



Delirium: A Sudden Brain Failure

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Objectives

- Increase your awareness of Delirium impact:
 - **Mortality**
 - **Institutionalization**
 - **Alzheimer Disease and other related Dementias**
- Empower you to prevent Delirium:
 - During sudden **Medical Illness**
 - After **Surgery**

The Story of Dr. MB

- 82 yr old, dentist living with his wife at home
 - Independent in Basic ADL and iADL,
 - some concern of memory, walk 30 minutes per day
 - No chronic medical conditions and no drugs
- 4 weeks of cough and 1 wk of SOB and Leg swelling
 - Hospitalization #1
 - Acute Heart Failure with PE, Atrial Fibrillation and ICU stay
 - Hospitalization #2 within one week
 - Delirium induced agitation due to dehydration, GI bleed, and infection
- 90 days post hospitalization:
 - Delirium resolved
 - Alzheimer disease diagnosis
 - Wife stress with at least one panic attack
 - Fall with facial bruise



Delirium, Ask AARP?

- A **sudden** change in thinking and behavior that most commonly affects older adults following medical illness or surgery.
- Its symptoms **come and go quickly** and can vary wildly, including *confusion, personality changes, hallucinations, diet and sleep disruptions, and rambling speech.*
- Affecting as many as half of all Americans 65 and older following a hospital admission.
 - ~80% in the ICU
 - ~50% after Hip fracture
 - ~20% during general hospitalization or after surgery

Preserving Your Brain Health During Illness or Surgery: GCBH Recommendations to Prevent and Treat Delirium GlobalCouncilonBrainHealth.org For more brain health tips see StayingSharp.org • DOI: <https://doi.org/10.26419/pia.00101.002>

Main Messages

- **Delirium impact:**
 - **9% Death within 30 days of hospitalization (More than heart attack)**
 - **30% Institutionalization after hospitalization**
 - **Two to five times the odd of Alzheimer Disease and other related Dementias**
- **One third of delirium cases are preventable after:**
 - **Medical Illness**
 - **After Surgery**

AARP, 2020; Inouye et al, 2013; Khan et al, 2012; Boustani et al, 2010

Predisposing Risk Factors

- **Dementia or pre-existing cognitive impairment**
- **History of delirium**
- **Functional impairment**
- **Sensory impairment**
 - **Vision impairment**
 - **Hearing impairment**
- **Comorbidity/severity of illness**
- **Depression**
- **History of transient ischemia/stroke**
- **Alcohol abuse**

Inouye SK et al, Lancet 2014; 383:911-22

Precipitating Risk Factors

- **Medications**
 - Polypharmacy
 - Psychoactive medication use
 - Sedative-hypnotic use
- Use of physical restraints
- Use of bladder catheter
- Physiologic and metabolic abnormalities
 - Elevated BUN/creatinine ratio
 - Abnormal sodium, glucose, or potassium
 - Metabolic acidosis
- Infection
- Any iatrogenic event
- Major surgery
- Trauma or urgent admission

Inouye SK et al, Lancet 2014; 383:911-22

AARP Tips for Delirium Prevention

- **Ask for delirium risk screening before undergoing elective surgeries.**
- **"Prehab" for any planned hospitalizations; prepare as if you were training for a sports event (exercise, diet and good sleep).**
- **Bring a list of your current medications and supplements.**
- **Bring hearing aids, eyeglasses, and dentures.**
- **Ask friends and family to stay with you 24/7.**
- **Get exposure to sunlight during the day.**
- **Close the door to your room, use earplugs, a sleep mask or bring a familiar pillow or blanket to sleep better.**
- **Don't make important financial or other decisions until fully recovered.**

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AARP Tips for Caregivers

- **Seek medical help if you notice if your loved one is “just not themselves.”**
- **Assist in orienting your loved one to know the day and time.**
- **Question healthcare providers about medications being used; some common medications increase risk of delirium.**
- **Help your loved one to get out of bed and moving.**
- **Prepare to assist after leaving the hospital because brain fog can last a long time.**

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Resources

- [Center for Information and Implementation Science](#)
- [Preserving Your Brain Health During Illness or Surgery](#)
- [Delirium Harms Brain Health](#)
- [Global Council on Brain Health](#)
- [Staying Sharp](#)
- [Delirium in Elderly People](#)
- [Impact and recognition of cognitive impairment among hospitalized elders](#)
- [Delirium in Hospitalized Patients: a Systematic Evidence Review](#)