HELP! I NEED SOMEBODY!

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OUTLINE

• Intro to Hospital Elder Life Program (HELP) and Age-Friendly Health System (AFHS)
• Delirium: Why do we care?
• Nuts and Bolts of HELP
• HELP Outcomes
HELP and AFHS
HELP IS …

• Delirium Prevention Program
  – Patients 70 years and older
  – Utilizes specially trained volunteers
  – Delivers evidence-based interventions

• Developed by Sharon Inouye, MD, in the 1990s

https://www.hospitalelderlifeprogram.org/
AGE FRIENDLY HEALTH SYSTEM IS …

• Every older adult’s care:
  – Is guided by an essential set of evidence-based practices (the 4Ms);
  – Causes no harms; and
  – Is consistent with What Matters to the older adult and their family.
HELP AND THE AGE-FRIENDLY HEALTH SYSTEM

4Ms Framework

- What Matters
- Mobility
- Mentation
- Medication
Delirium
DELIRIUM IS...

• A sudden change in mental status, or sudden confusion, which develops over hours or days.

• Different from dementia, such as Alzheimer’s disease, which is a chronic state that progresses over time.
DELIRIUM CRITERIA (DSM 5)

- Disturbance in attention and awareness
- Acute onset, tends to fluctuate
- Also cognitive disturbance
- Not better explained by pre-existing dementia
- Not coma
- Evidence of underlying organic etiology

## Differentiating Delirium from Dementia

<table>
<thead>
<tr>
<th>FEATURES</th>
<th>DELIRIUM</th>
<th>DEMENTIA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Onset</td>
<td>Clear-cut, acute (hours to days)</td>
<td>Insidious (months to years)</td>
</tr>
<tr>
<td>Course</td>
<td>Fluctuating (sun-downing effect)</td>
<td>Stability of symptoms within days</td>
</tr>
<tr>
<td>Duration</td>
<td>Reversible – Resolution in days or weeks</td>
<td>Not reversible – Symptoms are progressive</td>
</tr>
<tr>
<td>Level of consciousness</td>
<td>Impaired</td>
<td>Usually not impaired until end-stage</td>
</tr>
<tr>
<td>Level of attention</td>
<td>Impaired</td>
<td>Usually not impaired until end-stage</td>
</tr>
<tr>
<td>Mood changes</td>
<td>Frequent</td>
<td>Rare (Exception: VaD)</td>
</tr>
<tr>
<td>Hallucinations, Illusions</td>
<td>Frequent, predominantly visual</td>
<td>Rare (Exception: DLB)</td>
</tr>
<tr>
<td>Delusions</td>
<td>Frequent (fluctuating, fragmented)</td>
<td>Rare</td>
</tr>
<tr>
<td>Motor activity</td>
<td>Hyperactive/Hypoactive/Mixed</td>
<td>Without specific features</td>
</tr>
</tbody>
</table>

Key: DLB (Dementia with Lewy Bodies); VaD (Vascular Dementia)
DELIRIUM IS COMMON

Hospitalized older adults: ≈ 29 – 64%

High risk settings for delirium
  • Post-operative: 12 – 51%
  • ICU: 19 – 82%
  • ER: 8 – 17%
  • Stroke units: 27%

http://www.hospitalelderlifeprogram.org/for-clinicians/why-delirium-is-important
CONFUSION ASSESSMENT METHOD (CAM)

Must have features 1 & 2

Feature 1: Acute onset and fluctuating course
   - Change from baseline
   - Behaviors come and go; increase and decrease in severity

Feature 2: Inattention
   - Unable to focus or keep track of task or conversation

Feature 3: Disorganized thinking
   - Incoherent, rambling, irrelevant, illogical

Feature 4: Altered level of consciousness
   - Vigilant (hyperalert)
   - Lethargic (but easily aroused)
   - Stupor (difficult to arouse)
   - Coma (unarousable)

AND either feature 3 OR feature 4

Nuts and Bolts of HELP
HELP CLINICAL STAFF

• Delirium PREVENTION program
• Innovative staffing model
  o Volunteer force (>40)
  o Elder Life Specialist (ELS)
  o Elder Life Nurse Specialist (ELNS)
  o Geriatricians
  o Geriatric Pharmacist
HELP PROGRAM GOALS

- Maintain physical and cognitive functioning
- Maximize independence at discharge
- Reduce hospital readmissions
- Improve geriatric skills of staff throughout the hospital
HELP PROCESS

• Screening:
  o Patients ≥ 70 years
  o Admitted < 48 hours
  o Expected length of stay (LOS) > 2 days
  o Not delirious on admission

• Then
  o Elder Life Specialist builds plan of volunteer interventions
  o Elder Life Nurse Specialist makes age-friendly recommendations to clinical team
  o Weekly rounds include the entire HELP clinical team
# HELP VOLUNTEER INTERVENTIONS

## INTERVENTIONS

1. Daily visitor program
2. Targeted activities
3. Early Mobilization
4. Feeding assistance
5. Hearing and vision protocol
6. Non-pharmacological sleep protocol

## WHAT THEY PROVIDE

- Orient, socialize, communicate
- Keep cognitively engaged
- Walking and ROM exercises
- Companionship at meals
- Adaptive equipment: amplifiers and magnifiers (& readers)
- Soothing environment, music, herbal tea, hand or foot massage
HELP
Outcomes
Reduced delirium rate
• Pre-intervention rate 33%
• HELP-enrolled rate at 6 months 10.7%
  – 9 of 84 enrolled patients
• Current rate since inception ≈ 4.29%
OTHER IMPACTS

Retrospective chart review of inpatients from 2011-2012

• Length of stay
• Discharge disposition
• Readmission
## INDEX ADMISSION LENGTH OF STAY

<table>
<thead>
<tr>
<th>Mean ±SD</th>
<th>HELP Enrolled (558)</th>
<th>Non-HELP (3,021)</th>
<th>P-Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Days</td>
<td>4.5 ± 4.2</td>
<td>5.3 ± 3.9</td>
<td>&lt;0.0001</td>
</tr>
</tbody>
</table>

### Discharge Disposition

<table>
<thead>
<tr>
<th>(%)</th>
<th>HELP Enrolled (558)</th>
<th>Non-HELP (3,021)</th>
<th>P-Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Home/Self Care</td>
<td>60.9</td>
<td>53.4</td>
<td>0.001</td>
</tr>
<tr>
<td>SNF/Rehab</td>
<td>33.7</td>
<td>38.8</td>
<td>0.02</td>
</tr>
</tbody>
</table>
# 30-Day Readmission Rate

<table>
<thead>
<tr>
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<th>HELP Enrolled (558)</th>
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<th>P-Value</th>
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<tbody>
<tr>
<td>30 day Readmission Rate (%)</td>
<td>15.4</td>
<td>20.3</td>
<td>P = 0.02</td>
</tr>
</tbody>
</table>

- Translates to a 25% reduction in 30-day readmission rate
OTHER OUTCOMES

- Delirium prevention and quality improvement (Zaubler 2013)
- Prevention of functional decline (Inouye 2000)
- Prevention of cognitive decline (Inouye, 2000)
- Decreased hospital length of stay (Rubin 2011, Caplan 2007, Rubin 2006)
- Reduced nursing home placement (Caplan 2007)
- Decreased rate of hospital falls (Inouye 2009, Caplan 2007)
- Decreased sitter use (Caplan 2007)
HELP DATA JUNE 1, 2010 TO TODAY

• Improved quality of care

• Nearly 1500 additional visits per year to NON-enrolled patients

• HELP contributes to the exceptional patient experience

Many HELP volunteers are accepted to professional schools
HELP VOLUNTEER INTERVENTIONS

INTERVENTIONS

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THE 4 Ms OF THE AFHS

- Mentation, what Matters
- Mentation, Mobility, what Matters
- Mentation, Mobility, what Matters
- Mentation, what Matters
- Mentation, Mobility, what Matters
- Mentation, Mobility, Medications, what Matters
RESOURCES

• https://www.hospitalelderlifeprogram.org/
• http://www.ihi.org/Engage/Initiatives/Age-Friendly-Health-Systems/Pages/default.aspx
• https://www.hospitalelderlifeprogram.org/delirium-instruments/
• https://mini-cog.com/
REFERENCES

• Cerejeira & Mukaetova-Ladinska, 2011, Nursing Research and Practice
• https://www.hospitalelderlifeprogram.org/about/results