ALGORITHM August 2010

Delirium in Adults with Cancer: Screening and Assessment

Screen for delirium at each visit

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Assessment using Acronym O, P, Q, R, S, T, U and V (adapted from Fraser Health)

Onset	When did it begin? Has it happened before?
Provoking / Palliating	Are there things which worsen the agitation? What makes it better? What makes it worse? How are you sleeping?
Quality	What does it feel like? Do you feel confused? Are you seeing or hearing anything unusual?
Region / Radiation	Do you know what day/month/year it is? Do you know where you are right now? Can you tell me your full name?
Severity	What is the intensity of this symptom (On a scale of 0 to 10 with 0 being none and 10 being worst possible)? Right Now? At Best? At Worst? On Average? How bothered are you by this symptom? Are there any other symptom(s) that accompany this symptom?
Treatment	What medications or treatments are you currently using? How effective are these? Do you have any side effects from the medications/treatments? What medications/treatments have you used in the past?
Understanding / Impact on You	What do you believe is causing this symptom? How is this symptom affecting you and/or your family?
Values	What is your goal for this symptom? What is your comfort goal or acceptable level for this symptom (On a scale of 0 to 10 with 0 being none and 10 being worst possible)? Are there any other views or feelings about this symptom that are important to you or your family?

Note: 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. *Physical Assessment (as appropriate for symptom), * Pertinent History (risk factors).

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Causes of Delirium Acronym (adapted from Capital Health)

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)

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Interventions for all patients, as appropriate

- The underlying etiology needs to be identified in order to intervene.
- Orientation questions alone do not provide accurate assessment.
- Delirium may interfere with the patient's ability to report other symptom experiences (e.g. pain).
- 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'.
- It is important to understand that 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.

Delirium in Adults with Cancer: Care Map

Mild Delirium
Care Pathway 1

Moderate Delirium
Care Pathway 2

Severe Delirium
Care Pathway 3

NON-PHARMACOLOGICAL

- 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

- Titrate starting dose to optimal effect
- If a patient is developing "sun downing" effect (confusion in the evening), psychotropic drugs have a place in treatment.
- If a 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 however, this suggestion is made based on expert opinion and doses may vary from region to region.
- 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 12.5-50 mg po/subcut q4-12h prn

PHARMACOLOGICAL

- Titrate starting dose to optimal effect
- 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 (See care pathway 3)

PHARMACOLOGICAL

- Titrate starting dose to optimal effect
- Palliative sedation is a consideration in refractory delirium and consultation with a palliative care expert or psychiatry is recommended.
- If agitation is refractory to high doses of neuroleptics, (as outlined in moderate pathway) 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 per day OR
  - Methotrimeprazine 25-50 mg subcut q6-8h and q1h prn

Follow-Up and Ongoing Monitoring

If delirium remains unrelieved despite the approaches outlined above, request the assistance of a palliative care consultation team.

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