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Geri EM Course – Sept 18, 2024

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Delirium and BPSD

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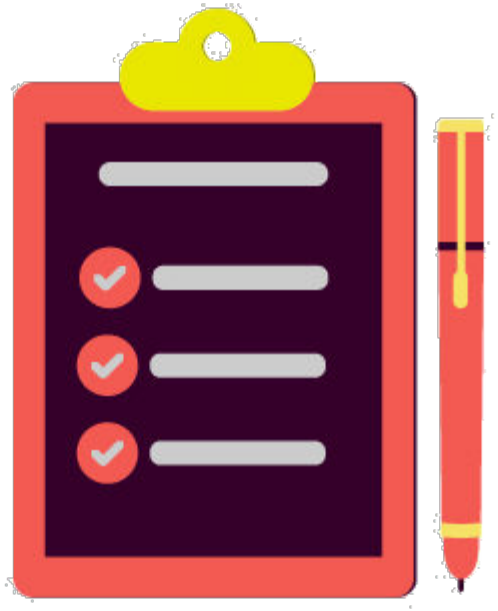
Outline

1) What is delirium vs. BPSD?
2) What causes delirium in older adults?
3) How can we recognize delirium in the ED?
4) What is the management of delirium/BPSD?



Presentation Pearls

Pearl #1 Consider **delirium in the ddx** for "geri chief complaints"

Pearl #2 **HYPOactive** delirium is the most common phenotype of delirium

Pearl #3 **Inattention is the hallmark** of delirium and requires deliberate assessment to make the diagnosis

Pearl #4 **Use the word delirium/BPSD** in communication with the patient, caregivers and the team

Pearl #5 Great delirium/BPSD management involves **non-pharmacological strategies to manage symptoms**

“Geri Chief Complaints”

- Fall
- Weakness
- Fatigue
- Altered level of consciousness
- Agitation
- “Failure to thrive”
- Functional decline
- Confusion

"Geri Chief Complaints"

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- Weakness
- Fatigue
- Altered level of consciousness
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- "Failure to thrive"
- Functional decline
- Confusion

Pearl #1

"Could this patient have delirium?"

What is Delirium?

Definition of delirium

Delirium: a syndrome of **rapid** onset (days)

confusion and **inattention** that impairs

the person's **ability to think** or **interact** with

their surroundings.

It is caused by another medical condition.

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their surroundings.

It is caused by another medical condition.

- *Knowing baseline is key!*
- 2 hallmarks of delirium (necessary)
- Impairing function

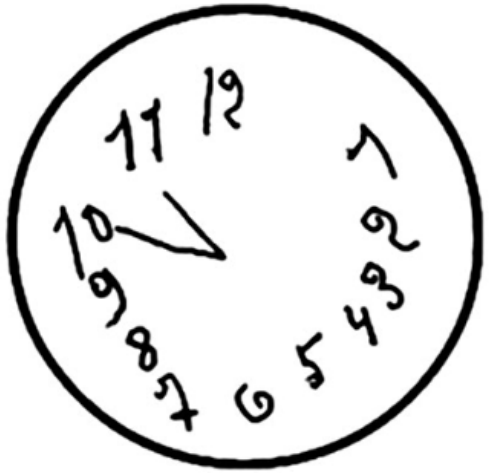
- ***"Acute brain injury"***

Dementia refresher

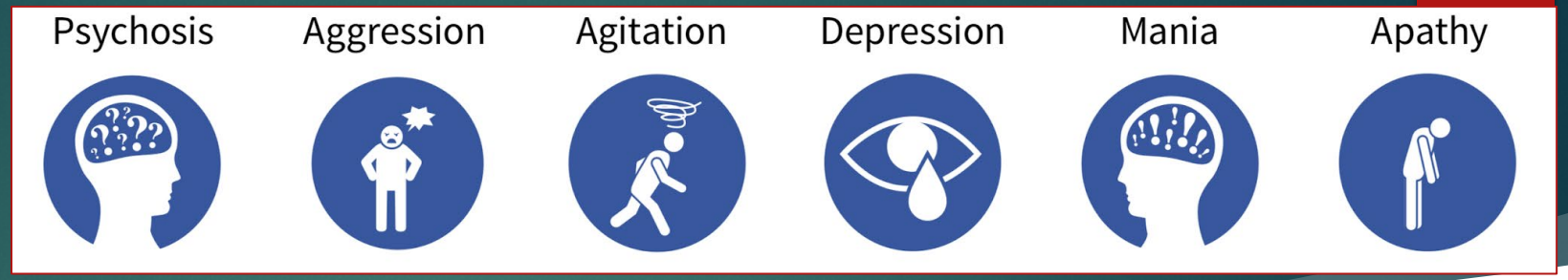
In comparison…

Dementia: a disease of **slow** onset (months/years) **progressive** cognitive dysfunction that impairs the person's ability to function.

- Normal level of consciousness
- generally, **attention is intact**!



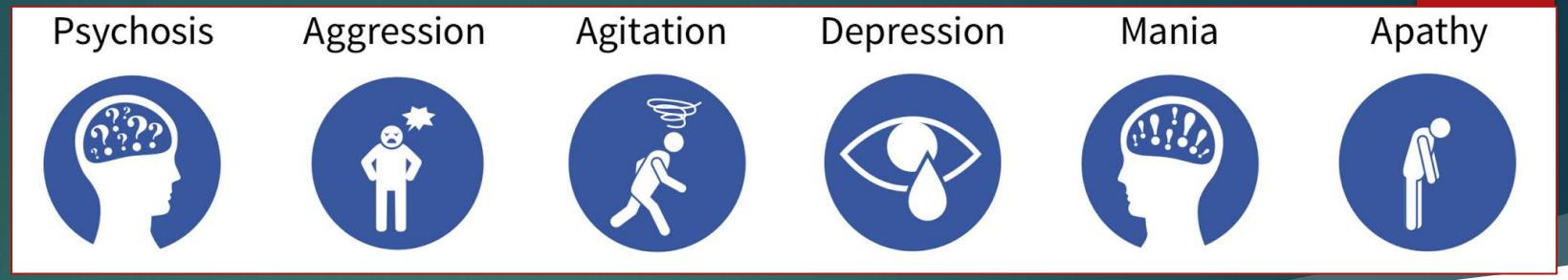
BPSD



Behavioral and psychological symptoms of dementia (BPSD): neuropsychiatric symptoms that accompany the syndrome of dementia

- Symptoms gradually worsen over several months (not acute)
- Can be this person's NORMAL behaviour

BPSD



Behavioral and psychological symptoms of dementia (BPSD): neuropsychiatric symptoms that accompany the syndrome of dementia

- Symptoms gradually worsen over several months (not acute)
- Can be this person's NORMAL behaviour
- **New behaviour/LOC change in dementia is delirium until proven otherwise**
- **Knowing baseline is key!**


Why does delirium matter?

Delirium Matters Clinically

- Functional decline
- Cognitive decline
- Long term care admission
- ED return visits
- Hospitalization
- Length of ED visit
- Length of admission
- **Mortality - 70% increased risk of mortality within 6 months following ED visit for delirium**

Delirium Matters to Patients

- "Our father and husband has mild dementia. One day he suddenly became very quiet, had difficulty putting his thoughts into sentences and couldn't put one foot in front of the other."
- "When all the tests to investigate the cause of his deterioration were done, and nothing was identified as being 'wrong', it was difficult to understand what was happening"
- "**We thought he was going to die** – he was 80 years old and everything seemed to be shutting down"

+ Humanities | In their own words

Delirium: perspectives of a patient's wife and daughter

Cite as: CMAJ 2023 August 14;195:E1043.
doi: 10.1503/cmaj.230833

See related article at www.cmaj.ca/lookup/doi/10.1503/cmaj.230227.

Mr. Agarwal (our father and husband) has mild dementia. One day, he suddenly became very quiet, had difficulty putting his thoughts into sentences and couldn't put one foot in front of the other. We both thought he was having a stroke.

communicate that this was someone who could go to the washroom on his own and could speak. We think a lot of them assumed that, because he had a diagnosis of dementia on his file, the way he was behaving in hospital was his

thought that was excellent continuity of care. We were new to Toronto and she referred us to a geriatrician who saw us while still in hospital. That was wonderful.

Types of Delirium

Hyperactive

Types of Delirium

Pearl #2

Hypoactive

(most common)

Hyperactive

(<5%)

Types of Delirium

Pearl #2

Hypoactive

(most common)

Mixed

Delirium

(2nd most common)

Hyperactive

(<5%)

What causes delirium?

Precipitating causes of delirium

Delirium is a syndrome

- Caused by another medical condition
- Reversible
- Common causes = DIMES or PINCH ME

Precipitating causes of delirium

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	Causes of Delirium
D	Drugs
I	Infection
M	Metabolic
E	Endocrine, Environmental
S	Structural, substances

Precipitating causes of delirium

Common causes of delirium "PINCH ME"	
P	**P**ain
I	**I**ntracerebral (e.g. hemorrhage) **I**nfection
N	(mal) **N**utrition
C	**C**onstipation
H	**H**ypoxia **H**ypoglycemia (de) **H**ydration
M	**M**etabolic **M**edication (recent changes, polypharmacy, anticholinergics, opioids, and psychotropic medications such as benzodiazepines)
E	**E**nvironmental (e.g. disturbed sleep, sensory deficits, recent major surgery, falls, over or under stimulation, discharge from hospital etc.)

Work-up the causes of delirium

Common causes of delirium "PINCH ME"	
P	**P**ain
I	**I**ntracerebral (e.g. hemorrhage) **I**nfection (especially respiratory and urinary)
N	(mal) **N**utrition
C	**C**onstipation
H	**H**ypoxia **H**ypoglycemia (de) **H**ydration
M	**M**etabolic **M**edication (recent changes, polypharmacy, anticholinergics, opioids, and psychotropic medications such as benzodiazepines)
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	Causes of Delirium
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S	Structural, substances

- CBC, lytes, exlytes, Cr, Glu, LFTs, **Trop**, **ECG**, **CXR**
- VBG, **lactate**, **Blood Cx** (+/- TSH)
- CT Head

Work-up the causes of delirium

- CBC, lytes, exlytes, Cr, Glu, LFTs, Trop, ECG, CXR
- VBG, lactate, Blood Cx (+/- TSH)
- CT Head

Work-up the causes of delirium

Clinical Practice Guideline for the Management of Asymptomatic Bacteriuria: 2019 Update by IDSA

Published CID, 3/21/2019

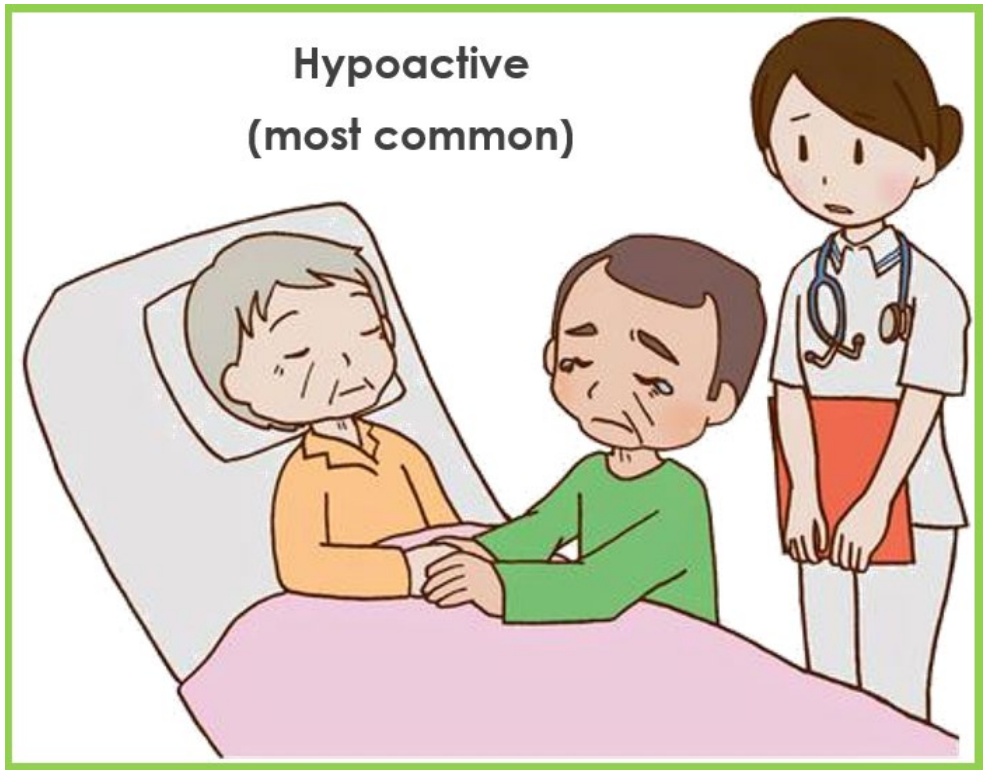
"Current evidence does not suggest a causal relationship between bacteriuria and presentations without classic localizing UTI symptoms, such as changes in mental status or falls"

- CBC, lytes, exlytes, Cr, Glu, LFTs, Trop, ECG, CXR
- VBG, lactate, Blood Cx (+/- TSH)
- CT Head
- **Urinalysis, urine Cx** – do not reflexively treat unless fever or sx of UTI. Other causes much more likely

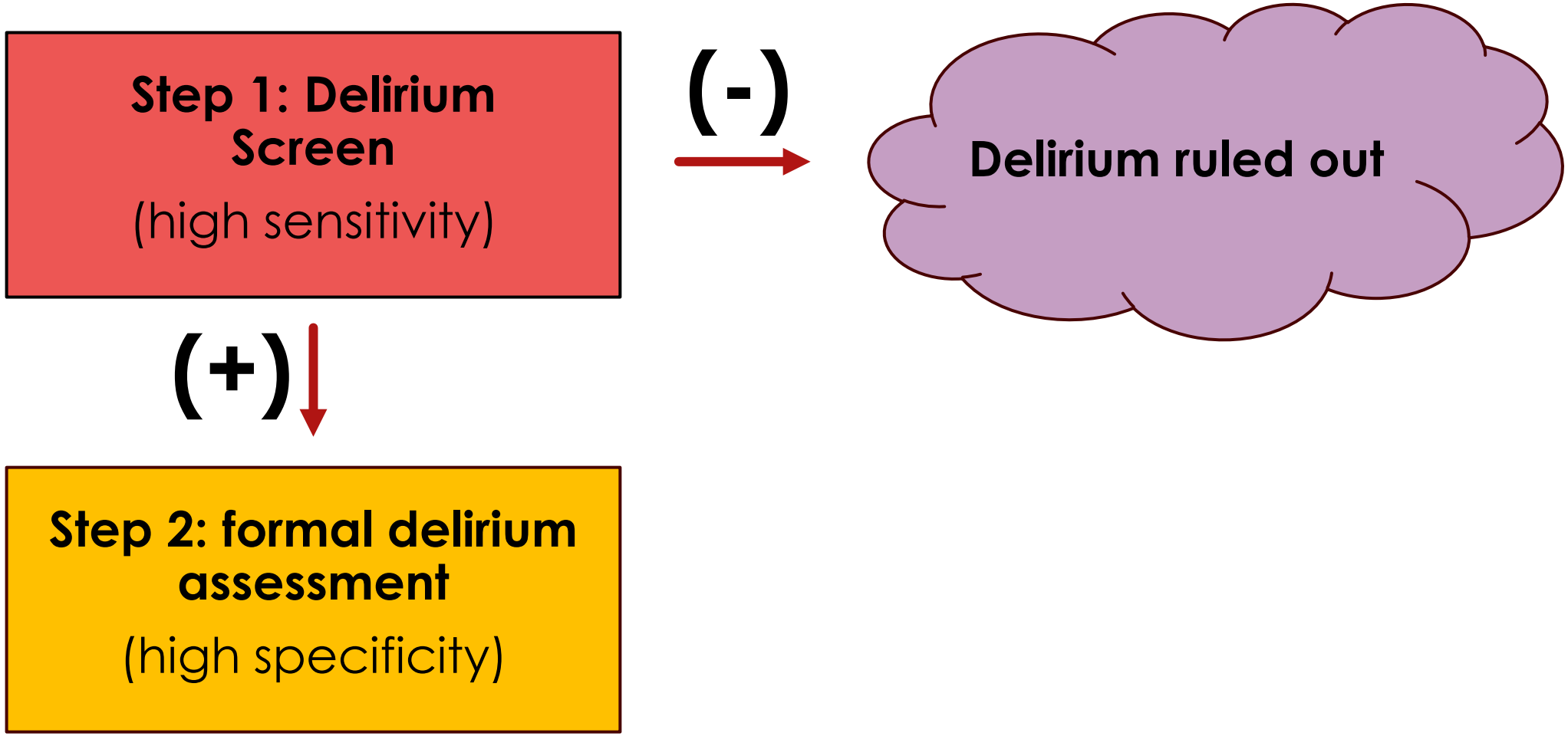

How do we recognize delirium?

Be on high alert!

- Cc: confusion, falls, weakness, functional decline, recent discharge, recent surgery



Two-Step Approach for Delirium Assessment



Step 1: Delirium Screening Tools

- Highly sensitive for delirium (good rule-out tools)
- If positive, need formal delirium assessment to follow (step 2)

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The **two features** necessary for delirium are:

- new onset or fluctuating confusion; **AND**
- inattention

a **third feature** is also necessary:

- disorganized thinking **OR** altered LOC

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Delirium Triage Screen (DTS)

DTS requires answers to just **two questions**:

1. *"Is the patient awake and alert"?*
2. *"Can they spell the word **LUNCH** backwards?"*

'Yes' to BOTH questions rules out delirium

Step 1: Delirium Screening Tools

- Highly sensitive for delirium (good rule-out tools)
- If positive, need formal delirium assessment to follow (step 2)

Single Question in Delirium (SQiD)

SQiD is a proxy delirium tool with a single question posed to a patient's active caregiver:

"Do you feel that they have been more confused lately?"

'No' rules out delirium

Step 2: Delirium Assessment Tools

- Highly specific for delirium (good rule-in tools)
- **Assess all features of delirium**
- Generally, takes less than 3 mins

The **two features** necessary for delirium are:

- new onset or fluctuating confusion; **AND**
- inattention

a **third feature** is also necessary:

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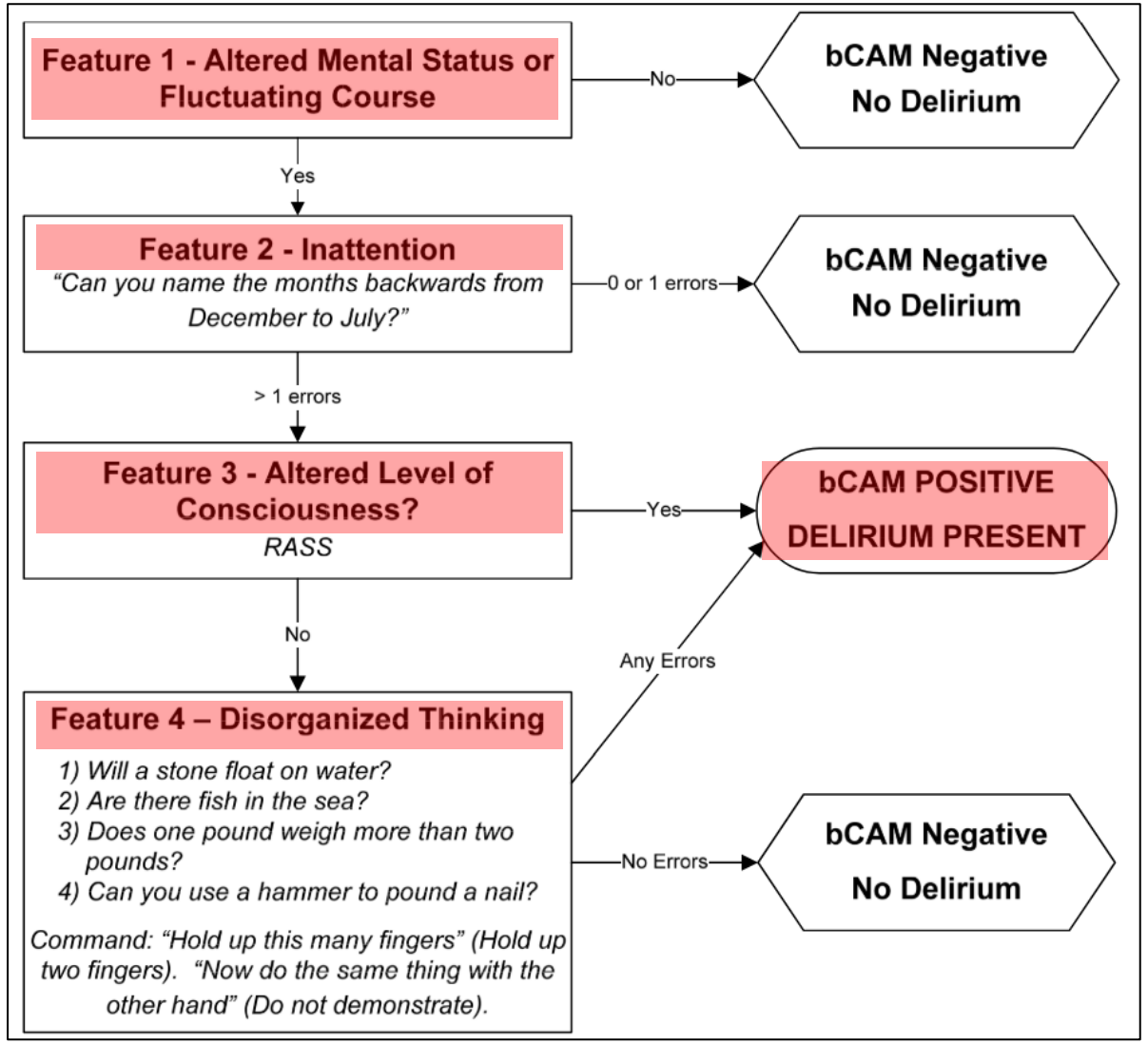
Step 2: Delirium Assessment Tools

1

Brief Confusion Assessment Method (**b-CAM**)



Step 2: Delirium Assessment Tools

2

4AT Tool

[1] ALERTNESS

This includes patients who may be markedly drowsy (eg. difficult to rouse and/or obviously sleepy during assessment) or agitated/hyperactive. Observe the patient. If asleep, attempt to wake with speech or gentle touch on shoulder. Ask the patient to state their name and address to assist rating.

Normal (fully alert, but not agitated, throughout assessment)	**0**
Mild sleepiness for <10 seconds after waking, then normal	**0**
Clearly abnormal	**4**

[2] AMT4

Age, date of birth, place (name of the hospital or building), current year.

No mistakes	**0**
1 mistake	**1**
2 or more mistakes/untestable	**2**

[3] ATTENTION

Ask the patient: "Please tell me the months of the year in backwards order, starting at December." To assist initial understanding one prompt of "what is the month before December?" is permitted.

Achieves 7 months or more correctly	**0**
Starts but scores <7 months / refuses to start	**1**
Untestable (cannot start because unwell, drowsy, inattentive)	**2**

[4] ACUTE CHANGE OR FLUCTUATING COURSE

Evidence of significant change or fluctuation in: alertness, cognition, other mental function (eg. paranoia, hallucinations) arising over the last 2 weeks and still evident in last 24hrs

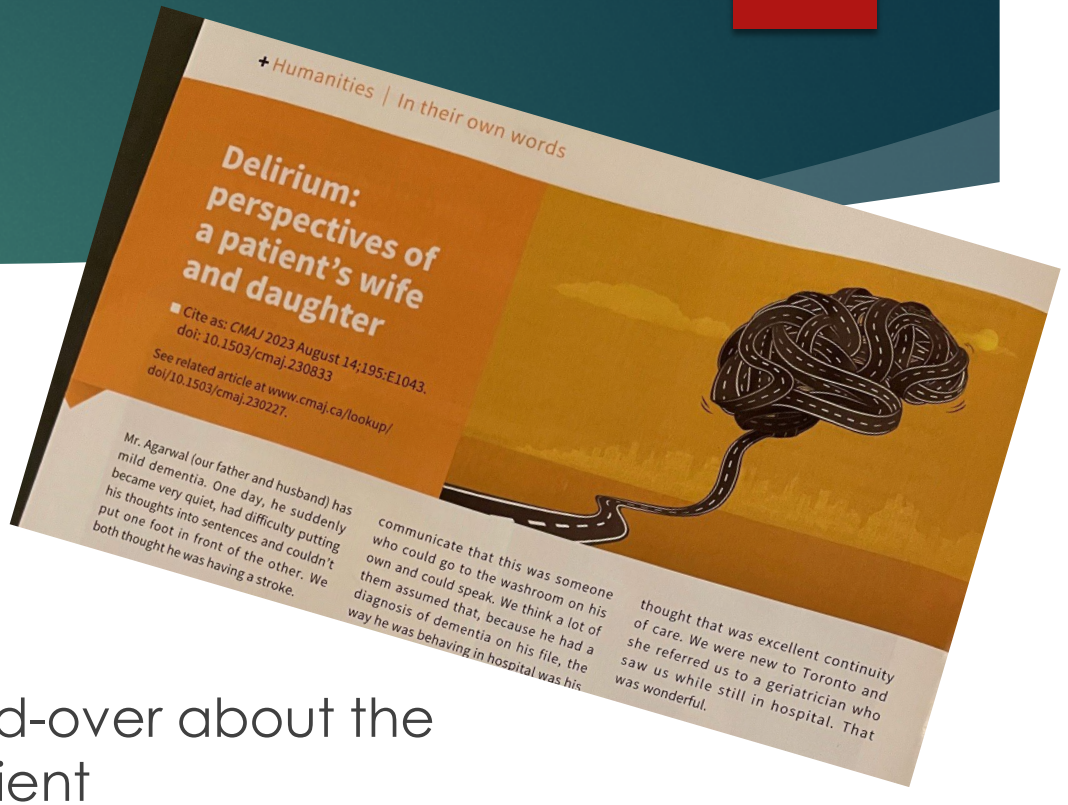
No	**0**
Yes	**4**

Pearl #3

4 or above: possible delirium +/- cognitive impairment
1-3: possible cognitive impairment
0: delirium or severe cognitive impairment unlikely (but delirium still possible if [4] information incomplete)


Management of delirium/BPSD

1 Use the word!



- "We don't remember the word delirium being mentioned for the first couple of weeks that he was in hospital."

- Communicate with colleagues and on hand-over about the presence or risk of delirium in your older patient

…you would never handover an NSTEMI without using the word NSTEMI and just say chest pain instead

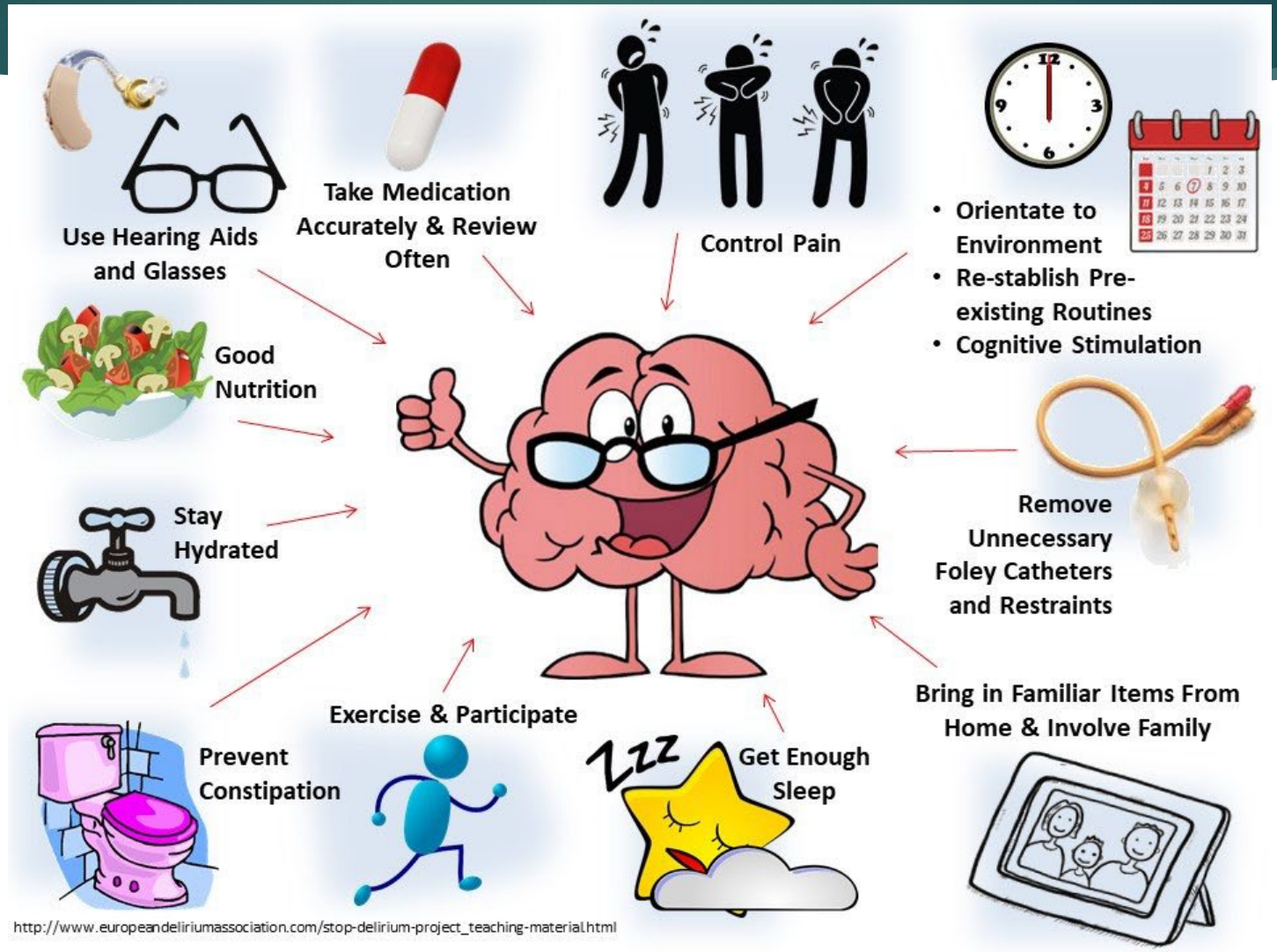
Pearl #4

2 Non-Pharmacological Strategies

- Safety Assessment
- Treat underlying cause
- Optimize environment
- Patient interaction

Pearl #5

2 Non-Pharmacological Strategies



2 Non-Pharmacological Strategies

3 Prevent delirium Anticipate BPSD management

Simple interventions include:

- Address pain
- Careful medication choices – benzos, opioids, anticholinergics
- Enter diet orders and offer hydration
- Communicate risks with nurses
- Assess hearing/vision needs – pocket talker
- Order high yield home meds

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Thank you

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Limited role of antipsychotics for delirium/BPSD in older adults

Four questions to ask yourself…

- Is there an imminent safety risk to the patient or others?
- Are the symptoms particularly disturbing, distressing or dangerous?
- Are the symptoms likely going to respond to your treatment?
- Have you weighed the potential benefits and risks?

Limited role of antipsychotics for delirium/BPSD in older adults

Antipsychotic medications for older adults with delirium admitted to hospital

Christina Reppas-Rindlisbacher, Lesley Wiesenfeld and Nathan M. Stall

CMAJ August 14, 2023 195 (31) E1038-E1039; DOI: https://doi.org/10.1503/cmaj.230227

Table 1 – Antipsychotic medications used for hyperactive delirium in older adults

Drug	Class	Starting Doses	Routes	Sedation	Risk of EPS	Anticholinergic activity
Quetiapine	Second Generation	6.25 – 12.5 mg	Oral	High	Low	Moderate†
Risperidone	Second Generation	0.25 – 0.5 mg	Oral	Low	High	Moderate
Olanzapine	Second Generation	1.25 – 2.5 mg	Oral, IM	High	Moderate	High
Haloperidol	First Generation	0.25 – 0.5 mg	Oral, IM, IV‡	Low	High	Low
Loxapine	First Generation	10 mg	Oral, IM	High	Moderate	Moderate

IM=intramuscular, IV=intravenous, EPS=extrapyramidal symptoms.
†At high doses (>100 mg) not typically used for delirium. ‡ Substantial risk of QT prolongation with IV use.