Agitation & Delirium at End of Life

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Objectives

- Identify common changes exhibited by dying patients
- Define agitation and delirium
- Discuss nonpharmacologic and pharmacologic treatment options for agitation and delirium
- Review palliative sedation for refractory symptoms
The Dying Patient

- Increased Sleeping
- Dysphagia
- Food/Water Indifference
- Low Blood Pressure
- Incontinence
- Respiratory Changes
- Vasomotor Instability
- Mental Status Changes
Symptom Identification

- Terminal Restlessness
- Terminal Agitation
- Terminal Anguish
- Terminal Delirium
- Psychiatric Disturbances
- Confusion
Agitation

- State of excessive psychomotor activity with increased tension, irritability and restlessness
  - Agitated patients may present with or without delirium
- Non-purposeful motor movement
- Potential precipitating factors: pain, nausea, bladder distention, withdrawal, constipation, dyspnea, pain from immobility
Delirium

- Acute confused state, disturbance in mental abilities
  - Alteration of consciousness, reduced ability to focus
  - Difficulty sustaining and shifting attention
  - Confused thinking, reduced awareness

- Develops quickly

- Causes: medical conditions, intoxication, medication adverse effects

- Hyperactive, hypoactive, mixed

- Etiology and frequency
Delirium

Hypoactive
- Withdrawn, lethargic, sedate
- Flat affect

Hyperactive
- Restless, agitated, emotionally unstable
- Hallucinations or delusions
- Loud speech, anger, wandering, combative

Mixed
- Alternating features (hyper/hypo-active)
- Difficult to diagnose
Risk Factors

- Age
- Severity of illness
- Cognitive impairment
- Hearing or vision loss
- Polypharmacy
- Isolation
- Organ damage
- Impending death
Triggers and Risk Factors

**Environment**
- Temperature
- Noise
- Residence
- Restraints

**Reversible Causes**
- Vision/hearing impairment
- Bowel or bladder issues

**Drug Therapy**
- New Agents
Risk Factors: Medications!

- Anticholinergics
- Antipsychotics
- Benzodiazepines
- Chemotherapy
- Corticosteroids
- Dopamine agonists
- Opioids
Prevention

- No intervention reliably prevents delirium
  - Target modifiable risk factors
  - Multicomponent nonpharmacologic interventions

- Orientation
- Cognitive Stimulation
- Sleep Hygiene
- Mobilization & Restraints
- Medication Appropriateness
- Symptom Management
Nonpharmacologic Therapy

- Caregiver education
- Frequently reorient patient
- Place familiar objects in the room
- Make clocks and calendars visible
- Calm environment
- Staff continuity
- Eyeglasses and hearing aids
- Monitor bowel and bladder function
Pharmacologic Interventions
Pharmacotherapy

- No FDA approved medications for delirium
  - Limited data
- Polypharmacy
- Antipsychotics
- Anticholinergic Activity
Pharmacotherapy

Haloperidol

- Evidence of psychomotor agitation, delusions, hallucinations
- Dosing: 1-2mg po q2h until resolved/patient settled, repeat dose q6-8h prn
- Routes: SL, PR, IV, SC, IM
- Tablets, oral solution, injectable formulations
- 50% dose reduction for frailty
- Alternatives: olanzapine, risperidone, quetiapine
Pharmacotherapy

Lorazepam

- Persistent agitated delirium
- Dosing: 1mg po q4-6h prn
- Routes: SL, PR, IV, SC, IM
- Tablets, oral concentrate, injectable formulations available
- Preferred in Lewy Body Dementia or Parkinson’s
Pharmacotherapy

Chlorpromazine

- Dose: 10-25mg q8h prn or scheduled
- Routes: PO, SL, PR, IM
- Formulations
  - Tablets: 10mg, 25mg, 50mg, 100mg, 200mg
  - Injectable: 25mg/mL
- Notes: sedating, orthostatic hypotension, potential for QT prolongation, should be avoided in Parkinson’s and Lewy Body Dementia
## Pharmacotherapy

<table>
<thead>
<tr>
<th>Aripiprazole</th>
<th>Olanzapine</th>
<th>Quetiapine</th>
<th>Risperidone</th>
<th>Ziprasidone</th>
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</thead>
<tbody>
<tr>
<td>Tabs, oral solution, ODT</td>
<td>Tabs, ODT</td>
<td>Tabs, ER tabs</td>
<td>Tabs, oral solution, ODT</td>
<td>Capsules</td>
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<tr>
<td>Delayed onset</td>
<td>Metabolic syndrome</td>
<td>Parkinson’s or LBD</td>
<td>Long-acting injection*</td>
<td>Administer with food</td>
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<tr>
<td>Long half-life</td>
<td>Monitor for EPS</td>
<td>Increased blood glucose</td>
<td>May increase blood glucose</td>
<td></td>
</tr>
<tr>
<td>Injection: restricted access*</td>
<td>Sedating</td>
<td></td>
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</tbody>
</table>

*Injection*
Patient Case: Mr. A.

- 84-year-old male admitted to hospice with primary dx of Alzheimer’s
- CC: sleep/wake cycle changes, behavioral disturbances
  - Requires full-time supervision and assistance with activities of daily living
- Hx: HTN, Hypercholesterolemia, Glaucoma
- Social: lives at home with wife of 60+ years; children and family live nearby
Patient Case: Mr. B.

- 43-year-old male admitted to hospice with primary dx of malignant neoplasm of rectosigmoid junction
- CC: abdominal and pelvic pain
  - Intensity rating 6/10
  - Describes as sharp, stabbing as well as dull and continuous
- Hx: Otherwise, healthy; non-smoker; recently diagnosed depression and anxiety
- Social: father of two children; wife is primary caregiver
Palliative Sedation

Exhaust Alternatives
Lower Consciousness
Preserve Ethics
Monitor Outcomes
Communication

- Compassionate behavior
- Open-ended questions
- Individualized care (goals of care oriented)
- Acknowledge limitations
- Consistent messages
Thank you

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Select References