BC Centre for Palliative Care

B.C. INTER-PROFESSIONAL PALLIATIVE SYMPTOM MANAGEMENT GUIDELINES

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DELIRIUM

DELIRIUM

DEFINITION

Delirium is a syndrome of abrupt onset and fluctuating disturbance in attention and awareness that is a decline from baseline status.[1-3] It is typified by cognitive dysfunction along with changes in psychomotor behaviour, mood, and sleep–wake cycle.[4-6] It may include hallucinations. Avoid the use of overlapping terms such as 'confusion', 'acute confusional state', 'terminal or pre-terminal restlessness' to prevent miscommunication.[7] Delirium has three subtypes, all of which occur in palliative care[8-11]:

- **Hyperactive - 30%** (restless and agitated; hallucinations more common): most often identified.[12] May be misinterpreted as pain leading to administration of higher drug doses, which then could increase delirium.[13]
- **Hypoactive - 48%** (drowsy and withdrawn): most prevalent, yet most often missed, dismissed as "normal dying", or misdiagnosed as fatigue or depression; it also has highest mortality.[4, 14]
- **Mixed subtypes – 22%:** fluctuates between both.[15-17]

PREVALENCE

Delirium is common in palliative care. It occurs in 20-88% of cancer patients.[1,6,7] Although delirium often occurs 24 to 48 hours before death, it is not a "normal" part of dying.[11] In some cases, subtle signs up to 7 days prior,[10, 17-19] when identified, may enable reversal of symptoms, allowing for a peaceful death.[20]

IMPACT

Delirium is a poor prognostic indicator[21] and often predicts death within days to weeks.[22-25] Regardless of subtype, delirium is distressing to patients, families, and healthcare providers, impairing quality of living and quality of dying.[1, 7, 10, 26, 27] It interferes with identification of other symptoms, is associated with increased falls, pressure sores and greater hospitalization, morbidity and mortality.[6] It may result in shocking behaviours,[27] prolonged grief, and impaired opportunity for closure at end of life.[20] Prompt recognition and treatment is essential in order to improve patient and family outcomes, especially in the final stages of an illness.[10]

STANDARD OF CARE

Step 1 | Goals of care conversation

Determine goals of care in conversation with the patient, family and inter-disciplinary team. Refer to additional resources (Additional resources for management of delirium) for tools to guide conversations and required documentation. Goals of care may change over time and need to be reconsidered at times of transition, e.g., disease progression or transfer to another care setting.

Step 2 | Assessment

Identify predisposing factors which increase vulnerability and risk for delirium: age over 65 years, dementia, visual or hearing impairment, immobility, functional dependence, malnutrition, substance use, multiple chronic co-morbidities, multiple medications, admission to hospital.[6, 26, 28] Restraints increase risk of delirium by 3 times.[29, 30] Screen high risk patients routinely.[31]

Signs and Symptoms of Delirium may include6

- Acute onset.
- Fluctuating over the course of a day.
- Attention disturbance; restlessness.
- Altered reasoning/rambling thinking.
- Agitated, angry, emotionally labile, depression, lethargy.
- Disorientation to: time, person and place.
- Sleep-wake cycle disturbance.
- Memory impairment.
- Hallucinations – visual; nightmares.
- Language fluency disturbance.

Step 2 | Assessment continued on next page

Step 2 | **Assessment** *continued*

- Myoclonus, miosis, seizures, tremors (opioid neuro-toxicity) – specific symptoms.
- Tachypnea (sepsis, hypoxemia, central processes) – specific symptoms.

Delirium Assessment: Using Mnemonic O, P, Q, R, S, T, U and V[9]

Mnemonic Letter	**Assessment Questions** *Whenever possible, ask the patient directly; however, it is essential to include family and caregivers in the interview as the patient may be unable to cooperate or communicate effectively*.
Onset	When did it begin? How long does it last? How often does it occur?
Provoking /Palliating	What brings it on? What makes it better? What makes it worse?
Quality	What does it feel like? Can you describe it? Do you feel confused? Are you seeing or hearing anything unusual? How are you sleeping?
Region/Radiation	Not applicable
Severity	How bothered are you by this symptom? What would you rate it on a scale of 0-10 (0 being none and 10 being the worst possible)? Right now? At worst? On average? Are there any other symptom(s) that accompany this symptom? Do you know what day/month/year it is? Do you know where you are right now? Can you tell me your full name?
Treatment	What medications and treatments are you currently using? Are you using any non-prescription treatments, herbal remedies, or traditional healing practices? How effective are these? Do you have any side effects from the medications and treatments? What have you tried in the past? Do you have concerns about side effects or cost of treatments?

Delirium assessment: using mnemonic O, P, Q, R, S, T, U and V continued on next page

Delirium Assessment: Using Mnemonic O, P, Q, R, S, T, U and V *continued*

Understanding	What do you believe is causing this symptom? How is it affecting you and/or your family? What is most concerning to you?
Values	What overall goals do we need to keep in mind as we manage this symptom? What is your acceptable level for this symptom (0-10)? Are there any beliefs, views or feelings about this symptom that are important to you and your family?

Symptom Assessment: Physical assessment as appropriate for symptom

Conduct history and physical, review medications and doses, medical/surgical, psychosocial and physical environment.[9]

Diagnostics: consider goals of care before ordering diagnostic testing

Lab tests include: CBC, electrolytes, calcium, albumin, glucose, renal, liver and thyroid function, urinalysis, pulse oximetry, chest x-ray. Also do ECG, cultures, and brain imaging as appropriate.[9, 32] Consider prior function, disease trajectory, and goals of care to determine the extent of investigation.[4, 6, 19, 20, 26, 33]

Specific diagnostic tools (See Delirium extra resources or assessment tools)

- DSM-V [1, 7, 10]
- Differentiating the 3 D's

Step 3 | **Determine possible causes and reverse as possible if in keeping with goals of care** (For more details, see Underlying causes of delirium in palliative care)

Common causes (**See** Underlying causes of delirium in palliative care) are often multi-factorial and may include[6, 9, 34-36]:

- Infection, metabolic disturbance, hypoxia, organ failure, medications
- Withdrawal from alcohol, illicit drugs, benzodiazepines
- Pain, constipation, dehydration, retention, urinary catheters, sleep deprivation
- New/unfamiliar environments, psychosocial, psychiatric[9]

Identification and management of underlying causes will resolve 30-50% of palliative delirium episodes. However, in final days, reversibility reduces to between 10-15%.[37, 38] Major organ failure and hypoxic encephalopathy are not reversible.[39] The most reversible factors include drug effects (e.g., opioid neurotoxicity), electrolyte disturbances, and physical discomfort.[40]

PRINCIPLES OF MANAGEMENT

When considering a management approach, always balance burden of a possible intervention against the likely benefit (e.g., does the intervention require transfer to another care setting?)

- Screen all high risk patients routinely and regularly using standardized tools.[8]
- Involve interdisciplinary team, patient, family[20] and volunteers. Use preventative measures to minimize exposure to known risks.[1, 41, 42]
- Provide patient and family education to prevent, normalize, manage and reduce distress of delirium episodes.[1, 8, 20, 27] Ensure holistic perspective includes psychosocial, spiritual and cultural care.
- **Identify and treat reversible underlying causes.**[6-8, 26]
- **Ensure use of non-pharmacological approaches**.[8, 19, 43, 44]

Principles of management continued on next page

PRINCIPLES OF MANAGEMENT *CONTINUED*

- Manage distressing symptoms with caution, using the lowest effective doses of least harmful agent.[26]
- For severe distress or if behaviour creates a safety risk for patient or others: consult Palliative Specialist. Ensure methods are aligned with patient goals[8, 9, 26] and disease trajectory for management of the symptom and/or sedation.[45, 46]

Step 4 | **Interventions**

LEGEND FOR USE OF BULLETS

Bullets are used to identify the type or strength of recommendation that is being made, based on a review of available evidence, using a modified GRADE process.

	**Use with confidence:** recommendations are supported by moderate to high levels of empirical evidence.
	**Use if benefits outweigh potential harm:** recommendations are supported by clinical practice experience, anecdotal, observational or case study evidence providing low level empirical evidence.
	**Use with caution:** Evidence for recommendations is conflicting or insufficient, requiring further study
	**Not recommended:** high level empirical evidence of no benefit or potential harm

Non-pharmacological interventions: Use for all levels and types of delirium

It may be possible to manage delirium in the home or residential care facility with appropriate planning and support for the patient, family and staff; all of these interventions do not necessarily require additional equipment or admission to acute care.

Non-pharmacological interventions continued on next page

Non-pharmacological interventions *continued*

- **Utilize non-pharmacological interventions preferentially** as they provide greater evidence of benefit, without harm, than medications for mild to moderate delirium.[5, 42-44, 51]
- **Use multicomponent strategies** as in Hospital Elder Life Program (**HELP – see** Additional resources for management of delirium **for link**): frequent reorientation and mentally engaging activities for cognitive impairment; mobilization support; hearing aids and eyeglasses; adequate oral hydration, and sleep hygiene reduce risk for delirium (33-40%) and falls (57%) in older hospital patients.[8, 41, 52-54]
- **Promote one-to-one observation** to maintain safety, reduce fear, and support re-orientation.6
- Prevent over-stimulation; keep visitors/staff changes to a minimum.[9]
- Promote massage, relaxation therapy, exercise,[55] and rehabilitation therapy.[1, 5, 56]
- Avoid immobility, indwelling catheters, intravenous lines or equipment that impedes mobility.[9, 26]
- Consider parental hydration in time-limited trial if appropriate for patient trajectory and goals of care. Stop if adverse effects or no benefit as little evidence of effectiveness.[57, 58]
- Physical restraints increase risk of delirium .[59]

Pharmacological interventions

Scrutinize medication profile to identify drug causes of delirium. Pharmacist assistance can be invaluable.[60]

- Neuroleptic/antipsychotic drugs are sometimes required in addition to non-pharmacologic interventions. Use the lowest effective dosage which is proportionate to the severity of delirium to maximize safety and dignity. There is still many questions regarding which drugs are most appropriate.[43]
- Consider a switch of opioid, the tapering/discontinuation of benzodiazepines, and tapering of corticosteroid dose.[60]

Pharmacological interventions continued on next page

Pharmacological interventions continued

Antipsychotic role is unclear, lacking established evidence of benefit without harm.[43, 61]

- ⚠ Use is off-label; no Canadian drugs are approved for delirium prevention or treatment.
- ⚠ Antipsychotic risks may be a class effect; differences are unsubstantiated.[43]
- ⚠ Clinicians' own distress may result in inappropriate antipsychotic use.[62, 63]
- ⚠ Harm (distress worsened, greater EPS) occurred at low doses within 72 hours.[10]

Avoid use of

- ☒ Haloperidol[10, 64-66] and risperidone for treatment of **mild** delirium in palliative patients. [43,67]
- ☒ Medications to prevent delirium; effectiveness is not established.[14, 68]
- ☒ Opioids to treat delirium as they have no anti-agitation actions. New or increased doses of opioids may potentially worsen, if no change in pain.[69]
- ☒ Cholinesterase inhibitors to treat delirium, e.g., rivastigmine or donepezil.[10, 14, 60]
- ⚠ Other drugs suggested to possibly play a treatment role but, as yet, lack adequate evidence, including methylphenidate, melatonin, trazodone.[14, 70, 71]

Benzodiazepines

- ⚠ Use is supported for delirium only when cause is alcohol[72] or sedative drug withdrawal.[10]
- ⚠ Are causes of delirium, confusion, paradoxical reactions, over sedation, ataxia, falls.[10, 73]
- ⚠ May be used in palliative sedation to reduce seizure risk, myoclonus, muscle tension, or acute agitation crisis.[69]
- ⚠ Have not been shown to hasten death in advanced illness.[69, 74]

Pharmacological interventions continued on next page

Pharmacological interventions *continued*

When delirium is moderate to severe, unmanageable, poses concerns of harm to self/caregivers, and/or is causing distress to the patient and family

- Haloperidol is considered first-line therapy, although there is a lack of established dose range[17, 43, 73, 75] and a recent study has suggested it may require further investigation.[43] Starting dose of 0.5 mg (0.25 mg for elderly) to 2 mg SC, IV or PO Q1H until calming occurs, then Q4-6H for severe delirium.[77]
- Methotrimeprazine is a more sedating alternative to haloperidol; dosing 12.5 to 25 mg SC, IV or PO Q1-2H until calming occurs, then Q6-8H.[78]
- Additionally, for temporary sedation, in discussion with a palliative specialist, consider non-antipsychotics such as midazolam 2.5 to 5 mg SC or IV PRN; avoid oversedation.[69, 76]
- **Specialist consultation is recommended for severe delirium to consider drug therapy risk/benefit, delirium reversibility, and appropriate management options.** This may include palliative sedation.

Patient and family education

- Provide anticipatory guidance on what to expect. Normalize to reduce distress.
- Provide guidance on how to interact with patient: gentle reassurance, not to argue, use of a calm voice and presence.
- Sometimes patients may act out of character which can cause distress to the family. Explain that delirium symptoms are due to illness, are common, and can fluctuate.
- Explain that delirium becomes less reversible near end of life.
- Some patients experience the presence of deceased loved ones, angels, spirits or others, either by seeing them, hearing their voice or sensing they are near. Be careful about interpreting this as a delirious hallucination as it may be connected to spiritual or cultural beliefs and could be comforting to the patient and family.

Patient and family education *continued*

Teach family to use non-pharmacological interventions

- Promote calm, re-orienting environment (clocks, calendar) and familiar objects in room. Encourage cognitively stimulating activities and mobility, if patient able.
- Ensure hearing aids and glasses are available/functioning.
- Offer small amount of preferred food and fluids frequently.
- Facilitate sleep: relaxation music at bedtime, warm drinks and gentle massage; avoid waking patients from sleep; use night light.
- Provide comfort and re-orientation with presence of family or well-known friend.
- Teach family to watch for confusion that worsens in evening (sun-downing). This may be the first sign of delirium.
- Contact healthcare provider if patient distress or safety concerns.

ADDITIONAL RESOURCES FOR MANAGEMENT OF DELIRIUM

Resources specific to delirium

- BC Guidelines: Delirium
  - ➡ http://www2.gov.bc.ca/assets/gov/health/practitioner-pro/bc-guidelines/palliative2_delirium.pdf
- Canadian Coalition for Seniors' Mental Health. Guideline on the assessment and treatment of delirium in older adults at the end of life. Adapted from the CCSMH National guidelines for seniors' mental health. The assessment and treatment of delirium. Toronto: CCSMH, 2010.
  - ➡ http://www.health.gov.bc.ca/library/publications/year/2012/bpsd-guideline.pdf
- Yale University School of Medicine: HELP – Hospital Elder Life Program
  - ➡ http://www.hospitalelderlifeprogram.org/

Additional resources for management of delirium continued on next page

ADDITIONAL RESOURCES FOR MANAGEMENT OF DELIRIUM *CONTINUED*

General Resources

- **Provincial Palliative Care Line** – for **physician** advice or support, call **1 877 711-5757** In ongoing partnership with the Doctors of BC, the toll-free Provincial Palliative Care Consultation Phone Line is staffed by Vancouver Home Hospice Palliative Care physicians 24 hours per day, 7 days per week to assist physicians in B.C. with advice about symptom management, psychosocial issues, or difficult end-of-life decision making.
- BC Centre for Palliative Care: Serious Illness Conversation Guide
  - ➞ http://www.bc-cpc.ca/cpc/
- BC Guidelines: Palliative Care for the Patient with Incurable Cancer or Advanced Disease
  - ➞ http://www2.gov.bc.ca/gov/content/health/practitioner-professional-resources/bc-guidelines/palliative-care
- BC Palliative Care Benefits: Information for prescribers
  - ➞ http://www2.gov.bc.ca/gov/content/health/practitioner-professional-resources/pharmacare/prescribers/plan-p-bc-palliative-care-benefits-program
- National Centre for Complementary and Alternative Medicine (NCCAM) for additional information on the use of non-pharmacological interventions
  - ➞ https://nccih.nih.gov/
- Canadian Association of Psychosocial Oncology: Pan-Canadian Practice Guideline: Screening, Assessment and Management of Psychosocial Distress, Depression and Anxiety in Adults with Cancer
  - ➞ http://www.capo.ca/wp-content/uploads/2015/11/FINAL_Distress_Guideline1.pdf
- Fraser Health psychosocial care guideline
  - ➞ https://www.fraserhealth.ca/media/psychosocial%20care.pdf

Additional resources for management of delirium continued on next page

ADDITIONAL RESOURCES FOR MANAGEMENT OF DELIRIUM *CONTINUED*

Resources specific to health organization/region

- Fraser Health
  - ➞ http://www.fraserhealth.ca/health-professionals/professional-resources/hospice-palliative-care/
- First Nations Health Authority
  - ➞ http://www.fnha.ca/
- Interior Health
  - ➞ https://www.interiorhealth.ca/YourCare/PalliativeCare/Pages/default.aspx
- Island Health
  - ➞ http://www.viha.ca/pal_eol/
- Northern Health
  - ➞ https://www.northernhealth.ca/Professionals/PalliativeCareEndofLifeCare.aspx
- Providence Health
  - ➞ http://hpc.providencehealthcare.org/
- Vancouver Coastal Health
  - ➞ http://www.vch.ca/your-care/home-community-care/care-options/hospice-palliative-care

Resources specific to patient population

- ALS Society of Canada: A Guide to ALS patient care for primary care physicians
  - ➞ https://als.ca/wp-content/uploads/2017/02/A-Guide-to-ALS-Patient-Care-For-Primary-Care-Physicians-English.pdf
- ALS Society of British Columbia 1-800-708-3228
  - ➞ www.alsbc.ca
- BC Cancer Agency: Symptom management guidelines
  - ➞ http://www.bccancer.bc.ca/health-professionals/clinical-resources/nursing/symptom-management

Additional resources for management of delirium continued on next page

ADDITIONAL RESOURCES FOR MANAGEMENT OF DELIRIUM *CONTINUED*

- BC Renal Agency: Conservative care pathway and symptom management
  - ➡ http://www.bcrenalagency.ca/health-professionals/clinical-resources/palliative-care
- BC's Heart Failure Network: Clinical practice guidelines for heart failure symptom management
  - ➡ http://www.bcheartfailure.ca/for-bc-healthcare-providers/end-of-life-tools/
- Canuck Place Children's Hospice
  - ➡ https://www.canuckplace.org/resources/for-health-professionals/
    - 24 hr line – 1.877.882.2288
    - Page a Pediatric Palliative care physician – 1-604-875-2161 (request palliative physician on call)
- Together for short lives: Basic symptom control in pediatric palliative care
  - ➡ http://www.togetherforshortlives.org.uk/professionals/resources/2434_basic_symptom_control_in_paediatric_palliative_care_free_download

UNDERLYING CAUSES OF DELIRIUM IN PALLIATIVE CARE[37, 78, 80-82]

Causes for delirium are usually multi-factorial.

Potentially Reversible Causes of Delirium	Contributing Factors
Neoplastic/structural abnormalities	• Primary tumor of brain,[80, 81, 83] Metastases[80, 81, 83, 84] • Tumor burden or location[45] • Subdural hematoma, Stroke[45]
Infection/inflammation	• Pneumonia, urinary tract infection,[45, 80, 83-91] cellulitis, other causes of sepsis[78]
Metabolic	• hypercalcemia, uremia, hypoglycemia, hyperglycemia, or hyponatremia[45, 81, 83-85, 87, 89, 91]
General discomfort	• pain, constipation, urinary retention, or dehydration[80, 81, 83-85, 89, 90, 92]

Underlying causes of delirium in palliative care continued on next page

UNDERLYING CAUSES OF DELIRIUM IN PALLIATIVE CARE *CONTINUED*

Drug effects[69,93, 94, 95] Micromedex Drug List[3, 96]	• Antibiotics ; Anticholinergic drug[80, 81, 83] • Anticonvulsants[88]; Antidepressants; Antiemetics[80, 83] • Antifungals; Antihistamines; Antihypertensives[80, 83] • Antipsychotics[45]; Antivirals[80, 83, 89,82, 97, 98] • Cardiovascular; Chemotherapy[81, 83, 88] • Corticosteroids[84]; Dopamine Agonists • H_2 antagonists[45, 80, 83, 84, 88]; herbals (St. John's Wart) • Hypnotics, sedatives – benzodiazepines*; muscle relaxants • NSAIDS; Opioids*[45, 81, 98]
Over dosage due to:	• Physical deterioration[45] • Metabolic causes[45, 84] • Accidental[45, 83, 85]; Intentional – alcohol abuse[45, 88]
Drug withdrawal from:	• Alcohol[99] • Barbiturates • Benzodiazepines[45, 88] • Nicotine[45] • Opioids[80, 83, 84, 86] • Corticosteroids[80, 84]
Cardio-pulmonary	• Cerebral hypoxia, hypercapnia, cerebrovascular disease[45, 91]
Endocrine dysfunction	• Thyroid and adrenal[80, 83, 84, 88, 89]
Organ dysfunction/failure	• Liver[80, 81, 87, 88] • Renal[81, 83, 84, 92, 98]
Malnutrition	• Thiamine or folate/B_{12}[45, 80, 84-86, 89]
Trauma	• Convulsion, subdural hematoma, or hemorrhage[45, 83-86, 88]

Underlying causes of delirium in palliative care continued on next page

Psychosocial/psychiatric	• Grief[88] • Sensory deprivation[100] or overload[100] • Social isolation[100] • Visual or Hearing Impairment/Linguistic Barriers
Imminently dying	• Any combination of above[78]

Note: Drug-induced causative studies within palliative patients are scarce; however, within other patients, delirium risk is most associated with **opioids and benzodiazepines**[3] and should be highly presumed as causative.

All medications should be examined, in part as secondary and contributory drug interactions could be impactful.

MEDICATIONS FOR MANAGEMENT OF DELIRIUM

Information regarding medication is contained in the body of this document

Prices for prescription drugs may be obtained from BC PharmaCare. The British Columbia Palliative Care Benefits Plan http://www2.gov.bc.ca/assets/gov/health/health-drug-coverage/pharmacare/palliative-formulary.pdf provides province wide drug coverage for many of the recommended medications– check website to confirm coverage. **Consider price when choosing similarly beneficial medications, especially when the patient / family is covering the cost.**

DELIRIUM MANAGEMENT ALGORITHM

No management algorithm included in this document.

DELIRIUM EXTRA RESOURCES OR ASSESSMENT TOOLS

Confusion Assessment Method to assess for delirium; CAM/PRISME chart used with permission from Interior Health.[46, 102]

Directions: Initiate CAM & PRISME for patients who are delirious or identified as high risk (3 or more risk factors) or show unexplained behaviors. Assess Q shift & PRN.

1. Use Confusion Assessment Method (CAM) assess for delirium		
C	1. ACUTE ONSET AND FLUCTUATING COURSE	**Does the abnormal behavior:** • come and go? • increase/decrease in severity?
A	2. INATTENTION	**Does the patient:** • have difficulty focusing attention? • become easily distracted? • have difficulty following a conversation?
A	3. DISORGANIZED THINKING	**Is the patients' thinking** • disorganized? • incoherent? **Does the patient have:** • rambling speech? • Illogical flow of ideas?
M	4. ALTERED LEVEL OF CONSCIOUSNESS LOC O'METER	**What is the patient's level of consciousness?** • Vigilant (hyperalert) • Alert (normal) • Lethargic (drowsy, easy to arouse) • Stupor (difficult to arouse) • Coma (completely unarousable)
KEY: Presence of features 1& 2 plus either 3 &/or 4 is positive for delirium		
2. Use PRISME to identify & address physiological, psychosocial & environmental factors		
P	**PAIN** **PSYCHOSOCIAL**	• Provide regular analgesia & nonpharmacological methods. Reassess pain control Q shift, especially with movement. • Assess mental health, dementia & ability to cope with stress/stimuli
R	**RESTRAINT** **RETENTION**	• Avoid restraints. Use alternatives • Palpate abdomen. Bladder scan PRN. I & O catheter if essential. Remove bladder catheter ASAP. Regular toileting via commode or walking to toilet
I	**INFECTION** **IMPACTION** **IMPAIRED COGNITION** **INTAKE-ORAL**	• Assess for UTI, pneumonia, C diff, purulent wound. Monitor VS. May have atypical presentation with no fever • Determine last BM. Palpate abdomen. Rectal check PRN. Prevent & treat constipation. Bowel protocol as needed • No reality orientation. Use calm, gentle approach& conversational cues to orientate patient to time & place • Feed patient PRN. Assess dysphagia & consult OT/Dietitian PRN
S	**SLEEP DISTURBANCE** **SENSORY CHANGE** **SOCIAL ISOLATION**	• Ensure 4-hour sleep periods. No routine night turns. Naps OK • Ensure glasses, hearing aids & dentures fit well and work • Promote family stays & overnights PRN. Provide delirium pamphlet. Encourage familiar objects-pictures, blankets, pet visits
M	**MEDICATION** **METABOLIC** **MOBILITY**	• Review recent med changes, drug levels, ETOH. Avoid medications of risk (ie, demerol, codeine. benzodiazepines) • Evaluate fluid balance/output/labs/oxygenation. If agitated, restart IV X 2 only-consider alternatives & ensure agitation is treated • Encourage self-care; toileting; ambulation. Up for meals
E	**ENVIRONMENT**	• Provide a quiet, supportive environment --↓ noise, lights & people • Hypoactive-Increase stimuli as tolerated. Activate • Hyperactive-Reduce stimuli, especially at night

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Delirium extra resources or assessment tools continued on next page

DELIRIUM EXTRA RESOURCES OR ASSESSMENT TOOLS
CONTINUED

Delirium Diagnostic Criteria (DSM-V)[7, 10]

Note: No recommended screening tools currently available; the below resource has been updated to reflect the change in DSM-V diagnostic criteria which removes level of consciousness in particular aspects of coma (**Feature D**). This remains controversial.[6, 46]

Box 21.1 Diagnostic criteria for delirium

A. Disturbance in attention and awareness
B. The disturbance develops over a short period of time and tends to fluctuate in severity during the course of the day.
C. Disturbance in cognition
D. The disturbances in criteria A and C are not explained by another preexisting, established, or evolving neurocognitive disorder and do not occur in the context of a severely reduced level of arousal, such as coma.
E. History, physical examination, or laboratory findings indicate that the disturbance is caused by a medical condition, substance intoxication or withdrawal, or exposure to a toxin, or is because of multiple etiologies.

Source: Adapted from American Psychiatric Association (2013), reference 37.

Delirium extra resources or assessment tools continued on next page

DELIRIUM EXTRA RESOURCES OR ASSESSMENT TOOLS
CONTINUED

Occupational Therapy Cognition Toolkit [79]

Comparison of the features of delirium, dementia and depression:

Feature	Delirium	Dementia	Depression (includes psychotic depression)
Onset	Acute (hours to days)	Insidious (months to years)	Acute or insidious
Acuity	Acute illness, medical emergency	Chronic, progressive	Episodic
Course	Fluctuates hourly, lucid periods in a day confusion usually worsens at night	Stable throughout the day; Chronic; progresses slowly	Relatively stable; May be self-limiting, recurrent, or chronic; symptoms worse in the morning, improve during the day
Duration	Days to months; not always reversible	Months to years Progressive and irreversible; ends in death	Variable
Consciousness	Reduced; Fluctuates	Clear until late in the course of the illness	Clear
Hallucinations	Gross distortions, Frequent hallucinations, Usually visual or visual and auditory	Often absent in early stages; in later stages may have hallucinations, especially visual	May have hallucinations (predominantly auditory)
Delusions	Fleeting, poorly systematized	Often absent	May have sustained, systematized delusions
Attention/ concentration	Impaired	Normal, except in late stages	May be disordered
Orientation	Usually impaired, at least for a time	Impaired as disease progresses	Selective disorientation
Memory	Immediate and short term memory impaired	Memory impaired, gradually worsening as disease progresses	May be selectively or minimally impaired; concerns about memory
Psychomotor	Increased, reduced or shifting unpredictably	Often normal	Varies from retardation to hyperactivity (in agitated depression)
Speech	Often incoherent; slow or rapid	Usually coherent until late stage	Normal, slow or rapid
Thinking	Disorganized or incoherent	Limited, impoverished and vague	Impoverished, retarded; usually organized
Physical illness or drug toxicity	One or both present	Often absent in Alzheimer's disease	Usually absent, but debatable
Affect	Variable	Variable	Depressed
Sleep/wake cycle	Disturbed; changes hourly	Disturbed; day/night reversal	Disturbed with early-morning wakening; hypersomnia during the day

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DELIRIUM REFERENCES

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