Care of the Hospitalized Patient with Delirium or Dementia
Professors Kucmeroski & Price

Introduction
● Over 5 million people are estimated to have cognitive disorders such as delirium and dementia.
● The incidence of cognitive disorders increases with age, especially in adults over 85 years of age.

Delirium
Definition
● Disturbance of consciousness
● a change in cognition
● that develops over a short period
● tends to fluctuate during the course of the day.
● Delirium or acute confusional states occur in 4%-53% of older persons who are hospitalized for medical or surgical problems.
● Most at risk are older persons
● Easy to mistake delirium or disorders causing amnesia with dementia

Dementia Isn’t Like Delirium
● Dementia and delirium are both syndromes
● Dementia onset, usually over the course of months to years.
● Delirium has an acute onset and resolves when the underlying condition resolves
● Another key difference is that dementia doesn’t affect alertness

Delirium
Etiology/Risk factors
● Transfer to an unfamiliar environment
● Sleep deprivation
● Immobilization
● Psychosocial stresses
● Impaired hearing or vision
● Advancing age
● More common in men
● Certain medications
Delirium

Etiology/Risk factors
- Acute medical conditions
- Delirium can be the first indicator of illness
- Differentiation between delirium and dementia can be difficult

Clinical Manifestations/Symptoms
- Abrupt precise onset with identifiable date, acute illness
- Disorientation to time and place, acute confusion
- Inability to focus or shift attention, short attention span
- Incoherent speech
- Perceptual disturbances
- Continual aimless physical activity

Agitation- can be hyperactive or hypoactive
- Emotional extremes
- Clouded, altered and changing in level of consciousness (alert to lethargy)
- Reversal of sleep/awake cycle
- Prominent physiological changes

Assessment/ Diagnosis
- Comprehensive history and physical examination
- Personal or family history
- Onset and duration of symptoms
- Review of all current medications
- Evaluate basic laboratory studies
- Consider further testing

Treatment
- Identify and treat the underlying cause
Delirium

Confusion Assessment Method (CAM)

- The CAM is a standardized tool used to facilitate prompt identification and management of confusion.
- Approximately 15-60% of elderly patients experience a delirium prior to or during hospitalization.
- Delirium is associated with poor outcomes such as:
  - Prolonged hospitalization
  - Functional decline
  - Increased use of chemical and physical restraints
  - Increases the risk of nursing home admission.

CAM

- The tool can be administered in less than 5 minutes.
- Closely correlates with the DSM-IV criteria for delirium and the MMSE (Mini Mental).
- http://www.psychnet-uk.com/dsm_iv/_misc/complete_tables.htm#Name
- Identifies the presence or absence of delirium.
- Does not assess the severity of the condition.
- Less useful to detect clinical improvement or deterioration.

Feature 1: Acute onset and Fluctuating Course

This feature is usually obtained from a family member or nurse and is shown by positive responses to the following questions: Is there evidence of an acute change in mental status from the person's baseline? Did the (abnormal) behavior fluctuate during the day, that is, tend to come and go, or increase and decrease in severity?

Feature 2: Inattention

This feature is shown by a positive response to the following question: Did the person have difficulty focusing attention, for example, being easily distractible, or having difficulty keeping track of what was being said?

Feature 3: Disorganized Thinking

This feature is shown by a positive response to the following question: Was the person’s thinking disorganized or incoherent, such as rambling or irrelevant conversation, unclear or illogical flow of ideas, or unpredictable switching from subject to subject?

Feature 4: Altered Level of Consciousness

This feature is shown by any answer other than “alert” to the following question: Overall how would you rate this person’s level of consciousness? (alert [normal], vigilant [hyper alert], lethargic [drowsy, easily aroused], stupor [difficult to arouse], or coma [unarousable]).

The diagnosis of delirium by CAM requires the presence of features 1 and 2 and either 3 or 4.

Disorientation

5. Was the patient disoriented at any time during the interview, such as thinking that he or she was somewhere other than the hospital, using the wrong bed, or misjudging the time of day?
Memory Impairment
6. Did the patient demonstrate any memory problems during the interview, such as inability to remember events in the hospital or difficulty remembering instructions?
   • YES NO UNCERTAIN NOT APPLICABLE

Perceptual Disturbances
7. Did the patient have any evidence of perceptual disturbances, such as hallucinations, illusions, or misinterpretations (for example, thinking something was moving when it was not)?
   • YES NO UNCERTAIN NOT APPLICABLE

CAM

Psychomotor Agitation
8A. At any time during the interview, did the patient have an unusually increased level of motor activity, such as restlessness, picking at bedclothes, tapping fingers, or making frequent sudden changes in position?
   • YES NO UNCERTAIN NOT APPLICABLE

8B. At any time during the interview, did the patient have an unusually increased level of motor activity, such as sluggishness, staring into space, staying in one position for a long time, or moving very slowly?
   • YES NO UNCERTAIN NOT APPLICABLE

Altered Sleep-Wake Cycle
9. Did the patient have evidence of disturbance of the sleep-wake cycle, such as excessive daytime sleepiness with insomnia at night?
   • YES NO UNCERTAIN NOT APPLICABLE

Scoring:
To have a positive CAM result, the patient must display:
1. Presence of acute onset and fluctuating discourse
   • AND
2. Inattention
   • AND EITHER
3. Disorganized thinking
   • OR
4. Altered level of consciousness

Source:

Focus on Post-operative Delirium
Factors before, during and after surgery may contribute to delirium.

Preoperative underlying medical conditions that pose a risk of delirium include:
• history of alcoholism
• low level of function
• fluid and electrolyte imbalance and infection.
• elderly people don’t always display “typical” signs of infection.
• Poor nutrition
• Medications

Intra-operative factors that can trigger delirium include:
• Trauma of surgery itself
• Prolonged anesthesia
• Analgesia
• Anticholinergics such as Atropine and benzodiazepines such as Valium
• Intraoperative hypothermia
Focus on Post-operative Delirium
- Postoperative factors that cause delirium include:
  - Hypoxia
  - Hypotension
  - Fever
  - Hypoglycemia
  - Fluid loss due to the surgical procedure
  - Fecal impaction
  - Urinary retention
  - Anemia
  - Pain and pain medication

How To Prevent Delirium In The Postoperative Patient
- Monitor serum and electrolyte level
- Maintain proper bladder and bowel function
- Nutrition status
- Mobilize early
- Remove indwelling urinary catheter as soon as possible
- Encourage fluid intake
- If necessary reorient the patient
- Assess medication use

How To Prevent Delirium In The Postoperative Patient
- Provide fluids to prevent dehydration
- Engage the patient in simple, supportive conversation
- Additional Interventions

If the patient remains agitated or aggressive despite your interventions, medical or psychiatric consultation may be indicated.
- Medications: to treat delirium - Haldol, Risperdal (Risperidone), Zyprexa (olanzapine) and Seroquel (Quetiapine) Ativan Benadryl Haldol compound gel (ABH) – rapid acting gel that is soothing simply in its application

Contrast Criteria For Differentiating Delirium, And Dementia
- Often depression, delirium, and dementia can co-exist so the following protocol should be followed:
  - Delirium assessment and treatment 1st
  - Depression assessment and treatment 2nd
  - Dementia assessment and treatment 3rd

Dementia in the Hospitalized Medical Surgical Patient
Recognition of Dementia in Hospitalized Older Adults
- Stress of hospitalization can cause older patients to show symptoms of dementia for the first time.
- Much higher risk for:
  - functional decline
- Assessment tools - Family Questionnaire and Patient Behavior Triggers for Clinical Staff

Patient Behavior Triggers for Clinical Staff
- Individuals with undiagnosed dementia may exhibit behaviors or symptoms that offer a clue to the presence of dementia, for example, if the patient:
  - Seems disoriented
  - Is a “poor historian”
  - Defers to a family member to answer questions directed to the patient
  - Repeatedly and apparently unintentionally fails to follow instructions

Interventions For The Patient With Dementia In The Acute Care Setting

Preventing Injury
- Use visible markers
- Assess often if they can’t use the call system.
- Frequently used items are close at hand
- Close draperies or blinds
- Turn lights on before dusk
- Keep a night light on.
- Make sure spills are wiped up promptly.
- Keep room furniture and equipment in the same place
- Non-skid footwear
- Guard against aspiration
- Use the safety feature on equipment bed lock
- Prevent burns from hot foods and liquids
33 🟡 Contain Wandering
- Keep clothes out of sight
- Do not assign the patient to room next to
- Bed alarm
- Post familiar pictures
- Meet needs for toileting
- Companionship to reduce tendency to wander
- Schedule periods of supervised walking or other diversional activities.
- If a person does wander reorient them gently.
- Keep a picture of the patient on file in case of elopement

34 🟡 Modify Daily Care
- Provide a consistent, predictable hospital routine
- Tell a patient what you are about to do
- Give simple step by step explanations
- Use underwear, long sleeved hospital gowns, form fitting fabric sleeves to camouflage and limit access to IV’s, urinary catheters, dressings.
- Use hand splint or mitten so patient can move his arm but not pull out equipment

35 🟡 Bathing of Older Adults with Dementia
- Emotionally and physical demanding for the client
- Many contributing stressors:
  - Confusion
  - Anxiety from being naked in front of strangers
  - Being in a noisy, unfamiliar place
  - Discomfort from cold, drafty bathing area(e.g., shower room) or harsh water sprays
  - Pain, fatigue & weakness
  - Fear of falling

36 🟡 Bathing of Older Adults Cont’
- Eliminate forced bathing, it is not a task but a human interaction.
- Focus on the person, get to know them, develop trust
- Bathing should be based on a client’s preference not a facility’s routine. Individualize bathing.
- Apologize for causing any discomfort
- View resistance and other behavioral symptoms as expressions of unmet needs.
- Bathing once a week may be enough.
- It does not take a lot of water to get a person clean.

37 🟡 Interventions for Bathing Dementia Clients
- A bed bath or a sponge bath at the sink can substitute for a shower.
- Use pre-moistened, no rinse disposable cloths that can be heated in the microwave
- Place warm wet towels on the client with no rinse soap & cover the client with a blanket, washing underneath it.
- Don’t necessarily start at the head, a client with dementia often becomes very upset when the face and hair is washed. Save it for last.

38 🟡 Interventions for Bathing Dementia Clients
- Wash hair outside the shower using the basin and wash cloth method. Separate hair washing from body washing.
If the client does shower:
- Distract with interesting objects
- Modify the shower spray and allow client to use hand held shower head
- Provide choices whether hair is washed or not at all.
- Use no rinse products or favorite soaps
- Use bath bench with padded seat or cover with towels. Grab bars should be in place.
- At home a spouse can shower with the client.

39 Interventions for Bathing Dementia Clients
- Minimize pain during bathing by administering routine analgesia, applying hot packs to sore joints & moving limbs carefully.
- Let person assist with cleaning a painful area.
- Soaking in a tub, if the client wishes, may reduce pain.
- www.geronurseonline.com

40 Involve The Family
- Can be a calming presence
- Family members may be able explain hospital care
- Family members can accompany the patient
- Help with menu selection
- Encourage hydration
- Allow family to stay beyond visiting hours
- Keep her from wandering.

41 Rise to Nutritional Challenges
(Recognize Hunger Signals)
- Incorporate food that patient likes
- Food supplements like Ensure
- Assist the patient at mealtimes but encourage him to be as independent as possible.
- Use cups with lids to decrease spillage
- Encourage fluids during the day

42 Help Patient To Communicate
- Be sure patient has eyeglasses and hearing aid
- Get the patient’s attention
- Approach the patient directly form the front, maintains eye contact use appropriate touch
- Minimize external distractions
- Speak slowly using simple words and short sentences
- One speaker, one request at a time

43 Manage Sundowning
- Fatigue, low lighting and shadows may contribute to sundowning
- Close blinds and curtains before dusk
- Turn on room lights and try to keep the patient oriented.

44 Prevent Physical and Verbal Aggression
- Minimize sensory stimulation
- Lower the alarm and TV volumes
- Avoid programs that could upset the patient
- Provide adequate but glare free lighting.
- Minimize changes in routine
- Do not argue or try to force a patient to do something
- Remind staff that the patient suffers from cognition problems
- Thirst or fatigue may trigger bad reactions

Prevent Physical and Verbal Aggression
- If aggression occurs, diffuse it by engaging the patient in a soothing
- If person becomes physically aggressive,
- Have one supervise patient until he regains control
- If all other measures fail physical or chemical restraints may be necessary

Other Important Things
- Familiar items for patient such as an afghan
- How does she usually take her medications
- Nickname – post at patient’s bedside

Nursing Diagnoses related to Cognitive Impairment (Dementia, Delirium)
- Impaired physical mobility
- Self-care deficit
- Sleep pattern disturbance
- Disturbed thought processes
- Impaired memory
- Chronic confusion
- Wandering
- Impaired verbal communication
- Ineffective role performance
- Disturbed self-esteem and self concept
- Disturbed sensory perception
- Risk for violence
- Caregiver role strain

Nursing Interventions for Cognitive Impairment
- Active listening
- Caregiver support
- Communication enhancement
- Delirium management
- Dementia management
- Mood management
- Reality orientation
- Memory training

Nursing Interventions for Cognitive Impairment
- Self-care assistance
- Role enhancement
- Behavior management: self harm
● Environmental management: safety and violence prevention
● Sleep enhancement
● Area restriction
● Reminiscence therapy

Assessing and Managing Delirium in Persons with Dementia

- Acute changes in mental status in persons with dementia are often attributed to the underlying dementia or “sundowning.”
- Delirium is thought to occur 4-5 times more often in a person with dementia.
- Delirium superimposed on dementia is less likely to be recognized
- In patients with dementia, delirium can substantially worsen long-term outcomes
- Delirium in persons with dementia may be a sign of preventable and treatable medical problems or serious underlying illnesses
- An unrecognized delirium may interfere with recovery and rehabilitation after a hospitalization.

Assessing and Managing Delirium in Persons with Dementia

- Delirium is difficult to assess in persons with dementia
- Standard assessment tools for delirium—CAM
- Another significant barrier to detecting the presence of delirium can be ageism

Delirium Algorithm

- Preventive Care
  - Assess: pre-morbid cognitive functioning (Recognition of Dementia in Hospitalized Older Adults) and baseline mental status (The Mini Mental State Exam)
  - Address risk factors:
    - sensory loss
    - sleep deprivation
    - immobility
    - pain (Assessing Pain in Persons with Dementia)
    - polypharmacy and/or potentially offending medications
    - decreased oral intake of food and/or fluids
    - substance abuse/withdrawal
  - Normalize environment as much as possible

- Identify delirium promptly
- Assess for:
  - acute onset of change in cognition (memory loss, disorientation, hallucination, delusions, and impaired function)
  - altered level of consciousness
  - inattention
  - behaviors such as verbal and/or physical aggression, resistance to care, and wandering
● Educate the family about the nature of delirium, indicating this is not a “worsening of dementia” but an acute process.

55 Delirium Algorithm

56 Case Study 1

● Mr. T is a 70-year-old male admitted to the orthopedic unit in a large urban hospital. Mr. T fractured his right ankle in a golf outing and had an open reduction with internal fixation this morning.
● As you take report at 3 PM, the day-shift charge nurse tells you that Mr. T is insisting on going home and keeps getting out of bed.
● Multiple attempts to explain that he is unable to walk safely in the cast have not convinced him and he is now yelling, disturbing other patients on the floor.

57 Case Study 1

Given the above information, you suspect that Mr. T’s condition is caused by:
● (a) Post-operative infection
● (b) Dementia
● (c) Delirium
● (d) Depression

58 Case Study 1

Delirium:
● (a) Is self-limiting and requires no intervention
● (b) Usually has no identifiable cause
● (c) Requires acute assessment
● (d) Should be treated symptomatically

59 Case Study 1

The causes of delirium include:
● (a) Infection
● (b) Hypoxia
● (c) Medications
● (d) All of the above

60 Case Study 1

Some strategies to assist in caring for Mr. T would include:
● (a) Reality orientation offered in a calm, nonjudgmental manner
● (b) Calling family to visit patient
● (c) Telling him to relax and his ankle will heal
● (d) a and b only

61 Case Study 2

● Ms. D is a 98-year-old female in a skilled nursing facility with a diagnosis of Alzheimer’s disease. Ms. D comes to the nursing station and appears very upset. She tells you that she is looking for her mother and asks you to help her. You start walking with Ms. D
Case Study 2
True or False Questions
Which of the following strategies would be helpful in assisting Ms. D?

- Asking her to help you with a small task and later you will look for her mother together.
- Cognitive losses related to Alzheimer’s disease are Irreversible.
- Although pharmacologic agents may be helpful (in the presence of disturbing delusions/hallucinations), behavioral approaches to treatment are first-line in treating dementia.
- Promoting dependence (with feeding, dressing, toileting) is advantageous for persons with dementia.
- Compensating for sensory impairments (glasses, hearing aids) may help minimize disturbing illusions/delusions.

Case Study 3
True or False Questions

- You are caring for Ann 76, when she swats your hand away as you check her IV site. She seems frightened and calls for her mother. You assess her orientation, she tells you her name, but insists that it is 1966 and she is in prison.

- Are there any hints as to the patient’s diagnosis from this small amount of information?
- What other assessments do you need to perform to assist you in understanding what is going on with this patient?
- Identify appropriate nursing interventions.

Case Study #4

- Mr. DW age 82, is brought to the clinic by his wife and daughter. They have lived in the family home for 59 years. The daughter is concerned that Mr. DW has recently stopped taking care of his garden. She states that he no longer cares for his home and lawn in his formerly meticulous way.
- Mr. DW feels that these are unwarranted criticisms and that his daughter is fussing. He is able to describe his daily activities in some detail, seems animated and has no apparent confusion.
- Mr. DW’s past medical history is significant for hypertension and for years he has been taking amlodipine 10 mg a day. Additionally, he takes a baby aspirin each day for cardiovascular prophylaxis. His only hospitalization was two years ago for circumstances suggestive of a transient ischemic attack (TIA). At the time, he apparently had transient facial weakness, weakness of his left arm, and slurring of speech. These signs all resolved within approximately one hour. He had no reported residual deficient.
- Since that time, Mr. DW has resisted any follow-up in clinic.

1) With only a few minutes left in Mr. DW’s appointment, how would you focus your remaining time?
2) What specific question should be asked of Mr. DW, his wife, and daughter?
3) Are there already hints of a potential etiology for Mr. DW’s presentation?
Mr. DW's physical exam reveals he has a blood pressure of 190/100. He has hypertensive changes of both fundi. His weight has dropped 2 lbs in the last year. His chest is clear, cardiovascular exam reveals him to have a regular rhythm with a rate of 80. His neuromuscular exam is without focal neurologic signs. His mental status exam reveals disorientation to time, and deficits in short term and immediate memory. Otherwise, his language skills, insight and judgment appear fairly good. His Mini Mental Status Exam score is 20/30. Mr. DW's CBC, electrolyte levels, liver function tests, renal function tests, thyroid stimulating hormone are all unremarkable. However, he had a serum albumin level of 3.9 and cholesterol of 170. His vitamin B12 is also within the normal limit. His MRI reveals multiple, diffuse microvascular infarcts.

4. What is the likely diagnosis of the type of dementia?
5. Should Mr. DW have a change in his antihypertensive medications?

Mr. DW is seen for follow-up after one month. His blood pressure is 150/80 with a pulse of 74. His weight has increased 5 lbs. Both he and his wife report he is functioning better in his home. He has been more accepting of his wife's help and continues to comply with her setting up his medications. She reports that most of his doses are being taken.

Case Study #5
1. What is the likely diagnosis?
2. What investigations would help confirm the diagnosis?
3. If this appears to be Dementia of the Alzheimer's type, is he a suitable candidate for specific pharmacologic treatment?
4. What type of specific screening and follow-up should be undertaken?

Over the next several months, Mr. RC begins to have periods of excessive anger, wherein he is verbally abusive and uncooperative. He is started on alprazolam 0.25 mg every 4 hours as needed for anxiety with moderate beneficial effects. However, Mr. RC becomes progressively more withdrawn at home, his cognitive functioning deteriorates, and his mood becomes more labile, with frequent crying spells. His sleep is poor with middle and late night insomnia. On the day prior to returning to clinic, Mr. RC has an episode of acute agitation and paranoia, in which he attempted to strike his wife on a number of occasions. His wife had to enlist the help of their son to get Mr. RC to clinic for his visit.

5. What are possible etiologies for this change in personality and behavior?

Pearl: Depression is a very common problem in patients with neurodegenerative disorders like Alzheimer's disease.

Over the next week, Mr. RC is tapered off his alprazolam and atenolol with remarkable improvement in his level of agitation and mild improvement in his apparent depression. However, he continues to have moderate restlessness and paranoia with occasional verbal outbursts when reassessed in clinic two weeks later. Mr. RC is prescribed citalopram (antidepressant) 10 mg at bedtime for the next two weeks with a significant improvement.

Additionally, he has a brighter affect and is more socially interactive.