

DELIRIUM

Delirium, an acute state of confusion, is characterized by an alteration of consciousness and cognition with reduced ability to focus, sustain, or shift attention. The three behavioral subtypes are hyperactive, hypoactive, and mixed delirium.

Delirium develops over a short period of time and fluctuates during the day. It is often temporary and reversible if the underlying cause is identified and treated.

At the end of life, delirium is most often caused by medication side effects or the body's response to physiologic changes that occur in the last days or hours of life.

Possible causes of delirium related to COVID-19 include infection, hypoxia, medications, dehydration, discomfort or pain, electrolyte/metabolic imbalances, environment, multiorgan failure, and constipation.¹

Nursing Assessment:

- Clinical assessment: Complete a comprehensive nursing history, and careful physical exam (including mental status exam), including history of symptoms (onset, pattern, triggers, associated symptoms, precipitating and relieving events, and response to medications), psychosocial history, medication history, and results of laboratory/diagnostic tests.¹
- Consider differential diagnosis of dementia, which has a chronic progression.¹
- Use screening tools:
 - ▶ The Confusion Assessment Method screens for the diagnostic criteria for delirium.¹
 - ▶ The Delirium Symptom Severity Scale is used to assess severity of symptoms.¹
- Review advance care planning documents and goals of care with family and patient (if able) to clarify whether the patient would want to be transferred to the intensive care unit and/or would want treatments such as supplemental oxygen, high-flow oxygen, noninvasive ventilatory support, ventilatory support, etc.

Nonpharmacological Management:

- Avoid medications that can cause delirium, such as steroids, cannabinoids, and anticholinergics.¹
- Evaluate the impact of medical interventions after assessment of patient's overall situation and previously expressed goals of care.¹
- Optimize overall function by preventing dehydration, optimizing nutrition and elimination, preserving the sleep-wake cycle, maximizing mobility, and preventing/treating pain.¹
- Use environmental and interpersonal interventions and manipulations (e.g., calm environment, familiar music, quiet and reassuring voices, orienting cues, minimized noise, minimized night disruptions) when allowed.
- Use environmental cues and employ aids to maintain orientation (e.g., glasses, hearing aids).
- Ensure environment is safe to prevent falls and injuries (e.g., night lights, low beds).

Pharmacological Management*:

- Optimizing underlying etiology treatment as well as preventing and managing delirium are important.¹
- No pharmacological treatment is approved specifically for delirium, but medications may assist with managing distressing symptoms.¹
- Symptoms of agitation, aggression, and paranoia in delirium can be treated effectively with antipsychotic medications.¹
- Consider benefits versus burden. Start with one medication at a time at the lowest dose.²
 - ▶ Consider quetiapine 25–150 mg by mouth daily.¹
 - This is often the first choice for many clinicians because it is less likely to cause extrapyramidal symptoms.¹
 - Monitor for orthostatic hypotension and sedation.²
 - ▶ Consider haloperidol 0.5–5 mg by mouth, intramuscularly, or intravenously two to three times daily.¹
 - Standard treatment for acute agitation¹
 - Organizational policies may vary on use.
 - Risk of QT prolongation, increased risk of extrapyramidal symptoms²
 - ▶ Consider olanzapine 2.5–5 mg by mouth, via orally disintegrating tablets, or intramuscularly every 12–24 hours (an alternative if intolerant to haloperidol).²
 - Monitor for sedation.²
 - ▶ Consider risperidone 0.25–2 mg by mouth daily.¹
 - Monitor for greater risk of extrapyramidal symptoms¹ and orthostatic hypotension.²
- Benzodiazepines can reduce agitation but should be used with caution as they can cause delirium.¹
 - ▶ They can cause behavioral disinhibition but also can reduce anxiety, regulate the sleep-wake cycle, and manage symptoms related to withdrawal of alcohol or central nervous system depressants.¹
 - ▶ In older adults, attend to the synergistic effects of opioids and benzodiazepines.
 - ▶ Consider shorter-acting benzodiazepines such as lorazepam 1–2 mg by mouth or intravenously three to four times daily.¹
 - ▶ Benzodiazepines in conjunction with haloperidol can be more effective in treating agitation than haloperidol alone.¹

Additional Interventions:

- Interprofessional Team: Successful interventions in caring for patients with delirium benefit from multiple perspectives
- Consultation with psychiatry

- Referral to palliative care for advanced symptom management

Patient and Family Education:

- Clarify patient and family goals frequently during the course of illness.
- Provide instruction on underlying etiology and possible causes of delirium, treatment options, medications, and anticipated effects.
- Explore realistic expectations for symptom trajectory with reassuring education on management strategies.
- Instruct on appropriate nonpharmacological strategies and safety, including environmental interventions, environmental cues and aids, low beds, and night lights.

***DISCLAIMER:** Medication dosing for symptom management is only a recommendation for nursing to discuss with prescribers and for prescriber consideration after careful history, physical exam, and review of laboratory/diagnostic studies. Dosing should be adjusted based on each patient's clinical case, presentation, and prescriber's clinical judgment.

There are no drugs approved by the U.S. Food and Drug Administration (FDA) specifically for the treatment of patients with COVID-19. At present, clinical management includes infection prevention, control measures, and supportive care, including supplementary oxygen and mechanical ventilatory support when indicated. The Centers for Disease Control and Prevention also hypothesizes that angiotensin converting enzyme (ACE) inhibitors, angiotensin II receptor blockers (ARBs), and steroids may increase the severity of COVID-19. However, currently, there are no data to suggest a link between those medications and worse COVID-19 outcomes.³

For additional information, please access HPNA's COVID-19 Resource page at www.advancingexpertcare.org.

REFERENCES

1. Goldberg W, Mahr G, Williams A, Ryan M. Delirium, confusion, agitation. In: Ferrell B, Paice J, eds. *Oxford Textbook of Palliative Nursing*. 5th ed. New York, NY: Oxford University Press; 2019.
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3. Centers for Disease Control and Prevention. Interim Clinical Guidance for Management of Patients with Confirmed Coronavirus Disease (COVID-19). <https://www.cdc.gov/coronavirus/2019-ncov/hcp/clinical-guidance-management-patients.html#Medications>. Accessed March 30, 2020.