

Tools to Assist in the Identification, Education, and Management of Hospital-Acquired Delirium

A Duke NICHE Project

Duke University Hospital

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Population to be addressed:

- Case Study:

Mrs. R. was admitted with a UTI. She was alert and oriented and able to walk to the bathroom with no problem. She had a foley catheter placed and IVFs started. Two days later, Mrs. R. awakened during the night calling her daughter's name and trying to climb over the side rail. She was hypervigilant and inattentive as well as disoriented. Mrs. R. fits into a rising population of 25% to 60% of elderly persons who develop delirium while hospitalized.

Why is it important:

- Quote:

“Delirium is a marker of poor hospital care for older people: it is associated with serious complications; it often goes unrecognized by physicians and nurses; and its occurrence is integrally linked with processes of hospital care, such as overuse of medications and iatrogenic events. Unfortunately, delirium is common and can lead to increased mortality, morbidity, and loss of independence” (Inouye, 2004)

Current state with regard to practice:

- Undiagnosed on our Gen. Med. unit
- Prevalence questionable on our Gen. Med. unit
- Nursing staff see problem increasing
- Safety issue
- Sitters ordered but often unavailable

Data supporting need to change:

According to researchers, like Inouye, Shank, & Ratchford, hospital-acquired delirium is associated with:

- increased length of stay
- increased hospital costs
- increased morbidity & mortality
- increased burden of care

Data supporting need to change:

- 2.5 million hospitalized elderly persons
- \$6.9 billion per year cost to Medicare
- CMS proposed “No-pay list of hospital acquired conditions”

Inouye, 2006

What we did to change practice:

Tools of change:

- Nursing Care Plan
 - Risk factors
 - Rationales
 - Interventions
- Structured Focus Note
 - Data=Assessment
 - Action=Interventions
 - Response=outcomes

Duke University Hospital

DUKE UNIVERSITY HEALTH SYSTEM

Patient Plan of Care Acute Confusion

For ALL patients ≥ 65 years of age

Initiate this plan of care by entering DATE, KEY and nurse INITIALS next to each "Problem" appropriate for the individual patient. Use the KEY – I = initiated, M = modified and R = resolved. Then, **individualize** the interventions for the problems identified by **checking and/or placing the date in front of** the appropriate interventions used or modified.

Plan of Care Initiated, Modified or Resolved				Problem	Interventions (Includes plan for patient and family education)			
Date	Time	Key	Initials					
				Acute Confusion <input type="checkbox"/> Prevention <input type="checkbox"/> Management	Establish a baseline: Talk with patient's family or caregiver and review the chart. ____ Assess for risks: ____ any acute illness ____ Impaired vision/hearing, ____ untreated pain, ____ altered mental status, ____ polypharmacy, ____ lack of mobility, ____ physical restraints, ____ indwelling bladder catheter, ____ Increased BUN/CR ratio (dehydration, decreased renal failure), ____ weight loss or serum decline in albumin (malnutrition), ____ more than 3 medications added in a 24 hour period, ____ interrupted sleep (noise level, lights, vital signs, medication times, or Q 2 hour checks/turns) Implement preventive measures: ____ Place in a quiet private room. ____ Explain what to expect during hospitalization in calm, clear, simple terms. ____ Maximize sensory perceptions, by using eye glasses, hearing aids, dentures, etc. ____ Ensure that patient has quiet rest time—low lights at night to aid sleep ____ Ambulate or perform ROM. ____ Monitor neurologic status every 4-6 hours. Educate patient/family regarding High Risk for acute confusion and prevention strategies. ____ Communication for high risk for acute confusion includes: Place "delirium question mark" on the wall over the head of patient's bed. ____ Use positive physical approach: ____ Each time you enter patient's room, introduce self. ____ Make eye contact (unless culture frowns on it) and try to communicate at eye level. ____ Explain physician's directions and nursing actions—ask for feedback to gauge comprehension. ____ Invite to talk about background to maintain links with past. Provide continuity: ____ Ask family member to stay with patient as much as possible. ____ If patient normally sleeps with someone, line the partner's side of the bed with pillows. ____ Encourage patient to keep meaningful possessions, such as purse, afghan, or picture. ____ If has comforting rituals, such as applying lipstick after breakfast, include them in care. ____ Monitor food and fluid intake and help maintain normal elimination patterns. Provide safety: ____ Room well lit during the day to reduce frightening contrasts and shadows. ____ Remove hazards, such as footstools or wheeled objects that could cause a fall. ____ Reduce stimuli by pulling the television plug. ____ Ask anyone who wears a pager to mute the sound while in room. ____ Suggest limiting visitors to one or two, and only if they can help patient connect with past. Avoid restraints: ____ Assess safety risks to patient and others, then devise ways to protect pt. ____ Avoid restrictions, such as wrist restraints, that may frighten patient, erode sense of control, and heighten confusion. ____ If your confused patient has tubes, wound dressings, or I.V. lines, use the following approaches: minimize or discontinue their use whenever possible, hide them and minimize the discomfort they cause, develop restraint alternatives using an interdisciplinary team. Review medications: ____ Use of any medication may increase patient's risk of confusion. Need to keep comfortable, but be careful when administering medications that have anticholinergic effects. Elderly are more sensitive to analgesics, sedatives, histamine antagonists, antidepressants, antihistamines, antispasmodics, and muscle relaxants. ____ Don't withhold pain medication to prevent confusion; administer patient's medications at the prescribed intervals. _____ _____			
						Expected Outcome Acute Confusion <input type="checkbox"/> Will not develop <input type="checkbox"/> Is resolving -Alert -Oriented -Calm -Sleeping -Clear -Cooperative		
Signature/Title				Initials	Signature/Title	Initials	Signature/Title	Initials

Structured Plan of Care

- Initiate this plan of care by entering date, key and nurse initials next to each "Problem(s)" appropriate for the individual patient.
- Use the key – I = initiated, M = modified and R = resolved.
- **Individualize** the interventions for the problems identified by **checking** the appropriate boxes **and dating** interventions used.

DUKE UNIVERSITY HOSPITAL STRUCTURED FOCUS NOTE FOR ACUTE CONFUSION PREVENTION AND/OR TREATMENT For ALL patients ≥ 65 years of age				
DATE/TIME	*Reference: Inouye SK, vanDyck CH, Alessi CA, Balkin S, Siegel AP, Horwitz RL. Clarifying confusion: The Confusion Assessment Method. A new method for detection of delirium. Ann Intern Med. 1990; 113:941-948. Confusion Assessment Method: Training Manual and Coding Guide, Copyright 2003, Sharon K. Inouye, M.D., MPH. Not to be reproduced without permission. Instructions for correct usage available at: <http://eiderlife.med.yale.edu/pdf/The Confusion Assessment Method.pdf>, or on request from Dr. Sharon Inouye.*			
PROBLEM PROCEDURE/EVENT	PROGRESS NOTE			
	The patient plan of care for acute confusion prevention and/or treatment has been initiated or is in place which includes attention to vision/hearing problems, altered mental status, lack of mobility, dehydration/ malnutrition, and sleep deprivation.			
DATA:	<input type="checkbox"/> Patient is at risk for hospital-acquired delirium (acute confusion) because of: (check all that apply)			
	<input type="checkbox"/> Altered Mental Status	<input type="checkbox"/> Indwelling bladder catheter		
	<input type="checkbox"/> Impaired vision/hearing	<input type="checkbox"/> Weight loss or serum decline in		
	<input type="checkbox"/> Lack of mobility	albumin (malnutrition)		
	<input type="checkbox"/> Increased BUN/CR ratio	<input type="checkbox"/> Polypharmacy or more than 3		
	(dehydration, decreased renal failure)	medications added in a 24 hour period		
	<input type="checkbox"/> any acute illness _____	<input type="checkbox"/> Interrupted sleep due to:		
	<input type="checkbox"/> Untreated Pain	noise level, lights, vital signs,		
	<input type="checkbox"/> Vest or wrist restraints	medication times, Q2hr checks/ turns		
ASSESSMENT:	<input type="checkbox"/> Patient currently has acute confusion state: (check all features that apply)			
*The diagnosis of delirium by these CAM responses requires the presence of features 1 and 2 and either 3 or 4.	<input type="checkbox"/> 1. Acute Onset & Fluctuating Course: evidence of an acute change in mental status from baseline; did (abnormal) behavior fluctuate during the day—come and go or increase and decrease in severity?			
	<input type="checkbox"/> 2. Inattention: difficulty focusing attention, is easily distractible or has difficulty keeping track of what is said			
	<input type="checkbox"/> 3. Disorganized Thinking: Thinking disorganized or incoherent such as rambling or irrelevant conversation, unclear or illogical flow of ideas, or unpredictable switching between subjects			
	<input type="checkbox"/> 4. Altered Level of Consciousness: Rate overall level of consciousness: <input type="checkbox"/> Vigilant (hyperalert) <input type="checkbox"/> Stupor (difficult to arouse) <input type="checkbox"/> Lethargic (drowsy, easily aroused) <input type="checkbox"/> coma (unarousable)			
	<input type="checkbox"/> disoriented	<input type="checkbox"/> restless	<input type="checkbox"/> insomnia	<input type="checkbox"/> incoherent <input type="checkbox"/> uncooperative
	Observed Behavior:			
ACTION:	Implemented following interventions: (check all that apply)			
	<input type="checkbox"/> Put eye glasses on patient	<input type="checkbox"/> Put hearing aids in patient's ears		
	<input type="checkbox"/> Used positive physical approach and structured reminiscence			
	<input type="checkbox"/> Updated and reviewed the white board with patient			
	<input type="checkbox"/> Had patient fold washcloths or introduced activities from activity cart			
	<input type="checkbox"/> Ambulated patient or gave ROM exercises			
	<input type="checkbox"/> Offered fluids every 2 hours along with toileting			
	<input type="checkbox"/> Monitored electrolytes and BUN/CR ratio			
	<input type="checkbox"/> Reduced noise unit-wide (signs placed to remind)	<input type="checkbox"/> Gave a 5 minute back massage		
	<input type="checkbox"/> Turned on relaxation music	<input type="checkbox"/> Offered warm drink (milk or tea)		
	<input type="checkbox"/> Consulted MD to:			
	<input type="checkbox"/> Reschedule medications and procedures to allow sleep (clustered nursing care)			
	<input type="checkbox"/> Discuss adverse meds: benadryl or any other anticholinergics, ativan, or phenergen			
	<input type="checkbox"/> Suggest haldol or risperdol only after all else fails			
	<input type="checkbox"/> Discontinue foley catheters			
	<input type="checkbox"/> Discontinue restraints			
	<input type="checkbox"/> Order and monitor electrolytes and BUN/CR ratio			
RESPONSE:	The patient is: (check all features that apply)			
	M NM alert & oriented	M NM calm	M NM sleeping	M NM clear M NM cooperative
	Signature:			

Structured Focus Note

- Identify risk factors and the presence or absence of acute confusion.
- **Individualize** the interventions for the problems identified **by checking** the appropriate boxes.
- Document the outcomes using a proven method adapted from Inouye's CAM or Confusion Assessment Method

CONFUSION ASSESSMENT METHOD (CAM) SHORTENED VERSION WORKSHEET

EVALUATOR:

DATE:

ACUTE ONSET AND FLUCTUATING COURSE

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

No _____

Yes _____

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

No _____

Yes _____

BOX 1

I. INATTENTION

Did the patient have difficulty focusing attention, for example, being easily distractible or having difficulty keeping track of what was being said?

No _____

Yes _____

II. DISORGANIZED THINKING

Was the patient's thinking disorganized or incoherent, such as rambling or irrelevant conversation, unclear or illogical flow of ideas, or unpredictable switching from subject to subject?

No _____

Yes _____

BOX 2

V. ALTERED LEVEL OF CONSCIOUSNESS

Overall, how would you rate the patient's level of consciousness?

-- Alert (normal)

-- Vigilant (hyperalert)

-- Lethargic (drowsy, easily aroused)

-- Stupor (difficult to arouse)

-- Coma (unarousable)

No _____

Yes _____

Do any checks appear in this box?

If all items in Box 1 are checked **and** at least one item in Box 2 is checked a diagnosis of delirium is suggested.

Adapted from Inouye SK et al, Clarifying Confusion: The Confusion Assessment Method. A New Method for Detection of Delirium. Ann Intern Med. 1990; 113:941-8.

This worksheet gives step by step instructions on how to use the CAM

Sharon K. Inouye, M.D., M.P.H.

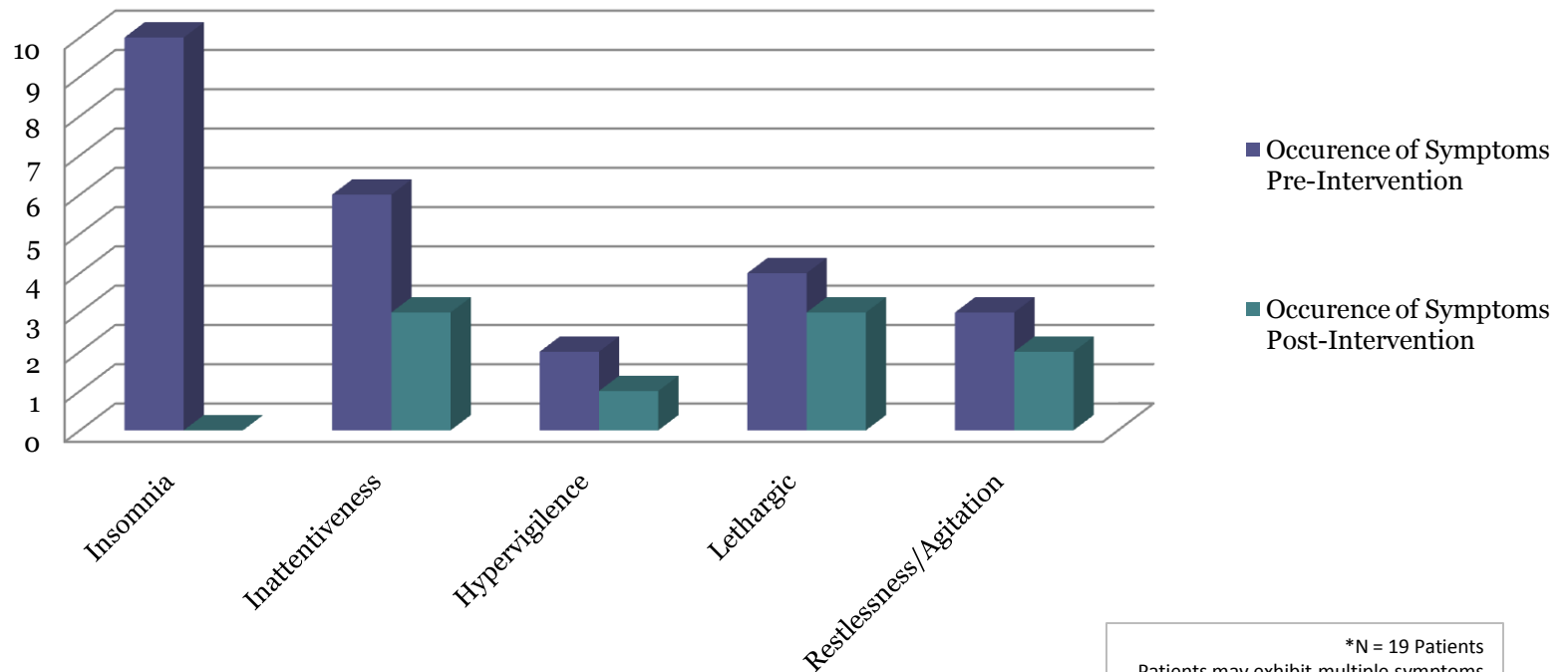
Describe the impact:

- Case Study:

Mrs. R. was approached using the positive physical approach—go slow at eye level and speak simply and slowly. She was offered a five minute back rub while encouraging her to reminisce. Loud television was replaced with low soft music. The lights were turned low. It was explained to her that it was after 9:00 PM and time for sleep. Mrs. R. became calm and reported she **was** sleepy. She was able to sleep through the night.

Identified data:

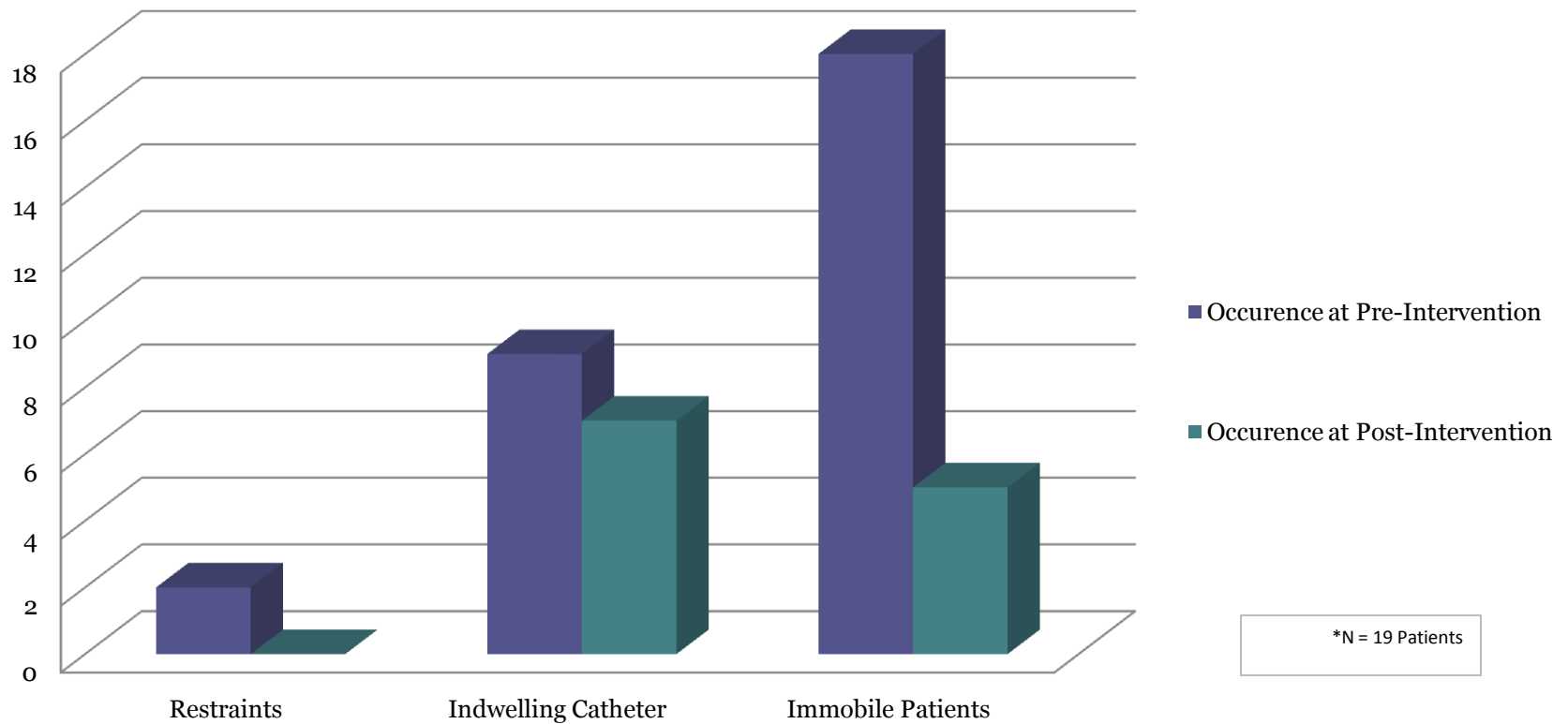
Patients Exhibiting Behavioral Symptoms of Hospital-Acquired Delirium



*N = 19 Patients
Patients may exhibit multiple symptoms

Identified data:

Clinical Impacts Due to Interventions



Conclusion:

- A tool to identify clients with or at risk for delirium
- A tool to educate staff
- A tool to offer undemanding, practical, evidence-based solutions
- A tool with measurable outcomes using a researched and proven method