# Introduction: Delirium

The diagnosis of delirium is made based on the presence of an acute change in mental status with inattention, and either disorganized thinking or altered level of consciousness. Delirium is usually multi-factorial and occurs after an inciting event or illness in a person who is vulnerable. (1)

## Types of Delirium (2)

- Hyperactive delirium presents as restlessness (pacing), agitation, rapid mood changes or hallucinations and refusal to cooperate with care.
- Hypoactive delirium is inactivity or reduced motor activity, sluggishness, abnormal drowsiness or seeming to be in a daze.
- Mixed delirium includes both hyperactive and hypoactive signs and symptoms. The person may quickly switch back and forth from hyperactive to hypoactive states.

## Why is it Important? (3)

- Prompt diagnosis and management of delirium is especially important in older adults.
- Delirium is under-recognized in 32% to 66% of cases.
- Underdiagnosis can be even more problematic in residential care facilities.
- Using physical restraints for management is not appropriate as it can worsen delirium, can contribute to further decline, does not address distressing psychiatric symptoms that are treatable and is potentially life threatening.

## Diagnosing Delirium

- Differentiating from Dementia: Dementia typically has an insidious onset. It can cause impairment in cognition and memory, but it does not typically cause decreased levels of consciousness. In addition, the degree of impairment in dementia is stable over the course of hours to days, while the symptoms of delirium tend to wax and wane. (1)
    - Determine if the person has delirium, dementia, or both. Ask the family or staff what the person is usually like: Are they usually oriented and aware of events around them? Would they be expected to know where they are, the date, and the current president? If possible, find out the course of the recent change. Was it weeks to months, or hours to days?
- Assess their level of consciousness.
    - Are they awake and speaking with normal speech? If not, consider delirium.
- Assess their degree of orientation.
    - Ask them for their name, location, date, and the current president. If the person cannot answer because they do not recall, but they try to cover it up in a socially-conscious way, that is more likely dementia.
    - If they are having difficulty focusing, have poor eye contact, and responses do not make sense, it is more likely delirium.
- Assess using the Confusion Assessment Method (CAM); The CAM algorithm is based on the presence of four core features of delirium (acute onset and fluctuating course of symptoms, inattention, and either disorganized thinking or altered level of consciousness) and has high sensitivity.

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## Causes [2]

If a patient appears delirious, there can be a range of causes.

- Certain medications or drug toxicity
- Alcohol or drug intoxication or withdrawal
- A medical condition, such as a stroke, heart attack, worsening lung or liver disease or an injury from a fall.
- Metabolic imbalances, such as low sodium or low calcium
- Severe, chronic or terminal illness
- Fever and acute infection, particularly in children
- Urinary Tract Infection, pneumonia or the flu, especially in older adults
- Exposure to a toxin, such as carbon monoxide, cyanide or other poisons
- Malnutrition or dehydration
- Sleep deprivation or severe emotional distress
- Pain
- Surgery or other medical procedures that include anesthesia

Several medications or combinations of drugs can trigger delirium, including some types of:

- Analgesia
- Sedatives
- Medications for treating mood disorders, such as anxiety and depression
- Allergy medications such as antihistamines
- Asthma medications
- Corticosteroids
- Parkinson's Disease drugs
- Drugs for treating spasms or convulsions

## Risk Factors [2]

Any condition that results in a hospital stay, especially in intensive care or after surgery, increases the risk of delirium, as does being a resident in a nursing home. Delirium is more common in older adults.

Examples of other conditions that increase the risk of delirium include:

- Brain disorders such as dementia, stroke or Parkinson's Disease
- Previous delirium episodes
- Visual or hearing impairment
- The presence of multiple medical problems

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## Treatment and Management

- Treat the underlying cause. This may mean correcting electrolytes and hydration status, relieving urinary retention, treating an infection, or treating hypercapnia with noninvasive positive-pressure ventilation (NIPPV).
- Manage basic needs. Provide them with hydration and food before they become dehydrated. Older adults have a diminished thirst reflex and are prone to dehydration. Provide adequate nutrition and access to water.
- Manage sensory deficits. Provide their hearing aids and glasses if they have them.
- Treat pain. Pain can cause delirium, so treat their pain appropriately.
- De-escalation and distraction. For people who are delirious and becoming agitated or combative, measures should be taken to de-escalate the person to prevent them from harming themselves (though falling off the bed or pulling out IVs) or the staff.
- Reorient and redirect. Let family members stay with the patient to help reorient them or redirect them.
- Distraction. “Busy vests” or “busy boxes” (not restraints) can provide a distraction for the patient so that they can manipulate the portions of the vest or items in a box instead of pulling on their IV or monitor leads or trying to get out of bed.
- Remove any unnecessary leads, IVs, or urinary catheters that may be contributing to the agitation. Turn off the TV that contributes unnecessary noise.
- If it is night-time, turn off the lights if feasible, and let the person try to sleep. During the daytime keep lights on and windows open.

## Medications

- For people who continue to be agitated and combative despite the above measures, medications can be used to treat them. The goal for treatment is not to sedate but to manage their agitation and combativeness. Anti-psychotics are first-line. If the patient does not respond sufficiently, then a benzodiazepine can be added. However, benzodiazepines can sometimes worsen delirium.
- One exception is in alcohol withdrawal, in which case benzodiazepines are the treatment of choice. Higher doses may be required depending on the severity of withdrawal.
- Another exception is patients with Lewy Body Dementia, who may react poorly to anti-psychotics.

**References**


1. Shenvi, C., (2015). Assessing and Managing Delirium in Older Adults. Retrieved January 23, 2020, from https://www.aliem.com/2015/07/delirium-in-older-adults/
2. Mayo Clinic. (2018). Delirium. Retrieved January 23, 2020, from https://www.mayoclinic.org/diseases-conditions/delirium/symptoms-causes/syc-20371386
3. Chan, P. (2011). Clarifying the confusion about confusion: current practices in managing geriatric delirium. Retrieved January 23, 2020, from https://www.bcmj.org/articles/clarifying-confusion-about-confusion-current-practices-managing-geriatric-delirium