**Post-op delirium**

Acute onset  
Inattention / distractibility  
Disorganized thinking  
Illogical / unclear ideas  
Alteration in consciousness (lethargic or agitated)

**Risk Factors**
- Age > 70
- Use of hearing aids/glasses
- Existing cognitive deficit
- Pre-op use of opioid analgesic
- Pre-op use of benzodiazepines
- History of alcohol dependence

**Triggers**
- 3+ new medications
- Indwelling catheter or restraint
- Dehydration/malnutrition
- Abnormal K+, Mg, or Na+
- Infection
- Sleep deprivation

**Pharm that increases risk of delirium in elderly**

<table>
<thead>
<tr>
<th>General Drug Class</th>
<th>Specific Drug Types</th>
<th>Example Medications</th>
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<tr>
<td>Anticholinergics</td>
<td>H1 receptor blockers</td>
<td>Diphenhydramine, medazine, hydroxyzine</td>
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<td>Antiparkinsonian</td>
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<td>Phenothiazine</td>
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<td>Tricyclics</td>
<td>Amitriptyline, nortriptyline</td>
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<td>SSRI</td>
<td>Fluoxetine, sertraline</td>
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<tr>
<td>Sedatives</td>
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<tr>
<td>Sedatives</td>
<td>Opioids</td>
<td>Especially codeine, morphine, meperidine</td>
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<td>Antinflammatory</td>
<td>NSAIDS</td>
<td>Aspirin, ibuprofen</td>
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<td>Corticosteroids</td>
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<td>Beta blockers</td>
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<td>Others</td>
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<td>Azithromycin, clarithromycin</td>
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<tr>
<td>Anticonvulsants</td>
<td>Barbitalates</td>
<td>Phenobarbital</td>
</tr>
</tbody>
</table>

**Delirium management**

- Safety First! Is the patient in danger of harming himself or others?
- Identify & treat the cause (see risk factors & triggers)
  - Start with a full set of vitals, including pain and blood glucose
  - Lab values to identify infection, electrolytes
  - Med reconciliation & history (etoh) - new meds or withdrawal from any meds?
- Start with environment / non pharmacologic treatments

**Normalizing sleep/wake patterns**

Ensure adequate hydration & nutritional intake  
(need dietary support? Use resources)

- Low thiamine, folate, B12 contribute to delirium

Assist patient with hearing aids / glasses

Reorient, Reassure, Relaxation

Involve & educate family & caregivers

Encourage movement, activity, ADLs, passive ROM

Ensure adequate pain management

Give supplemental oxygen if needed

Remove physical restraints (SCDs, indwelling catheter, IV tubing, etc.)

Rule out constipation and urinary retention (bladder scan)

Assess skin for new breakdown, infection

Avoid drugs that increase risk of delirium if possible

If symptoms interfere with treatment or put the patient at risk of harm, pharmacological treatment may be warranted.

* Delirium is a medical emergency. Document that MD is aware of change in patient’s cognition.

ASK the family members:

"Is this a CHANGE?"

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