

Treating Alzheimer's Disease and Other Dementias

A Quick Reference Guide



Based on *Practice Guideline for the Treatment of Patients With Alzheimer's Disease and Other Dementias*, Second Edition, originally published in December 2007.

INTRODUCTION

Treating Alzheimer's Disease and Other Dementias: A Quick Reference Guide is a synopsis of the American Psychiatric Association's *Practice Guideline for the Treatment of Patients With Alzheimer's Disease and Other Dementias*, which was originally published in *The American Journal of Psychiatry* in December 2007 and is available through American Psychiatric Publishing, Inc. The psychiatrist using this Quick Reference Guide (QRG) should be familiar with the full-text practice guideline on which it is based. The QRG is not designed to stand on its own and should be used in conjunction with the full-text practice guideline. For clarification of a recommendation or for a review of the evidence supporting a particular strategy, the psychiatrist will find it helpful to return to the full-text practice guideline.

STATEMENT OF INTENT

The Practice Guidelines and the Quick Reference Guides are not intended to be construed or to serve as a standard of medical care. Standards of medical care are determined on the basis of all clinical data available for an individual patient and are subject to change as scientific knowledge and technology advance and practice patterns evolve. These parameters of practice should be considered guidelines only. Adherence to them will not ensure a successful outcome for every individual, nor should they be construed as including all proper methods of care or excluding other acceptable methods of care aimed at the same results. The ultimate judgment regarding a particular clinical procedure or treatment plan must be made by the psychiatrist in light of the clinical data presented by the patient and the diagnostic and treatment options available. The development of the APA Practice Guidelines and Quick Reference Guides has not been financially supported by any commercial organization.

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A. PSYCHIATRIC MANAGEMENT

Establish and maintain an alliance with the patient and the family.

- A solid therapeutic alliance is essential for good care.
- Family members and other caregivers are an important source of information, since the patient is frequently unable to give a reliable history.
- Because families are often responsible for implementing and monitoring treatment plans and because burden is often high among dementia caregivers, caregivers' attitudes and behaviors can have a profound effect on the patient, and they often need the treating physician's compassion and concern.
- Clinical judgment is needed to determine under what circumstances it is appropriate or necessary to speak with caregivers without the patient present, as well as how to proceed with clinical care when there are disputes among family members.

Provide education and support to patients and families.

- Education should address the diagnosis, expected symptoms, and basic principles of care.
 - Understand that patients vary in their ability and desire to understand and discuss their diagnosis.
 - It may be helpful to reassure patients and their families that behavioral and neuropsychiatric symptoms are part of the illness and are direct consequences of the damage to the brain.
 - Respite care may be available from local senior services agencies, the local chapter of the Alzheimer's Association, religious groups, or Veterans Administration facilities. Other supportive resources may include social service agencies,

community-based social workers, home health agencies, cleaning services, Meals on Wheels, transportation programs, geriatric law specialists, and financial planners. Useful information for caregivers is available from the Family Caregiver Alliance (www.caregiver.org).

- Watch for signs of caregiver distress, including increased anger, social withdrawal, anxiety, depression, exhaustion, sleeplessness, irritability, poor concentration, increased health problems, and denial.
- For caregivers, support groups, psychoeducational programs, psychotherapy, exercise interventions, and stress management workshops can be helpful. The local chapter or national office of the Alzheimer's Association (1-800-272-3900; www.alz.org), the Alzheimer's Disease Education and Referral Center (ADEAR) (1-800-438-4380; www.nia.nih.gov/Alzheimers/), and other support organizations may provide hotlines, educational materials, and information on other resources.

Perform a diagnostic evaluation and refer the patient for any needed general medical care.

- A thorough evaluation is often coordinated with the patient's primary care physician.
- The evaluation serves to identify the specific etiology of the dementia syndrome that may guide treatment decisions, as well as to reveal any treatable psychiatric or general medical conditions that might be causing or exacerbating the dementia. Components of a basic evaluation are described in Table 1.

Neuroimaging

- The use of a structural neuroimaging study, such as a computerized tomography (CT) or a magnetic resonance imaging (MRI) scan, is generally recommended as part of an initial evaluation, particularly for patients with a subacute onset (less than

TABLE 1. COMPONENTS OF A BASIC EVALUATION FOR PATIENTS WITH DEMENTIA

- A clear history of the onset and progression of symptoms.
 - A review of the patient's medical problems and medications (including over-the-counter and herbal medications).
 - Assessment of functional abilities.
 - A complete physical and a focused neurological examination.
 - A psychiatric examination, including a cognitive assessment which should at least briefly assess the cognitive domains of attention, memory, language, and visual spatial skills, ideally used with age- and education-adjusted norms.
 - An assessment for past or current psychiatric illnesses that might mimic or exacerbate dementia, such as schizophrenia or major depressive disorder.
 - Laboratory studies including a complete blood count (CBC), blood chemistry battery (including glucose, electrolytes, calcium, and kidney and liver function tests), measurement of vitamin B₁₂ level, and thyroid function tests.
 - For some patients, toxicology studies, syphilis serology, erythrocyte sedimentation rate, HIV testing, serum homocysteine, a lumbar puncture, or an electroencephalogram may also be indicated.
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1 year), age at onset less than 65 years, vascular risk factors, or possible focal lesion. The value of imaging in patients with late-stage disease who have not been previously evaluated has not been established. Functional neuroimaging using positron emission tomography (PET) may contribute to diagnostic specificity (e.g., to differentiate Alzheimer's disease and frontotemporal dementia).

- Neuropsychological testing may be helpful to differentiate among dementias, evaluate a patient with subtle or atypical symptoms, characterize the extent of cognitive impairment, establish baseline function, and guide treatment.

Genetic Testing

- Except in rare circumstances (notably the use of CSF-14-3-3 protein when Creutzfeldt-Jakob disease is suspected and recent stroke or viral encephalitis can be excluded), biomarkers remain investigational, and there is insufficient evidence for their utility in routine clinical practice. However, this area is evolving rapidly.
- Genes involved in a small number of dementia syndromes have been identified, and genetic testing for these genes is available commercially or through research studies. However, genetic testing is generally not part of the evaluation of patients with dementia. If testing is obtained, pre- and post-test counseling is recommended.

Assess and monitor psychiatric status.

- Ninety percent of patients with dementia develop a neuropsychiatric or behavioral symptom during the course of the disease. Regular monitoring allows detection of new and evolving symptoms and adaptation of treatment strategies. It is particularly important to monitor symptoms after a medication dose has been lowered or discontinued.
- Symptoms to assess include depression, suicidal ideation or behavior, hallucinations, delusions, agitation, aggressive behavior, disinhibition, sexually inappropriate behavior, anxiety, apathy, and disturbances of appetite and sleep. Cognitive symptoms include impairments in memory, executive function, language, judgment, and spatial abilities. Functional status may also be helpful to track over time.
- Acute worsening of mood, behavior, cognition, or function may be associated with delirium, an occult general medical condition (e.g., urinary tract infection, dehydration), untreated or undertreated pain, or physical or emotional discomfort. For this reason, thorough assessment must precede intervention with psychotropic medications or physical restraint, except in an emergency.

Monitor and enhance the safety of the patient and others.

- Patients who live alone require careful attention. Events that indicate the patient can no longer live alone include several falls, repeated hospitalization, dehydration, malnutrition, dilapidated living conditions, or other signs of self-neglect.
- All patients (and their caregivers) should be asked about suicidal ideation, plans, and history. If suicidal ideation occurs in patients with dementia, it tends to be early in the disease, when insight is more likely to be preserved. Interventions to address suicidal ideation are similar to those for patients without dementia and include psychotherapy; pharmacotherapy; removal of potentially dangerous items such as medications, guns, or vehicles; increased supervision; and hospitalization.
- Agitation (e.g., physical aggression, combativeness, threatening behavior, hyperactivity, disinhibition) is most likely to occur later in the course of dementia, and often has multiple causes. The first step in treating agitation should be to investigate and address any underlying cause such as general medical conditions, depression, psychosis, pain, hunger, sleep deprivation, change in living situation, frustration, boredom, loneliness, or overstimulation. If the agitation is deemed dangerous to the patient or others, additional interventions may include providing one-on-one care, behavioral therapies, pharmacological treatment, or hospitalizing the patient.
- Decisions about supervision should consider the patient's cognitive deficits, his or her environment, and the risk of dangerous activities.
- Falls are a common and potentially serious problem for all elderly individuals, especially those with dementia. When appropriate, interventions include withdrawing medications that are associated with falls, central nervous system sedation, or cardiovascular side effects (especially orthostatic hypotension); modifying the envi-

ronment (e.g., removing loose rugs, lowering the bed); and providing programs to strengthen muscles and retrain balance.

- It is important to be alert to the possibility of elder abuse, financial exploitation, and neglect. Any concern, especially one raised by the patient, must be thoroughly evaluated.
- Wandering may be associated with more severe dementia; dementia of longer duration; and depression, delusions, hallucinations, sleep disorders, neuroleptic medication use, and male gender. Preventive strategies include adequate supervision, environmental changes, a more complex or less accessible door latch, and electronic devices. Pharmacotherapy is rarely effective unless the wandering is due to an associated condition, such as mania. Provision should also be made for locating patients should wandering occur (e.g., by sewing or pinning identifying information onto clothes, placing medical-alert bracelets on patients, and filing photographs with local police departments).

Advise the patient and family concerning driving and other activities that put others at risk.

- The risks of driving should be discussed with all patients with dementia and their families, and these discussions should be documented. The patient's driving history, current driving patterns, transportation needs, and potential alternatives should be discussed. For patients with dementia who continue to drive, the issue should be raised repeatedly and reassessed over time. This is especially true for patients with Alzheimer's disease or other progressive dementias.
- At this time, there is no clear consensus about the threshold level of dementia at which driving should be curtailed or discontinued.
- For patients with mild impairment who are unwilling to give up driving, it may be helpful to advise them to limit their driving to conditions likely to be less risky (e.g., familiar locations, modest speeds, good visibility, clear roads).

- There is some evidence and strong clinical consensus that individuals with moderate impairment should be instructed not to drive because of unacceptable risk of harm. Those with severe impairment are generally unable to drive and certainly should not do so.
- Psychiatrists should familiarize themselves with state motor vehicle regulations for reporting individuals with dementia. In some states, disclosure is forbidden. In others, a diagnosis of dementia or Alzheimer's disease must be reported, and the patient and family should be so informed.
- Similar principles apply to the operation of other equipment (e.g., firearms, heavy machinery, aircraft, lawn mowers) that puts the patient and others at risk.

Advise the family to address financial and legal issues.

- Advance planning may allow the patient to participate in decision making and may prevent families from having to petition the courts later for guardianship. Issues to address include the following:
 - The patient's preferences about the use of medications, feeding tubes, and artificial life support
 - The patient's preferences about participation in research studies
 - The need for a durable power of attorney, a living will, or an advance directive
 - The need to transfer financial responsibilities
 - The patient's vulnerability to financial exploitation
 - The need for planning to finance home health care and institutional care
 - Updating the patient's will
- Referral to financial and legal experts may be necessary.

B. MILDLY IMPAIRED PATIENTS

Help the patient and family recognize and accept the illness and its limitations.

- Suggest pragmatic coping strategies such as making lists, using a calendar, and avoiding overwhelming situations.
- Consider referring the patient to health promotion activities and recreation clubs.
- Identify specific impairments and highlight remaining abilities.
- Provide psychotherapeutic interventions for patients struggling with the diagnosis.
- Address caregiver well-being, driving, and legal and financial issues, as already described.

Offer patients with early Alzheimer's disease a trial of donepezil, galantamine, or rivastigmine.

- These three cholinesterase inhibitors are approved by the U.S. Food and Drug Administration (FDA) for the treatment of the cognitive symptoms of mild to moderate Alzheimer's disease and are commonly used.
- Given the possible risks of long-term high-dose vitamin E and selegiline and the minimal evidence for their benefit, they are no longer recommended. Nonsteroidal anti-inflammatory agents, statin medications, and estrogen supplementation have shown a lack of efficacy and safety in placebo-controlled trials in patients with Alzheimer's disease and therefore are not recommended.
- A cholinesterase inhibitor should also be considered for patients with mild to moderate dementia associated with Parkinson's disease. Only rivastigmine has been FDA approved for this indication, but there is no reason to believe the benefit is specific to rivastigmine.

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- A cholinesterase inhibitor can be considered for patients with dementia with Lewy bodies.
- The constructs of mild cognitive impairment and vascular dementia are evolving and have ambiguous boundaries with Alzheimer's disease. The efficacy and safety of cholinesterase inhibitors for patients with these disorders is uncertain; therefore, no specific recommendation can be made at this time, although individual patients may benefit from these agents.
- There is some evidence of the benefit of memantine in mild Alzheimer's disease and very limited evidence of its benefit in vascular dementia.
- Patients may be interested in referrals to local research centers for participation in clinical trials of experimental agents.

Evaluate for depression and treat if present.

- The best approach to diagnosing depression co-occurring with dementia is not yet clear. In addition to the symptoms outlined in DSM-IV-TR, irritability, social withdrawal, and isolation may indicate depression needing treatment. Symptoms may be unstable and fluctuate over time.
- Conditions that may cause or contribute to depression include other psychiatric disorders (e.g., alcohol or sedative-hypnotic dependence), other neurologic problems (e.g., stroke, Parkinson's disease), general medical problems (e.g., thyroid disease, cardiac disease, cancer), and the use of certain medications (e.g., corticosteroids, benzodiazepines).

Treatment

- Depression may worsen cognitive impairment associated with dementia. Therefore, one goal of treating depression in dementia is to maximize cognitive functioning. Treatment of depression may also reduce other neuropsychiatric symptoms associated with depression such as aggression, anxiety, apathy, and psychosis.

- Clinical consensus supports a trial of an antidepressant to treat clinically significant, persistent depressed mood in patients with dementia. Selective serotonin reuptake inhibitors (SSRIs) may be preferred because they appear to be better tolerated than other antidepressants. Alternative agents to SSRIs include but are not limited to venlafaxine, mirtazapine, and bupropion.
- Electroconvulsive therapy (ECT) may be considered for patients with moderate to severe depression that is life-threatening or refractory to other treatments.

Evaluate for sleep disturbance and treat if present.

- Sleep problems have been reported in 25%–50% of patients with dementia. Major causes include physiological changes associated with aging, pathological involvement of the suprachiasmatic nucleus, the effects of co-occurring medical or psychiatric disorders or medications, untreated pain, and poor sleep hygiene. Cholinesterase inhibitors can also cause insomnia.
- Some over-the-counter sleep medications (e.g., diphenhydramine) can contribute to delirium and paradoxically worsen sleep. Thus, it is important to ask if the patient is using over-the-counter or herbal preparations to treat sleep disturbance and to recommend discontinuance of diphenhydramine if it is being used.

Treatment

- Treatment goals include decreasing the frequency and severity of insomnia, interrupted sleep, and nocturnal confusion; increasing patient comfort; decreasing disruption to families and caregivers; and decreasing nocturnal wandering and nighttime accidents.
- When sleep disturbance is an isolated problem, clinical practice favors beginning with nonpharmacological approaches, such as training caregivers in the importance of sleep hygiene, establishing regular sleep and waking times, limiting daytime sleep-

ing, avoiding fluid intake in the evening, establishing calming bedtime rituals, and providing adequate daytime physical and mental activities.

- Underlying medical and psychiatric conditions that could disturb sleep should be evaluated and treated. Medications that could interfere with sleep should be adjusted if possible.
- Pharmacological treatment should be instituted only after other measures have been unsuccessful and the potential benefits outweigh the risk of side effects. It is particularly important to identify sleep apnea, which may affect 33%–70% of patients with dementia. This condition is a relative contraindication to the use of benzodiazepines or other agents that suppress respiratory drive.
- If another behavioral or neuropsychiatric condition is present and medications used to treat that condition have sedative properties, clinical practice favors prescribing that agent at bedtime, if appropriate (e.g., an antidepressant with sedative properties, a second-generation antipsychotic).
- Pharmacological interventions include trazodone or a non-benzodiazepine hypnotic such as zolpidem or zaleplon. Benzodiazepines may be used but are generally recommended only for short-term sleep problems because of the possibility of tolerance, daytime sleepiness, rebound insomnia, worsening cognition, falls, disinhibition, and delirium. Rebound insomnia and daytime sleepiness can occur with any of these agents. Triazolam is not recommended for individuals with dementia because of its association with amnesia.

C. MODERATELY IMPAIRED PATIENTS

Assess whether the patient requires supervision to remain safe.

- Safety issues should be addressed at every evaluation.

- Families should be advised about the possibility of accidents (e.g., fires while cooking), difficulties coping with household emergencies, and wandering.
- Family members should also be advised to determine whether the patient is handling finances appropriately and to consider taking over the paying of bills and other responsibilities.
- At this stage, nearly all patients should not drive, and families should be counseled to undertake measures to prevent patients from driving, as many patients lack insight into the risks.

Address family and caregiver issues (e.g., provide referral for respite care, discuss possible transfer of the patient to a long-term care facility).

Consider treating cognitive symptoms with a combination of a cholinesterase inhibitor plus memantine.

- Evidence suggests that the combination is more likely to improve cognitive function or delay symptom progression than a cholinesterase inhibitor alone.

Treat psychosis and agitation, which commonly occur in moderately impaired patients.

- Treatment of psychosis and agitation can increase the comfort and safety of the patient and ease care by the family and other caregivers.
- Consideration of the risks and benefits of treatment, discussion of these with the patient and caregivers, and documentation of these discussions should precede treatment.
- If psychotic symptoms cause minimal distress to the patient and are unaccompanied by agitation or combativeness, they are best

treated with environmental measures, including reassurance and redirection.

- If the symptoms do cause significant distress or are associated with behavior that may place the patient or others at risk, treatment with low doses of antipsychotic medication is indicated in addition to nonpharmacological interventions. Treatment with an antipsychotic medication is also indicated if a patient is agitated or combative in the absence of psychosis, because antipsychotics have the most support in the literature. However, the potential benefits of antipsychotic medications need to be weighed against the potential for increased mortality when they are used by individuals with dementia.
- When antipsychotics are ineffective, carbamazepine, valproate, or an SSRI may be used in a careful therapeutic trial. If behavioral symptoms are limited to specific times or settings (e.g., a diagnostic study), or if other approaches fail, a low-dose benzodiazepine may prove useful, although side effects in the elderly can be problematic. Although mood stabilizers and SSRIs are commonly used in clinical practice to treat agitation, delusions, and aggression, they have not been consistently shown to be effective in treating these symptoms, nor is there substantial evidence for their safety. Thus, in making decisions about treatment, these agents should not be seen as having improved safety or comparable efficacy compared with antipsychotic medications.
- As a dementing illness evolves, psychosis and agitation may wax and wane or may change in character. As a result, the continued use of any intervention for behavioral disturbances or psychosis must be evaluated and justified on an ongoing basis.

Assess and treat depression and sleep disturbance, if present, using strategies already described.

D. SEVERELY AND PROFOUNDLY IMPAIRED PATIENTS

Consider prescribing memantine or a cholinesterase inhibitor to treat cognitive impairment.

- Memantine, which is FDA approved for use in patients with moderate and severe Alzheimer's disease, may provide modest benefits and has few adverse events.
- Donepezil is FDA approved for severe Alzheimer's disease. Galantamine and rivastigmine have not been approved for late-stage disease, but they may be helpful.
- A brief medication-free trial may be used to assess whether a medication is still providing a benefit.

Assess and treat other psychiatric symptoms.

- Depression may be less prevalent and more difficult to diagnose, but if present, should be treated vigorously, using strategies already described.
- Psychotic symptoms and agitation are often present and should be treated pharmacologically if they cause distress to the patient or significant danger or disruption to caregivers or to other residents of long-term care facilities, as already described.
- Sleep disturbance should be treated as already described.

Ensure adequate nursing care, including measures to prevent bedsores and contractures.

Help the family prepare for the patient's death.

- Ideally, discussions about feeding tube placement, treatment of infection, cardiopulmonary resuscitation, and intubation will have

taken place when the patient could participate. If they have not, it is important to raise these issues with the family before a decision about one of these options becomes urgent.

- Hospice care can provide physical support for the patient and emotional support for the family during the last months of life. A physician must certify that the patient meets hospice criteria for dementia for hospice benefits to be available.

E. IMPLEMENTATION OF PSYCHOSOCIAL TREATMENTS

Use specific psychosocial interventions to modify problem behaviors, improve mood, and address issues of loss.

- Behavior-oriented treatments may modify problem behaviors by identifying the antecedents and consequences of problem behaviors and directing changes in the environment.
- Stimulation-oriented treatments, such as recreational activity, art therapy, music therapy, and pet therapy, along with other formal and informal means of maximizing pleasurable activities for patients, may improve behavior, mood, and, to a lesser extent, function. Common sense supports their use as part of the humane care of patients.
- Among the emotion-oriented treatments, supportive psychotherapy can be employed to address issues of loss in the early stages of dementia.
- Cognition-oriented treatments, such as reality orientation, cognitive retraining, and skills training focused on specific cognitive deficits, are unlikely to have a persistent benefit and have been associated with frustration in some patients.

Generally, provide several such treatments at the same time, on a daily or weekly basis.

- Because psychosocial treatments generally do not provide lasting effects, those treatments that can be offered regularly may be the most practical and beneficial.
- Choice of therapy is generally based on patient characteristics and preference, availability, and cost.

F. IMPLEMENTATION OF PHARMACOLOGICAL TREATMENTS

Use nonpharmacological approaches first for nonemergency situations and avoid polypharmacy when possible.

In general, use low starting doses, small dose increases, and long intervals between dose increases.

- Elderly individuals have decreased renal clearance and slowed hepatic metabolism, which alters the pharmacokinetics of many medications. Moreover, because elderly individuals may have multiple coexisting medical conditions and therefore may take multiple medications, it is important to consider how these general medical conditions and associated medications may interact to further alter the absorption, serum protein binding, metabolism, and excretion of the medication.
- Some patients may ultimately need doses as high as would be appropriate for younger patients.
- See Tables 2, 3, 4, and 5 for usual doses and side effects for commonly prescribed first-line medications.

TABLE 2. CHOLINESTERASE INHIBITORS AND MEMANTINE

Medication	Usual Starting	Usual Target	Side Effects
	Dose (mg/day)	Dose (mg/day)	
Donepezil	5	10	Cholinergic effects, including nausea, vomiting, decreased appetite and weight, bradycardia, muscle cramps, and increased gastrointestinal acid. May induce or exacerbate urinary obstruction, worsen asthma or chronic obstructive pulmonary disease, cause seizures, induce or worsen sleep disturbance, and exaggerate the effects of some muscle relaxants during anesthesia.
Galantamine	8	16–24	
Rivastigmine	3	6–12	
Memantine	5	20	Infrequent effects: mild confusion, dizziness, headache, sedation, agitation, falls, and constipation.

TABLE 3. SECOND-GENERATION ANTIPSYCHOTICS

Medication	Usual Starting Dose (mg/day)	Usual Maximum Dose (mg/day)	Side Effects
Aripiprazole	Unknown ^a	15	Mild to moderate effects include akathisia, parkinsonism, sedation, peripheral and central anticholinergic effects, delirium, postural hypotension, cardiac conduction defects, urinary tract infections, urinary incontinence, and falls. Serious effects include tardive dyskinesia, neuroleptic malignant syndrome, hyperlipidemia, weight gain, diabetes mellitus, cerebrovascular accidents, and death.
Olanzapine	1.25–5	10	
Quetiapine	12.5–50	200–300	
Risperidone	0.25–1	1.5–2	
Ziprasidone	Unknown	Unknown	

^aAvailable evidence suggests that 5 mg/day of aripiprazole may be a safe starting dose for most patients.

TABLE 4. ANTIDEPRESSANTS

Medication	Usual Starting Dose (mg/day)	Usual Maximum Dose (mg/day)	Side Effects
Citalopram	5–10	40	Nausea and vomiting, agitation and akathisia, sexual dysfunction, weight loss, hyponatremia, increased risk of falls.
Bupropion	45	135	
Duloxetine	20–40	60–80	
Escitalopram	5	20	
Mirtazapine	7.5	45–60	
Paroxetine	5–10	40	
Sertraline	12.5–25	150–200	
Venlafaxine	25	375	
Venlafaxine, extended release	37.5	225	

TABLE 5. MEDICATIONS TO TREAT SLEEP DISTURBANCE

Medication	Usual Dose (mg)	Side Effects
Trazodone	25–100	Postural hypotension, which may lead to falls
Nonbenzodiazepine hypnotics		
Zolpidem	5–10	Daytime drowsiness
Zaleplon	5–10	Daytime drowsiness

Be cautious about medication side effects that may pose particular problems for elderly patients and those with dementia.

- Anticholinergic side effects (e.g., from antipsychotics, antidepressants, diphenhydramine) are problematic in individuals with dementia and can also exacerbate coexisting cardiovascular disease, prostate or bladder disease, or other general medical conditions. Anticholinergic medications may also lead to worsening cognitive impairment, confusion, or even delirium.
- Elderly patients, especially if suffering from dementia, are more prone to falls and associated injuries because of orthostasis.
- Medications associated with central nervous system (CNS) sedation (e.g., benzodiazepines) may worsen cognition, increase the risk of falls, and put patients with sleep apnea at risk of additional respiratory depression.
- Use of antipsychotics may be associated with worsening cognitive impairment, oversedation, falls, tardive dyskinesia, and neuroleptic malignant syndrome, as well as with hyperlipidemia, weight gain, diabetes mellitus, cerebrovascular accidents, and death. The elderly, particularly those with Parkinson's disease or dementia with Lewy bodies, are especially sensitive to extrapyramidal side effects.

G. SPECIAL ISSUES FOR LONG-TERM CARE

Care should be organized to meet the needs of patients, including those with behavioral problems.

- Employing staff with knowledge and experience about dementia and the management of difficult behavior is important.
- Limited evidence suggests that special care units may offer more optimal care than traditional units.

Appropriate use of medications can relieve psychiatric symptoms and reduce distress and increase safety for patients, other residents, and staff.

- As already described, it is important to consider the risk of side effects, periodically reevaluate the use of antipsychotics and consider alternatives, and appropriately document decision making.
- A structured education program for staff may help to both manage patients' behavior and decrease the use of antipsychotic medications.

Physical restraints are rarely indicated and should be used only for patients who pose an imminent risk of physical harm to themselves or others.

- Reasons for the use of physical restraints should be carefully documented.
- The need for restraints can be decreased by environmental changes that decrease the risk of falls or wandering and by careful assessment and treatment of possible causes of agitation.