Hospital Elders Life Program (HELP) Volunteers: HELPING Patients, HELPING Staff

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Objectives:

1. Discuss the impact of delirium on older hospitalized patients.

2. Discuss the use of non-pharmacological multicomponent interventions to reduce delirium.

3. Describe the use of volunteers as part of a Hospital Elders Life Program (HELP) to reduce delirium.
What is the medical emergency?

1. Pt complains of chest pain and is short of breath?
2. Pt develops slurred speech and is unable to move right arm?
3. Pt develops purulent sputum, spikes a temp of 102.1, and is hypotensive.
4. Pt develops “ICU Psychosis” starts picking at clothes and ‘requires” restraints.
5. Family reports how tired the pt is after surgery, pt “napping” most of time. Not disruptive wakes with stimulation and drifts right back off to sleep.
What our geriatric patients have taught us about caring for all patients:

1. **Delirium** - Never a good outcome

2. **Functional decline** – The bed is not our friend

3. **Coordinated Care** – We need a plan for the day and plan for the stay
Do you hear the term "DELIRIUM" used often?

- Delirium is often unrecognized
- Delirium is often called something else:
  - Altered mental status
  - Dementia
  - Confusion
  - Agitation
  - Sundowning
  - Loopy
Delirium / Dementia

- What is delirium?
- What is hypo/hyper active delirium?
- How is delirium different than dementia?
- Can you have dementia and delirium?
Delirium Outcomes

- Patients with it **die often and quickly**
  - Mortality for hospitalized patients with delirium is 22-76% (similar to AMI or sepsis)
  - One year mortality 35-40%
- Deconditioning/functional decline
- Adverse events while hospitalized
  - Falls and restraints
- 3-5 times risk for other nosocomial complications
- Increases risk of nursing home placement after discharge
- Adds ~$2,500 to the hospital cost per patient

What are the clinical criteria for delirium?

Feature 1: Acute change or fluctuating course of mental status

Feature 2: Inattention

Feature 3: Altered level of consciousness

Feature 4: Disorganized Thinking

Every care provider at UAB Hospital MUST commit to knowing these criteria for diagnosing delirium.

Common Symptoms

- Hyperactive form - agitation
- Hypoactive - lethargy
Delirium Subtypes

Hypoactive

- Sicker on admission
- Have longer lengths of stay
- Are more likely to develop pressure ulcers as a result of immobility
- May be diagnosed as depression
- 25% of all delirium is hypoactive

Signs and symptoms

- Sleepy, sluggish, uninterested, and withdrawn
- Slow speech or mumbling
- Laying in bed with little interaction
- Visual hallucinations (sensory perception not related to external event)
Delirium Subtypes

Hyperactive

- 25% of all delirium cases
- Most easily recognized
- Higher fall risk

Signs and symptoms

- Restless, irritable, combative, angry, uncooperative, and easily distracted
- Fast or loud speech
- Wandering, climbing out of bed
- Visual hallucinations
Patient Characteristics:

- Elder, General Surgery
- CV surgery
- Orthopedic Surgery
- Elder, ICU
- Elder, General Medicine
- Baseline cognitive &/or functional impairment
Prevalence of Delirium in Hospitalized Older Adults

- ~ 20% of hospitalized patients over 65
- ~ 33% of hospitalized patients over 70
- ~ 33% of older ER patients
- Up to 87% of older ICU patients
Delirium Occurs in Patients of All Ages

- 14-24% of general hospital admissions
- 1-2% in the community
Predisposing Risk Factors for Delirium

- **D’s**
  - Dementia/Mild Cognitive Impairment (SIS ≥ 2)
  - Debilitated (Katz score ≤ 9)
  - Delirium (in past)
  - Dehydration (BUN/Cr ratio ≥ 18)

- **S’s**
  - Sensory impaired (low vision or hearing)
  - Stroke (in past)
  - Sleep loss
Precipitating Factors: Causes for Delirium that YOU can ADDRESS

Safe mobility lacking

Tethers (restraints, foleys, IVs, oxygen)

Orientation (maintain daytime and nighttime; correct day/date on whiteboard)

Pain

Drugs

Eyes, ears, other sensory deficits

Loss of sleep, noise at night

Infections (UTI, pneumonia, etc)

Retention of urine

Impaction/constipation

Under-hydration, under-nutrition

Metabolic causes
(hyper/hyponatremia, hyper/hypocalcemia, hypo/hyperglycemia)

UAB Medicine
Knowledge that will change your world
Could it be me???

KEEP CALM
IT’S
ACTIVITY TIME!
Beware the “self fulfilling prophecy”

“Don’t get up we are afraid you might fall”

“She is confused… it is just her baseline dementia”

“She looks like a nursing home patient to me”

“She got agitated last night I am glad the doctor ordered that Haldol”
An ounce of prevention is worth a pound of cure

- Research shows the multi-component non-pharmacological interventions can prevent delirium.
  - High Touch and Low Tech

- What risk factors are present? Which patients should be on your radar?
  - Can any be eliminated?

- Are there changes in mental status? What are you looking for as change in mental status?
Using Technology to Promote Interprofessional Communication
Non-pharmacologic Prevention

- Provide interpersonal contact
- Improve sensory input through use of hearing aides, amplifiers, eyeglasses, and adequate lighting
- Promote family involvement
- Avoid use of physical restraints
Non-pharmacologic Management

- Control environment
  - reducing overstimulation, avoiding sleep deprivation, establishing morning and bedtime routines
- Minimize relocation and maintain consistency of caregivers
Maximize Orientation

- Clocks and large calendars
- Dry erase boards for staff names and scheduled activities
- Keep family informed
- Involve family members in care and routine
EVERY patient deserves STOP DELIRIUM Care!

STOP DELIRIUM Care for ALL Patients Daily:

- **Safe Mobility:** Follow the **MOVE algorithm for Safe Mobility**
- **Tethers:** Remove/wean off any unnecessary tethers (oxygen, IVFs, Foley, restraints, telemetry, etc.)
- **Orientation/cognitive stimulation:** lights on during the day/quiet environment at night; family involvement; determine normal day to day routine. Cognitive stimulation using Delirium Prevention Toolbox items.
- **Pain:** Follow the **I AM RID of pain algorithm**
- **Drugs:** Review med list for high risk meds (**BEERS List**) and review with team/pharmacy. Place pharmacy referral for med review if needed.
- **Eyes, Ears:** Give patients with sensory loss pocket talkers and reading glasses.
- **Loss of sleep:** Unit must be kept quiet at night! Review nighttime interventions for items to ask/suggest that can be stopped or moved to daytime (ex: nebs, meds, vital signs, lab draws, etc)
- **Infections:** Watch for signs of UTI, pneumonia, other infections
- **Retention of urine:** Watch for low Abd pain/distention or reduced urine output, and check Bladder scan if these are present. Notify MD/NP/PA if PVR >300mL.
- **Impaction/constipation:** Patients must have BM at least every other day (or per their normal routine at home). Use/ask for laxative.
- **Under-hydration, under-nutrition:** Watch for BUN/Cr ratio ≥ 18; push po fluids/supplements; ask about IVFs if patient not able to take enough po. Place referral to Dietician.
- **Metabolic abnormalities:** Monitor sodium, calcium, glucose
Delirium Toolbox

- Supplies to help prevent delirium and manage the delirious patient

Prime example of nurses at UAB thinking out of the “box”
Clinical Practice Guidelines for the Management of Pain, Agitation, and Delirium in Adult Patients in the Intensive Care Unit

Juliana Barr, MD, FCCM; Gilles L. Fraser, PharmD, FCCM; Kathleen Puntillo, RN, PhD, FAAN, FCCM; E. Wesley Ely, MD, MPH, FACP, FCCM; Céline Gélinas, RN, PhD; Joseph F. Dasta, MSc, FCCM, FCCP; Judy E. Davidson, DNP, RN; John W. Devlin, PharmD, FCCM, FCCP; John P. Kress, MD; Aaron M. Joffe, DO; Douglas B. Coursin, MD; Daniel L. Herr, MD, MS, FCCM; Avery Tung, MD; Bryce R. H. Robinson, MD, FACS; Dorrie K. Fontaine, PhD, RN, FAAN; Michael A. Ramsay, MD; Richard R. Riker, MD, FCCM; Curtis N. Sessler, MD, FCCP, FCCM; Brenda Pun, MSN, RN, ACNP; Yoanna Skrobik, MD, FRCP; Roman Jaeschke, MD
Pharmacology & Delirium: Pearls for Practice

1. Pain:
   - Assess and treat pain
   - Assess and treat side effects of pain medications
   - Consider non-pharmacological interventions
   - Round the clock dosing – think Tylenol for older adults.
   - For vulnerable patients start low and go slow
2. **Prevention:**
   - Benzos use may be a risk factor developing delirium in adult ICU patient
   - Evidence does **not** support use of pharmacologic delirium prevention

3. **Treatment:**
   - No evidence Haldol decreases duration of delirium
   - Atypical antipsychotics may reduce duration of delirium
Drug &/or Alcohol withdrawal

- Withdrawal from illicit drugs, ICU sedation, or ETOH.
  - Opiates, Benzo, Percedex, Propofol

- ETOH dependency is present in 15% - 20% of all hospitalized patients
  - Alcohol withdrawal syndrome (AWS): 8% - 31% of ETOH dependent patients
    - ~ 5% AWS → Delirium Tremors
Non-Pharmacological – decreases incidence of delirium
Haldol – weak evidence for management, weaker evidence for prevention
What to do for a Delirious Patient

Promote Continence

- Offer toileting every 2 hours or more often while awake depending upon individual needs
- Watch for constipation
- Respond promptly to calls for assistance
- Use opportunity to increase ambulation
What to do for a Delirious Patient

Encourage Adequate Rest

- Provide daytime naps or rest periods
- Bundle care interventions to minimize nighttime interruptions
- Provide sleep assistance strategies
- Promote comfort
What to do for a Delirious Patient

Provide Nutrition and Hydration

Good hydration and nutrition will accelerate recovery

- Encourage patient to drink at least 30cc of fluid every hour
- Provide assistance and companionship at meal time
What to do for a Delirious Patient

Improve Mobility

- Increase ambulation and activity to at least 3 times a day when possible
- Avoid use of immobilizing devices such as physical restraints
- Assist out of bed for meals when possible
- Encourage patient to assist with bathing and hygiene
Minimize Sensory Impairments

- If your patient wears glasses or a hearing aid, make sure they are clean and in good working order.
- Check batteries of hearing aids
- Use magnifiers when appropriate
- Use amplifiers or pocket talkers when appropriate for hearing loss, and be sure to check batteries
What to do for a Delirious Patient

Establish Good Communication

- Establish eye contact
- Speak directly to patient and reduce outside noise
- Use unhurried speech and familiar words
- Give visual clues
- Break complex activities into one-step tasks
Hospital Elders Life Program (HELP)

Volunteers: HELPING Patients, HELPING Staff

The Department of Interdisciplinary Practice and Training
Background:

- Delirium occurs in 29%-64% of hospitalized older adults. (Hshieh et al. 2015)

- Delirium in older adults is associated with decreased function, falls, & an additional $16-64k dollars per episode. (Sandbaus et al. 2010)

- Staff caring for delirious patients experience increased stress and work load demands. (Sandbaus et al. 2010)
Dr. Sharon K Inouye and colleagues developed HELP® as a comprehensive, evidence based, patient care program. (Inouye et al. 1999)

The Program utilizes trained volunteers who follow specific protocols to prevent delirium and optimize outcomes for older hospitalized adults.

http://www.hospitalelderlifeprogram.org/
Selecting the HELP Pilot Unit @ UAB...

Discharged Patients Over Age 65 Over 3 Months

**ACE Unit**

- Highest concentration of older adults
- Already uses volunteers for SPOONS
- Activities resources:
  - OT dementia box
  - Artist in residence supplies
  - Books, magazines, etc
### HELP Criteria...

<table>
<thead>
<tr>
<th><strong>Inclusion Criteria</strong></th>
<th><strong>Exclusion Criteria</strong></th>
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<tbody>
<tr>
<td>Age ( \geq 70 )</td>
<td>Coma or Mechanical Ventilation</td>
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<tr>
<td>Admitted within past 48 hours</td>
<td>Aphasia</td>
</tr>
<tr>
<td>At least one of the following Risk Factors:</td>
<td>Terminal / Imminently dying</td>
</tr>
<tr>
<td>1. Cognitive Impairment</td>
<td>Combative or psychotic</td>
</tr>
<tr>
<td>2. Mobility or ADL Impairment</td>
<td>Airborne or Neutropenic Precautions</td>
</tr>
<tr>
<td>3. Vision impairment (&lt;20/70)</td>
<td></td>
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<tr>
<td>4. Hearing Impairment</td>
<td></td>
</tr>
<tr>
<td>5. Dehydration (BUN/Cr ( \geq 18 ))</td>
<td></td>
</tr>
<tr>
<td>Able to Communicate</td>
<td>Discharge Anticipated in 48 hours</td>
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**THE CLINICAL PROCESS**

Patient admitted or transferred to unit

Screening and Enrollment Procedures by ELS
(Complete within 48 hours)

1. Brief chart review to determine if patients have any exclusionary criteria.
2. Describe program to patients and complete Patient Enrollment Form.
3. Enroll appropriate patients.

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**Intervention Process**

**Elder Life Specialist**

1. Initially use Patient Enrollment Form to derive appropriate ELS and volunteer interventions.
   - ELS Intervention Worksheet
   - Patient Care Plan
   - Volunteer Assignment Form
   - ELS Daily Evaluation Form
   - Volunteer Interventions
   - Master Tracking Log

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**Intervention Process**

**Elder Life Nurse Specialist**

1. Review Patient Enrollment Form; complete Geriatric Vital Signs; initiate and document appropriate ELNS interventions.
   - ELNS Patient Profile Sheet
   - ELNS Interventions Master Tracking Log
   - ELNS Daily Evaluation Form

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**Intervention Process**

**Interdisciplinary Interventions**

1. Interdisciplinary Rounds and Consultation.
   - HELP Interdisciplinary Rounds Form
2. Geriatrician Consultation
3. Community Linkages

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**Discharge and Post Discharge Procedures**

Discharge evaluation to track clinical outcomes related to program interventions.

- Patient Discharge Form (ELS)
- HELP Patient/Family Survey (ELS)
- ELNS Telephone Follow-up Form
After completing a systematic review of 14 interventional studies, Hshieh et al. (2015) concluded that a **multicomponent nonpharmacological** delirium prevention protocol was effective in decreasing delirium and falls.

**Table 1: Risk Factors & Intervention Strategies for Delirium**

<table>
<thead>
<tr>
<th>Risk Factor</th>
<th>Intervention</th>
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<tbody>
<tr>
<td>Cognitive Impairment</td>
<td>Reality Orientation / Therapeutic Activity</td>
</tr>
<tr>
<td>Vision / Hearing Impairment</td>
<td>Vision/ Hearing Aids</td>
</tr>
<tr>
<td>Immobilization</td>
<td>Mobilization</td>
</tr>
<tr>
<td>Dehydration</td>
<td>Volume Repletion</td>
</tr>
<tr>
<td>Sleep Deprivation</td>
<td>Sleep Enhancement</td>
</tr>
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Adapted From: Sandbaus et al. 2010
Volunteers HELPING Patients

- Complete UAB Hospital Volunteer Training
- Complete 4 hour didactic HELP training
- Complete 1 shadowing & 1 validation shift

<table>
<thead>
<tr>
<th>May 2015 Through April 2016:</th>
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<tbody>
<tr>
<td>Volunteers Trained</td>
</tr>
<tr>
<td>Volunteered Hours</td>
</tr>
<tr>
<td>Patients Enrolled thru April 2016</td>
</tr>
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<table>
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<tr>
<th>For first 6 months of program:</th>
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<tbody>
<tr>
<td>No of Volunteer Visits/patient, Mean</td>
</tr>
<tr>
<td>Completion of Daily Visitor</td>
</tr>
<tr>
<td>Completion of Therapeutic Activities</td>
</tr>
<tr>
<td>Completion of SPOONS</td>
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<tr>
<td>Completion of Active ROM</td>
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### Volunteers HELPING Staff:

<table>
<thead>
<tr>
<th>Staff Perceptions about HELP on ACE, Level of Agreement</th>
<th>Mean Score, Likert Scale 1-5</th>
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<tr>
<td>HELP volunteers provide cognitive and social interaction that I cannot due to time constraints</td>
<td>4.75</td>
</tr>
<tr>
<td>Having HELP volunteers makes my job more satisfying</td>
<td>4.63</td>
</tr>
<tr>
<td>HELP interferes with routine patient care</td>
<td>1.13</td>
</tr>
<tr>
<td>Having HELP volunteers makes my job easier</td>
<td>4.56</td>
</tr>
<tr>
<td>I am more aware of how to prevent delirium because of the HELP program</td>
<td>3.75</td>
</tr>
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On The Horizon...

- Recruitment & training of both community and college volunteers.

- Finalizing logistics for HELP “Walking Buddy Protocol” – will allow volunteers to facilitate patient ambulation.

- Data collection for HELP interventions with vascular surgery patients
Conclusion

- Delirium is a medical emergency
- Like many things in healthcare – an ounce of prevention is worth a pound of cure
- Non-pharmacological interventions can easily be incorporated into patients plan of care
- Remember to engage families – make them your “HELP Volunteers”

**Special Thanks:** Acute Care for Elders (ACE) unit & to our dedicated HELP volunteers.

