

## Introduction

The word for delirium comes from the Latin term meaning “off the track,” and is not a disease in itself but rather an array of symptoms with different causes. In delirium, the patient usually has an acute, sudden and simultaneous impairment of memory, thinking and perception. Delirium and new onset confusion is extremely common among nursing home residents where it is found in as many as 80% of patients near death.

## Main Symptoms

- Clouding of and change in level of consciousness, reduced awareness
- Difficulty maintaining attention
- Disorientation, speech disturbances
- Illusions, hallucinations
- Tremor, asterixis
- Symptoms tend to fluctuate though usually worse at night. Reversal of sleep-wake pattern is common.
- Patients with hyperactive delirium appear restless, agitated and hyper-alert

Causes: Delirium and new onset confusion can be caused by infections, drug reactions, dehydration and/or electrolyte imbalances. Some causes can be easily addressed such as: fecal impaction, urinary retention, sleep deprivation and change in environment.

## Physiological causes of confusion and disorientation at the end of life include:

- Renal or hepatic failure
- Dehydration
- Metabolic and chemical changes (such as hypercalcemia)
- Infections (most often urinary tract, respiratory)
- Fecal impaction, urinary retention
- The amount of oxygen available to the brain (hypoxia)
- Side effects of medications, such as initiation or recent increase in opioid or benzodiazepine medications
- Disease progression, such as brain metastasis
- Uncontrolled pain
- Withdrawal from alcohol, benzodiazepines, opioids

## Non-Pharmacologic Interventions

Measures to decrease anxiety and disorientation include providing:

- increased presence (family, familiar people, volunteers)
- consistent caregiver staff
- familiar pictures, favorite blanket, robe



- a quiet, well lit room
- clock, calendar in room
- hearing aids, glasses
- familiar and comforting sounds (music, sound machine)
- spiritual care (religious rituals & prayers, readings, poetry)
- comforting touch
- emotional support

## Pharmacological Treatment

When a reversible cause for delirium is identified, pharmacological agents appropriate for that etiology should be initiated. Some symptoms (such as extreme agitation) are distressing to family members and pose safety concerns to both patient and family. If no contributing factors can be identified/resolved and the symptoms of delirium can't be effectively managed with non-pharmacologic interventions use:

Haloperidol (Haldol®) 0.5 – 2 mg po/IM/IV q 1 hour for acute episodes. Continue until acute episode controlled, then haloperidol 0.5 – 2 mg. po q 6 h. Prn

- (MDD -maximum daily dose = 20/mg.day).
- available in a concentrated liquid
- IV bioavailability is 100% and has very rapid onset of action (seen within about ten minutes). The duration of action is up to 6 hours.
- possesses a strong activity against delusions and hallucinations, usually effective in decreasing agitation and improving cognition
- useful in treating severe forms of nausea/vomiting
- Use diphenhydramine (Benadryl®) 25 mg q HS to prevent EPS side effects with continued haloperidol dosing

However, there are circumstances, especially with terminal restlessness, when delirium can only be controlled with sedation. The use of pharmacological agents to sedate patients with terminal delirium requires serious consideration by the interdisciplinary team members, discussion with family about care goals, and careful monitoring.

If withdrawal from alcohol or benzodiazepines is cause of delirium:

- Lorazepam (Ativan®) 0.5 2 mg po/sl q 6 h prn (MDD = 12/mg/day)

Evaluate and document symptom at each visit until resolved. Evaluate discontinuing medications as symptoms resolve. Collaborate with psychosocial and spiritual care professionals to confirm that symptoms are managed with the most effective combination of non-pharmacological and pharmacological interventions.



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## References

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