li> </ul>	Both cannabis use and withdrawal may cause symptoms of anxiety.

**Legend:** SSRIs - selective serotonin reuptake inhibitors; SNRIs - serotonin and norepinephrine reuptake inhibitors; TCAs - tricyclic antidepressants, THC - Tetrahydrocannabinol

**Note:** This table of medication and substances is not exhaustive.

*Adapted from American Psychiatric Association (2013) and Dong et al. (2015).*

## Treatment of Anxiety Symptoms and Disorders

This section focuses on interventions for the prevention and treatment of anxiety symptoms and disorders in older adults. The choice of treatment in older adults can be complicated by comorbid mental health, physical, or social issues. A range of treatment approaches and intensities should be considered to best match the patient with the optimal intervention(s).

In this section, we begin with consensus-based recommendations around the sequence and delivery of interventions, followed by specific evidence-based recommendations for non-pharmacological and pharmacological interventions.

### Recommendation #12

**Non-pharmacological interventions should be offered first, given the potential risk of adverse events associated with pharmacotherapy, except in circumstances dictated by patient preference, severity of symptoms and risk assessment. (D)**

Many older adults experience anxiety symptoms, and in some cases, these symptoms improve on their own or with the provision of low-intensity supportive interventions. One study found that up to one-third of older individuals with subthreshold depressive and/or anxiety symptoms improve after a 3-month watchful waiting period. However, another one-fifth converted to a diagnosable anxiety or depressive disorder (Van Der Aa et al., 2015). Studies have identified a high rate of placebo response in clinical trials of late-life GAD, highlighting the contribution of non-pharmacological factors to symptomatic improvement. Similarly, in psychotherapy trials for anxiety in older adults, there are also robust responses in “active” control arms, such as supportive counselling. While the overall effect sizes for psychotherapy and medications for anxiety are similar (Pinquart & Duberstein, 2007), given that some older adults with anxiety symptoms improve with non-pharmacological interventions and psychosocial supports alone, we recommend that these be offered first, before the use of pharmacotherapy.

For individuals diagnosed with GAD, spontaneous remission is unlikely (Braam et al., 2014; Lenze, Mulsant, Mohlman, et al., 2005). It is important to monitor symptoms and response to non-pharmacological interventions and continue to revisit and optimize the treatment plan when there is a poor response. Individuals whose anxiety symptoms are persistent and severe should be considered for treatment with medication or medication plus psychotherapy (Schuurmans et al., 2009; Wetherell et al., 2013).

When anxiety symptoms are secondary to a medical condition, adjustment of the treatment or management of the medical condition should be implemented first (American Psychiatric Association, 2013). Similarly, treatment of anxiety secondary to substance use should focus on addressing the substance use. For example, an individual experiencing anxiety in the context of benzodiazepine withdrawal should be treated according to guideline recommendations for benzodiazepine withdrawal first. The CCSMH has existing guidelines that provide clinicians with guidance on the assessment and management of opioid, alcohol, benzodiazepine, and cannabis use disorders (CCSMH, 2019a; CCSMH, 2019b; CCSMH, 2019c; CCSMH, 2019d).

Patient values and preferences should always be considered when choosing a treatment, as numerous studies suggest that patients are more willing to initiate and adhere to treatments that match their preferences (McHugh et al., 2013; Swift et al., 2018, 2021; Winter & Barber, 2013). It is also important to keep in mind the patient’s previous psychiatric history (e.g., history of bipolar disorder that increases the risk of hypomania or mania with antidepressant use, or previous adverse events with specific psychotropic medications or classes) when considering treatment options.

### Recommendation #13

**Stepped care, beginning with bibliotherapy, psychoeducation, and/or self-guided Cognitive Behavioural Therapy (CBT), should be considered to reduce anxiety symptoms and prevent the development of anxiety disorders in older adults. (B)**

For individuals in community settings with subthreshold anxiety symptoms, there is evidence that a stepped care approach may yield benefits in improving anxiety symptoms and preventing the development of anxiety disorders compared to treatment as usual (Meuldijk & Wuthrich, 2019; Van Der Aa, Van Rens, et al., 2015; van’t Veer-Tazelaar et al., 2009). Stepped care refers to a model where patients are provided easy access to low-intensity psychological treatments and supports, and those who remain symptomatic after this step are offered more intensive interventions in an escalating fashion. It is important to note that there is no evidence for this model of care for people with diagnosed anxiety disorders, and our recommendation excludes this population.

Typical stepped care programs begin initially with low-intensity interventions including guided self-help (including CBT), bibliotherapy, relaxation techniques, social prescribing, and psychoeducation. Response to these low-intensity interventions is then monitored over time. If symptoms do not improve, more intensive interventions such as therapist-led group or individual CBT are then offered. At this stage, medications may also be prescribed with primary care involvement. Finally, high-intensity

services such as specialist referrals (e.g., psychologists, psychiatrists, geriatric psychiatrists, geriatricians) follow.

Stepped care is the approach used by the national Improving Access to Psychological Therapies (IAPT) program in the UK (Clark, 2011) and has had an important impact on access to psychological interventions. However, a knowledge gap persists in understanding the benefits of stepped care for older adults with anxiety disorders.

Studies of stepped care typically exclude older adults with cognitive impairment. However, almost all older adults can benefit from psychological interventions for anxiety. Learning disabilities, cognitive impairment, or dementia are not absolute contraindications to psychotherapy but warrant modifications including simplifying materials or shifting the focus to behavioural interventions (Rossiter & Holmes, 2013; Tay et al., 2019).

## Recommendation #14

**Psychosocial support should be offered to older adults presenting with anxiety symptoms, tailored to address risk factors and contributing stressors. (D)**

It is important to be aware of the social determinants of health when developing a plan to treat anxiety. Anxiety can be a reaction to overwhelming psychosocial stressors and signal that there is a gap in the supports needed to cope. In such situations, identifying these stressors (e.g., finances, food insecurity, housing, social isolation, unmet care needs, discrimination, abuse or neglect) is critical (Davison et al., 2020; Ross et al., 2017; Thapa et al., 2020). It is important to work collaboratively with the older adult towards problem-solving and to empower them to identify the appropriate actions and take the correct actions. Social prescribing is a care approach in which care providers work to enhance and expand the existing

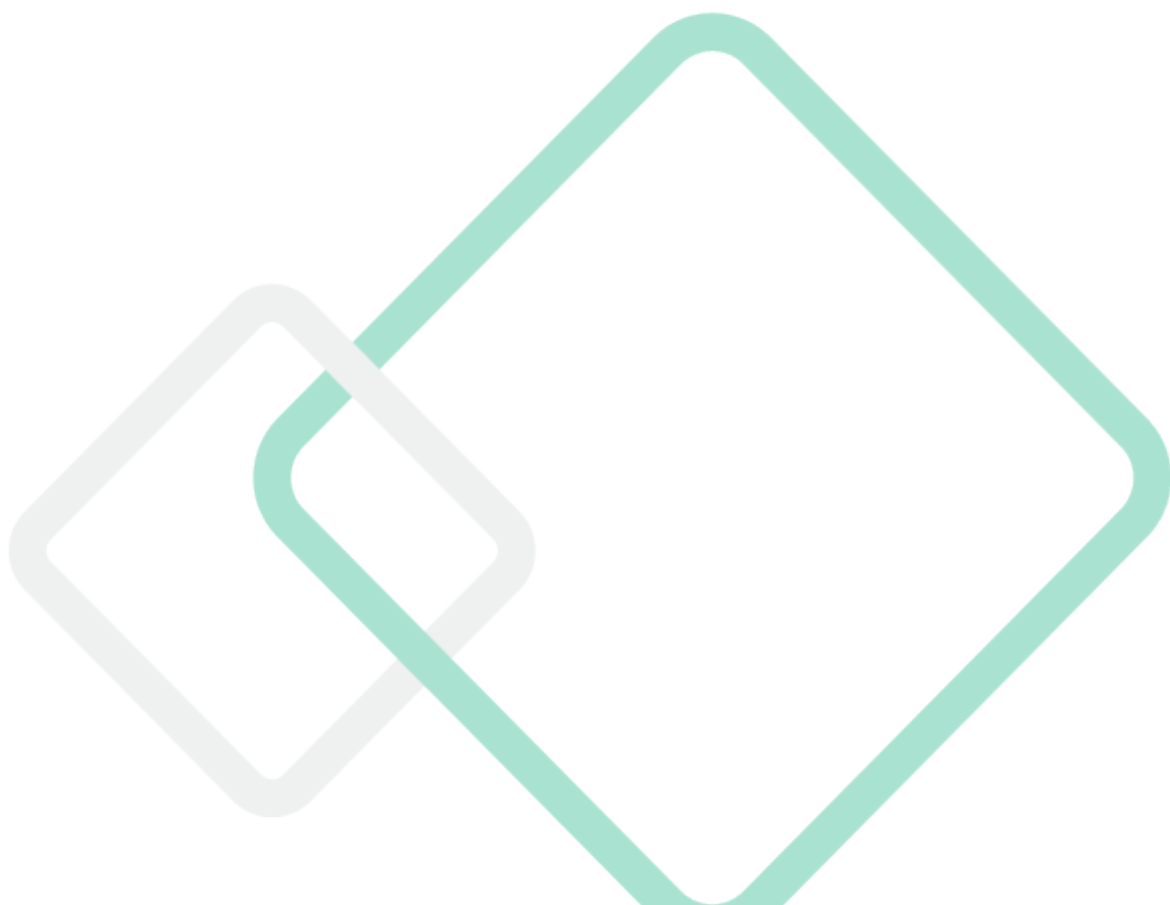
support network of an older adult to appropriately address psychosocial stressors (Percival et al., 2022). Facilitating successful connections through social prescribing to non-medical community programs may mitigate some psychosocial risk factors for anxiety such as social isolation. Other key elements to the provision of support are scheduling regular contact and using active listening and validation skills. Tailored referrals to community-based seniors serving agencies are also valuable to ensure that an older adult has improved access to the appropriate social and instrumental supports.

## Recommendation #15

**Treatment response and efficacy should be monitored using standardized rating scales. (D)**

Regardless of the modality of treatment implemented, the use of measurement-based care with regular and timely feedback of patient-reported symptoms to the treating provider has been well-established to significantly improve patient-reported symptom improvement and higher remission rates (Fortney et al., 2017). Scales can be used prior to treatment initiation and at regular time points during the treatment itself. However, clinicians should note that there is limited evidence about the responsiveness to change of commonly used scales for anxiety in

older adults or the minimal clinically important differences in scores. With awareness of these limitations, scales that can be used to monitor treatment response include those recommended for case-finding (GAI-20, GAI-SF, RAID), or other commonly used scales such as the HADS or GAD-7. These scales are discussed in the Case-Finding section of these guidelines.



## Non-Pharmacological Treatments

As part of the guideline priority-setting process, several non-pharmacological interventions for anxiety symptoms and disorders were selected for review. These included CBT (for anxiety and fear of falling), mindfulness, physical activity (for anxiety and fear of falling), and other psychotherapies excluding CBT. Interventions identified as lower priority (e.g., biofeedback, digital therapies, neurostimulation, and virtual reality, among others) were not reviewed, although these may form part of an update of future guidelines.

Access to psychotherapy is an important equity consideration discussed during the guideline process, particularly for low-income, rural, or

culturally diverse older adults. Psychotherapies developed in the West are underpinned by Western cultural values and illness models and the studies reviewed either did not report on the ethnic or cultural background of participants, or the participants were predominantly White. There is thus some uncertainty about the effectiveness of the interventions reviewed in different ethnocultural groups. We did not find any evidence about cross-cultural adaptations of CBT specific to older adults with anxiety, although there is a broader literature in this area (Naeem, 2019). The increase in virtual delivery of psychotherapy services is a barrier to older adults without access to the internet due to cost or poor service in rural and remote areas.

### Recommendation #16

**Psychotherapy should be made available to older adults with anxiety in all settings (community, long-term care, etc.). (D)**

Improving equitable access to psychotherapy for older adults in Canada was identified as a priority by our working group. The Mental Health Commission of Canada has set out some important recommendations and policy considerations for a national psychotherapy program, with the UK and Australian programs as possible models (Mental Health Commission of Canada, 2021). National investments in mental health care have led to the

creation of some small stepped-care-based programs at the provincial level although the capacity and effectiveness of these programs, and their ability to increase psychotherapy access for older adults is still unclear. Older adults with anxiety disorders should be able to access psychotherapy irrespective of their financial resources, physical abilities/mobility, residential setting, and region of Canada.

### Recommendation #17

**CBT should be offered to older adults to treat anxiety. (GRADE: Certainty of Evidence: Low; Strength: Strong)**

Cognitive-behavioural therapy (CBT) is a form of psychological treatment that seeks to identify and modify the factors (e.g., negative thoughts, avoidance behaviours) that trigger and maintain late-life anxiety. These objectives are achieved by teaching strategies that enable the anxious older person to establish links between his or her thoughts, feelings and actions. In our meta-analysis, to be considered CBT, the intervention had to include cognitive and behavioral strategies.

Compared to no intervention (i.e., waiting list or usual care), CBT has a large effect size in reducing anxiety symptoms, achieving response or remission of anxiety disorders, improving quality of life, and reducing depressive symptoms associated with anxiety (*Suppl. Table 5*). Interestingly, there was no significant difference between CBT and active comparator interventions (e.g., enhanced care, supportive therapy, or other psychotherapeutic intervention), for reduction of anxiety symptoms, although there were still benefits of CBT for quality of life and depression.

The majority of studies have been in older adults with a primary diagnosis of GAD or with symptoms of GAD. There are two studies (Hendriks et al., 2010; Livermore et al., 2010) that provide evidence that CBT can reduce symptoms of panic and anxiety in older adults with panic disorder.

Most evidence for the efficacy of CBT in the treatment of anxiety in older adults is derived from studies of relatively healthy older adults. Three RCTs demonstrated a benefit for CBT in the treatment of anxiety or panic in people with COPD (Bove et al., 2016; Heslop-Marshall et al., 2018; Livermore et al., 2010) and Parkinson's disease (Lawson et al., 2013). In people with cancer (Trevino et al., 2021), dementia (Spector et al., 2015) or caregivers of people with dementia (Tamura et al., 2023), the evidence was less conclusive regarding the efficacy of CBT in relieving anxiety.

While there was limited empirical evidence from our systematic review about treating older adults with anxiety and comorbid physical or cognitive impairment, CBT should still be considered as a treatment option for this population. Outside of our review, there is evidence that CBT can be successfully adapted to a wide range of older people with different anxiety disorders, and different physical and cognitive abilities, including individuals with mild cognitive impairment (MCI) and dementia (Jin et al., 2021).

As a general rule, so long as the older adult is willing to participate and find concrete ways of managing their anxiety in the here and now, CBT can be offered as an intervention. However, it is necessary to adapt CBT by simplifying and repeating emotion management strategies, and adding strategies that promote learning (e.g., the older person with cognitive impairment is encouraged to record emotion management exercises on a memory aid to be displayed at home). Other forms of accommodation that may be useful for people with cognitive impairment include telephone calls between CBT sessions to resolve problems and remind people of exercises to do at home, as well as reducing the length of CBT sessions and group size. The inclusion of a caregiver in the therapeutic process, who helps the person with cognitive impairments use the CBT strategies taught, may also be beneficial.

## Recommendation #18

**Both individual and group CBT are effective and can be offered to treat anxiety in older adults. (A)**

In our systematic review, there was no statistically significant difference between individual and group CBT in the reduction of symptoms of anxiety when compared to usual care. However, individual CBT was associated with higher likelihood of achieving response criteria for anxiety symptoms or achieving remission of GAD compared to group therapy.

The most appropriate format will depend on the clinical setting, the feasibility and resources available, and the patients' needs and

preferences. From a healthcare delivery perspective, group CBT may increase accessibility of treatment to a larger number of older adults, which is advantageous when there are limited resources. However, CBT in an individual format enables the clinician to better adapt the therapeutic strategies/tools taught to the needs and preferences of the older adult.

## Recommendation #19

**Both brief and full CBT are effective and can be offered to treat anxiety in older adults. (A)**

In our systematic review, brief CBT was defined as CBT requiring fewer therapeutic contacts (maximum 6 hours of contact and sessions) compared to full CBT, and which can be delivered by trained clinicians or providers with less specialized training, often using online materials. The results showed that brief and full CBT were not significantly different in their benefits for symptoms of anxiety or depression when compared to usual care. The intensity of the brief CBT interventions studied ranged from a single-session CBT (1 hour at home) followed by a 20-minute booster session (Bove et al., 2016) to 6 biweekly 30 minutes CBT sessions over three

months (Heslop-Marshall et al., 2018), both studied in older adults with chronic obstructive pulmonary disease (COPD) and anxiety. The other three studies (Dear et al., 2015; Jones et al., 2016; Silfvermagel et al., 2018) classified as brief CBT tested the efficacy of online CBT in healthy older adults with anxiety.

Brief CBT is a good option for older adults with new or mild-to-moderate anxiety and those with comorbidities who may find it challenging to participate in a full course of CBT.

## Recommendation #20

**Remote CBT is effective and should be offered as a treatment option for anxiety in older adults. (GRADE: Certainty of Evidence: Low; Strength: Strong)**

For the purpose of our systematic review, remote CBT was defined as any form of CBT where there was no in-person contact with a therapist. We included five studies of remote CBT in older adults with anxiety symptoms or GAD, including internet-based CBT (iCBT) and telephone CBT. The results demonstrated that remote CBT was effective in reducing symptoms of anxiety in older adults compared to usual care ([Suppl. Table 6](#)). When comparing remote and in-person CBT, there was no difference between the

modalities for reduction of symptoms of anxiety, but in-person had a larger impact on reduction of symptoms of depression compared to remote.

More and more Canadian seniors are now connected to the internet and have access to computers, tablets or smartphones. Remote CBT is effective to treat anxiety in older adults and improves access to psychotherapy for older people living in underserved areas or for those with mobility problems.

## Recommendation #21

**Specific CBT strategies can be used on their own to treat anxiety in older adults including exposure, relaxation therapy, abdominal breathing, cognitive restructuring, and problem-solving training. (B)**

CBT strategies used by clinicians can be divided into two categories: cognitive strategies (e.g., cognitive restructuring, psychoeducation) and behavioural strategies (e.g., exposure, relaxation therapy). While these strategies are typically used in combination, they can also be used individually as skills and techniques to treat anxiety in older adults. For example, a systematic review (Jayasinghe et al., 2017) found that a range of exposure techniques (*in vivo*, interoceptive, imaginal) in older adults were effective to treat GAD, specific phobias, and panic. Relaxation therapy on its own, such as instruction in diaphragmatic breathing, progressive muscle relaxation, and guided imagery, is also an effective and acceptable intervention for older adults.

CBT strategies can help older adults acquire the tools they need to find solutions to their problems in the here and now. For example, the clinician can provide psychoeducation to introduce the concept of the anxiety cycle, to help an older adult understand the relationship between their thoughts, feelings, and behaviours. The clinician can also teach the older person new behaviours (e.g., coping strategies instead of avoidance) and new skills (relaxation, abdominal breathing) that will help them confront fears and reduce their anxiety.

## Recommendation #22

**CBT should be delivered by or under the supervision of mental health professionals (e.g., registered psychologists, psychotherapists, psychiatrists, social workers, nurses) with appropriate training. (D)**

There is a need for mental health workforce planning such that there is adequate capacity of trained and skilled therapists with knowledge of CBT and mental health and aging. It is important that therapists have some knowledge and skills in how to adapt therapy for older adults, including for those with cognitive impairment (Laidlaw, 2021). For example, it may be important to take sensory losses into account, to use cognitive therapy to challenge self-directed ageist beliefs, or to include strategies in therapy to

help the older adult better cope with life changes/losses/transitions that can trigger anxiety. Therapists also need to learn to identify and challenge their own ageist beliefs, which may serve as a barrier to effective treatment (Bodner et al., 2018). In addition to theory, training should include clinical supervision so that newly trained professionals can be observed by an experienced mental health professional during the application of knowledge/strategies specific to seniors' mental health.

## Recommendation #23

**Clinicians should consider the use of CBT for older adults who are experiencing a fear of falling, particularly for individuals whose function or quality of life is severely limited due to anxiety around falls. (GRADE: Certainty of Evidence: Very Low; Strength: Conditional)**

Fear of falling should be assessed in conjunction with a comprehensive evaluation of the risk of falling. When the fear of falling is excessive, i.e., exceeds the actual risk of falling, and has a negative impact on function and quality of life, CBT may be considered.

In existing systematic reviews (Liu et al., 2018; Papadimitriou & Perry, 2020) and our updated review, CBT has been shown to be beneficial for reducing the fear of falling and improving falls efficacy (defined as confidence in one's ability to remain upright and not fall) with a small effect size ([Suppl. Table 7](#)). These benefits endure beyond the end of the intervention. CBT for fear of falling includes cognitive interventions to restructure faulty beliefs about falling and behavioural interventions to support behaviours that reduce fear, primarily exposure to physical activity. The majority of studies used an adaptation of the program Matter of Balance: Managing Concerns

About Falls (Haynes et al., 2014). This program is a manualized approach of 8 modules that incorporate CBT elements, delivered by 2 trained coaches. Almost all studies also included some form of exercise or physical activity, although the aim of the activity varied (e.g., balance training, strength/endurance).

While clinicians should consider the use of CBT to support older adults experiencing a fear of falling, the recommendation is conditional as it is unclear whether the intervention is generalizable to the wider population and lack of evidence for CBT as a stand-alone intervention. The studies focused primarily on community-dwelling older adults, leaving less known about older adults in other settings where fear of falling is more common, such as acute or long-term care, and in those with cognitive impairment.

## Recommendation #24

**Mindfulness interventions may be used to effectively treat anxiety in older adults. (GRADE: Certainty of Evidence: Low; Strength: Conditional)**

Mindfulness-based interventions (MBIs) can take various forms, including (but not limited to) Mindfulness-Based Stress Reduction (MBSR), Mindfulness-Based Cognitive Therapy (MBCT), and Emotion-Focused Mindfulness Therapy (EFMT). Mindfulness represents the core skill within MBIs, focusing on the present moment with a particular orientation toward openness, curiosity, and acceptance (Bishop et al., 2004; Kabat-Zinn, 2003). Through awareness and meditation practices (e.g., noticing, accepting, quieting the mind, mindful breathing), MBIs promote positive change in cognitive biases, affective dysregulation and emotional reactivity, physiological reactivity and arousal, and interpersonal effectiveness (K. W. Brown et al., 2007; Curtiss et al., 2017; Feldman et al., 2016; Hicks et al., 2020).

Our conditional recommendation in favour of mindfulness in the treatment of anxiety in older adults is based on the available evidence of three randomized controlled trials of MBSR, MBCT, and EFMT. In all three trials,

there was a significant improvement in anxiety symptoms and quality of life ([Suppl. Table 8](#)). There is more to be learned about the characteristics of older adults who may benefit from mindfulness in comparison to other treatment options. Additional research on the long-term benefits of mindfulness on preventing relapse of anxiety among older adults is needed.

Availability and accessibility of MBIs vary by region. Self-guided, online and virtual MBIs can help to promote accessibility, although more research is needed to understand their impact on anxiety symptoms and anxiety disorders of older adults, including their acceptability, effectiveness, and recommendations about who may benefit most (Denkova et al., 2023; Hatch et al., 2023).



## Recommendation #25

**Other forms of psychotherapy or psychosocial treatments (e.g., supportive therapy, acceptance and commitment therapy, reminiscence therapy, relaxation therapy) may be offered to older adults with anxiety. (GRADE: Certainty of Evidence: Very low; Strength: Conditional)**

While CBT is the most well-studied psychotherapeutic intervention for anxiety there are other psychotherapies with evidence of efficacy in treating anxiety in older adults including relaxation therapy, various forms of supportive therapy/counselling, reminiscence therapy, and Acceptance and Commitment therapy (ACT; [Suppl. Table 9](#)). The commonality between these interventions is that they offer psychological support that goes beyond what is offered in usual care.

Generally, the available evidence for non-CBT psychotherapies and psychosocial interventions is small but highlights important treatment

options that can be offered to older adults with anxiety symptoms or disorders, particularly when first-line treatments like CBT are not available or accessible. Additional data are needed to assess the longer-term outcomes of these studies and generalizability across larger populations and diverse settings, including for older adults with cognitive impairment who were excluded from most studies. Studies are also needed to inform the use of other non-CBT therapies (e.g., interpersonal psychotherapy, problem-solving therapy, psychodynamic therapy) in older adult populations with anxiety.

## Recommendation #26

**Exercise, including both aerobic exercise and strength training, reduces anxiety and can be recommended to older adults with anxiety symptoms. (GRADE: Certainty of Evidence: Very Low; Strength: Conditional)**

Based on our systematic review and meta-analysis, exercise improves anxiety symptoms with a moderate effect size although our confidence in the effect was reduced by serious inconsistency and risk of bias ([Suppl. Table 10](#)). Exercise interventions included gym-based programs, home exercise programs and both individual and group-based programs. Studies examined aerobic exercise, strength-training, or a combination of both. When looking at subgroups of resistance or aerobic exercise, or limiting to studies of healthy older adults, the benefit for anxiety persisted but there was less inconsistency.

For the most part, the studies included community-dwelling older adults with mild-to-moderate anxiety symptoms at baseline, and only one study included older adults with anxiety disorders. Thus, we do not have evidence to recommend exercise specifically for the treatment of anxiety disorders.

We have made a conditional recommendation of exercise for anxiety symptoms based on the very low certainty evidence. However, paired with other, higher quality evidence for exercise, such as for reduction in falls, osteoporosis, cardiovascular disease and depression (Hallal et al., 2012; Heart and Stroke Canada, 2023; Osteoporosis Canada, 2023; Tricco et al., 2017), we conclude that exercise is an important and impactful intervention in older adults with relatively few risks or downsides.

While there are many health benefits to increased physical activity in older adults, 60% of Canadians over the age of 65 do not achieve recommended levels of physical activity (Statistics Canada, 2023). Interventions focused on behaviour change are important in increasing physical activity levels of older adults (Grande et al., 2020). For example, The Fountain of Health is a manualized intervention developed in Canada and designed to help clinicians have conversations with patients to support health behaviour change, such as increased activity (Thoo et al., 2015).

There are barriers to accessing exercise programs or interventions for older adults, however these can be mitigated (Bethancourt et al., 2014; Costello et al., 2011). There are free or low-cost options (e.g., walking), providers can refer to group exercises, or physiotherapy as appropriate to develop an exercise program they can continue on their own. Many institutions have reduced cost passes for older adults, and older adult classes available. There are many available Canadian resources to help older adults choose exercises based on their physical fitness and abilities (Active Ageing Canada, 2023; Canadian Society for Exercise Physiology, 2011; Canadian Society for Exercise Physiology, 2021). National guidelines for physical activity for older adults are also available (CSEP, 2021). Providers can empower patients, provide exercise prescriptions, refer to local programs and ensure that they understand the importance of exercise as it pertains to their mental and physical health (Mathews et al., 2010).

## Recommendation #27

**Exercise, including Tai Chi and yoga, is effective to reduce fear of falling and may be recommended to older adults with fear of falling. (A)**

Several systematic reviews have confirmed that exercise interventions are effective to reduce the fear of falling in older adults, with small to moderate effect sizes, although it's unclear how long these benefits persist once the exercise program ends. Some exercise programs not only

reduce the fear of falling but lead to objective improvements in balance and a reduction in falls rates (Kendrick et al., 2014; Kumar et al., 2016; Zhang et al., 2023).

## Pharmacological Treatments

These guidelines focus on medications that have been investigated in randomized placebo-controlled trials for the treatment of older adults (over 60 years of age) with anxiety disorders and clinically significant anxiety symptoms. Drugs without this level of evidence in older adults are not included in our recommendations at this time. While some medications are commonly used in clinical practice (e.g., mirtazapine, trazodone), it is important to note that there is no specific evidence-base for their efficacy, tolerability, or safety in older adults who are being treated for anxiety disorders. Other substances such as cannabidiol (CBD) were also not included in our review: the recent CCSMH guidelines on cannabis use did not identify any quality evidence supporting the use of CBD or other cannabinoids in the treatment of anxiety in older adults (CCSMH, 2019d). This will be revisited in future updates.

Most of the medication trials included individuals with diagnosed anxiety disorder (primarily GAD and panic disorder), although a few studies included individuals with clinically significant (highly distressing and impairing), but subthreshold, anxiety symptoms. It is important to note that we did not find evidence for the use of medications for specific phobias or fear of falling in older adults: the treatment for phobias is based on CBT, particularly exposure therapy.

Our recommendations regarding medication use to manage anxiety rely upon access to the recommended medications. One in six older adults in Canada is unable to take their medications as prescribed due to issues with affordability (Advisory Council on the Implementation of National Pharmacare, 2019). Additionally, we are in a period of unprecedented challenges with drug shortages that make affordable medication unattainable in some circumstances (Lau et al., 2022). Access to pharmacies, particularly in rural communities, is another barrier (Grootendorst, 2022; Timony et al., 2022). Healthcare providers should be aware of these barriers and advocate for access to medications.

The appropriateness of prescribing is another important equity issue. Women and low-income older adults are more likely to encounter inappropriate prescribing, particularly of benzodiazepines, which increases risk of polypharmacy, adverse drug events, or drug-drug interactions (Canadian Institute for Health Information, 2016).

Detailed prescribing and monitoring information for the medications recommended here are available at this link: [www.gerimedrisk.com/CCSMH.htm](http://www.gerimedrisk.com/CCSMH.htm)

### Recommendation #28

**Selective serotonin reuptake inhibitors (SSRIs) and serotonin and norepinephrine reuptake inhibitors (SNRIs) should be used as the first-line pharmacologic treatment for anxiety disorders in older adults. (GRADE: Certainty of Evidence: Low; Strength: Strong)**

Our meta-analysis included seven placebo-controlled studies of SSRI or SNRI medications in older adults. Four studies investigated the treatment of GAD (Alaka et al., 2014; Davidson et al., 2008; Katz et al., 2002; Lenze et al., 2009), two studies a mix of anxiety disorders (Lenze, Mulsant, Shear, et al., 2005; Schuurmans et al., 2006), and one study anxiety symptoms in chronic obstructive airways disease (Usmani et al., 2018). Antidepressants were found to be superior to placebo with respect to improvement in anxiety symptoms, response or remission of the anxiety disorder, function, and quality of life (Suppl. Table 11). The clinical trials of SSRIs and SNRIs did not find any differences between drug and placebo in discontinuation due to side effects. Overall, these findings suggest that appropriately selected SSRIs and SNRIs are efficacious, and well tolerated in the acute treatment of GAD in older adults. By looking at both the small amount of evidence for the treatment of other anxiety disorders in older adults and the larger evidence base in young and middle-aged adults, we also recommend antidepressants for the treatment of panic disorder and social anxiety disorder in older adults.

See Table 4 for specific drug and dose recommendations and links to expert-reviewed and evidence-based drug summaries to guide prescription and monitoring. Any of the first-line agents listed in Table 4 would be a reasonable choice for the treatment of GAD in later life. Escitalopram, sertraline, and venlafaxine have favorable pharmacokinetic and tolerability profiles in older adults with minimal propensity for drug-drug interactions. In addition to treatment for GAD, sertraline is the first-line SSRI for panic disorder and social anxiety disorder, given that it has Health Canada/Federal Drug Administration approval for the treatment of these disorders, based on studies of mixed-age samples. Sertraline also has considerable flexibility in dosing without the risk of QTc prolongation at higher doses that is a concern with escitalopram and citalopram.

Duloxetine is both an inhibitor and substrate of CYP2D6 and thus has the potential for interaction with other drugs metabolized by this enzyme; this property of duloxetine has led us to recommend it as a second-line agent.

When prescribing an antidepressant, it is important to consider the risks and benefits in the context of the individual, their medical conditions, and other prescribed medications. Rare, but serious, adverse events associated with SSRIs and SNRIs include hyponatremia (particularly in individuals with low sodium), bleeding risk (particularly in individuals at risk for bleeding or with a history of recent bleed), and serotonin syndrome (in individuals on multiple serotonergic agents).

If started at too high a dose, serotonergic drugs may initially exacerbate symptoms of anxiety and, therefore, a starting dose at the bottom of the range in Table 4 (or even half of starting dose in individuals with a history of anxiety exacerbation with antidepressants) is often indicated in older adults. Once it has been established that the patient is tolerating the starting dose, the dose should then be gradually increased to the usual therapeutic range.

Anxious patients frequently misattribute somatic symptoms of anxiety to the adverse effects of medication. Adherence with medication can be enhanced by discussing potential side effects (as well as the misattribution of symptoms of anxiety to side effects) at the time of starting treatment, providing frequent monitoring of the patient during the first few weeks of treatment, and ensuring availability of the clinician by telephone between appointments to address any questions or concerns that the patient may have about treatment. It is also important to address expectations about the onset of benefit—most clinical trials do not see improvement in symptoms until 4–6 weeks after reaching a treatment dose, and most improvement takes place between 6–8 weeks of treatment.

When there is an incomplete response to treatment, ensure that there has been an adequate treatment trial in terms of dose, duration, and adherence. Given that SSRIs and SNRIs are different drug classes, switching from one class to the other is a reasonable approach in the case of inadequate response to a therapeutic trial of the first drug—usually, the SSRI is started as the first-line drug. Treatment can be augmented by adding psychotherapy (Wetherell et al., 2013). There is no current evidence to guide

treatment augmentation with medications for anxiety in older adults, and individuals with treatment-resistant anxiety disorders should be considered for referral to specialist psychiatric consultation.

Antidepressants not included in this treatment recommendation include paroxetine, mirtazapine, vortioxetine, bupropion, and trazodone.

Paroxetine has a less favorable pharmacokinetic profile in older adults (including potent CYP2D6 inhibition) and has the potential to cause anticholinergic adverse effects. The other medications listed above either do not have specific evidence or indications for anxiety or lack evidence in older adults.

## Recommendation #29

**Benzodiazepines should not be used in the management of anxiety in older adults, except where non-pharmacological interventions and first-line pharmacological alternatives have failed, or for short-term use (2–4 weeks) until first-line treatments become effective. (GRADE: Certainty of Evidence: Very low; Strength: Conditional against)**

There is no evidence supporting the long-term efficacy of benzodiazepines for anxiety disorders in older adults. All studies found in our review are of four or less weeks in duration and have a significant risk of bias ([Suppl. Table 12](#)). Decades of observational research show that benzodiazepines are poorly tolerated in older adults, and are associated with a risk of harm including falls, fractures, cognitive impairment, dementia, delirium, sedation and motor vehicle accidents (*CCSMH*, 2019b). In addition, chronic use of benzodiazepines can lead to physiological dependence (i.e., tolerance and/or withdrawal) and psychological dependence. The potential for abuse, misuse or addiction is high, particularly in individuals with anxiety disorders. While benzodiazepines provide some short-term relief from anxiety symptoms, there is often a paradoxical long-term worsening of anxiety, possibly through rebound anxiety, inhibition of cognitive processing, promotion of avoidance and prevention of fear extinction (Guina & Merrill, 2018).

When short-term prescription of benzodiazepines is being considered, there are evidence-based approaches to prescribing that will help to reduce the risks of harms including prevention of benzodiazepine use disorders. These are outlined in more detail in the Canadian Coalition for Seniors' Mental Health guidelines on benzodiazepine use disorders (*CCSMH*, 2019b) and include:

1. Assessing for risk of benzodiazepine use disorder and risk of harms.
2. Informing the older adult about the risks and limited benefits of benzodiazepines and alternative treatments.
3. Developing a shared understanding about how to use the benzodiazepine (duration of no more than 2–4 weeks) and plan for monitoring treatment response, adverse effects, and/or development of benzodiazepine use disorder.

In terms of choice of agent, benzodiazepines with very long or very short half-lives should be avoided, and doses should be carefully moderated as the risks are dose-dependent (Table 4).

Several guidelines (Pottie et al., 2018; [www.cfp.ca/content/64/5/339](http://www.cfp.ca/content/64/5/339)) and educational tools (Canadian Medication Appropriateness and Deprescribing Network, 2023; [www.deprescribingnetwork.ca/patients-and-public](http://www.deprescribingnetwork.ca/patients-and-public)) are available to support benzodiazepine deprescribing in older adults. It is important to support patients to build confidence in their coping skills without the drug, and to provide education to distinguish between the time-limited withdrawal anxiety symptoms they may experience during deprescribing and worsening of their baseline anxiety symptoms.

## Recommendation #30

**Bupirone may be considered for the treatment of mild-to-moderate generalized anxiety disorder in older adults, in individuals where first-line treatments are not effective or tolerated. (GRADE: Certainty of Evidence: Low; Strength: Conditional)**

In three small studies, bupirone had a small benefit for GAD of mild-to-moderate severity with few and mild side effects ([Suppl. Table 13](#)). Three times per day dosing limits treatment feasibility. Bupirone may be

considered in individuals with mild-to-moderate GAD who do not tolerate antidepressant therapies, but there is no evidence to support its role for severe or difficult to treat anxiety disorders in older adults.

## Recommendation #31

**Quetiapine should not be routinely used in the management of anxiety disorders in older adults, except where non-pharmacologic and first-line treatments have failed. (GRADE: Certainty of Evidence: Low; Strength: Conditional against)**

There is no evidence to support the use of antipsychotics for anxiety disorders in older adults outside of a single study of extended-release quetiapine (Mezhebovsky et al., 2013). This randomized, double-blind trial compared extended-release quetiapine fumarate monotherapy to placebo over 11 weeks in 450 older adults (mean age 71 years) with GAD, titrated to a maximum of 300 mg daily (mean dose 168 mg daily). While the treatment group had a statistically significant reduction in symptoms of anxiety, increased rate of remission, and an increase in quality of life, the magnitude of the benefit was modest ([Suppl. Table 14](#)). There were few dropouts but an increased level of sedation in the quetiapine group. Known risks associated with quetiapine, including sedation, falls, hypotension, cognitive

impairment, metabolic side effects and QTc prolongation in older adults, and risk of stroke/death in older adults with dementia, make it difficult to recommend quetiapine based on this single study.

Overall, we recommend antipsychotic medications should not be used routinely in the treatment of an anxiety disorder in older adults. If reasonable trials of first-line management options including psychotherapy and medications fail, quetiapine may be considered an option, with careful discussion with patients about the risks and side effects, and slow and careful dose titration while monitoring for side effects.

## Recommendation #32

**Pregabalin should not be routinely used in the management of anxiety in older adults, except where non-pharmacologic and first-line treatments have failed. (GRADE: Certainty of Evidence: Very low; Strength: Conditional against)**

We recommend against the routine use of gabapentanoid medications (pregabalin, gabapentin) in the management of anxiety disorders in older adults, based on the limited evidence for efficacy in this population and concerns about tolerability.

The one available study of pregabalin (mean total dose 270 mg/day) in older adults (mean age 72 years) for the treatment of GAD showed a statistically significant benefit of questionable clinical significance on anxiety symptoms and no benefit for anxiety remission over 8 weeks of treatment ([Suppl. Table 15](#)). There were no differences in serious adverse events but concerns around tolerability exist given the number of dropouts.

These findings in older adults are in contrast to the body of evidence for the use of pregabalin for the treatment of anxiety disorders in younger adults (typically aged 18-65 years; Feltner et al., 2011; Greist et al., 2011; Hadley et al., 2012; Kasper et al., 2014), and its approval for this indication in some countries (but not North America). The adverse effects found with

pregabalin increase with age, comorbidity (e.g., renal and cardiac disease), frailty, and are dose-dependent (Muanda et al., 2022). Adverse effects such as gastrointestinal distress and dizziness are common, but there are also more serious risks such as cardiovascular events (Pan et al., 2022). Given concerns about tolerability and potential for adverse effects, there is a need for an individualized assessment of risk based on age, health status and previous history of response to treatment. There may be separate indications for gabapentanoids in older adults with chronic pain, but the efficacy and tolerability for this indication and patient population did not form part of our review.

Overall, pregabalin should not be used routinely, but can be considered in older adults with difficult-to-treat anxiety, with a full discussion about the risks and benefits. There were no studies that investigated gabapentin for the treatment of anxiety disorders in older adults and therefore no recommendations about gabapentin can be made.

**Table 4. Summary of pharmacotherapy for anxiety disorders in older adults**

Detailed prescribing and monitoring information for the medications recommended here are available at [www.gerimedrisk.com/CCSMH.htm](http://www.gerimedrisk.com/CCSMH.htm)

	Starting dose	Therapeutic dose	Maximum dose	Considerations
<b>First line (any of the following)</b>				
Escitalopram	2.5-5 mg daily	10-20 mg daily	10 mg* daily	QTc prolongation
Citalopram	5-10 mg daily	20-30 mg daily	20 mg* daily	
Sertraline	25-50 mg daily	50-200 mg daily	200 mg daily	Indications in GAD, Panic, SAD
Venlafaxine	37.5 mg daily	150-300 mg daily	300 mg daily	
<b>Second Line</b>				
Duloxetine	30 mg daily	60-120 mg daily	120 mg daily	CYP2D6 inhibitor and substrate, risk for drug-drug interactions
Buspirone	5 mg BID to TID	10 mg TID	10 mg TID	In moderate anxiety, if first line not tolerated
<b>Not routinely recommended (except in specific circumstances)</b>				
Quetiapine fumarate extended release	50 mg daily	100-200 mg daily	300 mg daily	Poorly tolerated in frail older adults
Quetiapine fumarate	12.5-25 mg once to twice daily	50-100 mg BID	150 mg BID	
Pregabalin	25 mg daily	75-150 mg BID	150 mg BID	Tolerability issues, limited evidence for efficacy
Lorazepam	0.25-0.5mg OD	0.25-0.5 mg BID	Not to exceed 2 mg daily	Short-term, time-limited
Clonazepam	0.125-0.25 mg daily	0.125 mg-0.25 mg BID	Not to exceed 1 mg daily	Long-acting. To be avoided in older adults

\*Health Canada provides maximum doses based on observational evidence about prolonged QTc in older adults, although there remains controversy about the clinical meaningfulness of these findings (Crépeau-Gendron et al., 2019; Kimura et al., 2023). If choosing to optimize the dose beyond the Health Canada maximum, discuss this potential risk with the patient, monitor QTc periodically, and avoid other QTc prolonging medications.

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