Is your older patient at risk of Delirium?

Predisposing Factors/ "Baseline Vulnerability"

- ★ **cognitive impairment (MMSE<24/30)**
- ★ **visual impairment (<20/70)**
- ★ **dehydration (urea x10/serum creat>0.7)**
- ★ **severe illness**
- alcohol dependence
- previous diagnosis of delirium

You can identify your patient's baseline risk for delirium by assigning **1** point for each of the ★ risk factors present upon admission.

0 = low risk;
1-2 = intermediate risk;
3-4 = high risk

(Inouye et al., Ann Intern Med. 1993 Sep 15;119(6):474-81)

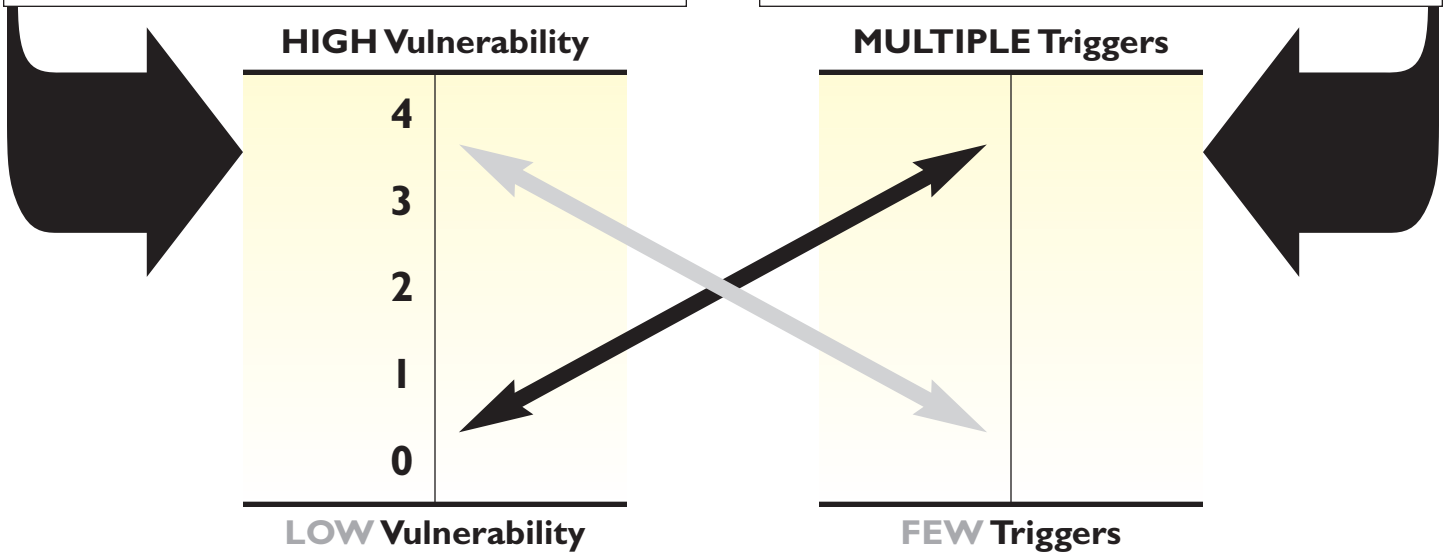
Precipitating Factors/Insults "Triggering Event"

- ★ **restraints**
- ★ **malnutrition**
- ★ **more than 3 medications recently added**
- ★ **urinary catheter**
- ★ **iatrogenic event**
- metabolic and electrolyte imbalance
- infections
- sleep deprivation
- fever
- hypothermia

You can predict who will develop delirium within the first 9 days of hospitalization by watching for any of the five ★ triggers.

0 = low risk;
1-2 = intermediate risk;
3-5 = high risk

(Inouye & Charpentier, JAMA. 1996 Mar 20;275(11):852-7)



(Inouye & Charpentier, JAMA. 1996 Mar 20;275(11):852-7)

Grey Arrow: Highly vulnerable people at baseline may become delirious with even a mild trigger
Black Arrow: People with low vulnerability at baseline may tolerate multiple insults before developing delirium

We must try to eliminate triggers in vulnerable patients!

Detecting Delirium Using the Confusion Assessment Method (CAM)

Inouye, et al. Ann Intern Med. 1990 Dec 15; 113(12):941-8

1 & 2 and either 3 or 4 are present in delirium

1. **Acute Onset or Fluctuating Symptoms** (a mental status change that is new or worse, over hours or days; symptoms may come and go and vary widely in severity)
2. **Inattention** (limited ability to maintain attention; unaware or out of touch with environment)
3. **Disorganized Thinking** (rambling, irrelevant, incoherent speech)
4. **Altered Level of Consciousness** (can range from hyperalert to coma)

TURN OVER
for Prevention & Management Strategies

How can we prevent Delirium?

Inouye, et al. N Engl J Med. 1999 Mar 4;340(9):669-76

Orientation Protocol (1-3 times/day)
- communication boards
- wall calendar

Therapeutic Activities Protocol (3 times/day)
- cognitively stimulating activities (discussions, reminiscence, word games)

Sleep Enhancement Protocol
- warm drinks, back massage
- relaxation tapes, music
- comfort strategies
- noise reduction strategies
- scheduling care to allow sleep

Early Mobilization Protocol
- ambulation or range-of-motion exercises (3 times/day)
- encouragment to be out of bed
- minimal use of immobilizing equipment (catheters, restraints)

Vision Protocol
- visual aids (glasses, magnifier)
- adaptive equipment (fluorescent tape on callbell, large-print books)
- adequate lighting

Hearing Protocol
- earwax removal
- hearing aid
- portable amplifying devices
- special communication techniques

Dehydration Protocol
- encouragement of oral intake of fluids

Other interventions include:
- correcting electrolyte imbalance and severe anemia
- minimizing use of drugs known to affect mental status
- family visits and family involvement
- adequate nutrition

How can we manage Delirium?

Nonpharmacological Interventions
- Ensure that all interventions for the prevention of delirium have been initiated.
- To resolve delirium, the underlying cause must be identified and treated where possible as pharmacological interventions are treating only the symptoms of delirium.

Plus
- Ensure the safety of self, others, and the patient.
- Facilitate closer observation by placing patient in a room closer to nurses' station.
- Investigate the causes. Consider the common triggers listed on reverse.
- Provide consistent staffing, preferably primary nursing.
- Allow flexible visiting hours for the family in limited numbers.
- Facilitate communication by using simple and clear instructions, using calm reassurance, and avoid arguing with patient about perceptions.

Pharmacological Interventions
- Pharmacological interventions should be used only when the patient poses a danger to self or others, or when symptoms cause significant suffering.
- The older delirious patient is vulnerable to side effects of antipsychotic medications so dosing should be conservative. In general, the lowest effective dose is optimal.
- Medications should have dose restrictions and be re-evaluated on an ongoing basis.

Evaluation of Interventions

Patients are improving when they have the ability to maintain and shift attention and have a normal level of consciousness.
Test of attention span: able to recite 5 numbers forward and 4 backwards, or days of the week/months of the year backwards

Refer to the Delirium Recognition, Prevention, and Management Guidelines on your unit for further details. Contact your Geriatric or Psychiatric Consultation Team.

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