Delirium

Acute brain failure · Find the cause, fix the environment, and avoid the sedatives

PREVENTION WORKS
drugs largely do not

DIAGNOSE IT *the hypoactive form is commoner and routinely missed*

THE CORE FEATURES

Acute onset and fluctuating course · **inattention** — the cardinal feature · **disorganized thinking** · **altered level of consciousness**. Inattention plus acute fluctuation is the combination that defines it.

SCREEN FORMALLY

Use a validated tool — **4AT** on the wards, **CAM**, or **CAM-ICU** in ventilated patients. **Screen at least daily** in at-risk patients. Informal impression misses the majority of cases, particularly overnight.

THREE MOTOR SUBTYPES

Hypoactive — withdrawn, drowsy, quiet. **Commonest and most missed**, and carries the **worst prognosis**. **Hyperactive** — agitated, the one that gets referred. **Mixed** — fluctuating between the two.

FIND THE CAUSE *delirium is a symptom — the diagnosis is what caused it*

Category	Look for
Drugs start here, every time	**Benzodiazepines, opioids, anticholinergics, steroids, antihistamines**. Also **withdrawal** from alcohol, benzodiazepines or nicotine. Review every medication started or stopped in the last 72 hours.
Infection	Urinary, respiratory, skin, intra-abdominal. **But treat asymptomatic bacteriuria as a red herring** — a positive urine culture without urinary symptoms does not explain delirium and treating it causes harm.
Metabolic	Sodium, calcium, glucose, urea, liver failure, hypoxia, hypercapnia, thyroid disease, **thiamine deficiency**.
Structural & neurological	Stroke, subdural hematoma, seizure or **non-convulsive status**, meningitis or encephalitis. Image if there are focal signs, head injury, anticoagulation, or no other explanation.
The simple things	**Pain**, **urinary retention**, **constipation**, dehydration, and sleep deprivation. These are common, easily missed, and easily fixed — check a bladder scan and the bowel chart before escalating.

MANAGE IT NON-PHARMACOLOGICALLY *this is the treatment, not an adjunct*

1. **Treat the precipitant.** Everything else is supportive. If you have not identified a cause, you have not finished looking.
2. **Reorient and normalize.** Clock and calendar visible, curtains open by day, **lights off and quiet at night**, familiar objects, and **family present as much as possible**. Consistent staff where you can.
3. **Restore the senses. Glasses on, hearing aids in, dentures fitted.** Sensory deprivation is a potent and completely reversible contributor that is forgotten daily.
4. **Mobilize, hydrate, and feed.** Get them out of bed and walking. **Remove tethers** — catheters, telemetry leads, infusions — as soon as they are not needed. Protect sleep by clustering observations.
5. **Deprescribe.** Stop or reduce the culprit drugs, particularly benzodiazepines and anticholinergics, and use **non-opioid analgesia** where possible — though **untreated pain itself causes delirium**, so do not leave patients in pain to avoid opioids.

WHEN TO USE MEDICATION *a narrow and reluctant indication*

THE EVIDENCE

Antipsychotics do not prevent delirium and do not shorten it. The large **MIND-USA** trial found haloperidol and ziprasidone did not improve outcomes in ICU delirium, and guidance recommends against their routine use for prevention or treatment. **Benzodiazepines make delirium worse** and should be avoided except for **alcohol or benzodiazepine withdrawal**, where they are the treatment.

IF YOU MUST

Reserve for **severe agitation causing genuine risk** to the patient or others, or distress that non-pharmacological measures have failed to settle. Use the **lowest effective dose of a single agent for the shortest time**, review daily, and **document a stop date**. Check the **QTc** and the electrolytes. **Never continue an antipsychotic to discharge by default** — this is a major source of long-term inappropriate prescribing.

PREVENT IT *the one intervention with strong evidence — about a third of cases are preventable*

Target	The intervention
Cognitive impairment	**Orientation, cognitively stimulating activity, and familiar faces.** Identify pre-existing dementia on admission — it is the strongest single risk factor and changes your threshold for everything else.
Sleep deprivation	**Non-pharmacological sleep protocol**: cluster observations, reduce noise and light, avoid overnight labs and vital-sign checks where safe. **Do not use sedatives to induce sleep** — they cause the problem you are trying to prevent.
Immobility	**Early and repeated mobilization**, range-of-motion exercises, and minimizing catheters, lines and restraints that physically tether the patient to the bed.
Vision and hearing	Ensure **glasses and hearing aids are present and working**. Ask the family to bring them in — they are frequently left at home on an emergency admission and never replaced.
Dehydration	Early recognition and correction, with encouragement of oral intake and a proactive approach to volume in the frail.

WHO IS AT RISK *identify them on admission and apply the bundle proactively*

PREDISPOSING

Age over 65 · **pre-existing cognitive impairment or dementia** — the dominant risk factor · frailty and multimorbidity · sensory impairment · previous delirium · depression · alcohol excess · polypharmacy · malnutrition.

PRECIPITATING

Acute illness and surgery (especially hip fracture and cardiac surgery) · ICU admission · **new psychoactive drugs** · uncontrolled pain · urinary catheterization · physical restraint · multiple ward moves. **The frailer the patient, the smaller the insult needed** — in advanced dementia a urinary catheter alone can precipitate it.

PEARLS & PITFALLS

- **Hypoactive delirium is the commonest form and the most dangerous.** A quiet, withdrawn patient is not "settled" — screen them.
- **Delirium is not a diagnosis.** Name the precipitant, or keep looking.
- **Do not treat asymptomatic bacteriuria** as the cause. It is an extremely common false explanation that stops the real workup.
- **Antipsychotics do not treat delirium.** They sedate agitation, at the cost of QTc, falls, and inappropriate long-term prescriptions.
- **Check for retention and constipation** before escalating. A bladder scan solves a surprising number of cases.
- **Delirium predicts long-term cognitive decline and mortality.** Document it, communicate it at discharge, and arrange follow-up.

References: MIND-USA trial of antipsychotics for ICU delirium (NEJM, 2018) · PADIS guidelines on pain, agitation and delirium in the ICU · NICE guidance on delirium prevention and management · Hospital Elder Life Program (HELP) evidence.

Educational aid; verify against local protocol and patient factors.