



January 2023

ELDER CARE

A Resource for Interprofessional Providers

Anxiety in Older Adults - Pharmacotherapy

Nina Vadie, PharmD and Jeannie K. Lee, PharmD, R. Ken Coit College of Pharmacy, University of Arizona

Anxiety disorders are common among older adults and associated with poor quality of life, increased disability, and cognitive impairment. Studies indicate that early treatment targeting full cessation of anxiety symptoms has considerable benefit for older adults. Despite this, anxiety disorders in late life are understudied and underreported, and patients are often under-treated. A variety of behavioral and pharmacological approaches are used to treat anxiety disorders. This edition of Elder Care will focus on evidence-based pharmacotherapy for treating anxiety in older adults.

Prior to Initiating Pharmacotherapy

The goal of treatment should be to improve function by targeting the symptoms that are most disabling/distressing to the patient. This must be done in balance with safety considerations related to aging.

For example, anxiety symptoms are often associated with cognitive and physical complaints in older adults. While successful treatment of anxiety can potentially improve cognition, some medications may worsen cognitive function. Other medications may provide minimal benefit for anxiety while worsening somatic symptoms (e.g., nausea, dizziness, headache) that may become more of a problem for the patient than the emotional symptoms of anxiety.

To develop an appropriate treatment plan, it is important to consider severity of anxiety, prior treatment responses, patient preference, comorbidities, and cognitive status. A medical workup should be completed to evaluate medical causes (Table 1), and these potential causes should be incorporated in the treatment plan. In addition, it is important to review the patient's current medications and determine if there is an opportunity to either discontinue or reduce the dose of any medications that could be contributing to the patient's anxiety symptoms (Table 2). Finally, anxiety and depression commonly co-exist in older adults, and treatment of both conditions is often warranted (Table 3).

Investing time to provide psychoeducation is an important step in promoting treatment adherence. This education should be aimed at empowering patients by providing

information about the condition being treated, addressing biases/stigma, and identifying barriers that may interfere with medication adherence. Family and care partners should be involved in these discussions so the patient has the benefit of a support network.

Table 1. Common Medical Conditions That Cause Anxiety	
Condition	Anxiety-Like Symptoms
B12 deficiency	Palpitations, shortness of breath, loss of appetite
Hyperthyroidism	Palpitations, tremor, worry, insomnia, gastrointestinal (GI) distress
Cardiac disease	Chest pain, palpitations, shortness of breath, sweating, GI distress
Respiratory disease	Dyspnea, hyperventilation, panic
Withdrawal syndromes (e.g., alcohol, opioids or benzo)	Tremor, nausea, sweating, insomnia, irritability

Table 2. Medications That Can Cause Anxiety	
Class	Examples
Anticholinergics	Diphenhydramine, hydroxyzine, TCAs, benztropine, trihexyphenidyl, some second-generation antipsychotics
Antidepressants (during initial weeks of treatment)	SSRIs, SNRIs, bupropion
Beta-agonists	Albuterol, formoterol, salmeterol
Steroids	Cortisone, dexamethasone, prednisone
Stimulants	Caffeine, nicotine, amphetamines, methylphenidate
TCAs = tricyclic antidepressants, SSRIs = selective serotonin reuptake inhibitors, SNRIs = serotonin-norepinephrine reuptake inhibitors	

TIPS FOR PHARMACOTHERAPY OF ANXIETY IN OLDER ADULTS

- Recognize and treat anxiety early to alleviate symptoms and reduce overuse of health services.
- Before initiating treatment, evaluate for medical conditions or medications that might be causing anxiety symptoms.
- When using pharmacotherapy, assure an adequate trial (at least 6 weeks) after titrating to a therapeutic dose.
- Work with psychiatrists, psychologists, behavioral health providers, pharmacists, and social workers on pharmacotherapy, self-care, behavioral changes, support network, etc.

ELDER CARE

Continued from front page

Pharmacotherapy

Medications commonly used for anxiety are listed in Table 3. Pharmacotherapy choices for older patients are based largely on expert opinion and extrapolations from data in younger patients. Note that many drugs that are usually considered antidepressants are often first-choice medications for treating anxiety.

Medications should be selected based on their safety profiles, including side effects and potential drug-drug/drug-disease interactions. In addition, some medications are ill-advised in older adults. For example, bupropion in older adults with concurrent depression and anxiety may worsen anxiety symptoms. Paroxetine and fluoxetine should not be selected as first-choice due to potential drug-drug interactions, paroxetine's anticholinergic profile (included in Beers Criteria) and fluoxetine's long half-life. On the other hand, an agent's side-effects may be useful, such as prescribing mirtazapine when patients have difficulty with sleep and/or loss of appetite.

The initial dose should usually be low and sub-therapeutic to assure tolerability. If tolerated, the dose can be slowly titrated upward to a therapeutic dose with adverse effects monitoring. If the first-line medication is ineffective after 6 weeks of therapy on an optimal dose, an augmentation

strategy (adding a second medication) or switching to an alternative medication can be considered. Once symptoms are resolved, maintenance therapy should continue at the same dose to avoid relapse. When discontinuing therapy, provide a gradual taper over 4-6 weeks with close monitoring to prevent rebound anxiety symptoms.

Deprescribing Benzodiazepines

Some older adults with anxiety disorders have been taking benzodiazepines (with or without antidepressants) for years. Long-term benzodiazepine use is associated with significant risks (Table 4) and is not recommended. Patient and care partner education is essential to help them understand why it is now necessary to stop taking a long-term medication, and alternative treatments that can help with symptom relief. Benzodiazepines should not be stopped abruptly but tapered down gradually. Slow tapering should occur over several months, with close monitoring, if the patient has been on the agent for more than 6 months.

Table 4. Risks of Long-Term Benzodiazepine Therapy
<ul style="list-style-type: none"> • Worsening memory impairment or dementia • Risk of falls and associated fractures • Developing tolerance • Worsened anxiety upon discontinuation

Table 3. Drugs Commonly Used for Treating Anxiety: Initial Geriatric Dose, Target Dose, and Geriatric Considerations

Medication	Initial Dose	Target Dose	Geriatric Considerations*
Buspirone (Buspar)	5 mg BID-TID	10 mg TID	Split dosing; not effective when used as-needed; few quality-controlled trials performed in older adults; most common side-effects are nausea and headache; generic available
Citalopram (Celexa)	10-20 mg	10-20 mg	For patients >60 years, maximum recommended dose is 20mg/day due to risk of QT prolongation; GI distress may limit adherence; may cause weight gain or loss; decreased sexual function possible; generic available
Duloxetine (Cymbalta)	20 mg	40-60 mg	Do not use in liver impairment or creatinine clearance <30 ml/min. Helpful for chronic pain. Use with caution in SIADS; decreased sexual function possible; generic available
Escitalopram (Lexapro)	5-10 mg	10-20 mg	Less adverse effects; most common are GI distress, fatigue or insomnia, and sexual dysfunction; risk of QT prolongation with dose >10 mg/day; generic available
Mirtazapine (Remeron)	7.5 mg	15-45 mg	Sedation (effective in concurrent insomnia), hypotension, and weight gain (effective in concurrent anorexia) can be seen; generic available
Sertraline (Zoloft)	25 mg	50-200 mg	Less adverse effects compared to other agents; most common side-effects are GI distress, fatigue, insomnia, tremor, and sexual dysfunction; generic available
Venlafaxine (Effexor)	25-75 mg	75-225 mg	Dose-related hypertension; QT prolongation may occur; weight loss and decreased sexual function possible; generic available

* All agents are available in a generic form.
 Note: Hydroxyzine (Vistaril) is FDA-approved for treatment of anxiety, but the Beers Criteria make a strong recommendation to avoid using it in older adults due to its anticholinergic properties.
 GI = gastrointestinal; SIADS = syndrome of inappropriate antidiuretic hormone secretion

References and Resources

Andreescu C, Varon D. New research on anxiety disorders in the elderly and an update on evidence-based treatments. *Curr Psychiatry Rep.* 2015;17(7):53.
 Bower ES, et al. Treating Anxiety Disorders in Older Adults: Current Treatments and Future Directions. *Harv Rev Psychiatry.* 2015;23(5):329-42.
 Mulsant BH, et al. A systematic approach to pharmacotherapy for geriatric major depression. *Clin Geriatr Med.* 2014;30(3):517-34.
 Sami, MB, Nilforooshan R. The natural course of anxiety disorders in the elderly: a systematic review of longitudinal trials. *Int Psychogeriatr.* 2015;27(7):1061-9.
 Wolitzky-Taylor KB, et al. Anxiety disorders in older adults: a comprehensive review. *Depress Anxiety.* 2010;27(2):190-211.

Interprofessional care improves the outcomes of older adults with complex health problems.

Editors: Mindy Fain, MD; Jane Mohler, NP-c, MPH, PhD; and Barry D. Weiss, MD
 Interprofessional Associate Editors: Tracy Carroll, PT, CHT, MPH; David Coon, PhD; Marilyn Gilbert, MS, CHES;
 Jeannie Lee, PharmD, BCPS; Marisa Menchola, PhD; Francisco Moreno, MD; Linnea Nagel, PA-C, MPAS; Lisa O'Neill, DBH, MPH; Floribella Redondo; Laura Vitkus, BA
 The University of Arizona, PO Box 245069, Tucson, AZ 85724-5069 | (520) 626-5800 | <http://aging.arizona.edu>

Supported by: Donald W. Reynolds Foundation, Arizona Geriatrics Workforce Enhancement Program and the University of Arizona Center on Aging

This project was supported by the Health Resources and Services Administration (HRSA) of the U.S. Department of Health and Human Services (HHS) under grant number U1QHP28721, Arizona Geriatrics Workforce Enhancement Program. This information or content and conclusions are those of the author and should not be construed as the official position or policy of, nor should any endorsements be inferred by HRSA, HHS or the U.S. Government.