Delirium in the Terminally Ill

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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**Hypoactive:** confusion, decreased alertness, withdrawn, tend to sleep more.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**
- Abrupt onset
- Decreased LOC
- Random behavior
- Sleep/wake cycle change
- Reversible

**Dementia**
- Progressive onset
- LOC intact, alert
- Consistent behavior
- Minimal changes
- 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 multifactorial
- 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 anticholinergic 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 communicate
- 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

Confirm with Screening Tool: Delirium

Reversible cause? Investigations

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
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