Dementia, delirium, and depression in older adults
What is the difference?

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Objectives
- Define delirium.
- Identify causes of delirium and those at high risk.
- Define dementia and identify characteristics.
- Identify 4 major dementia syndromes.
- Identify key components of dementia evaluation.
- Identify signs of depression in older adults.
- Differentiate features of delirium, dementia, and depression.

Depression, dementia, delirium
- Many older adults are affected
- Not part of normal aging
- Different from one another
- Difficult to distinguish
  - Signs and symptoms may overlap
What is delirium?

- A serious disturbance in mental abilities that results in confused thinking and reduced awareness of the environment.
- Condition that comes on quickly
  - Within hours or days
- Affects the brain
- Usually temporary
- Lasts 1-7 days
- Should be treated immediately
- Most times it is caused by a combination of factors

What can cause delirium?

- Having an illness
- Staying in bed too long
- Being in a noisy or confusing environment
- Having pain

Who is at high risk for delirium?

- Older adults
- People with depression or dementia
- People who have broken their hip
- People who have had major surgery
Signs of delirium

- Poor concentration
- Difficulty remembering things
- Confusion about time and place
- Seeing or hearing things that are not there
- Being sleepy or slow to respond
- Problems eating or sleeping
- Changes in personality
- Not showing interest in things

Delirium

- Occurs in up to 50% of older hospital patients
- Many have pre-existing dementia
  - Dementia is the strongest risk factor for delirium among older patients.

Delirium

- Prevalence:
  - Community
    - 1-2%
    - Increases to 14% for patients age >85 years
  - Hospitalized
    - 14-24% in the ER
    - 15-53% for postoperative patients
    - 70-87% for intensive care patients
    - Especially among mechanically ventilated patients
    - Associated with ↑ LOS and ↑ mortality
  - Common in LTC settings
    - Often leads to hospital admission

Often called acute confusional state or acute brain failure
Common illusions (examples)

- Mistaking IV tubing or electrical cord for a snake
- Mistaking the nurse for a family member

Hallucinations

- Most often visual
- “see” things (no stimulus in reality)
  - Bugs on the wall
- Some patients are aware they are experiencing sensory misperceptions
- Others actually believe their misinterpretations are correct and cannot be convinced otherwise

Key Points

- Delirium is a condition that **comes on quickly** (within hours or days)
### Differentiating Features of Delirium and Dementia

<table>
<thead>
<tr>
<th>Features</th>
<th>Delirium</th>
<th>Dementia</th>
</tr>
</thead>
<tbody>
<tr>
<td>Onset</td>
<td>Acute</td>
<td>Insidious</td>
</tr>
<tr>
<td>Course</td>
<td>Fluctuating</td>
<td>Progressive</td>
</tr>
<tr>
<td>Duration</td>
<td>Days to weeks</td>
<td>Months to years</td>
</tr>
<tr>
<td>Consciousness</td>
<td>Altered</td>
<td>Clear</td>
</tr>
<tr>
<td>Attention</td>
<td>Impaired</td>
<td>Normal, except in severe dementia</td>
</tr>
<tr>
<td>Psychomotor changes</td>
<td>↑ or ↓</td>
<td>Often normal</td>
</tr>
<tr>
<td>Reversibility</td>
<td>Usually</td>
<td>Rarely</td>
</tr>
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### What is Dementia?

- Umbrella term for several diseases that create **irreversible** changes in the brain
- Characterized by a decline in one or more of the following cognitive domains:
  - Learning new skills
  - Following instructions, ability to repeat skills
  - Memory
  - Short-term versus long-term memories
  - Perceptual-motor skills
  - Dressing, bathing
  - Social cognition
  - Remembering family connections, names
  - Complex attention
  - Completing multi-step tasks
  - Executive function
  - Ability to shop, do laundry, write a check
  - Language
  - Finding of words
- Develops slowly
  - Over several months or years

### Decline in function

- Can’t be attributable to:
  - Other organic disease
  - Episode of delirium
- MUST be severe enough to interfere with independence or daily functioning
Dementia Syndromes

- Majority (60-80%) of dementia are related to Alzheimer disease (AD)
- Other major dementia syndromes include:
  - Dementia with Lewy bodies (DLB)
  - Frontotemporal dementia (FTD)
  - Vascular (multi-infarct) dementia (VaD)
  - Parkinson disease with dementia (PDD)

Dementia: Clinical Presentation

- Signs and symptoms of dementia may be difficult to detect
- Best assessments come from family or caregivers involved with the daily life of the patient
  - Offer information into the historical baseline and current state
  - How the patient is able to retain new information
  - Behavior and how patient manages new situations
  - Language skills (finding words)
  - Orientation to place and spatial abilities (getting lost in familiar places)
  - Reasoning skills and how unexpected events are managed by patient

Signs of Dementia

- Difficulty performing familiar tasks
  - Banking, driving, brushing teeth
- Difficulties with thinking, problem solving, or learning new information or language
- Memory loss that affects day-to-day activities
- Not being able to find things
  - Believing someone took or moved something
- Confusion about time and place
- Changes in personality, mood or behavior
- Loss of initiative
  - Needing to be told what to do
- Poor or decreased judgment
It’s more than just memory…

- Functional Assessment
  - Ask the older adult and a family member/informant about the older adult’s daily functioning.
  
  **Commonly used instruments:**
  - The Katz Index of Independence in Activities of Daily Living (ADL)
  - Instrumental Activities of Daily Living (IADL)
  - Functional Activities Questionnaire (FAQ)

- A diagnosis of dementia requires impairment in functioning that is sufficient to interfere with performance of daily activities.
Geriatric Depression Scale (GDS)

- 15 (short) or 30 (long) questions
- Yes/No format
  - 0-4 (Normal)
  - 5-8 (Mild)
  - 9-11 (Moderate)
  - 12-15 (Severe)
- Short form is more easily used by physically ill and mild to moderately demented patients who have short attention spans and/or feel easily fatigued.

Check the box that best describes your feelings over the past week:

1. I am perfectly content with my life right now.
2. I have no deep interest in anything.
3. I feel like I have nothing to look forward to.
4. I have no interest in any activity.
5. My days usually have little appeal.
6. I feel like I am in no hurry when doing things.
7. I am in no hurry about things.
8. I feel like I am rapidly wearing out.
9. I feel like I am in need of a change.
10. I do not feel like I am at my best.
11. I feel like I am not making any progress.
12. I feel I am not making any progress.
13. I feel like I am in need of assistance.
14. I feel like I am in need of assistance.
15. I feel like I am in need of assistance.
16. I feel like I am in need of assistance.
17. I feel like I am in need of assistance.
18. I feel like I am in need of assistance.
19. I feel like I am in need of assistance.
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25. I feel like I am in need of assistance.
26. I feel like I am in need of assistance.
27. I feel like I am in need of assistance.
28. I feel like I am in need of assistance.
29. I feel like I am in need of assistance.
30. I feel like I am in need of assistance.

Initials:

Date:

Age:

Gender:

Comments:
How is dementia diagnosed?

• **Physical and Neurological Examination**
  - Assesses walking, gait disturbances, balance, coordination, speech and language impairment, vision, hearing, focal weakness, extrapyramidal signs, rigidity, tremor, blood pressure, heart and other vascular functions that affect blood flow to the brain.

• **Neuropsychological Testing**
  - Helpful in diagnosing mild and very early stage dementia and evaluating atypical presentations.
  - Can provide comprehensive, objective information about which cognitive functions are affected and establish a baseline for future re-evaluations.
How is dementia diagnosed?

- **Laboratory Tests**
  - Complete blood count
  - Serum B12
  - Serum calcium
  - Folate
  - Glucose
  - Electrolytes
  - Thyroid function
  - Liver and renal function

- **Neuroimaging**
  - Recommendations vary
    - CT and MRI scans may be included

### Common Causes of Dementia

<table>
<thead>
<tr>
<th>Cause</th>
<th>Characteristics</th>
</tr>
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</table>
| Alzheimer’s disease          | Most common cause of dementia  
  - Accounts for est. 60 to 80 percent of cases.  
  - Difficulty remembering recent conversations, names/events, apathy and depression (often early symptoms).  
  - Slowly progressive brain disease that begins many years before symptoms emerge. |
| Cerebrovascular disease/Vascular dementia |  
  - 5 to 10 percent of individuals with dementia show evidence of vascular dementia alone.  
  - It is more common as a mixed pathology, with most cases showing the brain changes of cerebrovascular disease + Alzheimer’s disease.  
  - Early symptoms: impaired judgment or impaired ability to make decisions, plan or organize. In addition, can have difficulty with motor function (slow gait and poor balance). |
Common Causes of Dementia

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| Lewy body disease                    | • 5 to 10 percent of individuals with dementia show evidence of DLB alone<br>• Most people with DLB also have Alzheimer’s disease pathology<br>• Symptoms are common to Alzheimer’s but more likely to have early symptoms: sleep disturbances, well-formed visual hallucinations, and slowness, gait imbalance or other parkinsonian movement features.  
  • These early features may occur in the absence of significant memory impairment. |
| Frontotemporal lobar degeneration (FTLD) | • About 60 percent of people with FTLD are ages 45 to 60.<br>• FTLD accounts for less than 10 percent of dementia cases.<br>• Typical early symptoms include: marked changes in personality and behavior, difficulty with producing or comprehending language.<br>• Memory is typically spared in the early stages of disease. |

Other conditions

- Conditions that can cause dementia or dementia-like symptoms (including reversible causes)
  - Reactions to medications
  - Thyroid problems
  - Blood sugar problems
  - Too little or too much sodium or calcium
  - Vitamin B12 deficiency
  - Infections: meningitis, encephalitis, untreated syphilis, Lyme disease
  - Subdural hematomas
  - Heavy metal toxicity
  - Brain tumors
  - Lack of oxygen to brain
  - Heart and lung problems

Key Points

- Delirium is a condition that **comes on quickly** (within hours or days)
- Dementia is a disorder of the brain that **develops slowly** (over several months or years)
Depression

- May also be referred to as late-life depression, major depressive disorder, major depression
- Can be chronic, persistent, or recurrent
- Can be a reaction to events that are common in the lives of older adults
  - Developing an illness
  - Experiencing cognitive decline
  - Losing a loved one
  - Admission to hospital or LTC
- Large impact on quality of life
- Depression is common in older adults
  - IT IS NOT A NORMAL PART OF AGING
  - Hypoactive delirium often misdiagnosed as depression
  - “Pseudodementia”

<table>
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<tr>
<th>Mental Decline</th>
<th>Depression</th>
<th>Dementia</th>
</tr>
</thead>
<tbody>
<tr>
<td>Orientation</td>
<td>Rapid</td>
<td>Slow</td>
</tr>
<tr>
<td>Memory</td>
<td>Oriented</td>
<td>Not Oriented</td>
</tr>
<tr>
<td>Memory</td>
<td>Difficulty Concentrating</td>
<td>Short term memory deficit</td>
</tr>
<tr>
<td>Motor Skills</td>
<td>Slow but normal</td>
<td>Impaired</td>
</tr>
</tbody>
</table>

Signs & Symptoms of depression in older adults

- Constant sadness
- Isolation
- Feelings of helplessness
- Changes in weight
- Changes in appetite
- Loss of interest in activities
- Insomnia/hypersomnia
- Difficulty to sit still (pacing, fidgeting)
- Constant worries about finances or health
- Poor concentration
- Unexplained physical complaints (somatic)

Hurley, 2019

Depression, con’t

- Major depression is reported in:
  - 5-16% of community dwelling adults
  - Up to 54% in the first year living in a nursing home
  - 10-12% of hospitalized older adults
- Depression is more common in those with multiple chronic conditions
- Often reversible with prompt recognition and appropriate treatment.
- If left untreated, may result in the onset of physical, cognitive, functional, and social impaired, decreased quality of life, delayed recovery from medical illness and surgery, increased health care utilization, and suicide.
What are signs of depression?

- Sleeping more or less than usual
- Loss of interest in usual hobbies or activities
- Low energy levels
- Eating more or less than usual
- Difficulty concentrating
- Aches and pains
- Constipation
- Being agitated or irritable
- Feeling guilty, worthless, hopeless, full of regret
- Thoughts of not wanting to live or of ending one’s life

<table>
<thead>
<tr>
<th>Feature</th>
<th>DELIRIUM</th>
<th>DEMENTIA</th>
<th>DEPRESSION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Onset</td>
<td>Acute</td>
<td>Chronic, progressive decline</td>
<td>Variable may appear acutely and then slowly shift to chronic</td>
</tr>
<tr>
<td>Course</td>
<td>Short, fluctuating, and often worse at night</td>
<td>Long, progressive, stable for more than 6 months</td>
<td>Short, fluctuating, and often worse at night</td>
</tr>
<tr>
<td>Duration</td>
<td>Acute (days to weeks)</td>
<td>Chronic (months to years)</td>
<td>Signs and symptoms present for at least 2 weeks but may persist</td>
</tr>
<tr>
<td>Alertness</td>
<td>Lethargic or hyperalert</td>
<td>Normal until late stage</td>
<td>Normal</td>
</tr>
<tr>
<td>Attention</td>
<td>Fluctuates</td>
<td>Fluctuates</td>
<td>Fluctuates</td>
</tr>
<tr>
<td>Orientation</td>
<td>May be impaired</td>
<td>May be impaired</td>
<td>Selectively intact</td>
</tr>
<tr>
<td>Memory</td>
<td>Recent memory impaired</td>
<td>Recent memory impaired</td>
<td>Recent memory impaired</td>
</tr>
<tr>
<td>Thinking</td>
<td>Disorganized, tangential, rambling</td>
<td>Intact, may be abstract thinking</td>
<td>Intact, themes of hopelessness, helplessness, and guilt</td>
</tr>
<tr>
<td>Perception</td>
<td>Hallucinations, delusions, illusions</td>
<td>May be present</td>
<td>Rarely impaired; hallucinations absent except in severe cases (psychosis)</td>
</tr>
</tbody>
</table>

**Key Points**

- Delirium is a condition that **comes on quickly** (within hours or days)
- Dementia is a disorder of the brain that **develops slowly** (over several months or years)
- Depression may appear **abruptly or over weeks**.
References

- Geriatric Depression (Depression in Older Adults). (n.d.). Retrieved from https://www.healthline.com/health/depression/elderly#causes
- Nguyen, V., RN, BSN, BScN, Student, & McNeill, S., RN,MPH, Program Manager. (2017). Delirium, Dementia, and Depression in Older Adults: Assessment and Care Long-Term Care Case Study and Discussion Guide. Delirium, Dementia, and Depression in Older Adults: Assessment and Care Long-Term Care Case Study and Discussion Guide.