Dementia is a common condition in assisted living facilities. According to the Alzheimer’s Association, half or more of elderly ALF residents have Alzheimer’s disease or other dementia. One study, the National Survey of Assisted Living Facilities, concluded that about one-third of elderly residents have moderate to severe cognitive impairment indicative of dementia.

Nonetheless, statistics on prevalence vary, partly because of the differences in the way dementias are recognized in this population. In fact, many AL residents with dementia do not have a formal diagnosis of the condition, and staff often don’t recognize individuals as having Alzheimer’s disease or other dementia—particularly when the condition is in the early stage.

This adaptation of the American Medical Directors Association’s (AMDA) clinical practice guideline on dementia in long term care addresses the recognition, assessment, treatment, and monitoring of this condition in the assisted living setting.

**Definition**

Dementia is a syndrome (a collection of signs and symptoms) characterized by progressive decline in multiple areas of cognitive function,
which eventually produces significant deficits in self-care and social and occupational performance. The following are related key terms:

- Cognition: activities related to organizing memory, sensation, and thinking
- Behavior: an individual’s observable actions
- Mental status: an individual’s overall level of alertness, activation, and responsiveness to the outside world

**Recognition**

**Step 1.** Does the resident have a history of dementia? Review available information about the individual’s recent past physical, functional, cognitive, and behavioral status. Look for previous diagnoses that may indicate the presence of dementia (Table 1). Check medication regimens/orders for medications that can alter cognitive function (eg, psychotropics, sedatives, hypnotics, cardiac antiarrhythmics, and medications with significant anticholinergic properties).

If the resident recently has been treated for an acute medical or psychiatric illness, carefully review all available transfer information, including recent hospital discharge summaries. Also review other pertinent information, including information obtained from speaking with the resident, family, and/or caregivers.

Search for evidence of specific impairments or symptoms (eg, neurological or behavior symptoms) that may suggest underlying dementia (Table 2). Abnormal cognition and problematic behavioral symptoms do not necessarily imply dementia; they may indicate the presence of other conditions or impairments such as delirium, depression, hypothyroidism, subdural hematoma, normal-pressure hydrocephalus, or vitamin B12 deficiency.

**Step 2.** Does the resident have current signs or symptoms of dementia? Nurses, caregivers, practitioners, and others should observe the resident’s current physical, functional, and psychosocial status. Function may be assessed using one of several instruments, such as the Functional Activities Questionnaire. Cognition may be assessed using the Mini-Mental State Examination (MMSE), the Clock Drawing test, Blessed Orientation-Memory-Concentration Test, or other comparable instruments.

Dementia typically is a chronic condition, with gradual progression of symptoms such as memory loss, inability to follow directions, and inability to recognize familiar objects or use them correctly. Residents with dementia may display worse symptoms at different times (eg, at night). However, unlike people with delirium, they usually do not have altered levels of consciousness or significant day-to-day fluctuations in their function or thinking.

Residents with dementia tend to have fewer somatic symptoms (eg, headaches, gastrointestinal distress, musculoskeletal pain) than those with depression. In addition, individuals with dementia tend to perform poorly on tasks involving automatic processing (eg, writing their name or eating meals).

Recent, abrupt changes in function, level of consciousness, and behaviors in residents with dementia almost always result from other acute conditions. For example, a resident may have both alcohol-related dementia and delirium or both Alzheimer’s disease and a decline precipitated by recent pneumonia.

Findings should be documented as appropriate and communicated to the resident’s physician or other clinician.

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Consider if the resident is at risk for the onset of progression of dementia. Certain conditions may predispose patients to dementia. These include:

• Alcohol abuse
• Brain tumors
• Cerebrovascular disease
• Chronic subdural hematoma
• Heavy metal exposure
• HIV infection
• Hypothyroidism (untreated)
• Lyme disease
• Neurosyphilis
• Parkinson’s disease
• Pick’s disease
• Vitamin B12 deficiency

At the same time, it will be helpful to identify patients who are at risk for progression of dementia as a result of acute conditions or medication use. The practitioner should identify and manage residents with these risk factors promptly (Table 3).

Assessment

Step 3. Determine if further work-up is useful and appropriate. The practitioner must decide if a work-up is likely to be medically useful—that is, whether testing and examination is likely to better define the resident’s status or the cause of his or her symptoms or impairments and help to guide management.

If necessary, the practitioner then should consult with the resident (to the extent feasible), the resident’s family, and other interdisciplinary team members to determine if a work-up is appropriate—that is, whether the information gained is likely to result in or change interventions that may improve the resident’s quality of life.

The primary aim of a diagnostic work-up in residents with dementia is the identification of potentially treatable conditions. All or part of this work-up may not be indicated if the resident has a terminal or end-stage condition, if it would not change the resident’s management, if the resident or surrogate decision-maker has refused treatment, or if the burden of the work-up is greater than the benefit of treatment.

A medical assessment serves several important purposes. It identifies the links between particular medical conditions and the resident’s functional impairments and disabilities to enable a more targeted management approach.

Step 4. Verify that the resident meets the criteria for a diagnosis of dementia. Residents most likely to have dementia manifest impaired mental status and function. If the resident meets the criteria for a diagnosis of dementia (Table 4), proceed through the subsequent steps in this document. If the diagnosis of dementia is not made or confirmed, or if a resident with a prior diagnosis of dementia has a recent significant condition change, consider other causes of the resident’s symptoms before concluding either that the resident has dementia or that recent changes are due to dementia.

Step 5. Identify the cause(s) of dementia. Dementia also has a cause, most commonly Alzheimer’s disease or vascular disease. However, a specific cause is not readily detectible in all cases. Determining the cause may help to prevent further deterioration or may establish a prognosis.

In some residents, dementia may be so far advanced or function so impaired that additional diagnostic criteria is not likely to be useful. A neurological, psychological, or psychiatric assessment may help to

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Table 3. Risk Factors for Exacerbation of Dementia-Related Symptoms

<table>
<thead>
<tr>
<th>Host-Related Factors</th>
<th>Iatrogenic or Nosocomial Factors</th>
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<tbody>
<tr>
<td>• Infections</td>
<td>• Drug toxicity or adverse drug reactions</td>
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<td>• Significant pain or trauma</td>
<td>• Recent admission to the facility</td>
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<tr>
<td>• Urinary retention</td>
<td>• Recent hospitalization</td>
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<tr>
<td>• Nutritional deficiencies (including vitamin B12 deficiency)</td>
<td>• Transfer to a new environment</td>
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<tr>
<td>• Stroke or seizure</td>
<td>• Recent surgery under general anesthesia</td>
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<td>• Myocardial infarction</td>
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<td>• Dehydration</td>
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<td>• New or unstable arrhythmias</td>
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<td>• Depression</td>
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<td>• Hypo- or hyperthyroidism</td>
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Table 4. Diagnostic Criteria for Dementia

A. The development of multiple cognitive deficits manifested by both

1. Memory impairment (impaired ability to learn new information or to recall previously learned information)

2. One or more of the following cognitive disturbances:
   a) Aphasia (language disturbance)
   b) Apraxia (impaired ability to carry out motor activities despite intact motor function)
   c) Agnosia (failure to recognize or identify objects despite intact sensory function)
   d) Disturbance in executive functioning (i.e., planning, organizing, sequencing, abstracting)

B. The cognitive deficits in Criteria A(1) and A(2) each cause significant impairment in social or occupational functioning and represent a significant decline from a previous level of functioning

guide additional evaluation. Some tests may reveal the presence of a tumor, bleed, or other structural abnormalities. However, these may not correspond to functional or cognitive impairments. Conversely, functional and cognitive impairments may exist despite remarkable test results.

Step 6. Identify the resident’s strengths and deficits. Soon after admission or a significant condition change, assess the resident’s capabilities in various domains, including medical, functional, emotional, social, cognitive, and behavioral.

It is challenging to quantify mood, cognition, and behavior. Different observers may describe or rate the same situation very differently. To ensure objectivity and accuracy as far as possible, choose and consistently use standardized terminology and appropriate evaluation tools.

Mood alterations may be characterized by their onset, duration, and severity. Describe cognition by its specific aspects, such as short-term memory and immediate recall. Behavior may be described by specific characteristics to maximize objectivity and consistency.

No matter what else has been identified as a cause of problematic behavior or altered mental state, it always is important to review the resident’s medications for any drugs that may cause or contribute to impaired consciousness, increasing confusion, and problematic behaviors.

Step 7. Define the significance of the resident’s symptoms, impairments, and deficits. Residents with dementia often have impairments in multiple domains. These impairments may affect function and quality of life as much as the resident’s cognitive and behavioral deficits do. Many of these deficits also may be problematic for the resident’s family and caregivers. For this reason, they should be addressed promptly.

Define as accurately and fully as possible the nature, scope, and severity of the resident’s behaviors and cognitive and functional impairments. Before addressing management, determine the significance of the symptoms or impairments to the resident.

Traditionally, socially unacceptable behaviors in residents with dementia have been treated with medications. This approach largely has yielded to the view that many behaviors are consistent with the resident’s stage of dementia and previous history and should be anticipated and accommodated rather than seen as a symptom to be treated. Behaviors generally regarded as socially unacceptable may be tolerable because they are expected manifestations of the disease or are inconsequential to the resident or others.

For example, a resident may display anxiety, wander, or make repetitious comments that may be perceived by others as annoying. Although such behaviors may not be preventable, they may be managed through basic behavioral techniques or environmental changes. In some cases, the most appropriate strategy may be to work with the resident’s caregivers or family members to help them understand and accept the behaviors.

However, an impairment may become disruptive or dangerous to the resident’s function or may cause the resident considerable distress. Moreover, an impairment to the resident may have excessively disruptive or dangerous effect on family members or caregivers or may infringe on other residents’ rights or on the ability of staff to care for other residents. Such situations may require more aggressive management, including the use of medications.

Step 8. Identify triggers for disruptive behavior. Behavioral symptoms in dementia residents often are triggered or exacerbated by physical, organizational, or psychosocial factors. Identifying these triggers enables the use of targeted interventions to prevent or manage the disruptive behavior.

Examples of factors that may be relevant to disruptive behaviors include:

- What was the resident doing when the behavior occurred?
- What made the resident’s behavior better or worse?
- What was happening just before the behavior occurred?
- Was there a change in the environment just before the behavior occurred?
- Who was near the individual at the time of the incident?
- What was the impact of the behavior on other people?
- Did a specific circumstance cause recurrence of the behavior?

Treatment

Step 9. Prepare an interdisciplinary care plan. Ensure that all parts of the care plan are consistent and based on appropriate resident assessment.

Step 10. Optimize function and quality of life and capitalize on remaining strengths. Residents with dementia often benefit from efforts to optimize their function and quality of life. Such efforts often include activities that target cognitive function (eg, solving puzzles or engaging in arts and crafts), physical function (eg, exercising, playing...
games), and spiritual well-being (e.g., attending religious services).

Consider using complementary and alternative therapies. These therapies may help to optimize function and quality of life in residents with dementia. For example, sensory stimulation may help to preserve meaningful contact with the outside world. Arts, crafts, and peg-board activities may be appropriate for some residents.

Prevent excess disability. A resident may display a greater degree of functional deficit than is warranted by his or her impairment. Such disability may result from unrecognized or inadequately treated medical conditions; adverse medication effects; or emotional, psychological, and environmental factors. Addressing these factors may improve the resident’s function. For example, a resident who is physically aggressive may calm down if noise in his or her environment is reduced. A resident who is lethargic may be more active if medications causing drowsiness are reduced or discontinued.

Consider medical interventions if appropriate. Residents with dementia related to specific causes may benefit from certain medical interventions. For example, interventions such as the use of anticoagulants, antihypertensive agents, and lipid-lowering or antiplatelet agents may prevent worsening of symptoms in a resident with multi-infarct dementia.

Cholinesterase inhibitors may reduce the rate of decline in cognitive function and may improve behavioral symptoms in residents with mild to moderate dementia. Three agents in this class—donepezil, rivastigmine, and galantamine—are currently approved by the U.S. Food and Drug Administration (FDA) to treat patients with moderate to severe dementia of the Alzheimer’s type. Other agents, including selegiline, nonsteroidal anti-inflammatory drugs, estrogen, and vitamin E, have been tried in the treatment of dementia. However, strong evidence is not available to support their use; and some of these may be associated with adverse effects.

Behavioral symptoms may be related to an acute medical condition and may respond to appropriately selected medications. Primary medical intervention for behavioral symptoms may be appropriate in certain circumstances, such as when violent behavior doesn’t respond to other interventions or when the resident has distressing hallucinations, delusions, or paranoid ideation. In such situations, however, medications should be supplemented or replaced by non-pharmacological approaches (see Table 5) if feasible and as soon as the resident’s condition allows.

Before initiating drug therapy, it is important to ensure that the resident is appropriately assessed. When medications are used, it is important to be familiar with the drug’s side effect profile.

<table>
<thead>
<tr>
<th>Table 5. Environmental Aspects that Can Be Assessed and Adapted to Optimize Quality of Life for Residents with Dementia</th>
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<tbody>
<tr>
<td>• Personalize the environment to provide a more home-like atmosphere</td>
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<td>• Minimize noise</td>
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<td>• Provide adequate lighting</td>
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<tr>
<td>• Provide a variety of daily activities (physical, spiritual, and cognitive)</td>
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<td>• Provide family support and education</td>
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<td>• Provide comfortable seating and mobility devices</td>
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<tr>
<td>• Provide way-finding cues</td>
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<tr>
<td>• Provide relevant staff education and training</td>
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<tr>
<td>• Provide space for both privacy and socialization</td>
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<tr>
<td>• Provide a safe and secure environment for residents</td>
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</table>

Before initiating drug therapy, it is important to ensure that the resident is appropriately assessed. This involves discussing the goals of therapy with the resident and his or her family and setting realistic expectations based on the resident’s condition and an understanding of the likely benefits and limitations of current drug therapy for dementia. When medications are used, it is important to be familiar with the drug’s side effect profile.

It is important to monitor residents closely for adverse drug reactions and to obtain pertinent laboratory tests.

Step 11. Address socially unacceptable or disruptive behaviors. The management of socially unacceptable or disruptive behavior should
be based on a careful evaluation and description of the behavior (see Table 6). It is important to define the target symptom (eg, self-injury or severe agitation related to delusions) to be addressed and identify care goals. Generally, unless the behavior potentially endangers the resident or others, nonpharmacological interventions should be considered first while efforts are made to identify the causes of the problem.

Some dementia-related behaviors that result in injury may be preventable. For example, residents with dementia who feel threatened may exhibit aggressive behaviors. Staff may reduce or limit these reactions by altering approaches to activities such as bathing or altering the resident’s environment to suit specific needs or concerns.

Behavioral outbursts also may be due to “catastrophic reactions,” sudden emotions the resident exhibits when he or she feels frightened, confused, or overwhelmed. These behaviors tend to occur suddenly and resolve quickly when the source of distress is removed or the resident’s attention is diverted. Acute changes in behavior or cognition in residents with dementia also may present delirium.

Table 7 lists medication options used to manage behavioral and psychological symptoms in residents with dementia. They should be utilized only after careful consideration of the causes of symptoms and only when a clear indication is present and nonpharmacological strategies or other treatments are not pertinent or have associated risks. Their effects should be monitored regularly—especially when the resident has other risk factors or also is taking other medications affecting the cardiovascular or central nervous system.

**Step 12.** Manage functional deficits. Residents with dementia invariably have functional deficits. Caregivers need to be aware of these deficits and should be trained to help the resident compensate for them while helping to maximize unimpaired function. Focus should be on maintaining the resident’s dignity and encouraging him or her to use whatever capacities remain. It will be important to train staff to help residents with activities of daily living without provoking negative reactions.

A restorative nursing program may help to optimize the function of a resident who has impaired cognition and behavior. This may include the use of specific techniques such as prompted voiding for incontinent residents, the use of specialized utensils to assist with eating, and environmental modifications to optimize safe mobility.

**Step 13.** Address pertinent psychosocial and family issues. Pertinent issues may include personal and family relationships and other family issues. Facilitate appropriate activities and interpersonal relationships.
among residents with dementia. Work closely with families to help them understand the resident’s situation and the plans for optimizing his or her function. Impaired cognition and socially unacceptable or disruptive behavior often are frightening and confusing to family members, who may not understand the causes and significance of these symptoms. They may overestimate the benefits of certain interventions, such as physical restraints, or may be unaware of their risks. Conversely, families may resist some beneficial interventions that they mistakenly believe are dangerous, such as the use of psychoactive medications in situations when these are likely to be helpful. It may be useful to explain to family members how impairments are defined, causes identified, and management options chosen.

Step 14. Address ethical issues. These include:
• Defining decision-making capacity and identifying situations that require substitute decision-making
• Addressing situations related to everyday life (eg, resident preference, boundaries on sexual expression and socially acceptable behaviors)
• Discussing possible limitations on medical interventions such as hospitalization, resuscitation, and artificial nutrition and hydration (tube feeding)

It may be useful to explain to family members how impairments are defined, causes identified, and management options chosen.

Step 15. Manage risks and complications related to dementia, other conditions, or treatments. Residents with dementia often have complications directly related to their disease (eg, impaired mobility, urinary incontinence). They also may be at risk for indirect complications such as falls, adverse medication reactions, and aspiration related to tube feeding.

Caregivers and practitioners should anticipate these significant risks and complications and be prepared to address them when they occur. Such plans should address not only medical management but also ethical issues.

The onset or worsening of medical illnesses or other problems in residents with dementia often precipitates a series of events, including hospitalizations, function decline, and altered nutritional status, that affect many aspects of the resident’s life and care. Understanding these risks and promptly addressing problems sometimes can prevent hospitalizations and their related risks.

Monitoring

Step 16. Monitor the resident’s condition and adjust management as appropriate. Monitor the resident’s progress periodically, using the same methods and criteria used in the initial assessment.

Generally, dementia either will stabilize or progress. Progression may be gradual or rapid. Following an acute condition change, the resident may return partially or completely to his or her baseline state or may decline further.

If the resident’s condition remains stable, continue pertinent interventions. If he or she declines rapidly or progressively, the practitioner, other direct care providers, and possibly a consulting psychiatrist should assess the resident for possible reasons for the decline.

Periodic attempts to taper one or more psychoactive medications sometimes are warranted, unless the nature of the condition (eg, psychotic delusions) or past experience suggests that doing so may result in a return or an exacerbation of the resident’s symptoms. Medication reduction efforts should follow published recommendations.

To order the AMDA CPG on dementia or other AMDA clinical practice guidelines, go to the organization’s Web site at www.amda.com.