



COGNITION

Dementia

The prevalence of dementia increases with age, with estimates ranging from 20% to 50% after age 85. The most common forms of dementia include Alzheimer's disease, Lewy body dementia, and vascular dementia. The latter is commonly present in combination with Alzheimer's disease in a condition termed *mixed etiology dementia*. Dementia is characterized by impairment in one or more cognitive domains severe enough to disrupt function or occupation. Mild cognitive impairment (MCI) is present when an individual has discernible cognitive limitations without apparent functional impact. Patients with MCI develop dementia at a rate of approximately 15% per year. Dementia is associated with a higher risk of falls, functional impairment, institutionalization, and death. Caregivers of demented individuals also face increased rates of stress and health problems. Clinicians diagnose dementia through symptom and functional history (often including the input of caregivers), cognitive assessment, and physical examination. A number of instruments, including the MOCA (see [Chapter 108](#)), clock-drawing test, and the Mini-Cog, are validated screening tools. The time-tested Mini Mental State Examination (MMSE) offers an assessment of multiple cognitive domains but does not provide adequate measure of executive function and is prone to lack of sensitivity in individuals with high premorbid intelligence and lack of specificity in those with low levels of education. Validated assessments of executive function include the clock-drawing test, verbal fluency test, and the Trail B test. Instruments also exist for collecting data regarding patient function from a relative or caregiver. In patients suspected of having dementia, personal safety with respect to firearms, driving, and the home environment should be assessed. A careful medication review and physical examination, including vital signs, complete neurologic assessment, including gait and balance, are, of course, essential in dementia to reveal findings that point to a specific cause (see [Chapter 116](#)).

Delirium

The differential diagnosis for cognitive problems other than dementia is broad, and includes delirium, mood disturbance, and drug effects. The differentiation of dementia and delirium may present the most significant challenge, particularly in hospitalized elders ([Table 124-3](#)). Delirium is characterized by its acuity and alteration in global cognitive function, whereas dementia is chronic and affects specific cognitive domains. Differentiation often hinges on history, which may be lacking at presentation. Delirium affects more than 2 million hospitalized persons each year. Its incidence is variably estimated at 25% to 60% among patients in acute care settings and results in extra hospital days and related expenditures. Delirium is also associated with prolonged hospital stay, increased costs, increased readmission rates to the hospital (12% to 65% at 6 months), higher in-hospital and 1-year mortality, and incident dementia. The Confusion Assessment Method (CAM) offers a validated tool to diagnose delirium. Per the CAM, delirium is likely present if the patient has both an acute onset of confusion with fluctuating course and inattention, and either disorganized thinking or altered level of consciousness. Key risk factors for delirium include older age,

TABLE 124-3 FEATURES OF DELIRIUM VERSUS DEMENTIA

FEATURE	DELIRIUM	DEMENTIA
Onset	Acute	Insidious
Course	Fluctuating, lucid at times	Generally stable
Duration	Hours to weeks	Months to years
Alertness	Abnormally low or high	Usually normal
Perception	Illusions and hallucinations common	Usually normal
Memory	Immediate and recent impaired	Recent and remote impaired
Thought	Disorganized	Impoverished
Speech	Incoherent, slow, or rapid	Word-finding difficulty
Physical illness or medication causative	Frequently	Usually absent

cognitive impairment, comorbid illness, and impairments in vision and hearing. Precipitating factors related to acute illness include hypoxia, electrolyte abnormalities, dehydration, and malnutrition as well as medications and alcohol withdrawal. Although treatment of delirium is difficult and revolves around the underlying medical issues, controlled trials have demonstrated that a multi-modal intervention is effective in reducing rates of delirium in high-risk patients. There is evidence that the use of restraints in combative or confused older adults leads to increased morbidity and mortality. Nonpharmacologic management strategies include reorientation and preservation of sleep patterns, family or caregiver presence at the bedside, and early mobilization. The use of pharmacologic agents, specifically neuroleptics, should be reserved for patients in whom nonpharmacologic strategies do not help and the patient presents a risk of harm to self or others.

MOOD

Older adults commonly experience depressive symptoms, with prevalence estimates as high as 15% to 19% among those over age 75, although in community-dwelling elders, major depressive disorder is actually less common than in younger adults. The presence of comorbid illness and grief often confound the presentation of depression. As a result, it can remain undetected despite its significant adverse impact on quality of life, morbidity, and mortality. Suicide rates are almost twice as high among older persons when compared with the general population, with the rate highest for white men over 85 years of age. Among older adults, depression can manifest atypically with cognitive, functional, or sleep problems, as well as complaints of fatigue or low energy. Several instruments have been developed and validated for screening for depression in elders. Asking two simple questions about mood and anhedonia (“Over the past 2 weeks have you felt down, depressed, or hopeless?” and “Over the past 2 weeks have you felt little interest or pleasure in doing things?”) may be as effective as using longer instruments. Longer screening questionnaires, such as the Geriatric Depression Screen (GDS) or Patient Health Questionnaire (PHQ-9), are also useful tools in the ambulatory setting. Any positive screening test result should trigger a full diagnostic interview. When screening for depression in elders, it is particularly important to have systems in place to provide feedback of screening results, a readily