

## DELIRIUM DURING COVID-19

**Delirium** is very common in serious illness. Although usually associated with terminal illness, many episodes of delirium are reversible. In a study of COVID-19 patients referred to hospital palliative care, 24% experienced delirium.



### Types of delirium:

- **Hyperactive** – usually includes agitation
- **Hypoactive** - withdrawn behaviors (more likely to be missed on assessment)
- **Mixed**



### Presentation of delirium:

- Agitation
- Impaired cognition
- Altered attention span
- Change in consciousness
- Altered perceptions and hallucinations

## POTENTIAL CAUSES OF OR CONTRIBUTORS TO DELIRIUM:

- Constipation or bladder distension - especially with older adults
- Dehydration
- Dementia
- Electrolyte imbalance (hypercalcemia, hyponatremia, hypernatremia, hypomagnesemia)
- Hearing impairment
- Hypoxemia
- Immobility



- Infection (pneumonia, urinary tract infection)
- Intracranial disease (primary or metastatic brain tumor, leptomeningeal disease, stroke)
- Medications (opioids, anticholinergics, corticosteroids, antidepressants, benzodiazepines)
- Metabolic abnormalities (hypoglycemia, hypothyroidism)



- Nutritional or vitamin deficiencies
- Older age (> 75 years of age)
- Rapid withdrawal of medications (opioids, benzodiazepines) and/or alcohol, nicotine
- Renal, cardiac and/or hepatic failure
- Unrelieved pain
- Urinary tract infection
- Use of restraints



## ASSESSMENT

Several delirium assessment tools are available; select a tool based upon your setting and population. In many circumstances, delirium can be identified based upon a strong history and physical examination.

### Conduct history and physical assessment:

- **Review common signs** including disturbed sleep/wake cycle, agitation, restlessness, moaning, hallucinations, and delusional thoughts.
- **Assess for signs** of sepsis, dehydration, urinary retention or urinary tract infection, constipation, unrelieved pain.
- **Evaluate the medication list** for possible causes or contributors; consider polypharmacy
- **Weigh the potential** for possible withdrawal from alcohol, nicotine, opioids, benzodiazepines, antidepressants, cannabis, or other sedatives



**Consider laboratory and radiological tests, depending on the patient's goals of care** (e.g., CBC, electrolytes, calcium, renal/liver function, UA, CXR, O<sub>2</sub> saturation, imagery of the brain via CT or MRI).

The Confusion Assessment Method (CAM) is a commonly used, sensitive, and brief (5 minutes) tool. There is a brief version (bCAM – 2 minutes), critical care (CAM-ICU), family caregiver recognition (FAM-CAM) and a 3 minute diagnostic version (3D-CAM). Mobile apps are also available.

## PHARMACOLOGIC MANAGEMENT

When possible address potentially reversible etiologies such as fever (antibiotics/antivirals), constipation (bowel regimen), dehydration (oral or IV/SQ fluids), urinary retention (catheterization), polypharmacy (discontinue unnecessary medications), metabolic abnormalities (correct electrolytes), and sleep deprivation (promote day/night cycles).

**Benzodiazepines are generally not recommended in the treatment of delirium, except for midazolam given IV or SQ for palliative sedation.**

1 <sup>st</sup> Generation Antipsychotics	
• Haloperidol	0.5 -2 mg PO every 2-4 hours as needed (lower doses in elderly); IV or SQ – use 50% of oral dose
2 <sup>nd</sup> Generation Antipsychotics	
• Olanzapine	2.5-15 mg PO at night
• Quetiapine	25 – 50 mg PO daily
• Risperidone	1-2 mg PO at night
Azapirones	
• Buspirone	5-20 mg PO tid

## NONPHARMACOLOGIC MANAGEMENT

- Ensure eyeglasses and/or hearing aids are in place and functioning
- Promote sleep/wake cycle with daytime light, reduce nighttime interruptions



- Provide soothing or favorite music
- Orient gently; do not aggressively reorient
- Reduce noise, pump alarms



- Use clocks, calendars and whiteboards
- Support family – this is extremely distressing to loved ones!



**References** Burhenn PS. Delirium. In C Dahlin, PJ Coyne & BR Ferrell (eds). Advanced Practice Palliative Nursing, pp 311-320. New York: Oxford University Press, 2016. | ELNEC – aacnursing.org/ELNEC/COVID-19 | Goldberg W, Mahr G, Williams AM & Ryan M. Delirium, confusion and agitation. In BR Ferrell & JA Paice (eds). Oxford Textbook of Palliative Nursing, 5th edition, pp 317-329. New York: Oxford University Press, 2019. | Lovell N, Maddocks M, Etkind SN, et al. Characteristics, symptom management and outcomes of 101 patients with COVID-19 referred for hospital palliative care. J Pain Symptom Manage 2020 doi.org/10.1016/j.jpainsymman.2020.04.015