Delirium in the Terminally Ill

Sarah Brown RN, MN
Clinical Nurse Specialist
Deer Lodge Centre

Definition

- Non-specific global cerebral dysfunction associated with changes in LOC, attention, thinking, perception, memory, psychomotor behavior, emotion, and the sleep/wake cycle

DSM IV Criteria

A) Disturbance in consciousness with impaired ability to focus, sustain, or shift attention.

B) Change in cognition (memory, disorientation, language or perceptual disturbance) that is not dementia.

C) Abrupt onset (hours-days) with fluctuation.

D) Evidence of medical condition judged to be etiologically related to the disturbance.

Clinical Subtypes

Hypoactive: confusion, decreased alertness, withdrawn, tend to sleep more.

- Commonly undiagnosed

Hyperactive: agitation, aggression, hallucinations.

Mixed: features of both, fluctuates (worse at night, lucid intervals during the day).

Prevalence

- 20% - 44% on admission to a palliative care unit (common reason for admission)
- 28% - 45% of patients developed delirium while on the palliative care unit
- 68% - 90% prior to death

Characteristics

- Abrupt onset
- Disorientation, fluctuation of symptoms
- Early signs often mistaken as anger, anxiety, depression, psychosis
- Perceptual disturbances: hallucinations, delusions
- Impaired recent memory

Characteristics

- Changes in sleeping patterns
- Restlessness, agitation, aggression
- Incoherent, rambling speech
- Fluctuating emotions
- Activity that is disorganized and without purpose

Delirium versus Dementia

- Delirium often misdiagnosed as dementia.

Delirium	**Dementia**
Abrupt onset	Progressive onset
Decreased LOC	LOC intact, alert
Random behavior	Consistent behavior
Sleep/wake cycle change	Minimal changes
Reversible	Irreversible

Screening Tools

Delirium Rating Scale

Temporal onset

Perceptual changes

Psychomotor behavior

Cognitive status

Mood lability

MMSE

orientation

registration

attention/calculation

recall

language

Confusion Assessment Method

1) Acute onset & fluctuating course
2) Inattention (difficulty focusing attention)
3) Disorganized thinking (rambling conversation, illogical flow of ideas, incoherent)
4) Altered level of consciousness (hyperalert, lethargic, difficult to arouse)

Consider delirium if 1 & 2 present, & either 3 or 4 present.

Causes

- Delirium is usually multifactoral
- The overall burden of terminal illness increases the person's vulnerability for delirium
- Most common: medications (opioids, anticholinergic drugs, steroids, antipsychotics), infection (pneumonia, UTI)
- Fluid imbalances (dehydration, overload)
- Electrolyte imbalances (hypercalcemia)

Causes

- Nutritional deficiencies
- Urinary retention, fecal impaction
- Polypharmacy
- Drug withdrawal (alcohol, benzodiazepines)
- Brain tumor or brain metastases
- Medical conditions (CHF, COPD, CVA)
- Vulnerable: elderly, demented

Consequences of Delirium

- Falls, fractures, incontinence
- Increased nursing care
- Disturbing to family members: communication disrupted to address life-closure issues
- Jeopardizes optimal quality of life

Nursing Interventions

Physiological:

- **Treat underlying cause!**
- Review patient's medications, labwork, medical history, pulse oximetry, CXR, urine C&S
- Opioid rotation
- Discontinue or decrease medications
- Treat infections, metabolic/nutritional/fluid disturbances

Nursing Interventions

- Radiation for brain metastases/tumor
- Adequate pain control
- Resolve urinary retention, fecal impaction
- Neuroleptic therapy: Haldol = less anti-cholinergic side effects
- Benzodiazepines can sometimes worsen delirium

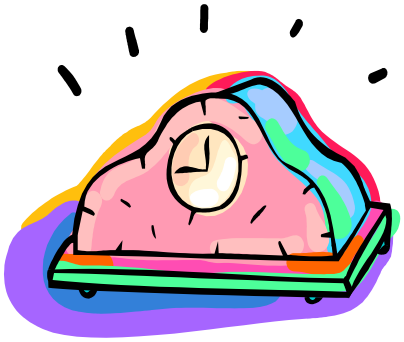
Nursing Interventions

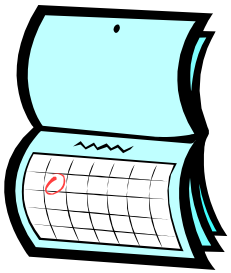
- In the final hours/days: focus may be on patient comfort rather than clear cognition.
- Rapid & safe sedation to help prevent injury:
- Haldol, Nozinan (very sedating, helps nausea & pain also), Versed, Chlorpromazine (helps dyspnea also)
- Can be used in combination (especially for moderate to severe agitation)

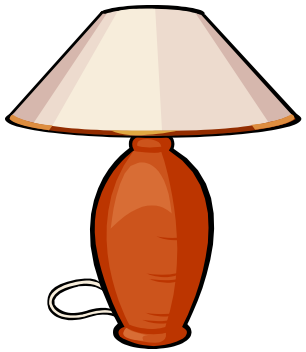
Nursing Interventions

Environmental:

- Quite, private setting: single room if possible
- Low lighting, calendar, clock, familiar objects
- Minimal room changes with unnecessary distractions







Nursing Interventions

Supportive:

- Clear and simple communication
- Alleviate isolation: encourage short visits from family/friends
- Protect against injury

Nursing Interventions

Family Teaching:

- Inform family of diagnosis of delirium
- Teach family to expect fluctuations in behavior, mood, how to communication
- Explain that delirium is common and potentially reversible (if not in final hours)
- If in final hours: explain that sedation provides comfort & symptom control, not hastens death

Outcomes

- Delirium may be reversible (40%) in terminally ill cancer patients on a palliative care unit.
- Implementation of interventions to correct delirium can improve the quality of life of patients, provide time for communication of life-closure issues with family.

Algorithm

Agitation/ Decreased LOC/ Decreased Cognition

v

Confirm with Screening Tool: Delirium

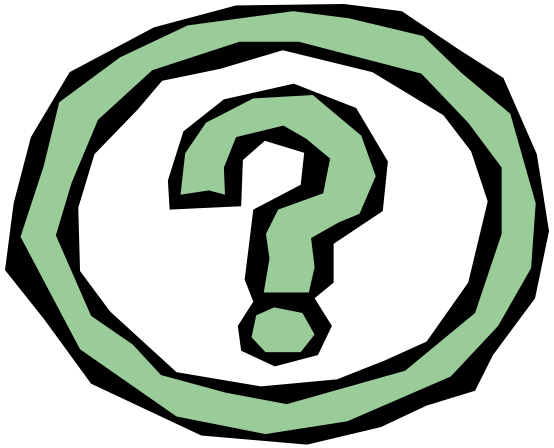
v

Reversible cause? Investigations

v

Interventions: physiological/supportive/education

Questions?



Case Study

- 84 year old man: cancer (? primary) with metastases to liver
- PMHX: COPD, CHF, pneumonia, TURP
- Medications: Potassium, Lasix, Colace, Sertraline (50mg HS), MS Contin (15mg q12h), Morphine (5mg PRN), Maxeran (10mg PRN)

Case Study

- Admitted d/t delirium, abdominal pain, fatigue, depression, incontinence & dysurea, N & V, anorexia, productive cough/ decreased A/E.
- Presented as: incoherent, restless, agitated, disorientated (thought he was in Grand Forks), paranoid, incoherent speech, hallucinating, sleep pattern changed, dependent with ADLs.
- MMSE score: **3/ 30 (!)**

Case Study

- What are some possible causes?
- What investigations would you like ordered?

Case Study

- CT scan of brain revealed: brain metastases
- Urine C & S: positive for UTI
- Sputum/CXR: negative for pneumonia
- Labwork: normal except increased LFTs
- VS normal, O2 sat: 92% RA

Case Study

- Morphine switched to Fentanyl Patch (25mcg)
- Sertraline discontinued
- Cipro for UTI
- Haldol for agitation
- Paxil for depression
- No radiation as it was felt by MD that patient prognosis was too poor

Case Study

Few days later:

- Orientation improved
- MMSE 17/30
- Stopped hallucinating, participated in ADLs, recognized visitors
- Good symptom control
- Enjoyed communication with family

Case Study

One week later:

- MMSE score: 23/ 30
- Paxil discontinued
- Haldol decreased

Case Study

2 weeks later:

- Condition deteriorated: weak and confused
- Fluctuating agitation, restlessness, aggression
- LOC decreased, open eyes to name only
- Family requested terminal sedation
- Fentanyl patch d/c, Dilaudid SQ, Haldol increased SQ
- Died 5 days later