PALLIATIVE & END-OF-LIFE CARE · TEACHING AID

Delirium in Advanced Cancer

Recognise it early. Find the cause. Treat gently.

◆ **THE BOTTOM LINE — IN 30 SECONDS**

- Delirium is a **sudden, fluctuating** change in attention and awareness, driven by a **physical cause**. It is very common in advanced cancer and is easily missed.
- Away from the very end of life, most delirium is **reversible**. **Find the cause first.**
- **Non-drug care comes first.** Medicines are only for distress or danger — lowest dose, shortest time.
- If a drug is needed, **haloperidol is first-line** — but **never** in Parkinson's disease or Lewy body dementia.

1 What delirium actually is

Delirium is a disturbance of **consciousness, awareness and attention**, with changed thinking, that develops over **hours to days** and **fluctuates** through the day. It is caused by an underlying illness or its treatment, not by the cancer alone.

◎ **A SIMPLE WAY TO REMEMBER IT**

Delirium is a **smoke alarm, not the fire**. The confusion is the alarm going off; your job is to find *what is burning* — a drug, an infection, pain, a full bladder, a high calcium. Sedating the patient without finding the fire just silences the alarm and leaves the danger in place.

Why it matters here

- Seen in **30–85%** of hospice patients, and up to **~90%** in the final days of life.
- Distressing for the patient, the family and the team.
- It is the body's signal that something has changed — often something you can fix.

A word on naming

Older notes call this an *"acute confusional state."* The modern term is **delirium**. Keep the words *terminal restlessness* or *terminal agitation* only for when reversible causes have been excluded in a dying patient.

The three faces of delirium

Hyperactive

THE LOUD ONE

Restless, agitated, hallucinating, hyper-alert. Easy to spot — but only ~1 in 4 cases.

Hypoactive

THE QUIET ONE

Withdrawn, drowsy, slow. **The most common** and most often missed — mistaken for depression or "just tired."

Mixed

THE SHIFTING ONE

Swings between agitated and withdrawn, often worse at night.

Sources: Scottish Palliative Care Guidelines – Delirium (NHS Scotland, Right Decisions); NICE CG103.

2 Recognise it

RECOGNISE

Suspect delirium in any patient with a **new or fluctuating change** in mental state. The single most useful question is: *"Is this different from their normal self, and did it come on quickly?"*

The core features

- **Acute onset** over hours to days, and a **fluctuating** course (often worse at night).
- **Inattention** — drifts off, can't follow a conversation or hold a thread.
- **Altered consciousness** — drowsy, or wired and hyper-alert.
- **Disorganised thinking**, muddled speech.
- **Perceptual change** — hallucinations, misperceptions, disturbed sleep.

▸ ALWAYS GET A COLLATERAL HISTORY

Ask someone who knows the patient's baseline. You cannot judge an *acute change* without knowing what "normal" looked like.

The Three D's — tell them apart

Feature	Delirium	Dementia	Depression
Onset	Hours–days	Months–years	Weeks
Course	**Fluctuates**	Slowly progressive	Fairly stable
Attention	**Impaired**	Usually intact early	Often intact
Consciousness	**Altered**	Normal	Normal
Reversible?	Often yes	No	Often yes

*Delirium can sit on top of dementia. If you cannot tell them apart, **treat the delirium first** (NICE CG103).*

The 4AT — the UK bedside screening tool

A rapid (<2 minute) test recommended by NICE and SIGN. No special training needed; it works even in patients who are too drowsy to fully cooperate. **It screens — it does not diagnose.**

Item	How to test	Score
1. Alertness	Observe. Normal, or clearly drowsy / agitated?	Normal = 0 Abnormal = 4
2. AMT-4	Age, date of birth, place (this building), current year.	0 errors = 0 1 = 1 · 2+ = 2
3. Attention	"List the months of the year backwards, from December."	≥7 right = 0 <7 = 1 · untestable = 2
4. Acute change	New or fluctuating change in mind, behaviour or alertness in the last 2 weeks?	No = 0 Yes = 4

◆ READING THE SCORE

4 or more → possible delirium — assess fully. **1–3** → possible cognitive impairment. **0** → delirium unlikely.

▲ DON'T MISS THE QUIET PATIENT

Hypoactive delirium — drowsy and withdrawn — is the **commonest type**, carries a **worse prognosis**, and is too easily written off as "low mood" or "settling."

Sources: NICE CG103 (4AT recommended); SIGN 157; the4at.com. Scoring abbreviated for teaching — use the full validated 4AT in practice.

3 Find the cause

RECOGNISE

This is the **most important step**. Delirium almost always has a trigger — and in advanced cancer there are often several at once. Work through them systematically.

Run through PINCH ME — a quick checklist of triggers

P — PAIN
Uncontrolled pain. A full bladder or loaded rectum count too.

I — INFECTION
Chest, urine. (Don't rely on a dipstick alone in older adults.)

N — NUTRITION / BIOCHEM
High calcium, low sodium, renal or liver failure, low glucose.

C — CONSTIPATION
A very common, very treatable trigger.

H — HYDRATION / HYPOXIA
Dehydration and low oxygen both confuse the brain.

M — MEDICATION
Opioids, steroids, anticholinergics, sedatives — or withdrawal of alcohol/nicotine.

E — ENVIRONMENT / BRAIN
Brain metastases, raised pressure; also noisy, unfamiliar surroundings.

★ — OFTEN SEVERAL
Expect **more than one** cause at the same time.

▲ REVERSIBLE CAUSES YOU MUST NOT MISS

These are common, dangerous, and treatable. Actively look for each one:

- **Drug toxicity** — especially **opioids** (the single most common medication cause in advanced cancer).
- **Hypercalcaemia** · **infection** · **urinary retention** · **constipation** · **hypoglycaemia**.

Investigations — only as far as they will help

Match the work-up to the patient's stage and goals of care. A test is only worth doing if the result could **change what you do**.

Level	What to do	Looking for
Bedside (first)	Review every medication; examine for constipation, urinary retention and infection; pulse oximetry; capillary glucose.	The quick, fixable triggers
Bloods	FBC, U&E, **corrected calcium**, glucose; add CRP and LFTs if relevant.	Infection, calcium, kidneys, liver, sodium
Urine	Only if infection is clinically suspected.	Avoid dipstick-alone diagnosis in the elderly
Imaging	Chest X-ray or CT head **only** if the result would change management.	Pneumonia, brain metastases

◎ THE PROPORTIONALITY RULE

In the **last days of life**, invasive investigation is usually inappropriate. The focus shifts from diagnosis to **comfort**. Always ask: *"If I find it, can I — and should I — treat it?"*

Sources: Scottish Palliative Care Guidelines – Delirium; NICE NG31 (Care of dying adults). "PINCH ME" is a widely-used UK aide-mémoire, not a formal guideline.

4 Act — start with the basics

ACT

Treatment runs on **two tracks at once**: treat the cause, and steady the environment. **Drugs are not the first move.**

① Steady the environment — the foundation

- ✓ Calm, quiet, well-lit room; reduce noise; a **clock and calendar** in view.
- ✓ One consistent team; reorientate gently and often; explain who you are.
- ✓ Glasses and hearing aids **in and working**.
- ✓ Involve **family** — familiar faces reassure; explain the diagnosis and likely course.
- ✓ Protect the sleep–wake cycle; encourage fluids, food and movement as able.
- ✓ **Nicotine replacement** if a smoker — withdrawal alone can trigger delirium.

② Treat the reversible cause

Specific moves that fix common triggers:

Trigger	Action
Opioid toxicity drowsy, vivid dreams, twitching (myoclonus), skin hypersensitivity	Reduce the opioid dose by **one-third**. If delirium persists, **switch** to another opioid.
Constipation / retention	Relieve it — laxatives, catheter check.
Hypercalcaemia · infection	Treat where it fits the goals of care.

▲ **WHAT'S CHANGED FROM OLDER TEACHING**

- ▸ Old notes led with **high-dose sedatives** ("emergency drugs for acute confusion"). Today, **finding the cause and non-drug care come first**.
- ▸ Doses are now **far lower**. The rule is **start low, go slow**.
- ▸ Routine antipsychotics do **not** reliably help delirium and may **prolong or worsen** it — so they are reserved for genuine distress or danger, not given to every confused patient.
- ▸ **Chlorpromazine** has largely been dropped (over-sedation, low blood pressure). **Methotrimeprazine** is now called **levomepromazine** and is kept for the dying, refractory patient (see page 6).

◆ **THE ORDER THAT KEEPS PATIENTS SAFE**

Find the cause → treat the cause → non-drug care → *only then* consider a medicine, if the patient is distressed or at risk.

◎ Quick case — putting it together

Mr K, 72, has metastatic prostate cancer and takes regular morphine. Over two days he becomes **drowsy by day, agitated at night**, with vivid dreams and muscle twitching. His 4AT score is 6.

THINK → acute + fluctuating = delirium. Run **PINCH ME**: the twitching (myoclonus) and drowsiness point straight to **opioid toxicity**.

ACT → reduce the morphine by **one-third**, check calcium and bowels, relieve any constipation, and settle the room. **No antipsychotic is needed** unless he remains distressed.

Sources: NICE NG31 & CG103; Scottish Palliative Care Guidelines – Delirium. Evidence that antipsychotics may worsen palliative delirium: Agar et al., JAMA Intern Med 2017.

5 Act — medication, only when needed

ACT

▶ WHEN TO REACH FOR A DRUG

Only when the patient is **distressed, frightened, or a danger to themselves or others**, *and* non-drug measures are not enough. Use **one** drug, the **lowest dose**, and review often. Avoid “blanket” prescribing of several drugs at once.

First-line prescribing

Drug	Role	Dose & route	Notes
Haloperidol	1st line	**500 micrograms–3 mg** oral or SC, once daily (start with a low oral dose). Repeat after 2 hours if needed.	Most-studied option; newer antipsychotics show **no added benefit**. If the cause can’t be reversed, maintain at the lowest effective dose (500 micrograms–3 mg oral / 2 mg SC daily).
Lorazepam	anxiety	**500 micrograms–1 mg** oral or sublingual.	Benzodiazepines **don’t improve cognition** and can deepen confusion — use with caution. They are **preferred** in Parkinson’s disease and in alcohol/sedative withdrawal.
Midazolam	agitation	**2–5 mg** SC, every 1–2 hours as needed.	

▲ HARD RULES — DO NOT BREAK THESE

- ✕ You must **NOT** give haloperidol (or any antipsychotic) in **Parkinson’s disease** or **Lewy body dementia** — it can cause severe, sometimes life-threatening reactions. Use a **benzodiazepine** (e.g. midazolam) or seek specialist advice.
- ▶ Haloperidol **prolongs the QT interval**. Do not combine with other QT-prolonging drugs; get a **baseline ECG** where this is feasible and appropriate to the patient’s situation.

◎ WHY “START LOW, GO SLOW” MATTERS

The frail, advanced-cancer brain is exquisitely sensitive. A dose that would barely touch a fit adult can tip an unwell patient into deep sedation or a worse delirium. You can always give a little more — you cannot take a dose back.

▶ AFTER YOU PRESCRIBE — REVIEW IN HOURS, NOT DAYS

- Re-check often. The aim is to **ease distress**, not to knock the patient out.
- Use the lowest dose that works; **stop** the drug once the delirium settles.

▲ WATCH FOR

- Over-sedation; stiffness or tremor (extrapyramidal effects); falls.
- If it isn’t working, **don’t just pile on more** — rethink the cause and seek advice.

Sources: Scottish Palliative Care Guidelines – Delirium (doses); NICE NG31 (“consider a trial of an antipsychotic / benzodiazepine”). Always confirm the current dose in the BNF and your local palliative formulary before prescribing.

6 The dying patient & when to refer

REFER

Terminal (irreversible) delirium

In the last days of life, when reversible causes are excluded or untreatable, the goal becomes **comfort**.

- If distress persists despite haloperidol, or sedation is needed: **add or increase a benzodiazepine** — midazolam SC infusion **10–30 mg/24h** via syringe pump, or diazepam **5–10 mg** rectally every 6–8 hours.
- **Switch haloperidol to levomepromazine** (more sedating): **2.5–5 mg** SC every 2 hours as needed if frail or new to it; **10–25 mg** SC every 2 hours for persistent distress; seek specialist advice above 50 mg/24h.

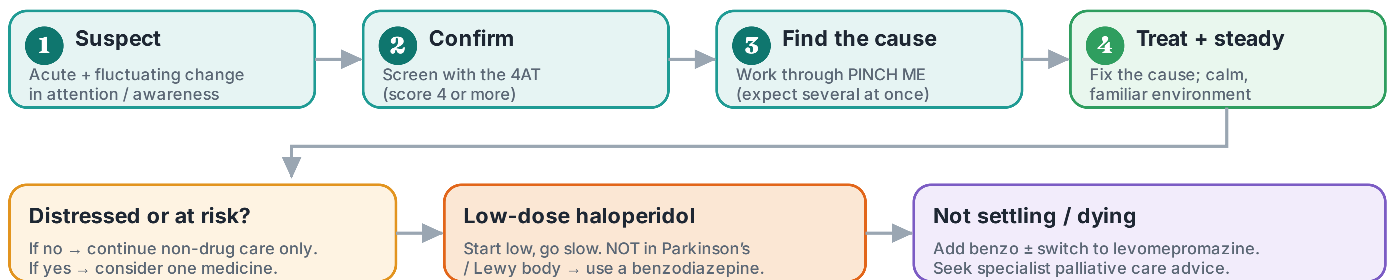
Seek specialist palliative care advice when…

- the **diagnosis is uncertain**;
- delirium is **not responding** to treatment;
- treatment is causing **unwanted sedation**;
- doses are approaching specialist thresholds.

◎ CARE FOR THE FAMILY TOO

A delirious loved one is frightening to watch. Explain what is happening, that it is part of the illness, and that you are keeping them comfortable.

The whole pathway, on one breath



◆ REMEMBER THREE THINGS

1. Acute + fluctuating = delirium until proven otherwise. **2.** Find and treat the cause. **3.** Drugs only for distress — low and slow, never haloperidol in Parkinson's.

Key sources (verify currency before use): NICE CG103 · NICE NG31 (Care of dying adults in the last days of life) · Scottish Palliative Care Guidelines – Delirium (NHS Scotland, Right Decisions) · SIGN 157 · BNF · the4at.com · Agar et al., JAMA Intern Med 2017.

▲ DISCLAIMER

This document is provided **exclusively for educational and training purposes** as a teaching aid. It does not constitute formal clinical guidance. Clinicians must independently verify all medical information, prescribing guidance, doses, procedural protocols and legal requirements against **current national guidance, the BNF, local policies and relevant regulatory bodies** before applying any of it in practice.