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ELDER CARE

A Resource for Interprofessional Providers

Depression in Older Adults – Pharmacotherapy

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Depression in older adults is a common but frequently underdiagnosed and undertreated condition. Depression extends beyond the personal suffering of an older patient, and may also result in family disruption, increased use of healthcare services, a decline in functional abilities, and increased risk of death from suicide.

A separate edition of Elder Care entitled "Depression in Older Adults" reviewed the epidemiology, risk factors, and diagnosis of depression. This edition focuses on depression pharmacotherapy.

There has been limited research on the use of antidepressant medications in older populations, as the majority of clinical trials of antidepressants have been conducted in younger individuals. Therefore, clinicians need to extrapolate from studies conducted in younger patients who may not have co-morbidities and/or polypharmacy use that often complicate treatment decisions for older patients. Available research does, however, show that older adults benefit most from aggressive treatment - meaning treatment that is started early (within 2 weeks) and continued longer than in younger adults.

Management Goals

The goals for treating geriatric depression include symptom resolution, relapse prevention, enhanced functional capacity, lower risk of suicide, and reduced use and costs of health services. Treatment should be individualized based on: (1) history of depression, (2) past treatment response, (3) severity of illness, (4) concurrent conditions and medications. For example, if a patient has a history of depression and reports past response to a particular agent, consider prescribing that same medication again. Similarly, if there is a family history of depression, the antidepressant response of family members should be considered in selecting a medication for the patient. Severity of disease is also a consideration. Although combination therapy with multiple antidepressants should generally be avoided to reduce the risk of adverse drug effects, combination therapy may be needed for severe episodes of depression.

Finally, concurrent disease, such as chronic pain, should be managed effectively. If the patient is taking medications that can cause depression (Table 1), the need for such medication should be frequently reassessed and the drug discontinued, when possible.

Table 1. Medications That Can Cause Depression

Class	Examples
Antibiotics	ampicillin, dapsone, isoniazid, metronidazole, nitrofurantoin, sulfonamides, tetracycline
Anticonvulsants	carbamazepine, ethosuximide, phenobarbital, phenytoin, primidone
Antihypertensives	clonidine, methyldopa, propranolol
Anti-Parkinson	amantadine, bromocriptine, levodopa
Antipsychotics	fluphenazine, haloperidol
Cardiac medications	digoxin, procainamide
Chemotherapies	azathioprine, bleomycin, cisplatin, cyclophosphamide, doxorubicin, vinblastine, vincristine
Gastrointestinal agents	cimetidine, metoclopramide, ranitidine
Hormones	glucocorticoids, estrogen-progestin
Sedatives/anxiolytics	barbiturates, benzodiazepines
Stimulant withdrawal	amphetamines, caffeine, methylphenidate

Nonpharmcologic approaches should be considered along with medications and used in combination when indicated: cognitive behavioral therapy (CBT), mindfulness-based CBT, interpersonal therapy, problem adaptive therapy (PATH), repetitive transcranial magnetic stimulation (rTMS), and bright light therapy in morning for seasonal depression. For cognitively impaired, use expression of affect, understanding and empathy.

TIPS FOR ANTIDEPRESSANT THERAPY IN OLDER ADULTS

- Recognize and treat early to alleviate overuse of health services.
- Assure an adequate trial (at least 6 weeks) after titrating first-line agent (SSRI or SNRI) to therapeutic dose.
- Work with psychiatrists, psychologists, counselors, pharmacists, and social workers on pharmacotherapy, counseling, self-care, behavioral changes, support systems, etc.

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Pharmacotherapy

Up to 75% of depressed older patients respond to pharmacotherapy. A guideline for treatment of late-life depression and toolkit were developed by the Prevention of Suicide in Primary Care Elderly: Collaborative Trial (PROSPECT) group. The recommended first-line antidepressant is a selective serotonin reuptake inhibitor (SSRI) or serotonin-norepinephrine reuptake inhibitor (SNRI)- start with half the usual adult dose, titrate slowly to the target dose, if tolerated. Improved energy may be seen around 2 weeks, but full response may require 6 weeks of consistent use.

If an adequate response to a first agent is not seen after at least 6-8 weeks of therapy at target dose, then switch to a different first-line agent or to a second-line agent (see Table 2). Third-line drugs, such as aripiprazole, quetiapine, buspirone, bupropion and lithium, are reserved for augmentation of first- or second-line antidepressant response.

Medications to avoid in older adults are listed in Table 3. Consider co-management with a psychiatrist, behavioral expert, pharmacist, and social worker on pharmacotherapy, counseling, self-care, behavioral changes, and support systems.

To prevent relapse, continue therapy for 6-12 months after the remission of first episode, 2 years after 2nd episode, and at least 3 years for ≥3 episodes. When discontinuing, gradual taper over 1 month is recommended.

Table 3. Antidepressants to Avoid in Older Adults

Medication	Problems in Older Adults
Amitriptyline (Elavil)	anticholinergic, sedating, hypotensive
Amoxapine	anticholinergic, sedating, hypotensive, extra-pyramidal side effects.
Doxepin (Prudoxin)	anticholinergic, sedating, hypotensive
Imipramine (Tofranil)	anticholinergic, sedating, hypotensive
Maprotiline	seizure, rash
Paroxetine (Paxil)	anticholinergic, sedating, hypotensive
Protriptyline (Vivactil)	anticholinergic, can be stimulating
St. John's Wort	multiple drug interactions including SSRIs, photosensitivity at 2-4g/day
Trimipramine (Surmontil)	anticholinergic, sedating, hypotensive

Table 2. Commonly Used Antidepressants: Initial Geriatric Dose, Target Dose, and Geriatric Considerations

First-Line Medications	Initial Dose	Target Dose	Geriatric Considerations*
SSRI: Citalopram (Celexa)	10-20 mg	20 mg	Max 20mg/day for age >60 years; risk of QT prolongation; GI distress; weight gain/ loss; decreased sexual function possible
SSRI: Escitalopram (Lexapro)	5-10 mg	10 mg	Max 10mg/day for age >60 years; risk of QT prolongation; GI distress; may cause weight gain; decreased sexual function possible
SSRI: Fluoxetine (Prozac)	5-10 mg	20-60 mg	Least preferred due to very long half-life (parent drug and metabolite); Insomnia; GI distress, hyponatremia, sexual dysfunction possible; weight gain/loss
SSRI: Sertraline (Zoloft)	25 mg	50-200 mg	Preferred - less adverse effects compared to other agents; GI distress, sexual dysfunction and tremor may limit adherence; may cause weight gain/loss
SNRI: Duloxetine (Cymbalta)	20 mg	40-60 mg	CNS effects, ACH side effects, nausea, diarrhea; weight loss and decreased sexual function possible; contraindicated if CrCl <30; generic - product dependent
SNRI: Venlafaxine (Effexor)	25-50 mg	75-225 mg divided	CNS effects, low ACH effects, GI distress, hyponatremia; possible hypertension, QT prolongation, weight loss and decreased sexual function
SNRI: Des-venlafaxine (Pristiq)	50 mg	50 mg	Active metabolite of venlafaxine; CNS effects, nausea, hyponatremia, insomnia; possible hypertension; renal dose if CrCl <30
Bupropion (Wellbutrin)	37.5-50 mg	75-150 mg	CNS effects, tachycardia, weight loss; no effect on sexual function; effective for smoking cessation; avoid if seizure history (can lower threshold)
Second-Line Medications			
Vilazodone (Viibryd)	10 mg	20-40 mg	10mg x 7 days, then 20mg daily. Limited geriatric data; caution due to hyponatremia/ SIADH concerns; headache, diarrhea, nausea common; generic - product dependent
Mirtazapine (Remeron)	7.5 mg	15-45 mg	Severe sedation (effective in concurrent insomnia); ACH side effects, hypotension; increased appetite, weight gain (effective in concurrent anorexia)

*All agents are available in a generic form. CNS = central nervous system, ACH = anticholinergic side effects, GI = gastrointestinal

References and Resources

PROSPECT (Prevention of Suicide in Primary Care Elderly: Collaborative Trial) Toolkit: https://www.sprc.org/settings/primary-care/toolkit
National Institutes on Aging, Depression and Older Adults: https://www.nia.nih.gov/health/depression-and-older-adults
Carter J. BMJ Clinical Review: Depression in older adults. BMJ 2011;343:d5219 doi: https://doi.org/10.1136/bmj.d5219

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