Delirium

UT Southwestern Medical Center

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Adapted from: CHAMP: Delirium in Seniors Don Scott MD, University of Chicago
Version 1.0

1 = Acute Onset & Fluctuating Course
2 = Inattention
3 = Disorganized Thinking
4 = Altered Level of Consciousness

Delirium versus Dementia

<table>
<thead>
<tr>
<th>Feature</th>
<th>Delirium</th>
<th>Dementia</th>
</tr>
</thead>
<tbody>
<tr>
<td>Onset</td>
<td>Acute</td>
<td>Insidious</td>
</tr>
<tr>
<td>Course</td>
<td>Fluctuating</td>
<td>Constant</td>
</tr>
<tr>
<td>Attention</td>
<td>Disordered</td>
<td>Generally Preserved</td>
</tr>
<tr>
<td>Consciousness</td>
<td>Disordered</td>
<td>Generally Preserved</td>
</tr>
<tr>
<td>Hallucinations</td>
<td>Often Present</td>
<td>Generally Absent</td>
</tr>
<tr>
<td>Invol. Movmt</td>
<td>Often Present</td>
<td>Gen Absent</td>
</tr>
</tbody>
</table>

Risk Assessment at Admission

1. ↓ Vision (<20/70)
2. Severe Illness
3. ↓ Cognition (≤ 24 MMSE)
4. Dehydration (BUN/Cr > 18)
   1-2 items = Intermediate Risk → OR 2.5
   3-4 items = High Risk → OR 9.2

Precipitating Factors During Hospitalization

1. Physical Restraints
2. Malnutrition
3. ≥ 3 Med Classes added
4. Bladder Catheter
5. Iatrogenic Event
   1-2 items = Intermediate Risk → OR 7.1
   3-5 items = High Risk → OR 17.5

Highly vulnerable patient only needs one slight insult, versus low vulnerability needing a large or numerous small insults.

Differential Diagnosis

D – DRUGS!!! (especially as a medication is introduced or dose adjusted)
E = Electrolytes, environment change
L = Lack of drugs (withdrawal: EtOH, opioids, benzos, SSRI/SNRI)
I = Infection, idiopathic
R = Restraints, reduced sensory input (vision, hearing)
U = Urinary retention or fecal impaction
M = Metabolic including hypoxia (MI, PE), uremia, ammonia, thyroid

ALWAYS check the MEDICATION LIST – There is a cumulative burden effect.
Any new medication or recent dose change is suspect.

Common Offenders: (Drug Class and Examples)

1. Psychiatric medications
   a) Antidepressants (tricyclics, SSRI/SNRI)
   b) Anxiolytics (benzodiazepines)
   c) Antipsychotics
   d) Other (cholinesterase inhibitors/memantine, lithium)
2. Anti-histamines / Anticholinergics - (diphenhydramine, hydroxyzine)
   - Many unrelated drugs have anticholinergic activity such as diphenhydramine, tricyclic antidepressants and warfarin
3. Anti-vertigo/Anti-emetics (metoclopramide, meclizine, promethazine, prochlorperazine, trimethobenzamide)
4. Muscle relaxants
5. Anti-spasmodics
   a) GI (Donnatal, hyoscyamine, dicyclomine)
   b) GU (oxybutynin, tolterodine)
6. Anti-Parkinsons medications
7. Narcotics
8. Corticosteroids
9. H2 blockers- ranitidine, cimetidine
10. Anticonvulsants
11. Antibiotics – quinolones

Treatment

1. Treat underlying cause/causes
2. Provide supportive care and prevent complications
   - Falls, aspiration, dehydration, pressure sores, iatrogenesis
3. Nonpharmacologic – FIRST LINE THERAPY
   - Normalize environment - get rid of tethers, keep room calm and quiet, uninterrupted sleep (no midnight vitals), mobilization/reorientation during day, encourage caregiver involvement/familiar objects
   - Address/remove risk factors or precipitating agents
4. Pharmacologic – only when needed for patient safety
   - Agent of choice – Haloperidol (Haldol) (LOW doses to start) 0.5 mg
   - Atypical antipsychotics (olanzapine, risperidone – start LOW)
   - Benzos – agent of choice for EtOH withdrawal, otherwise AVOID

References:
Does this patient have delirium? JAMA 2010;304(7):779-86.