

Cancer Care Ontario

Action Cancer Ontario

Symptom Management Pocket Guides:

DELIRIUM

As of March 2024, this Symptom Management Clinician Algorithm is IN REVIEW. This means that it is undergoing a review for currency and relevance. It is still appropriate for this document to be available while this updating process unfolds.



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DELIRIUM

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Considerations

- The underlying etiology needs to be identified in order to intervene.
- Delirium may interfere with the patient's ability to report other symptom experiences.
- Provide explanation and reassure the family that the symptoms of delirium will fluctuate, are caused by the illness, are not within the patient's control, and the patient is not going 'insane'.
- Some hallucinations, nightmares, and misperceptions may reflect unresolved fears, anxiety or spiritual passage.
- Include the family in decision making, emphasizing the shared goals of care; support caregivers.

- Correct reversible factors – infection, constipation, pain, withdrawal, drug toxicity.
- Review medications; consider opioid rotation to reverse opioid neurotoxicity; discontinue unnecessary drugs or prolong dosing interval for necessary drugs.
- Anticipate the need to change treatment options if agitation develops, particularly in cases where patient, family and staff safety may become threatened.
- Misinterpreting symptoms of agitation/restlessness, moaning and/or grimacing as poorly controlled pain, with subsequent administration of more opioids, can potentially aggravate the symptom and cause opioid neurotoxicity.

Assessment

- Ongoing comprehensive assessment is the foundation of effective management of delirium and restlessness including interview, physical assessment, medication review, medical and surgical review, psychosocial review, review of physical environment and appropriate diagnostics.
- Delirium may interfere with optimal pain and symptom expression (self-reporting), assessment and management.
- In situations where a patient is not able to complete an assessment by self reporting, then the health professional and/or the caregiver may act as a surrogate.

Diagnosis

- Identifying the underlying etiology of the delirium or restlessness is essential in determining the interventions required.
- The causes of delirium are usually multifactorial (See table below, adapted from Capital Health).
- Determining the underlying etiology, education/reassuring the patient/family and treating the symptoms should occur simultaneously.

D	Drugs, drugs, drugs, dehydration, depression
E	Electrolyte, endocrine dysfunction (thyroid, adrenal), ETOH (alcohol) and/or drug use, abuse or withdrawal
L	Liver failure
I	Infection (urinary tract infection, pneumonia, sepsis)
R	Respiratory problems (hypoxia), retention of urine or stool (constipation)
I	Increased intracranial pressure;
U	Uremia (renal failure), under treated pain
M	Metabolic disease, metastasis to brain, medication errors/omissions, malnutrition (thiamine, folate or B12 deficiency)

Non-Pharmacological Treatment

- Report hallucinations that become threatening.
- Instruct the family to provide gentle, repeated reassurance and avoid arguing with the patient.

- Watch for the “sun downing” effect (nocturnal confusion) , as it may be the first symptom of early delirium.
- Provide a calm, quiet environment and help the patient reorient to time, place and person (visible clock, calendar, well known or familiar objects).
- Presence of a well known family member is preferred.
- Provide a well lit, quiet environment. Provide night light.
- To prevent over-stimulation, keep visitors to a minimum, and minimize staff changes and room changes.
- Correct reversible factors – dehydration, nutrition, alteration in visual or auditory acuity (provide aids), sleep deprivation.
- Avoid the use of physical restraints and other impediments to ambulation. Avoid catheterization unless urinary retention is present.
- Encourage activity if patient is physically able.
- When mildly restless provide observation and relaxation techniques (massage, tub baths, gentle music) as applicable.
- Encourage the family to be present in a calming way.

Pharmacological Treatment

- Review medications; consider opioid rotation to reverse opioid neurotoxicity
- Consider psychotropic drugs for patients developing “sun downing” effect (confusion in the evening).
- Anticipate the need to change treatment options if agitation develops – particularly in cases where patient, family and staff safety may become threatened.
- Benzodiazepines may paradoxically excite some patients and should be avoided unless the source of delirium is alcohol or sedative drug withdrawal, or when severe agitation is not controlled by the neuroleptic.
- If patient has known or suspected brain metastases a trial of corticosteroids is worthwhile.
 - Dexamethasone 16 - 32 mg po daily in the morning may be used (*Suggestion is based on expert opinion and doses may vary from region to region*).
- Misinterpreting symptoms of agitation/ restlessness, moaning and/or grimacing as poorly controlled pain, with subsequent administration of more opioids, can potentially aggravate the symptom and cause opioid neurotoxicity.
- Titrate starting dose to optimal effect.

Mild Delirium

- Orient patient as per non-pharmacological recommendations.

Pharmacological

- Haloperidol is the gold standard for management of delirium.
- If titration with haloperidol is not effective consider using methotrimeprazine.
- Haloperidol 0.5-1 mg po / subcut bid-tid
- Alternate agents:
 - Risperidone 0.5-1 mg po bid
 - Olanzapine 2.5–15 mg po daily
 - Quetiapine fumarate 50-100 mg po bid
 - Methotrimeprazine 5-12.5 mg po OR 6.25-12.5 mg subcut q4-6h prn
 - Chlorpromazine 25-50 mg po q4-6h prn

Moderate Delirium

Pharmacological

- Haloperidol 0.5-2 mg subcut q1h prn until episode under control; may require a starting dose of 5 mg subcut
- Alternate agents:
 - Risperidone 0.5-1 mg po bid
 - Olanzapine 2.5-15 mg po daily
 - Quetiapine fumarate 50-100 mg po bid
- Benzodiazepines may paradoxically excite some patients and should be avoided unless the source

of delirium is alcohol or sedative drug withdrawal, or when severe agitation is not controlled by the neuroleptic

Severe Delirium

- Titrate starting dose(s) to optimal effect.
- If agitation is refractory to high doses of neuroleptics, (as outlined in moderate delirium) consider adding lorazepam 0.5-2 mg subcut q4-6h prn or midazolam 2.5-5 mg subcut q1-2h prn in conjunction with the neuroleptic.

Alternate agents to consider:

- Methotrimeprazine 12.5–25 mg subcut q8-12h and q1h prn OR
- Chlorpromazine 25-50 mg po/subcut q4-6h prn.
- If above not effective consider:
 - Haloperidol 10 mg subcut. Typically, in palliative care the maximum dose of haloperidol is 20 mg/day OR
 - Methotrimeprazine 25-50 mg subcut q6-8h and q1h prn.

Adverse Effects of Medications Used to Treat Delirium

- Extrapyramidal side effects (EPS) are common adverse events of neuroleptics, with the newer atypical neuroleptics having a lower risk of EPS than the older typical neuroleptics.

- Potentially all dopamine antagonists can cause EPS, to varying degrees, due to the D2 central antagonist actions.
- Manifestations of EPS are usually dose dependent. Extrapyramidal side effects may include: acute dystonia, akathisia, and Parkinson-like signs/symptoms.
- Akathisia and acute dystonias tend to resolve with discontinuation of the offending drug.
- For the treatment of mild cases one should consider discontinuation of the drug or switching to a less antidopaminergic agent if possible.
- If pharmacologic management is needed, then consider benztropine (1st line) 1-2 mg po/subcut bid (or 2mg IM/IV for acute dystonic reactions). Alternative medications include biperiden 2 mg po bid or diphenhydramine 25-50 mg po/subcut bid to qid (or 25-50 mg IV/IM for acute dystonia).

Selected References

- 1) Fraser Health. Hospice Palliative Care Program Symptom Guidelines: Delirium/Restlessness. Fraser Health Website, 2006. Accessed: August 2008. Available from:
<http://www.fraserhealth.ca/media/07FHSymptomGuidelinesDelirium.pdf>
- 2) Common Questions by Capital Health, Regional Palliative Care Program Edmonton, 3rd Edition, 2006, Pg. 60.
- 3) Adapted with permission from the National Comprehensive Cancer Network. Clinical Practice Guidelines in Oncology Palliative Care. V.2.2011. Website:
http://www.nccn.org/professionals/physician_gls/f_guidelines.asp

For full references and more information please refer to
[CCO's Symptom Management Guide-to-Practice: Delirium](#) document.

Disclaimer:

Care has been taken by Cancer Care Ontario's Symptom Management Group in the preparation of the information contained in this pocket guide.

Nonetheless, any person seeking to apply or consult the pocket guide is expected to use independent clinical judgment and skills in the context of individual clinical circumstances or seek out the supervision of a qualified specialist clinician.

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