Improving Palliative Care Consultation in a Trauma ICU & Step-Down Unit

Teresa Hobt-Bingham, MSN, RN, NE-BC
Learning Objectives

• Define palliative care and frailty
• Understand the link between frailty and functional decline
• Demonstrate a nurse driven palliative care screening
Disclosure Statement

- Faculty/Presenters/Authors/Content Reviewers/Planners disclose no conflict of interest relative to this educational activity.
Successful Completion

• To successfully complete this course, participants must attend the entire event and complete/submit the evaluation at the end of the session.

• Society of Trauma Nurses is accredited as a provider of continuing nursing education by the American Nurses Credentialing Center's Commission on Accreditation.
Our Aging Population

Our aging population is growing.
We are living a longer, more active and independent life.
Study Participants

- Teresa Hobt-Bingham, MSN, RN
- Cathy Maxwell, PhD, RN
- Richard Miller, MD
- Mohana Karlekar, MD
- Ryan Vance, RN (along with other RNs on the Trauma Unit)
Original Hypothesis

• Pre-Injury physical frailty and cognitive decline will predict functional decline & overall mortality in geriatric trauma patients at 6 months and 1 year after hospitalization
Older Adult Population

- Considerable growth in older population over next 40 years
- Population 65 and over projected to be 83.7 million by 2050
  - Almost double estimated population of 43.1 million in 2012
Incidence

• “Approximately 25% of trauma admissions across country are from the geriatric population.”
  
  Richard Miller, MD
  Professor of Surgery
  Chief, Division of Trauma and Surgical Critical Care

• Only 18% of our geriatric patients are discharged back to their home or independent living after a trauma injury
Falls

• The leading cause of trauma in older adults is falls
• Usually related to underlying disease, malnutrition and dehydration
• Most are living independently
Frailty

- A condition of vulnerability characterized by inconsistency and instability after a stressor event
- Result of physiologic cumulative decline over a lifetime
- Often a traumatic event is the tipping point that leads to decline
Cerebral Cortex
**COGNITION**
19 to 23 billion neurons
Global cognition & executive function

Cerebellum
**PHYSICAL FUNCTION**
~ 66 billion neurons
Motor control, movement, balance (coordination, precision, timing)
Palliative Care

- Early and holistic assessment of problems
- Pain interventions
- Psychological and Spiritual support
- Support systems for patient/family coping
- Integrated therapies which may prolong life
<table>
<thead>
<tr>
<th>Age Groups (2011-2013)</th>
<th>Number (%) of Admitted Patients and Palliative Care Consultations</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2011</td>
</tr>
<tr>
<td>&lt; Age 55</td>
<td>1959 (63%) / 38 (2%)</td>
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<tr>
<td>55 to 64</td>
<td>469 (15%) / 27 (6%)</td>
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<tr>
<td>65 to 74</td>
<td>289 (9%) / 24 (8%)</td>
</tr>
<tr>
<td>75 to 84</td>
<td>221 (7%) / 36 (16%)</td>
</tr>
<tr>
<td>Age 85+</td>
<td>149 (5%) / 34 (23%)</td>
</tr>
<tr>
<td>Total Admissions/PC Consults</td>
<td>3117 (100%) / 159 (5%)</td>
</tr>
<tr>
<td>Older Adult Admissions/PC Consults</td>
<td>659/94 (14%)</td>
</tr>
<tr>
<td>Inpatient Mortality</td>
<td>226 (7.6%)</td>
</tr>
</tbody>
</table>
Palliative Care Consultation

- Karlekar et al. surveyed 362 trauma surgeons to determine perceptions of indications, barriers, and benefits r/t PC consultation
- Among surgeon respondents, almost half felt that PC was under-utilized
Reasons for PC Consultation

- Expected survival 1 week - 1 month
- Multi-system organ failure
- Minimal neurological responsiveness
- Referral to hospice
Barriers to PC Consultation

- Resistance of families
- Perception of “giving up”
- Miscommunication of prognosis
- Diagnosis by PC physician
Primary Study

- QI: Cathy Maxwell, PhD, RN
- Primary study of admitted Trauma patients
- October 2013 through March 2014 (6 mos.)
- Caregiver interviews of 188 patients
- Determined pre-injury cognitive & physical frailty status
- Follow up calls made at 30, 90, 180 and 365 days to determine post-hospitalization status and outcomes
Primary Study

- The research team tested 5 different screening instruments:
  - AD8 Dementia Screen
  - Informant Questionnaire on Cognitive Decline in the Elderly
  - Vulnerable Elderly Study
  - Barthel Index
  - Life Space Assessment
- 38 frailty questions & 24 cognitive questions
- Interviews 30 minutes in length
Primary Study

• 100% of patients were interviewed with their surrogate

• Only 41% of screenings included the patient due to: pain, medications, sedation or cognitive deficits & various other reasons

• Having a primary surrogate was part of the inclusion criteria
Primary Study Findings

- 3 groups: Non-Frail, Pre-Frail & Frail
- All 3 groups declined within the first 30 days
- Non-Frail – returned to baseline
- Pre-Frail – some returned to baseline others did not
- Frail – none returned to baseline and 25% died with 1 year of hospitalization
Not Just a Statistic
Primary Study Summary

• Physical frailty was the primary predictor of decline and one year mortality
### Pre-injury Impairments of Injured Older Adults (N=188)

<table>
<thead>
<tr>
<th>Cognition AD8 Dementia Screen (Range: 0-8)</th>
<th>Frailty Vulnerable Elders Survey (VES-13) (Range: 0-10)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>0</td>
</tr>
<tr>
<td>0</td>
<td>No frailty</td>
</tr>
<tr>
<td>1</td>
<td>Pre-frail</td>
</tr>
<tr>
<td>≥2</td>
<td>Frail</td>
</tr>
</tbody>
</table>

Potential eligibility for PC consult

65%
### IOA-PII Study
**Overall Mortality - 6 months (N=34)**

<table>
<thead>
<tr>
<th>Cognitive Impairment (AD8)</th>
<th>Physical Frailty (VES-13)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No</td>
</tr>
<tr>
<td>No</td>
<td>3/53 (6%)</td>
</tr>
<tr>
<td>Yes</td>
<td>1/10 (10%)</td>
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</table>
Injured Older Adults
Next Step

- How can we provide proactive Palliative Care for these patients and their families?
A Closer Look

• Partnership for a new project called, “Geriatric Trauma and the Need for Proactive Palliative Care”
• Partnership included Palliative Care physicians, Trauma Unit Bedside Nurses and Trauma Surgeons
The Challenge

- Frailty was a primary predictor for poor outcomes in older adults
- Few hospitals screen for pre-hospital frailty upon admission
- Frailty and dementia are not standard triggers for a palliative consult
- Providers as well as the public have misconceived notions about frailty & palliative care
Goals of Palliative Care

- Improve symptoms to help maximize quality of life
- Help patients transition to hospice if appropriate
- Help establish goals of care that are consistent with patient wishes & are medically possible
Secondary Study

- Design a quick and reliable frailty screening tool that could be given by a bedside nurse
- 5 questions on frailty using the Frail Scale
- 8 questions on cognitive impairment using the AD8 Screen
- February 2015: daily PC rounding to identify patients fitting new criteria
- March 2015: Nurse screen implemented
Frailty Screening Tool

_____  Pre-injury Frailty  (FRAIL Scale: 3 or more = frailty)

_____  Fatigue easily?
_____  Inability to walk up one flight of stairs?
_____  Inability to walk one block (or ¼ mile)?
_____  Has 5 or more illnesses?
_____  Has lost weight (more than 5-10%) in the last 6 months?

_____  Pre-injury Cognitive Decline  (AD8 Screen: ≥ 2 [Impairment likely present])

Answer ‘yes’ or ‘no’ to the following questions about your loved one over the past few years.

<table>
<thead>
<tr>
<th>Yes</th>
<th>No</th>
<th>Question</th>
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<tbody>
<tr>
<td></td>
<td></td>
<td>Problems with judgment (e.g. problems making decisions, bad financial decisions, problems with thinking)?</td>
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<td></td>
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<td>Less interest in hobbies or activities?</td>
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<td></td>
<td></td>
<td>Repeats the same things over and over? (questions, stories or statements)</td>
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<td></td>
<td></td>
<td>Trouble learning to use a tool, appliance or gadget? (computer, microwave, remote control)?</td>
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<td></td>
<td></td>
<td>Forgets correct month or year?</td>
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<tr>
<td></td>
<td></td>
<td>Trouble handling complicated financial affairs? (balancing checkbook, income taxes, paying bills)?</td>
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<td></td>
<td></td>
<td>Trouble remembering appointments?</td>
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<tr>
<td></td>
<td></td>
<td>Daily problems with thinking or memory?</td>
</tr>
<tr>
<td></td>
<td></td>
<td>TOTAL points</td>
</tr>
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</table>
Team Collaboration

- Project presented at unit shared governance meeting & staff meeting
- Frailty tool was introduced
- Demonstration was provided
- Provided input on design and scripting
- Identified exceptions and challenges
Process Implementation

- Decided on a process for delivery, retrieval and storage of frailty forms
  - Medical Receptionist ownership
- All staff trained, nurses provided screening
- Inter-rater reliability tested by QI Coordinator
- Designated unit champions
- Tracking & Progress reported
Proactive Palliative Consultation

- Nurse identifies the trigger
- Doctor initiates the referral
- Palliative Care physician/NP provides the consult & closes the loop
## Proactive Palliative Findings

<table>
<thead>
<tr>
<th>Older Patients admitted to the Trauma Service</th>
<th>All Older Admitted Patients (N=136)</th>
<th>Screened N=70</th>
<th>Non-screened N = 66</th>
<th>P-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Month</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>March</td>
<td>40 (100%)</td>
<td>25(63%)</td>
<td>15 (37%)</td>
<td></td>
</tr>
<tr>
<td>April</td>
<td>46 (100%)</td>
<td>21(46%)</td>
<td>15 (33%)</td>
<td></td>
</tr>
<tr>
<td>May</td>
<td>50 (100%)</td>
<td>24(48%)</td>
<td>26 (52%)</td>
<td></td>
</tr>
<tr>
<td>Age (Mean, SD)</td>
<td>76.2 (8.9)</td>
<td>75.6 (8.5)</td>
<td>76.8 (9.2)</td>
<td>.428</td>
</tr>
<tr>
<td>Age groups</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>65-74</td>
<td>76</td>
<td>37 (49%)</td>
<td>39 (51%)</td>
<td></td>
</tr>
<tr>
<td>75-84</td>
<td>35</td>
<td>17 (49%)</td>
<td>18 (51%)</td>
<td>.775</td>
</tr>
<tr>
<td>85+</td>
<td>21</td>
<td>12 (57%)</td>
<td>9 (43%)</td>
<td></td>
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<tr>
<td>Mechanism of injury</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fall from standing</td>
<td>53</td>
<td>25 (47%)</td>
<td>28 (53%)</td>
<td></td>
</tr>
<tr>
<td>Fall-other</td>
<td>19</td>
<td>11 (58%)</td>
<td>8 (42%)</td>
<td></td>
</tr>
<tr>
<td>MVC</td>
<td>46</td>
<td>25 (54%)</td>
<td>21 (46%)</td>
<td></td>
</tr>
<tr>
<td>MCC</td>
<td>6</td>
<td>2 (33%)</td>
<td>4 (67%)</td>
<td>.221</td>
</tr>
<tr>
<td>Pedestrian</td>
<td>1</td>
<td>1 (100%)</td>
<td>0 (0%)</td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td>11</td>
<td>2 (18%)</td>
<td>9 (82%)</td>
<td></td>
</tr>
</tbody>
</table>
Proactive Palliative Findings

- 36% frail
- 34% pre-frail
- 29% non-frail
- 34% dementia
- Palliative Care screenings increased to 32%
## Proactive Palliative Findings

<table>
<thead>
<tr>
<th>Nurse Screening for Frailty and Cognitive Impairment</th>
<th>N (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>FRAIL Scale</strong></td>
<td></td>
</tr>
<tr>
<td>Non-frail (Score = 0)</td>
<td>20 (29%)</td>
</tr>
<tr>
<td>Pre-frail (Score = 1 or 2)</td>
<td>24 (34%)</td>
</tr>
<tr>
<td>Frail (Score ≥ 3)</td>
<td>25 (36%)</td>
</tr>
<tr>
<td>Missing</td>
<td>1 (1%)</td>
</tr>
<tr>
<td><strong>AD8 Dementia Screen</strong></td>
<td></td>
</tr>
<tr>
<td>Score 0-1 (No impairment)</td>
<td>41 (59%)</td>
</tr>
<tr>
<td>Score ≥ 2 (Possible dementia)</td>
<td>24 (34%)</td>
</tr>
<tr>
<td>Missing</td>
<td>5 (7%)</td>
</tr>
<tr>
<td><strong>Patients screened as BOTH frail and possible dementia</strong></td>
<td>16 (23%)</td>
</tr>
</tbody>
</table>
# Palliative Care Consultations

## VUMC Trauma Service Palliative Care Consultations

<table>
<thead>
<tr>
<th>Pre-project</th>
<th>Quality Improvement Project (February-May 2015)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Palliative Care Consults 2011-2014</strong></td>
<td>Increased PC Service Rounding (PC consults/# older patients admitted)</td>
</tr>
<tr>
<td>365/2792 (13%)</td>
<td>12/43 (28%)</td>
</tr>
</tbody>
</table>
Conclusion

• Goal was not to change the level of care, but to provide patients and their families with a realistic clinical trajectory and to help them be more prepared to make end of life decisions outside of a crisis situation.
Demo

- Practice Session
Questions?
• Maxwell CA, Mion, L.C., Mukherjee, K., Dietrich, M.S., Minnick, A., May, A., Miller, R.S.,. Feasibility of screening for pre-injury frailty in hospitalized injured older adults. Accepted for publication- J Trauma Acute Care Surg.00-000.
Recent Literature

Studies


Beeri MS, Middleton L. *Being physically active may protect the brain from Alzheimer disease.* Neurology. 2012; 78(17): 1290-1291.


