Differential Diagnosis

D – **DRUGS!!!** (especially as med 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)
I – Intracranial (CVA, bleed, meningitis, post-ictal)
U – Urinary retention or fecal impaction
M – Metabolic (hypoxia (MI, PE), uremia, ammonia, thyroid)

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

Common Offenders: (Drug Class and Examples)

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

Treatment

1. Provide supportive care and prevent complications
   -Falls, aspiration, dehydration, pressure ulcers, iatrogenesis
2. Nonpharmacologic – FIRST LINE THERAPY
   -Normalize environment: get rid of restraints, calm and quiet, uninterrupted sleep (no midnight vitals), mobilization/re-orientation during day, caregiver involvement/familiar objects
   -Address/remove risk factors or offending agents
3. 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 w/d, otherwise AVOID

Delirium

UT Southwestern Medical Center
• *Kathryn Eubank MD, Shelley Bingham PharmD*
• *Adapted from: CHAMP: Delirium in Seniors Don Scott MD, University of Chicago-Inouye SK. Delirium in older patients. NEJM 2006;354:1157-1165*
Version 1.0

Diagnosis: CAM: 1+2 + (either 3 or 4)

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

Delirium versus Dementia

Feature	Delirium	Dementia
Onset	Acute	Insidious
Course	Fluctuating	Constant
Attention	Disordered	Gen. Preservd*
Consciousness	Disordered	Gen. Preservd*
Hallucinations	Often Present	Gen Absent*

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. Phys. 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.

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