Sorting Out the 3 D’s: Delirium, Dementia, Depression

Learn How to Sift Through Overlapping Signs and Symptoms So You Can Help Improve an Older Patient’s Quality of Life

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Because of the overlapping signs and symptoms of dementia and depression, a patient who doesn’t respond to therapy for depression will be evaluated for dementia. Knowing the subtle differences between the 3 D’s—delirium, dementia, and depression—will help you support your patient with appropriate nursing interventions and medications. KEY WORDS: delirium, dementia, depression Holist Nurs Pract 2005;19(3):99–104

As the population ages, many older adults will suffer one or more of the three D’s: delirium, dementia, and depression. Because signs and symptoms overlap, distinguishing one from the others isn’t always easy. Yet an accurate assessment is essential because treatments depend on the diagnosis.

Here, I’ll examine how the 3 D’s differ and discuss how a careful history and assessment guides your nursing interventions. For a handy comparison, see Sifting through Signs and Symptoms.

DELIRIUM: A TEMPORARY STATE OF CONFUSION

The most acute of the 3 D’s, delirium accounts for 10% to 15% of admissions to acute care hospitals. According to one recent estimate, 10% to 30% of hospitalized patients age 65 and older have an episode of delirium during their stay.

Delirium is best described as a syndrome because it’s characterized by symptoms arising from various underlying causes; for example, serious medical conditions, such as heart or renal failure, or withdrawal from a medication. In an elderly person, any serious infection, even cellulitis or a urinary tract infection, can trigger delirium.

Symptoms of delirium are often dramatic. Global impairment of cognitive function affects all aspects of performance. Symptoms appear suddenly in a short time, usually hours or days. As I’ll discuss shortly, this contrasts with the slow onset of dementia symptoms, which may be similar. Caregivers may note a period of restlessness or fearfulness preceding the onset of delirium.

Typically, the patient is oriented to person, but not to time or place. His thought process is disorganized and his ability to shift focus, sustain his attention, or cooperate with caregivers is greatly impaired. His speech may be loud, argumentative, and difficult to follow or understand. Altered perceptions, including visual illusions or hallucinations, may lead him to misinterpret the environment. For example, he may feel threatened by shadows on the wall.

Confusion and other cognitive symptoms tend to fluctuate throughout the day, so the patient may appear lucid at one time and grossly confused at another. These symptoms usually are worse at night or upon awakening. This also contrasts with dementia, in which the patient is typically alert when awake, with little fluctuation in consciousness until late in the course of illness.

This article was previously published in Nursing2004, Volume 34, Issue No. 6, pp. 36–42 (2004).
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The author has disclosed that she has no significant relationship with or financial interest in any commercial companies that pertain to this educational activity.
### Sifting through signs and symptoms

<table>
<thead>
<tr>
<th>Delirium</th>
<th>Dementia</th>
<th>Depression</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Onset</strong></td>
<td>Acute, over hours or days</td>
<td>Insidious, over months or years</td>
</tr>
<tr>
<td><strong>Acuity</strong></td>
<td>Acute illness, medical emergency</td>
<td>Chronic, progressive</td>
</tr>
<tr>
<td><strong>Course</strong></td>
<td>Fluctuates hourly; intervals of lucidity and confusion during the day; confusion usually worsens at night</td>
<td>Stable throughout the day; progresses slowly</td>
</tr>
<tr>
<td><strong>Duration</strong></td>
<td>Lasts hours to weeks; resolves with treatment</td>
<td>Progressive and irreversible; ends in death</td>
</tr>
<tr>
<td><strong>Awareness</strong></td>
<td>Reduced</td>
<td>Unaffected</td>
</tr>
<tr>
<td><strong>Alertness</strong></td>
<td>Fluctuates; abnormally low or high</td>
<td>Usually normal</td>
</tr>
<tr>
<td><strong>Attention</strong></td>
<td>Short attention span lacking in direction and selectivity; easily distracted</td>
<td>Usually unaffected</td>
</tr>
<tr>
<td><strong>Orientation</strong></td>
<td>Disoriented to time and place</td>
<td>Impaired as disease progresses; loss of ability to recognize function of everyday objects</td>
</tr>
<tr>
<td><strong>Memory</strong></td>
<td>Impaired immediate and short-term memory</td>
<td>Memory for immediate and recent events impaired; inability to learn new information; unconcerned about memory deficits</td>
</tr>
<tr>
<td><strong>Thinking</strong></td>
<td>Disorganized; hard to follow; distorted</td>
<td>Impoverished; trouble finding words; abstractions; reasoned judgments</td>
</tr>
<tr>
<td><strong>Perception</strong></td>
<td>Gross distortions; illusions, visual or tactile hallucinations</td>
<td>Prone to hallucinations</td>
</tr>
<tr>
<td><strong>Speech</strong></td>
<td>Incoherent, loud, belligerent; can be slow, hard to understand</td>
<td>Impoverished, tangential, repetitive, superficial; trouble finding words; confabulations</td>
</tr>
<tr>
<td><strong>Sleep-wake cycle</strong></td>
<td>Disturbed; changes hourly</td>
<td>Disturbed; day/night reversal</td>
</tr>
<tr>
<td><strong>Contributing factors</strong></td>
<td>Associated with a physical or medical condition, such as infection, drug toxicity, renal failure, head trauma, substance abuse</td>
<td>Precise cause may be unknown; associated with advanced age, cardiovascular deficits, substance dependence</td>
</tr>
</tbody>
</table>

Although many delirious patients are agitated, restless, or combative, others are lethargic and difficult to rouse. Some alternate between agitation and lethargy.

### Assessing and treating delirium

Consider delirium an emergency that requires immediate, aggressive intervention. Start by checking vital signs and neurologic status. Quickly assess for possible causes, such as drug toxicity, infection, fluid and electrolyte imbalance, or alcohol withdrawal. Initiate fall and other safety precautions as indicated.

Obtain a targeted history (see “Securing a Detailed History”). Your patient may be unable to cooperate, so also ask his family for pertinent health information.

These nursing interventions help pin down the diagnosis, protect your patient from injury, and help him recover from delirium:

- Obtain blood, urine, and other specimens as indicated for lab analysis.
Securing a detailed history

Obtain the patient's medical, psychiatric, and family history and ask specifically about these points:

- onset and duration of symptoms
- recent stressful or traumatic events, such as surgery or a death in the family
- head trauma
- changes in his environment
- new medications, including over-the-counter products
- dietary history
- personal or family history of alcoholism or other substance abuse, dementia, depression, suicide or suicide attempts, or thyroid disease, which may be implicated in delirium (thyrotoxic crisis) or dementia (hypothyroidism).

- Restore and maintain fluid and electrolyte balance and treat any other underlying condition, such as infection, as indicated.
- Evaluate the need for one-on-one observation to prevent falls and protect the patient from injury by creating a safe environment. For example, remove objects or equipment that he could use to hurt himself. If he’s combative, he may need to be restrained temporarily for his own safety. Obtain a healthcare provider’s order first. Tell the patient what you’re doing in a calm tone of voice. Remember that he’s frightened and can’t think things through clearly, so use simple terms and continue to assure him that you’ll keep him safe. Say his name frequently and avoid making sudden movements.
- If he uses eyeglasses or a hearing aid, make sure that he wears them and that the hearing aid works.
- Frequently tell him who you are, where he is, and what time it is.
- Create a familiar, stable environment by placing photographs of friends and family in view and playing his favorite music.
- Determine whether his family is a source of support. If they seem to distress him, tactfully ask them to leave until he’s calm again. Teach them about his condition and help them to understand that the patient isn’t in control of his behavior while he’s delirious.

If stopping unnecessary medications, treating metabolic alterations and infections, and conservative measures aren’t enough to reduce the behavioral symptoms of delirium, the healthcare provider may order low-dose benzodiazepines, neuroleptics, or lorazepam (Ativan) to reduce the patient’s agitation. Haloperidol (Haldol) is a traditional treatment for hallucinations or severe agitation, but newer antipsychotics, such as risperidone (Risperdal), olanzapine (Zyprexa), and quetiapine (Seroquel), may be better choices because they have fewer extrapyramidal adverse effects.

Support the patient’s recovery by providing a stable, structured environment. Maximize his ability to perceive his surroundings correctly by providing a clear care plan and staff continuity. Avoid overstimulating him, but provide one-on-one observation, if necessary; leaving him alone may intensify internal stimulation.

DEMENTIA: PROGRESSIVE COGNITIVE DECLINE

Cited in 2001 as the eighth leading cause of death in the United States, dementia is not a normal part of the aging process. It’s a serious and progressive neurologic disorder that afflicts up to 10% of adults ages 65 to 85, 20% of adults ages 75 to 85, and 50% of adults over age 85. Unlike symptoms of delirium and depression, dementia symptoms aren’t usually reversible.

Alzheimer’s disease accounts for 65% of dementia cases. Other common causes of dementia in older adults include Parkinson’s disease, vascular dementia, alcoholism, and drug intoxication. Less common causes include vitamin deficiencies (such as B1 and B12), endocrine abnormalities (such as hypothyroidism), chronic infections (such as human immunodeficiency virus [HIV]), and degenerative disorders (such as Huntington’s disease). Dementia also may occur with delirium or depression (see “When Delirium or Depression Complicates Dementia”).

To diagnose dementia, the healthcare provider must identify significant impairment of 2 or more brain functions, including language, memory, visual-spatial perception, emotional behavior or personality, and cognitive skills. A detailed patient history that focuses on the onset, duration, and course of memory loss also helps confirm the diagnosis. Family input usually is needed to develop an accurate diagnostic assessment.

The onset of dementia symptoms occurs gradually—over months or years. An early clue is the patient’s inability to perform a new task or retain new information. He may have trouble recognizing familiar landmarks or become disoriented in familiar settings.

In the early stage, signs and symptoms take different forms, including changes in personality, progressive memory loss, difficulty finding the right words, and an inability to perform familiar tasks. As the disorder progresses, other cognitive difficulties may arise, such as aphasia (speech problems), apraxia
A patient with dementia may also develop delirium or depression, so keep these points in mind when assessing behavior changes.

Dementia plus delirium
- If a patient with dementia has a sudden change in mental status and becomes agitated, assess him for delirium. If he’s delirious, assess for an underlying physical illness or disorder, such as constipation, fever, pain, or infection.
- Because a patient with dementia has trouble communicating, use various assessment strategies, such as patient observation, a physical exam, lab test results, and patient history from family members and medical records.

Dementia plus depression
- A patient in the early stage of dementia is probably aware of cognitive changes and may become depressed. Signs of depression include complaints of physical symptoms, feelings of hopelessness or suicidal ideation, abrupt mood changes, sleep disturbances, and changes in functional status.
- As dementia progresses, his depression may become less noticeable to others.
- The healthcare provider confirms a diagnosis of depression when antidepressants reduce the patient’s symptoms.

As his condition deteriorates, he may replace speech with disruptive vocalizations, such as repetitive words, sounds, or phrases. Eventually, as he loses the ability to communicate, becomes incontinent, and forgets how to eat, he’ll require total care. Other associated signs and symptoms, such as seizures, blindness, and weight loss, may complicate his condition.

Although most causes of dementia are irreversible, early diagnosis and treatment of an underlying or exacerbating condition (such as hypertension, alcoholism, depression, normal pressure hydrocephalus, head injury, or Parkinson’s disease) may lessen the condition’s severity or slow its progress.

Preserving the patient’s functional capacity and independence and maintaining the highest quality of life are realistic treatment goals. These nursing interventions help achieve those goals:

- Favor the familiar. Use auditory and visual cues to help the patient perform simple tasks and relate to those around him. Cultivate a connection to his environment by playing favorite songs, saying familiar poems with him, or providing the word he’s struggling to remember. Place family pictures, especially those from his younger days, and a large-print calendar and clock in a prominent place in his room. Make sure he wears his eyeglasses and hearing aid.
- Reinforce routines. A daily routine in a structured environment is reassuring for a patient with dementia. Familiar faces and calm voices soothe fears and anxiety. Keep tasks within his capabilities by suggesting simple jobs he can do with verbal cues from his caregiver.
- Educate the family. If a caregiver complains that the affected person never leaves her side, help her understand why dementia makes him increasingly dependent.
- Clear the way. Ensure that furniture and debris don’t block walkways. Use a night-light and lighted strips to illuminate a path to the bathroom. Remove throw rugs, extension cords, and other objects that could trip up the patient.
- Keep clothing simple. As the disease progresses, ask the caregiver to provide washable clothing with self-adhesive closures and elasticized waistbands so the patient can help dress himself as long as possible.
- Refer the family to support groups and other resources. They need both compassionate emotional support and information to care for themselves and the patient.
• Suggest they meet with a lawyer as early as possible in the course of the disorder. They should discuss the need for a power of attorney for financial and legal decisions, a durable power of attorney for healthcare decisions, an advance directive, and a living trust.

**Treating dementia**

Dementia can’t be cured, but certain medications can reduce cognitive symptoms. If used in the early stages of dementia, an acetylcholinesterase or cholinesterase inhibitor may slow cognitive decline. Donepezil (Aricept), galantamine (Reminyl), and rivastigmine (Exelon) can improve cognitive function. Tacrine (Cognex) is another option, but it’s not considered a first-line treatment because it may cause liver damage. A patient taking tacrine requires frequent blood testing to monitor liver function.

Small doses of atypical antipsychotic drugs, such as risperidone, olanzapine, and quetiapine, can help reduce agitation from sundown syndrome. Haloperidol is another option.

Administer dosages precisely and closely monitor the patient for signs of toxicity. Because older adults metabolize antipsychotic drugs slowly, metabolites can accumulate and cause lethargy. The healthcare provider will adjust the dosage as indicated based on the patient’s behavior.

Also monitor the patient for extrapyramidal adverse reactions, such as akinesia (lack of movement); muscle spasms of the face, neck, or back; and dyskinesia (blinking or twitching, lip smacking, sucking, or chewing).

Last year, the Food and Drug Administration approved memantine (Namenda) to treat moderate to severe Alzheimer’s disease. This drug regulates the activity of glutamate, an important messenger chemical in the brain associated with learning and memory. It’s the only drug available for late-stage Alzheimer’s disease. Although unlikely to produce dramatic improvement, it may slow deterioration and improve cognitive skills in some patients.

**DEPRESSION: COGNITIVE CHANGES LINKED TO MOOD**

Older adults typically experience a series of losses, such as the death of a spouse and friends, diminished physical capabilities, changes in living situations, and dwindling financial resources. Because of these losses, many people wrongly assume that sadness is an inevitable consequence of aging. Instead, extreme or prolonged sadness should be recognized as a possible warning sign of depression, a treatable condition at any age.

An older adult with depression may deny feeling sad or having psychological symptoms, but he may report vague, unexplained somatic complaints.

When diagnosing depression, the healthcare provider must determine that the patient has shown a distinct change in behavior marked by depressed mood or loss of interest in activities that used to give him pleasure and has had at least 5 signs or symptoms of depression lasting over a 2-week period. By carefully questioning the patient with a standard depression assessment tool, you can help identify signs and symptoms of depression.

Typically, cognitive symptoms of depression develop over a short time and trouble the patient. Cognitive impairment may be similar to that of dementia, including forgetfulness, problems with visual and spatial relationships, and diminished executive functioning.

Unlike dementia symptoms, however, the cognitive confusion associated with depression is specific rather than global; for example, the patient may forget appointments, but not how to balance a checkbook. A depressed patient may be less likely to converse, but his language skills are intact and he can learn new information.

Other symptoms of depression common in older adults include psychomotor retardation, irritability, a negative outlook, sleep pattern changes (especially at the end of the sleep cycle), less energy, decreased appetite, weight loss, difficulty concentrating, memory loss, excessive or inappropriate feelings of guilt, and suicidal ideation or a preoccupation with death.

Your patient may have poor personal hygiene and complain of nonspecific health problems, particularly headaches, stomachaches, and back pain. He may appear agitated, have trouble paying attention or following directions, and speak quietly and minimally. When questioned, he may be reluctant to admit that he’s depressed.

Patients at risk for depression include those with chronic illness or pain, those who are socially isolated, and those with a personal or family history of depression, suicide, or substance abuse. Also, certain medications, such as steroids, anticholinergic medications, and β-adrenergic blockers, can cause depression in the elderly.

When treating an older adult for depression, first assess his suicide risk. Ask about thoughts of hopelessness, suicide, or death. A recent study
revealed that hopelessness, rather than sadness, is associated with suicidal ideation in older adults. Immediately refer any patient you suspect of serious depression or suicidal thoughts to a mental health professional.

A combination of psychotherapy or counseling and antidepressant medication usually is indicated to treat clinical depression. Selective serotonin reuptake inhibitors (SSRIs) such as bupropion (Wellbutrin) are commonly prescribed for older adults because of their low adverse effect profile. Citalopram (Celexa) and escitalopram (Lexapro) are also used because they have fewer drug-drug interactions—a major consideration for older adults taking many medications. These drugs may also be prescribed to enhance cognitive functioning in patients with early-stage dementia who become depressed.

Dosages for SSRIs should start low and be increased gradually. Assess the patient for adverse reactions, such as nausea, agitation, insomnia, and sexual dysfunction. Because of the overlapping signs and symptoms of dementia and depression, a patient who doesn’t respond to therapy for depression will be evaluated for dementia.

Knowing the subtle differences between the 3 D’s will help you support your patient with appropriate nursing interventions and medications.

SELECTED REFERENCES

CE Test

Sorting Out the 3 D's: Learn How to Sift Through Overlapping Signs and Symptoms So You Can Help Improve an Older Patient's Quality of Life

Instructions:
- Read the article on page 99.
- Take the test, recording your answers in the test answer section (Section B) of the CE enrollment form. Each question has only one correct answer.
- Complete registration information (Section A) and course evaluation (Section C).
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CE TEST QUESTIONS

General Purpose: To provide nurses with a comparison of the characteristics, signs and symptoms, assessment, and treatment of delirium, dementia, and depression.

Learning Objectives: After reading the preceding article and taking this test, you will be able to:
1. Describe causes and characteristics of delirium, dementia, and depression.
2. Identify signs and symptoms of each disorder.
3. Discuss how to assess and care for a patient with delirium, dementia, or depression.

1. Which of the following is correct about delirium?
   a. It's associated with an acute underlying medical condition.
   b. Symptoms of cognitive impairment are limited to memory and perception.
   c. Symptoms usually occur slowly and without warning.
   d. Typically the patient is oriented to place, but not to person or time.

2. A patient who's delirious is likely to exhibit confusion that
   a. remains consistent throughout the day.
   b. subsides during the night.
   c. intensifies upon awakening.
   d. progresses over months or years.

3. You can avoid increasing your delirious patient's agitation by
   a. avoiding sudden movements.
   b. leaving him alone to decrease internal stimulation.
   c. giving detailed explanations.
   d. removing his hearing aid.

4. An older drug traditionally used to treat delirium hallucinations is
   a. quetiapine.
   b. haloperidol.
   c. risperidone.
   d. olanzapine.

5. The most common cause of dementia in older adults is
   a. alcoholism.
   b. vascular dementia.
   c. Parkinson's disease.
   d. Alzheimer's disease.

6. Less common causes of dementia include
   a. vitamin B12 deficiency.
   b. Parkinson's disease.
   c. vascular dementia.
   d. drug intoxication.

7. A problem with sensory recognition is called
   a. aphasia.
   b. apraxia.
   c. agnosia.
   d. dysarthria.

8. A patient with dementia
   a. retains the ability to think abstractly.
   b. is emotionally stable.
   c. may behave impulsively.
   d. is rarely alert.

9. Typical signs and symptoms of sundown syndrome include all of the following, except
   a. agitation.
   b. somnolence.
   c. delusions.
   d. anxiety.

10. Which of the following statements is correct about dementia?
    a. Treating an underlying medical condition may slow the progress of dementia.
    b. Preserving a patient's functional capacity and independence are unrealistic goals.
    c. Most causes of dementia are reversible.
    d. A patient with advanced dementia is likely to be distraught about his mental decline.

11. Teach family members caring for a patient with dementia to
    a. avoid verbal cues when he's performing tasks.
    b. change daily routines regularly.