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## HIIN Core and Additional Topics

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## Welcome and Instructions


- For audio, join by telephone at **877-594-8353**, **participant code 56350822#**
- Your line is OPEN. Please do not use the hold feature on your phone but do ***mute your line by dialing \*6.***
- If you are having technical difficulties, email [mmoch@kyha.com](mailto:mmoch@kyha.com)
- You may ask questions through the chat box or anytime through the call today

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# Delirium Screening and Non-Pharmacologic Interventions


May, 2017



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## Today's Focus

- Brief Review
  - Introduced bCAM screening tool
    - (Brief Confusion Assessment Method)
  - Delirium versus dementia
  - Nutrition in the Aging Patient
  - Medication Safety in the Aging Patient
- Patient Story
- bCAM debrief & coaching
- Non-pharmacologic interventions



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## The Why



“Elderly patients, and in particular the very old and the frail elderly, are at high risk of functional decline and iatrogenic complications during hospitalization.”



Ten Ways to Improve the Care of Elderly Patients in the Hospital. Angelena Maria Labela et al. *Journal of Hospital Medicine*. 2011; 6: 351-357


### **Delirium: A Symptom of How Hospital Care Is Failing Older Persons and a Window to Improve Quality of Hospital Care**

Sharon K. Inouye, MD, MPH, Mark J. Schlesinger, PhD, Thomas J. Lydon, PhD


*American Journal of Medicine*. May, 1999. 106 (5): 563-573



Utilize this foundational knowledge to promote a more holistic approach to the hospitalized aging patient.



AMERICAN DELIRIUM SOCIETY



**Did you know?**  
More than 7 million hospitalized Americans suffer from delirium


American Delirium Society website. Accessed 2/7/16

**Preventable in up to 40% of cases.**

Review: Postoperative Delirium in Older Adults:  
Best Practice Statement  
Sharon K. Inouye MD  
Thomas Robinson, MD, MS, FACS  
February 2015 Volume 220, Issue 2, pages 136-148.e1

## Definition

- Delirium is an acute decline in cognitive function and attention and represents acute brain failure.



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Review: Postoperative Delirium in Older Adults:  
Best Practice Statement  
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Thomas Robinson, MD, MS, FACS  
February 2015 Volume 220, Issue 2, pages 136-148.e1

## Patient Story

- **ED nurse note:**

- 80+ y.o. to ED via EMS after fall at home last evening
- “must have passed out” last night while trying to change clothes and get to chair, but fell hitting floor.
- Was unable to get to the phone
- Was found by a daytime caregiver this morning.
- Alert and oriented x4.



- **ED physician note:**

- ...had a fall with injury...about 1900 last night... found this morning...
- Patient thinks she may have passed out while she fell.

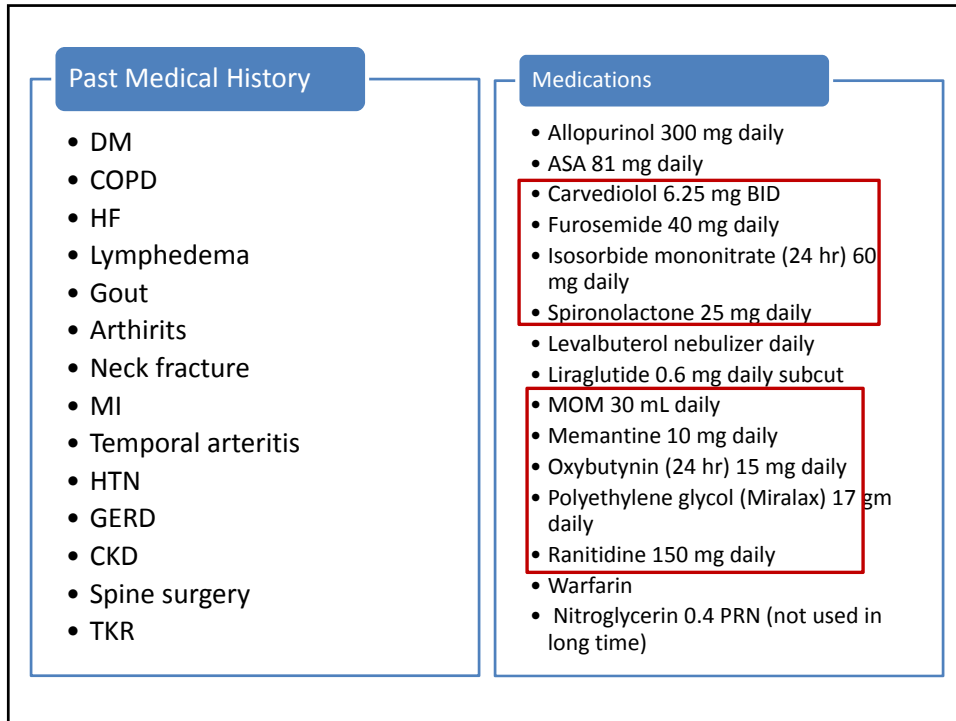


## Patient Story (cont'd)

- **Medical Consultant:**

- She had been doing well
- Was walking
- Uses a walker
- Unsure why she fell
- She thinks she may have passed out.
- **Assessment: Fall**





## Risk Factors for Postoperative Delirium

Emergency setting > elective setting

- Age > 65
- Cognitive Impairment
- Severe illness
- Comorbidity burden
- Hearing or vision impairment
- Current hip fracture
- Presence of infection
- Inadequately controlled pain
- Depression
- Alcohol use
- Sleep Deprivation or disturbance
- Renal insufficiency
- Anemia

- Hypoxia or hypercarbia
- Poor nutrition
- Dehydration
- Electrolyte abnormalities:
  - Hyper- and Hyponatremia
- Poor functional status
- Immobilization or limited mobility
- Polypharmacy and use of psychotropic medications
  - (benzodiazepines, anticholinergics, antihistamines, antipsychotics)
- Risk of urinary retention or constipation
- Aortic procedures

Review: Postoperative Delirium in Older Adults:  
 Best Practice Statement  
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 February 2015 Volume 220, Issue 2, pages 136-148.e1

## Brief Confusion Assessment Method (bCAM)

### Feature 1: Altered Mental Status or Fluctuating Course

- If no: STOP; *bCAM negative* for delirium

Is there evidence of an acute change in mental status from the patient's baseline?

*or*

Did the abnormal behavior fluctuate during the day, that is tend to come and go or increase and decrease in severity?

Copyright © 2012, Vanderbilt University.

The Brief Confusion Assessment Method (bCAM) is adapted from:  
Ely EW, et al. *JAMA*. 2001; 286: 2703-2710. Confusion Assessment Method for the  
Intensive Care Unit. Copyright © 2002, Vanderbilt University.  
Inouye SK, et al. *Ann Intern Med*. 1990; 113: 941-948. Confusion Assessment Method.  
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**This is not my mom!**



[https://www.youtube.com/watch?feature=player\\_detailpage&v=9QURzexhWP4](https://www.youtube.com/watch?feature=player_detailpage&v=9QURzexhWP4)

## Quiet and Excited Delirium Video

- <https://www.youtube.com/watch?v=6NpkCQ3z5cc>  
– there is a 1:07 minute version of this



- The hallmark of delirium is **acute cognitive change** from baseline.
- The cardinal symptom is **inattention**.



## Brief Confusion Assessment Method (bCAM)

**Feature 1: Altered Mental Status or Fluctuating Course**

- If no: STOP; *bCAM negative* for delirium

**Feature 2: Inattention**

- Can you name the months backwards from December to July
- 0-1 error: STOP; *bCAM negative* for delirium

**Feature 3: Altered Level of Consciousness**

- Richmond Agitation Sedation Scale: *If not zero: STOP bCAM positive* for delirium

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**Hyperactive**

**Mixed**

**Hypoactive**

+4

+3

+2

+1

0

-1

-2

-3

-4

-5

• **Combative**

• **Very Agitated**

• **Agitated**

• **Restless**

• **Alert & Calm**

• **Drowsy**

• **Light Sedation**

• **Moderate Sedation**

• **Deep Sedation**

• **Unarousable**

**RASS**

**Over-looked  
Not addressed  
Worse Prognosis**

C. Sessler et al. *Richmond Agitation-Sedation Scale*. Validity and reliability in adult intensive care unit patients. *Am J. Respir Criti Care Med* 2002; 166: 1338. Copyright © 2002 American Thoracic Society

## Brief Confusion Assessment Method (bCAM)

**Feature 1: Altered Mental Status or Fluctuating Course**

- If no: STOP; bCAM negative for delirium

**Feature 2: Inattention**

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**Feature 3: Altered Level of Consciousness**

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**Feature 4: Disorganized Thinking**

- Will a stone float on water?
- Are there fish in the sea?
- Does one pound weigh more than 2 pounds
- Can you use a hammer to pound a nail?
- Command: "Hold up this many fingers" (two fingers) Now do the same with the other hand
- *If no errors, bCAM negative for delirium*

Copyright © 2012, Vanderbilt University.  
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 Intensive Care Unit. Copyright © 2002, Vanderbilt University.  
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1 and 2 + 3 or 4 = Delirium Screen Positive

## Patient Story (cont'd)

- Daily Progress Notes:
  - Medicine:
    - Constipation
  - Orthopedist
    - Confusion overnight; switched to Tylenol
  - Medicine
    - Confusion still present; likely dementia;
    - *(no mention of delirium)*
  - Medical Consultant
    - ...constipation...H/O dementia
    - *(no mention of delirium)*
    - (plan): Recheck U/A; Stop pepcid; Decrease ditropan (Oxybutynin)

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- *Awareness of delirium means knowing...*
  - how commonly it occurs,
  - how frequently it is missed
  - that it is **often mislabeled**
    - as a normal part of aging,
    - or the hospitalization,
    - or as dementia), ...
  - and the consequences of having it.



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The Evaluation and Management of Delirium Among Older Persons. Joseph H. Flaherty.  
Medical Clinics North America. 95 (2011) 555-577

- **Delirium should become part of the medical jargon for all who care for older persons,**
- ...terms such as mental status change or acute confusional state should be avoided.



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The Evaluation and Management of Delirium Among Older Persons. Joseph H. Flaherty.  
Medical Clinics North America. 95 (2011) 555-577

## Anticholinergic Medications

### Oxybutynin (Ditropan): (Think of Atropine)

- Red as a beet
- Dry as a bone
- Blind as a bat
- Mad as a hatter
- Hot as a hare
- Can't spit: Dry mouth
- Can't pee: Urinary retention
- Can't poop: Constipated:
- Can't see: Blurred vision



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## Precipitating Factors for Delirium('s')

- D** Drugs
- E** Eyes Ears
- L** Low oxygen states or insults (MI, CVA, PE, HF)
- I** Infection
- R** Retention (urine or stool)
- I** Ictal (post-ictal states)
- U** Uncontrolled pain
- M** Metabolic
- S** Subdural hematoma



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The Evaluation and Management of Delirium Among Older Persons. Joseph H. Flaherty.  
Medical Clinics North America. 95 (2011) 555-577

Although a single factor can lead to delirium, usually delirium is **multifactorial** in elderly people.



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Delirium in elderly people. Sharon Inouye et al. Lancet vol 383. March 8, 2014. page 911-922

## It's rarely a single cause...

- Hospitalization for the older adult patient can result in unintended adverse consequences from *interventions meant to be therapeutic*.
  - Bed rest
  - polypharmacy,
  - tethering devices
    - (e.g. intravenous lines, urinary catheters, *telemetry*, restraints),
  - sensory deprivation,
  - disruption of usual sleep patterns, and
  - lack of proper nutrition ...
- all contribute to *functional, physical, and cognitive decline*.



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UpToDate. Hospital Management of Older Adults. Accessed 1/16/16

# Hospital Environment

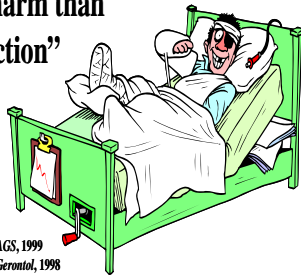
- Sensory Deprivation
  - “Sensory Stripping”
  - No Eyeglasses
  - No Hearing Aids
- Noise Level
- Restricted Mobility
  - Bedrest
  - Deconditioning
- Loss of ADLs
  - Enforced dependence
  - Little encouragement of independence



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## Restraints?

More harm than “protection”

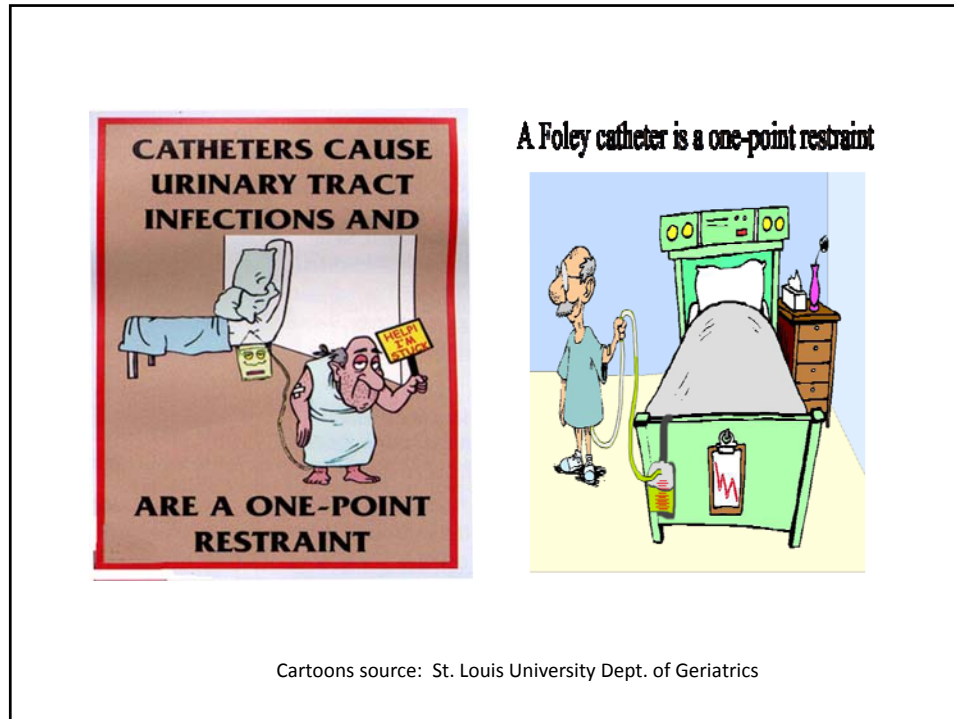


Neufeld RR, et al. JAGS, 1999  
 Capezuti E, et al. J Gerontol, 1998  
 Dunn KS. J Gerontol Nursing, 2001  
 Powell C, et al. Can Med Assoc J, 1989

Cartoon source: St. Louis University Dept. of Geriatrics


## Tethers & “Environmental Intrusions”

- Foley Catheter
- Restraints
- IV fluids
- Telemetry
- Sequential TEDs
- Continuous Pulse Ox
- TEDs
- Bed Alarms



## Mobilization & Activity

- Early PT & OT
- Up in chair (also for meals)
- Activity Level
  - Sit unsupported
  - Completely raise lower legs against gravity
  - Stand & maintain balance
  - Walk in room; then hallway
    - » Assistive device needed?
- Protocols to encourage patient independence with ADLs
  - Bathing & Dressing
    - Supervise & encourage patient to do as much as possible



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## **Anchoring Objects** (Allen Huang MD)

**“TA DA”:** *Tolerate, Anticipate, Don’t Agitate*


“Delirium goes down as ambulation goes up”

“The brain works better in an upright position”

“The more vertical you are the better you think”

Joseph H. Flaherty  
Source: Department of Internal Medicine, Division of Geriatrics,  
Saint Louis University School of Medicine & Geriatric Research, Education and Clinical Center (GRECC),  
St. Louis VA Medical Center, St. Louis, MO.

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## Conclusions

- Importance of:
  - Screening for delirium
  - Understanding nuances of acute change
  - Testing for attention:
    - (Cardinal symptom of delirium)
  - using the actual term delirium
  - non-pharmacologic interventions
  - Understanding the multifactorial nature
    - *Rarely a single cause*

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## Conclusions

“The brain works better in an upright position”  
 “The more vertical you are the better you think”  
 “Delirium goes down as ambulation goes up”

UP Campaign



Joseph H. Flaherty

Source: Department of Internal Medicine, Division of Geriatrics,  
 Saint Louis University School of Medicine & Geriatric Research, Education and Clinical Center (GRECC),  
 St. Louis VA Medical Center, St. Louis, MO.

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## Look Ahead

- **Nutrition & the Aging Patient**
  - March 23, 2017 from 1 – 2 p.m. ET
  - ? Screening Tool Coaching
- **Medications & the Aging Patient**
  - April 20, 2017 from 1 – 2 p.m. ET
  - ? Screening Tool Coaching
- **Non-pharmacologic approach to the Aging Patient**
  - May 25, 2017 from 1 – 2 p.m. ET
  - Screening Tool Coaching
- **Screening & Management of Delirium**
  - June 22, 2017 from 1 – 2 p.m. ET
  - Screening Tool Coaching
- **Delirium and the Aging Patient**
  - August 24, 2017 from 1 – 2 p.m. ET
  - Screening Tool Coaching



February 23, 2017 from 1 – 2 p.m. ET  
 Delirium Collaborative Introduction by Dr. Bryant  
<https://join.onstreammedia.com/go/41054140/introduction>  
 Password: HIIN  
 Audio Instructions:  
 1-877-594-8353  
 Participant Code: 56350822 then #

March 23, 2017 from 1 – 2 p.m. ET  
 Part II Delirium Collaborative  
<https://join.onstreammedia.com/go/41054140/part2>  
 Password: HIIN  
 Audio Instructions:  
 1-877-594-8353  
 Participant Code: 56350822 then #

April 20, 2017 from 1 – 2 p.m. ET  
 Part III of Delirium Collaborative  
<https://join.onstreammedia.com/go/41054140/part3>  
 Password: HIIN  
 Audio Instructions:  
 1-877-594-8353  
 Participant Code: 56350822 then #

May 25, 2017 from 1 – 2 p.m. ET  
 Part IV Delirium Collaborative  
<https://join.onstreammedia.com/go/41054140/part4>  
 Password: HIIN  
 Audio Instructions:  
 1-877-594-8353  
 Participant Code: 56350822 then #

June 22, 2017 from 1 – 2 p.m. ET  
 Part V Delirium Collaborative  
<https://join.onstreammedia.com/go/41054140/part5>  
 Password: HIIN  
 Audio Instructions:  
 1-877-594-8353  
 Participant Code: 56350822 then #

August 24, 2017 from 1 – 2 p.m. ET  
 Final Webinar Delirium Collaborative  
<https://join.onstreammedia.com/go/41054140/final>  
 Password: HIIN  
 Audio Instructions:  
 1-877-594-8353  
 Participant Code: 56350822 then #

## Resources

- Websites:
  - ICUDelirium.com
  - American Delirium Society <https://www.AmericanDeliriumSociety.org>
  - Hospital Elder Life program (HELP) website
- Articles:
  - Sharon Inouye Review: Postoperative Delirium in Older Adults: Best Practice Statement. Sharon K. Inouye MD & Thomas Robinson , MD, MS, FACS. February 2015 Volume 220, Issue 2, pages 136–148.e1
  - Ten Ways to Improve the Care of Elderly Patients in the Hospital. Angelena Maria Labella et al. Journal of Hospital Medicine. 2011; 6: 351-357
  - The Evaluation and Management of Delirium Among Older Persons. Joseph H. Flaherty. Medical Clinics North America. 95 (2011) 555-577
  - Postoperative Delirium: Acute Change with Long-Term Implications. James L. Rudolph & Edward R. Marcantonio. Anesthesia analgesia 2011; 112: 1202-1211
  - Delirium in elderly people. Sharon Inouye et al. Lancet vol 383. March 8, 2014. page 911-922
- Videos (may need to search for these through Google, etc)
  - This is not my mom! Delirium Awareness PSA
  - Quiet and Excited video: <https://www.youtube.com/watch?v=6NpkCQ3z5cc>
    - there is a 1:07 minute version of this
  - The T-A-DA Method of Managing Agitation associated with Delirium ... (Joseph Flaherty)
    - <https://www.youtube.com/watch?v=D70oGWJqPkI>