Non-ICU Delirium Screening
An Approach When There is No Guideline

American Delirium Society Webinar
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Objectives

1. Discuss the importance of non-ICU delirium screening

2. Provide a systematic approach to implementing at your hospital

3. Review MUSC’s non-ICU delirium screening program
Considering delirium and COVID-19

A change in mental status is an important clinical sign

Delirium may be an important manifestation in frail elderly patients

Clinical environment (everyone in PPE) may be more disorienting

More shared rooms and more chaos = more difficult to implement non-pharmacologic interventions

Management may change if concurrent use of medications like hydroxychloroquine and azithromycin
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Why screen for delirium outside the ICU?

Routine monitoring for delirium is a guideline-level standard of care in the ICU

- High prevalence and incidence
- Substantial associated morbidity and mortality

Delirium often persists after stepping down from critical care

Morbidity and mortality still significant in non-ICU setting

- 1.5-fold increase in mortality
- Persistent loss of independence
Why screen for delirium outside the ICU?

Common problem particularly in the elderly

13% of all adult patients admitted to our hospital
Patients > 65 yo comprise 13% of the population but 40% of hospital admissions

Patients > 85yo comprise 1.3% of the population but 9.2% of hospital admission
Missed Diagnosis

Many factors contribute to missed diagnosis

- Fluctuating nature of illness
- Subtle subtypes: hypoactive
- Communication barriers between staff
- Inadequate use of delirium assessment tools
- Lack of conceptual understanding
- Similarity to and often mistaken with dementia
- Concern that making the diagnosis won’t make a difference

Missed Diagnosis

Study of 303 elderly (median age 72) patients who presented to the ED, 25 (8.3%) had delirium.

- 1 in 4 were identified by the emergency room physician
- Of the 16 who were admitted to the hospital, only 1 recognized by admitting physician
- Majority of these patients had hypoactive delirium

Study of 710 elderly (mean age 83) patients admitted to medical unit. 110 (15.5%) had delirium by validated screening tool.

- 28% of these patients were identified by clinical team in acute hospital setting

Non-ICU Delirium Screening is Necessary

Delirium is common problem

Routing screening can improve diagnosis

Monitor for change of mental status during the hospitalization

Improve quality of care, by paying more attention to our confused and vulnerable patients
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Important Things to Consider

Why should your hospital be screening for delirium?

Who will be your champions? Where do you begin?

Who will do the screening and which tool to use

What happens when result is positive?

What will you measure?
Finding your hook and your home

What are your hospital’s “sore spots”?  
  *May be your pilot unit’s goals first

Cost, length of stay, falls?

Age friendly health systems?

Quality improvement project
Who will be your champion(s)

Need an interprofessional and multidisciplinary team

For screening:
- Nursing leadership
- Physician: hospitalist, psychiatry

For intervention:
- PT/OT
- Pharmacy
- Volunteer services
Which tool to use?

Questions to ask (and answer)

› Who will be doing it?
› And how long will it take?
› Is there a tool already being used (CAM-ICU)?
› How often?
› Whom will you screen?
Choosing a tool

Practical and user friendly

Ideally lending off something already in place

Approved by pilot unit staff
Where to pilot?

A unit familiar with your champions

Manageable but scalable…start small

Where your need is most obvious (back to your hook)

Anticipate months of piloting

Solicit feedback (is this helpful? Time measurement?)

Share appreciation, data, feedback often
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The MUSC Story

DIETITIAN and SLP: Silver Spoons feeding assistance program

PT and OT: Emphasis on early mobility and ambulation

NURSING: Screen every adult patient twice daily

NURSING: Initiate Acute Confusion Care Plan, emphasizing non-pharmacologic strategy

PHYSICIANS: Modify medical and pharmacologic treatment. Education to all treatment teams

VOLUNTEERS: Assist with Silver Spoons feeding program and early mobility program and provide companionship
Do you feel you were able to identify more patients suffering from delirium than before knowing how to perform the CAM assessment

- Definitely: 8.30%
- Somewhat: 58%
- No: 33%

Did you do anything different for your patients now knowing that they were suffering from delirium?

- Yes: 58.40%
- Sometimes: 33.30%
- No: 8.30%
## Interprofessional Approach at MUSC

### Table 1: Interprofessional Approach to Delirious Patients

<table>
<thead>
<tr>
<th>Profession</th>
<th>Role</th>
<th>Change in Practice</th>
<th>Impact</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nursing</td>
<td>Screening and administration of care plan</td>
<td>Added screening tool</td>
<td>Enhanced focus on confused patient</td>
</tr>
<tr>
<td>Occupational and Physical Therapy</td>
<td>Response to positive screen</td>
<td>Increased awareness of patients mental status</td>
<td>Improved mobility</td>
</tr>
<tr>
<td>Dietitian and SLP</td>
<td>Train volunteers, provide consult for patient</td>
<td>Added training</td>
<td>Greater nutritional intake</td>
</tr>
<tr>
<td>Volunteer</td>
<td>Feeding protocol for CAM positive patient</td>
<td>Less administrative, more direct patient care</td>
<td>Increased companionship, mobility and nutrition</td>
</tr>
<tr>
<td>Physician</td>
<td>Primary provider</td>
<td>Improved awareness of patients mental status</td>
<td>Modify treatment plan and adjust medications</td>
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Data source: MUSC Health

Medical University of South Carolina

Changing What’s Possible | MUSChealth.org
Utilization of Volunteers

SILVER SPOONS: VOLUNTEER FEEDING ASSISTANCE FOR PATIENTS WITH DELIRIUM
Katelyn Ferguson; Kelley Martin, MPH, RDN, LD; Kelly Hedges, CDVS; Kristine Harper MSN, RN, NE-BC; Benjamin Kalivas, MD

OBJECTIVES
Establish a mealtime assistance program for patients with delirium.
Demonstrate that a volunteer feeding program is safe for delirious patients.
Improve patient’s nutrition and hydration status in hopes of reducing the duration and severity of delirium.

RESULTS
Six volunteers assisted with 16 meals.
Over 470 minutes of total nursing time have been saved by this program with our volunteers saving on average 29 minutes of nursing time each meal.
Average age of patient was 59yo

METHODS
In coordination with dieticians, speech language pathology and the Delirium Work Group at MUSC a feeding protocol was created.
A training protocol was developed to utilize volunteers in an environment to provide safe and comfortable mealtime assistance.
Nurses identified patients who would benefit, with priority to appropriate delirious (bcAM positive) patients and facilitated volunteers in assisting with meals and providing companionship.

Data was collected on the number of meals fed, percent food and beverage intake, calories consumed, and the impact on nursing time and workflow.

CONCLUSIONS
Utilization of trained volunteers to assist with feeding of patients with delirium is safe.
By using volunteers to encourage intake at mealtime, we have been able to improve nutritional and hydration status of patients at high risk for deficiency due to disruption of mental state.
There can be significant improvement in nursing time spent in assisting with meals by utilizing a volunteer driven feeding program.
This program has the potential to be instrumental in providing care for patients with delirium by improving oral caloric and fluid intake, and thus improving nutrition status and potentially impacting the duration and severity of the delirious episode.

Silver Spoons is one piece of a interprofessional delirium management system at our hospital.

REFERENCES
Edwards S, Cantor J, Hepkinson J. Assistance at mealtimes in hospital wards and rehabilitation units for patients (65 years) from the perspective of patients, families and healthcare professionals. A mixed methods systematic review. International Journal of Nursing Studies. 2017; 69: 100-115
Tracking Success

Real-time and retrospective

Compliance with tool → important for directed feedback and program improvement

Outcomes: LOS, falls, restraint use
  › Save bigger outcomes (mortality, readmission) for retrospective analysis

Interventions: order-set utilization, PT consults
## Impact at MUSC

<table>
<thead>
<tr>
<th>Year</th>
<th># of Patients Screened</th>
<th># bCAM Positive</th>
<th>% bCAM Positive</th>
<th>Delirium Dx in Chart</th>
</tr>
</thead>
<tbody>
<tr>
<td>2017</td>
<td>10200</td>
<td>1227</td>
<td>12.0</td>
<td>777</td>
</tr>
<tr>
<td>2018</td>
<td>11404</td>
<td>1606</td>
<td>14.1</td>
<td>888</td>
</tr>
<tr>
<td>Total</td>
<td>21606</td>
<td>2833</td>
<td>13.1</td>
<td>1655</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Group</th>
<th>Total Patients</th>
<th>Delirium Dx</th>
<th>Frequency (%)</th>
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<tbody>
<tr>
<td>Non-screening</td>
<td>170377</td>
<td>5165</td>
<td>3.03</td>
</tr>
<tr>
<td>Screening</td>
<td>21606</td>
<td>1655</td>
<td>7.17</td>
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Aiming for sustainability

Track outcomes and re-inforce success

Continued education

Integrate into training

Long- and short-term goals

Use momentum while and where you have it

Create a Delirium Workgroup/Council of Champions
Summary

Screening for delirium is an important means of improving care to all hospitalized patients

Implementation requires a large team of champions with goals aligned with the hospital

Finding a tool that can be quickly and easily integrated into the workflow and documentation is essential

Success and sustainability come from empowering all involved to make a difference and then measuring and recognizing the impact
Thank you to:
Kristine Harper, MSN, RN, NE-BC: Sr. Patient Safety Manager

April Roscoe, DNP, MSN, RN: Safe Patient Handling and Mobility Program Manager

William Moran, MD MS
Jim Rudolph, MD SM
Patrick Robbins, MD
For questions please use the Q&A feature