Delirium and Care Giving

Marianne McCarthy, PhD, RN
Advanced Practice Nurse
Sun Health Geriatric Fellowship Program
Associate Professor
Arizona State University
Presentation Questions

• What happens when a loved one gets confused?
• When is it an emergency?
• What are the warning signals that indicate delirium?
• How can you differentiate delirium from dementia?
• How can care givers respond to this potentially life threatening medical emergency?
Delirium

- Acute confusion or delirium is the most commonly occurring neurological disorder in later life
- High risk for misdiagnosis and inappropriate management
- Associated with increased morbidity and mortality
- Families and caregivers are positioned to play essential roles in early detection of delirium
What is Delirium?

- Organic brain syndrome
- Characterized by transient, global cognitive impairment
- Abrupt onset and brief duration
- Accompanied by fluctuations
Fluctuating Symptoms

- Simultaneous disturbances
  - Cognition
  - Consciousness
  - Sleep-wake cycle
  - Psychomotor behavior
  - Attention
  - Affect
What is Dementia?

The general term used for a cognitive impairments caused by some organic problem that results in gradual, progressive, neurologic damage that is progressive and incurable.
### Delirium & Dementia: Comparison of Features

<table>
<thead>
<tr>
<th>Delirium</th>
<th>Dementia</th>
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<tbody>
<tr>
<td>Sudden onset</td>
<td>Insidious onset</td>
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<tr>
<td>Usually reversible</td>
<td>Slowly progressive</td>
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<tr>
<td>Short duration</td>
<td>Long duration</td>
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<tr>
<td>Fluctuations (minutes to hours)</td>
<td>Fluctuations (good and bad days)</td>
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<tr>
<td>Change in LOC</td>
<td>Normal LOC</td>
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<tr>
<td>Inattention</td>
<td>Attention unchanged</td>
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<tr>
<td>Psychomotor disturbances usual</td>
<td>Psychomotor disturbances possible</td>
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How Prevalent is Delirium?

- Most common neurological disorder among the aged:
  - 40% of hospitalized aged
  - 80% of ICU patients
  - 89% of hospitalized aged with dementia
  - 20% at time of hospital admission
  - 33% at time of hospital discharge
  - 23% NH admission
When Does it Occur?

- **During Hospitalization**
  - Majority of patients develop delirium between the first 24 hours through day 6 of hospitalization
  - Modal onset across studies is day 2
  - Few instances beyond day 6
What are the Risk Factors?

- Acute illness itself
- Host related
- Iatrogenic factors

Likelihood of developing delirium is 60% or higher if three or more risk factors are present.
Risk Factors

- Age over 70
- Transfer from a NH
- Prior history of depression
- Prior history of dementia
- History of stroke, epilepsy
- Alcohol abuse
- Psychoactive medications
- Drug overdose
- High or low BS
- Restraints
- Hypothermia or fever
- Kidney disease
- Heart failure
- Cardiac or septic shock
- HIV infection
- Tube feeding
- Rectal or bladder catheters
- Malnutrition
- Visual or hearing defect
What About Prognosis & Associated Outcomes?

- Increased hospital days
- Strong predictor of failed extubation
- High inpatient mortality (25 to 67%)
- Mortality at 1 year between 10 to 30%
- Increased readmission within 30 days
- NH placement three times more likely
- Increased rates of long term cognitive decline
  - 40% develop dementia within 5 years
Poor Recognition of Delirium

- Delirium is poorly recognized in older hospitalized patients
  - 72.5% of nurses failed to recognize
  - 76% physicians failed to recognize

(Inouye, Foreman, Mion et al., 2001; McCartney & Palmateer, 1985)
Delirium & Dementia

- 88% of nurses and physicians failed to recognize delirium in a group of older subjects with dementia
- 100% of family members recognized abrupt mental status changes in their parent, spouse, or sibling

(Fink & Foreman, 2000)
Why is Delirium Poorly Recognized?

- Lack of knowledge & understanding
- Less likely to recognize hypoactive form
- Constellation of features not always apparent
- Inadequate assessment instruments
- Attitude that promotes categorical understanding of confusion, "If old, then confused." (McCarthy, 2003a & b)
Assessment of Delirium

- **Mini Mental Status Examinations** (Folstein, 1979)
- **Delirium Rating Scale** (Trzepacz & Dew, 1995)
- **Memorial Delirium Assessment Scale** (Breitbart, Rosenfeld, Smith, et al., 1997)
- **Delirium Symptom Interview** (Albert, Levkoff, Reilly, et al., 1992)
- **DSM-IV Criteria for Delirium** (APA, 1994)
- **Confusion Assessment Method** (Inouye, van Dyck, Siegel, et al., 1990)
- **Confusion Assessment Method for the ICU** (Wesley, Siegel, & Inouye, 2001)
Confusion Assessment Method (CAM)

1. Acute onset & fluctuating course
2. Inattention
3. Disorganized thinking
4. Altered level of consciousness

Diagnosis of delirium requires the presence of features 1, 2, and either 3 or 4

(Inouye, 1990)
How is Delirium Managed?

- Identify & correct underlying cause
  - Drugs
    - Prescribed
    - Over-the-counter
    - Herbs
    - Alcohol
  - Infection
  - Fluid & electrolyte imbalance
  - Metabolic disturbances
  - Pain
Physiologic Strategies

• Provide physiologic support
  - Eliminate all non-essential drugs
  - Establish/maintain fluid & electrolyte balance, adequate elimination, adequate oxygenation, metabolic integrity, adequate sleep
  - Increase activity and limit immobility
  - Manage discomfort & pain
Environmental Strategies

- Provide environmental support
  - Move person closer to nursing station
  - Have person in close proximity
  - Avoid use of restraints
  - Use nightlights
  - Provide glasses and hearing aids to maximize sensory perception
  - Keep environment calm, quiet and hazard-free
Behavioral Strategies

• Provide consistent staffing
• Establish and maintain daily routines
• Avoid relocating patients
• 1:1 supervision
• Use of private sitters
• Keep tasks and explanations simple
• Use diversion and distraction
• Individualized music programs
• Appropriate use of touch
Emotional & Cognitive Strategies

- Provide reassurance during acute episodes
- Maintain calm demeanor
- Orient during periods of lucidity
- Validation therapy
- Determine & avoid triggers of disruptive behaviors
Dementia Care
Environmental Measures

- Create appropriate, safe and supportive environment where persons can function optimally
- Balance safety and independence
- Balance activity and rest
- Balance stimulation and quiet
- Home safety evaluation
- Evaluate use of appliances
- Home care services
- Driving cessation
- Wandering – Safe Return Program
Person-Center Approach

- About me
- “In the moment” interventions
- Address five senses
  - Sound
  - Sight
  - Touch
  - Smell
  - Taste
- Anticipating needs
- Meeting unmet needs
Behavioral Symptoms of Dementia

• As many as 90% of persons with dementia can develop significant behavioral symptoms during disease course
• Think about delirium as an underlying cause
• Common BSD include
  - Agitation
  - Physical aggression or combativeness
  - Physical restlessness
  - Disruptive vocalization
  - Distressful moaning/crying
  - Sun downing
  - Resistance to care
  - Refusing to eat and drink
  - Wandering
Non-Pharmacological Approaches

• Consider delirium and look for underlying causes
• Regard behaviors as sign of unmet needs
  - Identify
  - Address
  - Anticipate
  - Communicate
• About me
• “In the moment” interventions
• Address five senses
Psychotic Symptoms of Dementia & Delirium

- It is important to discriminate between psychotic and non-psychotic agitation
- Majority of agitation is non-psychotic
- As many as 70% of agitated persons with dementia will manifest psychotic features such as hallucinations, delusions, illusions, and paranoia
- Look for delirium as a cause of BPSD
- Not all psychotic features are disturbing to the persons experiencing them
- Drugs should be considered when other approaches fail to eliminate or control BPSD or when psychotic features are distressing to person with dementia
Pharmacologic Interventions

- **Potential Utility**
  - Behavioral and psychotic features of dementia and delirium
  - Depression
  - Seizures
  - Sexual disinhibition
  - Insomnia
  - Pain

In general, medication management should be attempted after non-pharmacological interventions have been tried. Think of them as adjuvant strategies.
Tenets of Pharmacologic Treatment

- The goal should be to bring patients closer to their baseline mental state, not to sedate them or suppress agitation
- Discontinue all non-essential medications
- Remember psychoactive drugs are associated with a 3 to 11 fold increased relative risk for the development of delirium
- Drugs must be used judiciously in the smallest possible dose and for the shortest amount of time
Using Drugs to Manage BPSD

- No clear evidence that typical antipsychotic drugs are useful for treating BPSD
- No FDA approved agent for the management of psychosis or agitation in dementia
- However, recent expert opinion guidelines concluded that atypical antipsychotics are the first line in treating psychosis and agitation associated with dementia
- Black Box Warning
Behavior & Psychotic Features

- Cholinesterase inhibitors & memantine
- Anti-psychotic agents
- Anti-depressant agents
- Anti-convulsant agents
- Anti-anxiety agents
Take Home Points

- When considering delirium among the aged:
  - Be proactive, prevent it
  - Be suspicious, expect it
  - Be quick, evaluate it
  - Be creative, treat it
And don’t forget, when in doubt....

Advocate & Refer
Delirium Case Studies

Marianne McCarthy, PhD, RN
Case Study One

• Mr. Garcia is a 76 year old Hispanic man with Alzheimer’s disease and hypertension for which he takes aricept 10 mg daily and hygroton 25 mg daily.

• He lives with his wife and had been very stable until one week ago when he began to have difficulty sleeping at night and became incontinent of urine - something that he had not done before.

   - What is the likely reason for these changes?
   - How would you advise his wife?
Case Example Two

- Mr. Brady is a 72 year old white man who recently retired from an executive position. He complains of short term memory problems stating that he is having difficulty remembering names.
  - What is the likely explanation for this gentleman's complaints?
  - How would you advise him?
Case Example Three

- Mrs. Smith is an 88 year old Black woman with dementia, health disease, and diabetes who lives at home with her daughter.
- Two weeks ago, she began to demonstrate paranoid behavior and believes that her daughter is poisoning her. She refuses to take prescribed medication and has tried to leave the house when the daughter is sleeping.

- What may be a likely explanation for this woman’s behavior?
- What recommendations would you make at this time?
Case Example Four

- Mr. Kent is an 84 year old man with a 6 year H/O dementia and osteoarthritis. His medications include Risperdal 1 mg PO BID and Celebrex 200 mg PO daily.
- He was placed on the risperdal because he was having visual hallucinations and was combative during dressing and bathing. His wife thinks he is worse.
- Brief assessment reveals an elderly white man A/O to self only. His facial expression is non-animated. His speech is slow and quiet. His posture is stooped and he ambulates with a slow, unsteady, shuffling gait. He has tremors and rigidity of both upper extremities.

- What is the likely cause for this man’s dementia?
- Why might his symptoms be worse?
- What recommendations would you make at this time?
Case Study Five

- Miss Fletcher is a 78 year old white woman with a degenerative joint disease who was recently diagnosed with dementia.
- She is being admitted to an ALF after a brief stay in a behavioral health facility after being found naked, wandering in a parking lot of a nearby grocery store.
- Family state that her memory had been failing in recent years but that nothing like this had ever happened before.

- What might be the likely cause of this woman’s new onset of behaviors?
- Can delirium cause dementia?
- Can dementia cause delirium?
Dementia....

“...The one who knows best (the victim) about what is happening, loses the ability to tell us, the family, how to help. The ability to panic leaves the victim. It swarms over the family. As the victim forgets what is wrong, the family sees how it is, all very wrong.”

Marion Roach, *Another Name for Madness*, 1985