The Safety Learning System Collaborative: Redefining Patient Safety
Jeanne M Huddleston, MD, MS and Tony Calabria, MA, CPHQ, CSSBB
Why do things differently?
Why do things differently?

The tip of the iceberg:
incident reporting, peer review, global trigger tool

No targeted QI initiatives.
No measurable improvement!

1. To create a meaningful mechanism to review deaths at MCR hospitals:
   – Thoroughly understandable
   – Measurable
   – Improvable
2. To identify and quantify unanticipated deaths
3. To identify rate of adverse events in patients who die in MCR hospitals
4. To classify and quantify system level changes which will improve mortality rate.
14 years of learning about process of care failures ...

SPECIAL ARTICLE

Learning From Every Death

Jeanne M. Huddleston, MD,*† Daniel A. Diedrich, MD,§ Gail C. Kinsey, RN,∥
Mark J. Enzler, MD,‡ and Dennis M. Manning, MD*

The concepts of peer review and the venerable morbidity and mortality conference are familiar improvement approaches to health care providers. These 2 entities are typically provider or patient centric and are not typically extended within hospitals and health systems as a tool for organizational learning for care process or system failures. Out of a desire to deepen our understanding and accelerate learning about quality and safety opportunities in our hospitals, Mayo Clinic embarked on journey to analyze the stories of all patient deaths. This paper illuminated the lessons learned through the development and evolution of the Mayo Clinic Mortality Review System (Rochester, MN).

Guiding principle of Mayo Clinic Mortality Review System:
“No one should ever suffer or die as the result of process of care or system failure.”
How it evolved…

1. To create a meaningful mechanism to review deaths at MCR hospitals:
   - Thoroughly understandable
   - Measurable
   - Improvable

2. To identify and quantify unanticipated deaths

3. To identify rate of adverse events in patients who died in MCR hospitals

4. To classify and quantify system level changes which will improve mortality rate.

© HB Healthcare Safety, SBC; exclusive licensing rights from Mayo Clinic
The Next Generation Patient Safety for Healthcare Leaders

1. To create a *meaningful mechanism* to learn about opportunities for improvement:
   - Thoroughly understandable
   - Measurable
   - Improvable

2. To identify and quantify opportunities for improvement.

3. To identify rate of opportunities for improvement in patients.

4. To classify and quantify system level changes which will improve performance.
Guiding Principles for “Chart” Reviews:
The Non-Negotiables

1. System review (not peer review)
2. Deference to expertise: Every case is reviewed by a practicing nurse and physician
3. All findings are recorded in the central registry
4. Multidisciplinary, multispecialty sessions used to build consensus re: findings
5. Implementation is local
“No one should ever suffer or die as a result of process of care or system failures.”

MCR Mortality Review Subcommittee, May 2007
Safety Learning System: The Eyes and Ears of the Organization

Reviewer Work

Cases entered into system and reviewer assigned

Reviewer identification of issues

Issue? No issues

Reviewer presentation to larger group

Consensus for OFI No consensus for OFI

Is there anything that could be done better?

Complete CTL process No CTL process

Aggregate learning

Generate Reports

Committee Work

Clinical Practice Quality

© HB Healthcare Safety, SBC, exclusive licensing right:
RR 62.1
FTR
dead
Perspective: Language is Important

- Not about preventability or anticipation
- Not about attribution
- Not only about adverse events

Issues & Opportunities for Improvement
The Mortality Review Committee: A Novel and Scalable Approach to Reducing Inpatient Mortality
Meaningful Reduction in Mortality Metrics

Abstract:

Background: Despite the importance of reducing inpatient mortality, little has been reported about establishing a hospital-wide, systematic process to review and address inpatient deaths. In 2006 the University of Pennsylvania Health System's Mortality Review Committee was established and charged with reducing inpatient mortality as measured by the mortality index—observed/expected mortality.

Methods: Between 2006 and 2012, through interdisciplinary meetings and analysis of administrative data and chart reviews, the Mortality Review Committee identified a number of opportunities for improvement in the quality of patient care. Several programmatic interventions, such as those aimed at improving sepsis and delirium recognition and management, were initiated through the committee.

Results: During the committee's first six years of activity, the University HealthSystem Consortium (UHC) mortality index decreased from 1.08 to 0.53, with observed mortality decreasing from 2.45% to 1.62%. Interventions aimed at improving sepsis management implemented between 2007 and 2008 were associated with increases in severe sepsis survival from 40% to 56% and septic shock survival from 42% to 54%. The mortality index for sepsis decreased from 2.45 to 0.88. Efforts aimed at improving delirium management implemented between 2008 and 2009 were associated with an increase in the proportion of patients receiving a "timely" intervention from 18% to 57% and with a twofold increase in the percentage of patients discharged to home.

Discussion: The establishment of a mortality review committee was associated with a significant reduction in the mortality index. Key to success include interdisciplinary membership, partnerships with local providers, and a focus on implementing effective interventions.

The Joint Commission Journal on Quality and Patient Safety, Volume 39, Number 9
Results: During the committee's first six years of activity, the University HealthSystem Consortium (UHC) mortality index decreased from 1.08 to 0.53, with observed mortality decreasing from 2.45% to 1.62%. Interventions aimed at improving sepsis management implemented between 2007 and 2008 were associated with increases in severe sepsis survival from 40% to 56% and septic shock survival from 42% to 54%. The mortality index for sepsis decreased from 2.45 to 0.88. Efforts aimed at improving delirium management implemented between 2008 and 2009 were associated with an increase in the proportion of patients receiving a "timely" intervention from 18% to 57% and with a twofold increase in the percentage of patients discharged to home.
Increasing Independent Living

Results: During the committee's first six years of activity, the University HealthSystem Consortium (UHC) mortality index decreased from 1.08 to 0.53, with observed mortality decreasing from 2.45% to 1.62%. Interventions aimed at improving sepsis management implemented between 2007 and 2008 were associated with increases in severe sepsis survival from 40% to 56% and septic shock survival from 42% to 54%. The mortality index for sepsis decreased from 2.45 to 0.88. Efforts aimed at improving delirium management implemented between 2008 and 2009 were associated with an increase in the proportion of patients receiving a "timely" intervention from 18% to 57% and with a twofold increase in the percentage of patients discharged to home.
Compare and Contrast

Peer Review

Problem identified
Reviewed and discussed by peers
Individual contributes or “notified”

Safety Learning System

Patient is a member of a cohort of interest
Reviewed and discussed by group of multidisciplinary and multispecialty practicing providers
Opportunity identified
Learning shared broadly
MedStar Mortality Review Collaborative

Our Journey to Learning from Every Death
## MedStar Mortality Review Collaborative

<table>
<thead>
<tr>
<th>Hospital Name</th>
<th>Hospital Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>MedStar Georgetown University Hospital</td>
<td>MedStar Washington Hospital Center</td>
</tr>
<tr>
<td>MedStar Franklin Square Medical Center</td>
<td>MedStar Harbor Hospital</td>
</tr>
<tr>
<td>MedStar Union Memorial Hospital</td>
<td>MedStar Good Samaritan Hospital</td>
</tr>
<tr>
<td>MedStar Montgomery Medical Center</td>
<td>MedStar Southern Maryland Hospital Center</td>
</tr>
<tr>
<td>MedStar St. Mary's Hospital</td>
<td>MedStar National Rehabilitation Hospital</td>
</tr>
</tbody>
</table>

---

Knowledge and Compassion  
**Focused on You**
Our Journey:
Every death is an opportunity to learn something new; whether it is from an unanticipated event or the natural progression of illness. MedStar Health is embarking on an initiative to develop a standardized system-wide mortality review process with the intent of learning from every death, and sharing identified opportunities for improvement and improvement activities across the system.
Self Assessment/Current State:

- All 9 Hospitals Conducted Some Form of Mortality Reviews
- 4 of 9 Hospitals Review all Mortality Cases
  - Of the 5 not reviewing all cases, only 2 had a formal case selections process
- Only 1 Hospital has a Standard Process and Review Tool
- Only 2 Hospitals don’t Pre-Screen Cases before send to a Physician for further review
  - Pre-Screeners include Quality Nurse, Residents, PI Coordinators, etc.
  - Only 1 Hospital utilized a Standard Pre-Screening Tool.
- Management of reviews varied from a Centralized Model to a Departmental/Service Model and Hybrid Models.
Initial Journey:

Jun-2015: Founded the MedStar Mortality Review Collaborative

Jul-2015: Joined the UHC [Vizient] Mortality Review Collaborative

Apr-2016: Joined the Safety Learning System Research Collaborative

Jul-2016: Initiated the SLS Study Protocol

Nov-2017: Phase 2…
Future State/Vision:

- Standardized Review Process across the System
- Implement a Multidisciplinary Review Process
  - All cases reviewed by a Nurse & Physician
- Multidisciplinary Mortality Review Committees
  - Participation from Multispecialty Areas (MDs & RNs)
- Focus on System Problems – Not Person Problems
  - No Naming and No Blaming [Peer review is done elsewhere]
- Identifying Opportunities for Improvement (OFIs)
  - Across the Continuum of Care
  - Not Necessarily associated with outcomes
Each Month:

1. Cases are loaded into the Review Application – includes basic demographic information

2. Each case is assigned to a MD/LIP and RN for independent review

3. Additional specialty review is possible

4. Prior to Committee Meeting, cases are checked for obvious errors

5. Committee leaders review cases for possible issues.

6. Case and OFIs are discuss by multidisciplinary team and text of OFIs is often finalized
Communication/Reporting Flow:

Push Reports:
Custom Reports bases on area of responsibility

1. Clinical Chairs and Heads & Directors
2. Unit / Program Managers
3. Senior Clinical Leaders (VPMAs & CMOs)

Prioritizing:
Hospital-wide Leadership to set organizational priorities based on identified opportunities

Improvement:
Many improvement activities are local and will require local intervention
**System-Level Shared Learning & Prioritization:**

**System Sharing:**

1. Collaborative Site Leaders Team
   - **Collaborative Leaders from each Hospital**

2. Clinical Quality Oversight Committee
   - **Select VPMA, CNO & Senior Quality Leaders**

3. Physician & Nursing Leadership Councils
   - **System and Hospital Physician Leaders**
   - **System and Hospital CMOs and Other Nursing Leaders**

4. Clinical Business Council
   - **MedStar Senior Leadership and other key Senior Leaders**

**Clinical Business Council**
- Review & Endorse System-Wide Priorities

**Clinical Quality Oversight Committee**
- Determine System-Wide Priorities

**Physician & Nursing Leadership Councils**
- **Share Findings and Actions/Activities**

**Collaborative Site Leaders Team**
- **Initiate Improvement Process for prioritized OFIs (e.g. charter Improvement Teams, etc.)**

---

*Knowledge and Compassion Focused on You*
Broad Net Review Approach

Communication Opportunities
Delayed or missed Diagnosis
Deteriorating patient opportunities
Diagnostic Opportunities
Documentation Opportunities
End of Life Opportunities
Hospital Acquired Infections
Medication/Blood Opportunities
Miscellaneous Hospital Acquired Conditions
Transition of Care Opportunities
Prophylaxis Opportunities
Technology Opportunities
Treatment Opportunities
Triage Opportunities
Other

“We all get that ‘this could have been better’ feeling with some patients. This is the way to do something about it!”
Findings: **Identified Opportunities for Improvement**

- **Statistics:**
  - Case Count: **1,118**
  - Cases with OFIs: **567**
  - Cases without OFIs: **551**
  - OFI Count: **1,589**

As of Oct 2017

Source: Safety Learning System (SLS) Application
### Findings: *Undiscovered Opportunities*

<table>
<thead>
<tr>
<th>Site</th>
<th>Cases Reviewed</th>
<th>OFI Count</th>
<th>Corresponding [similar] PSE Count</th>
<th>Percent of Corresponding OFIs/PSEs</th>
<th>Percent of OFIs not found in PSE System</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hospital 1</td>
<td>100</td>
<td>37</td>
<td>2</td>
<td>5.4%</td>
<td>94.6%</td>
</tr>
<tr>
<td>Hospital 2</td>
<td>100</td>
<td>153</td>
<td>5</td>
<td>3.3%</td>
<td>96.7%</td>
</tr>
<tr>
<td>Hospital 3</td>
<td>47</td>
<td>20</td>
<td>0</td>
<td>0.0%</td>
<td>100.0%</td>
</tr>
<tr>
<td>Hospital 4</td>
<td>74</td>
<td>12</td>
<td>0</td>
<td>0.0%</td>
<td>100.0%</td>
</tr>
<tr>
<td>Hospital 5</td>
<td>100</td>
<td>79</td>
<td>4</td>
<td>5.1%</td>
<td>94.9%</td>
</tr>
<tr>
<td>Hospital 6</td>
<td>89</td>
<td>96</td>
<td>3</td>
<td>3.1%</td>
<td>96.9%</td>
</tr>
<tr>
<td>Hospital 7</td>
<td>53</td>
<td>6</td>
<td>0</td>
<td>0.0%</td>
<td>100.0%</td>
</tr>
<tr>
<td>Hospital 8</td>
<td>21</td>
<td>2</td>
<td>0</td>
<td>0.0%</td>
<td>100.0%</td>
</tr>
<tr>
<td>Hospital 9</td>
<td>100</td>
<td>238</td>
<td>9</td>
<td>3.8%</td>
<td>96.2%</td>
</tr>
<tr>
<td>Aggregate</td>
<td>684</td>
<td>643</td>
<td>23</td>
<td>3.6%</td>
<td>96.4%</td>
</tr>
</tbody>
</table>

- **643** individual Opportunities for Improvement (OFIs)
- **23** OFIs had corresponding entries in the Occurrence Reporting System.
- **620** OFIs were **not** found in the Occurrence Reporting System (96.4%)
Findings: *Otherwise Undiscovered Opportunities*

<table>
<thead>
<tr>
<th>OFI - Category</th>
<th>Count</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>End of Life Opportunities</td>
<td>169</td>
<td>27.3%</td>
</tr>
<tr>
<td>Delayed or missed diagnosis</td>
<td>116</td>
<td>18.7%</td>
</tr>
<tr>
<td>Documentation Opportunities</td>
<td>105</td>
<td>16.9%</td>
</tr>
<tr>
<td>Treatment/Care Opportunities</td>
<td>74</td>
<td>11.9%</td>
</tr>
<tr>
<td>Deteriorating patient recognition opportunities</td>
<td>39</td>
<td>6.3%</td>
</tr>
<tr>
<td>Triage Opportunities</td>
<td>29</td>
<td>4.7%</td>
</tr>
<tr>
<td>Hospital Acquired Infections</td>
<td>20</td>
<td>3.2%</td>
</tr>
<tr>
<td>Other opportunities</td>
<td>17</td>
<td>2.7%</td>
</tr>
<tr>
<td>Medication/Blood Events</td>
<td>15</td>
<td>2.4%</td>
</tr>
<tr>
<td>Surgical/Procedural Opportunities</td>
<td>15</td>
<td>2.4%</td>
</tr>
<tr>
<td>Miscellaneous Hospital Acquired Conditions</td>
<td>10</td>
<td>1.6%</td>
</tr>
<tr>
<td>Prophylaxis Opportunities</td>
<td>9</td>
<td>1.5%</td>
</tr>
<tr>
<td>Diagnostic Opportunities</td>
<td>2</td>
<td>0.3%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>620</strong></td>
<td></td>
</tr>
</tbody>
</table>
Dealing with Variation

Percent of Reviewed Cases With & Without Discovered OFIs

<table>
<thead>
<tr>
<th>Hosp 1</th>
<th>Hosp 2</th>
<th>Hosp 3</th>
<th>Hosp 4</th>
<th>Hosp 5</th>
<th>Hosp 6</th>
<th>Hosp 7</th>
<th>Hosp 8</th>
<th>Hosp 9</th>
</tr>
</thead>
<tbody>
<tr>
<td>15%</td>
<td>31%</td>
<td>55%</td>
<td>62%</td>
<td>64%</td>
<td>72%</td>
<td>88%</td>
<td>90%</td>
<td>95%</td>
</tr>
<tr>
<td>85%</td>
<td>69%</td>
<td>45%</td>
<td>38%</td>
<td>36%</td>
<td>28%</td>
<td>12%</td>
<td>10%</td>
<td>5%</td>
</tr>
</tbody>
</table>

Note: OFIs = Outcomes of Interest

Knowledge:
MedStar Mortality Review Collaborative

Phases of Development

Phase 1
Learning and Experimenting with the Mayo Clinic Model

- Participate in the Safety Learning System Study
- Gain an understanding of Systems Review
- Begin Physician & Nurse Reviews
- Stand up Mortality Review Committees

Phase 2
Taking Current Learning and Develop the MedStar Model

- Standardize & Hardwire the Process for MedStar
- Provide Concise & Actionable Reports

Phase 3
Implement Performance Improvement Activities

- To Be Determined
<table>
<thead>
<tr>
<th>Aim</th>
<th>Primary Drivers</th>
<th>Secondary Drivers</th>
</tr>
</thead>
</table>
| To develop an effective and efficient standardized system-wide mortality review process which provides actionable data. | Education & Training | - Training Materials & Job Aids  
- Training Process & Curriculum  
- SiTEL (Simulations & Training Modules) |
| Process & Structure | - Review Process/Structure  
- Committee Process/Structure  
- Recruitment |
| Reporting Strategy | - System Level Aggregate Reports  
- Hospital, Department & Unit Level Reports  
- Report Distribution Process  
- PI/QI Team & Research Data Access |
| Auditing & Quality Control | - Establish Review Guidelines  
- Identify Inadequate Reviews  
- Identify & Support Struggling Reviewers  
- Evaluate Current Data Collection Application |
### Key Driver: Process & Structure

<table>
<thead>
<tr>
<th>Primary Driver</th>
<th>Secondary Driver</th>
<th>Key Tasks to Support the Drivers</th>
</tr>
</thead>
</table>
| Process & Structure | Review Process & Structure | • All reviews completed by minimum clinician and nurse reviewers  
• Establish process for additional specialty review (i.e.: pharmacy, CDI, etc.)  
• All assigned reviews completed within assigned time frame of discharge  
• Reviewers should be experienced clinician (3+ years) Future residents?  
• Assigned reviewer should be close to the work (frontline staff) |
| Process & Structure | Committee Process & Structure | • Membership should be multidisciplinary [MD & RN presence required]  
• Cases presented by reviewer team  
• Frontline staff encouraged to attend  
• Guidelines for frequency of meetings, standard agenda and procedural rules  
• Open Door & Close Door Meetings |
| | Recruitment Strategies | • Develop a Reviewer Recruitment Campaign  
• Identity interested frontline unit nurses to participate  
• Incorporate into Nursing Clinical Ladder Programs |
# Key Driver: Education & Training

<table>
<thead>
<tr>
<th>Primary Driver</th>
<th>Secondary Driver</th>
<th>Key Tasks to Support the Drivers</th>
</tr>
</thead>
</table>
| Education & Training | Teaching Materials & Job Aids | • Develop a Mortality Review Guide with instructions with high detail  
• Develop committee specific instructions  
• Create a standard documentation/comment style resource  
• Create definitions /criteria for each OFI Category  
• Develop a Writer’s Guide for comments  
• Train on wording and phrasing for OFI entry  
• Develop multimodality training tools  
• Determine if role specific materials need to be developed |
| | Training Process | • Develop a Mortality Review Algorithm to reinforce the review process  
• Create a training checklist  
• Create reviewer minimal standards and evaluation criteria [test for reviewers]  
• Orientation  
• Web-based, in-person or in combination  
• Train the Trainer |
| | SITEL | • Develop on-demand modules to assist in training  
• Create simulations  
• Investigate earning GME/CEU |
### Key Driver: Reporting Strategy

<table>
<thead>
<tr>
<th>Primary Driver</th>
<th>Secondary Driver</th>
<th>Key Tasks to Support the Drivers</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>System Level Aggregate Reports</strong></td>
<td>• Determine report elements &amp; format to meet system level needs</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Trended data to identify system-level opportunities</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Information to support the work of the System Safety Team</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Standard data display for system clinical leadership (VPMA/CNO Councils)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Determine accountability and access control</td>
<td></td>
</tr>
<tr>
<td><strong>Hospital, Department &amp; Unit Level Reports</strong></td>
<td>• Determine report elements &amp; format to meet hospital and departmental/unit level needs</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Hospital level aggregate data displays to identify frequently occurring events</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Department and Unit data and information to inform local leaders [managers]</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Staff appropriate data and information reports to support unit based PI/QI</td>
<td></td>
</tr>
<tr>
<td><strong>Report Distribution Process</strong></td>
<td>• Establish time frames for reports distribution</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Establish reports distribution process/workflow</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Level of transparency</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Determine who should receive reports and best route (print, PDF, Tableau, etc.)</td>
<td></td>
</tr>
<tr>
<td><strong>PI/QI Team &amp; Research</strong></td>
<td>• Access to raw data for drilldown analysis and linking to other databases</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Determine who is the gatekeeper for accessing the raw data</td>
<td></td>
</tr>
</tbody>
</table>
## Key Driver: Auditing & Quality Control

<table>
<thead>
<tr>
<th>Primary Driver</th>
<th>Secondary Driver</th>
<th>Key Tasks to Support the Drivers</th>
</tr>
</thead>
</table>
| Auditing & Quality Control | Establish Audit Guidelines | • Develop a systematic process to evaluate the quality of individual reviews  
• Develop a process to report quality issues to committee  
• Develop feedback loop from end users in usability of information  
• Develop criteria for reviewer/committee member suspension  
• Trend identification  
• Monitor intro reviewer reliability (institution)  
• Role assignments  
• Who was the auditor |
| | Identify Inadequate Reviews | • Determine review process - random or comprehensive evaluations  
• Review for OFI patterns and trends  
• Monitor (other) entry  
• Monitor quality of comments for actionable or distributable content  
• How should performance/assignment compliance be tracked |
| | Identify & Support Struggling Reviewers | • Monitor quality of comments for actionable content  
• Develop feedback loop from end users in usability of information  
• Establish thresholds of performance for continued committee performance |
| | Evaluate Current Data Collection Application | • User-friendliness of application  
• Identify needed functionality  
• Research alternative application – if deemed necessary |
### Phase 2 High-Level Time

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Process &amp; Structure</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Phase 2</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Workgroup</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Education &amp; Training</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Ready</td>
<td></td>
<td>Oct 2018</td>
<td></td>
</tr>
<tr>
<td>Auditing &amp; Quality Control</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reporting Strategy</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Phase 2 Workgroup Meeting*
Ongoing Philosophical Difficulties:

- Moving from a Punitive/Blame Culture to Systems Thinking Culture
- Moving from Standard of Care Reviews to Opportunities for Improvement Reviews
- Moving from a focus on Harm Events only to Quality of Care Events regardless of Outcome
The Team

MGSH/MUMH:
Alex Yazaji, MD
Robin Craycraft, RN
Leila Ignacio-Macale, RN

MFSMC/MHH
Keri Jacobs, MD
Jackie Hesselton, PA
Nancy Pilkenton, RN

MSMHC
Sara Parker, MD
Shelley Lundegard, RN

MMMC
Dawn Broderick, MD
Cherri Walrath, RN

MWHC
Jennifer Ayscue, MD
Andrea Ryan, RN

MGUH
Rohit Satoskar, MD
Hanan Foley, RN

System Project Leaders:
Matt Schreiber, MD, Karen Owings, RN & Tony Calabria, MA
An International Journey to Healthcare Delivery Free from Harm

Alpha Collaborative Member Hospitals | Beta Collaborative Member Hospitals

© HB Healthcare Safety, SBC; exclusive licensing rights from Mayo Clinic
SLS™ Collaborative Results

Traditional patient safety:
Spend 80% of time, money and energy on HACs & HAIs

Collaborative findings for the next generation patient safety:
80% of the opportunities of improvement are omissions –
but less than 20% of opportunities are HACs and HAIs

95-100% NOT found in existing patient safety reporting mechanisms
Opportunities for Improvement
Preliminary Results from 2016 Members

OFI - Category
1=End of Life Opportunities
2=Documentation Opportunities
3=Treatment Opportunities
4=Delayed or missed diagnosis
5=Communication Opportunities
6=Transition of Care/Triage Opportunities
7=Hospital Acquired Infections
8=Other
9=Delay in care of acutely deteriorating patients (exceed local MET/RRT criteria)
10=Medication/Blood Events
11=Surgical/Procedural Issues
12=Prophylaxis Opportunities
13=Any other

N=493
End of Life Opportunities
Preliminary Results from 2016 Members

Getting to the next layer down... but not root cause

© HB Healthcare Safety, SBC; exclusive licensing rights from Mayo Clinic
Local Implementation = Variable Journeys
Variable Journey: Local Implementation

- Different size hospitals
  - Fewer than 50 deaths per year, then not enough to finish in short period of time
- Different problems to solve
  - Transfers out of facility
  - Acute coronary syndrome
- Different patient populations
  - Residential aged care (nursing homes)
- Bottom line – What is meaningful? What is practical?
What Are We Learning and Improving So Far

- Teamwork and Communication
  - Chain of command; EHR challenges
- Missed or delayed diagnosis / treatment
  - Sepsis; Stroke; Known complications test
- Protocols: Abd pain, pre-op work up (Cardiac/delirium)
  - Recognizing Subtle Signs of Deterioration
    - Teach graphical trending in EHR
    - Teach systematic critical thinking*
- Rapid Response Team
  - Why nurses don’t call?
  - Automate Triggers; Family initiated calls?
- Advance Illness Management (AIM)
  - Addressing needs in the ED
  - Reliable access to POLST form
  - Bioethics Team
- Clinical Documentation Improvement (CDI)

<table>
<thead>
<tr>
<th>Safety Learning System™ Collaborative</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Retreat and Conference Engagement</strong></td>
</tr>
</tbody>
</table>

**Healthcare Safeware™**
Caution...

- Reviewing deaths does not save lives
- Reviewing readmissions does not prevent readmissions
- Reviewing high cost cases does not lead to cheaper care
identifying common patterns of process failures

AND

targeting/prioritizing those with an improvement initiative will make a meaningful (measurable) difference
Learning From Every Death

Jeanne M. Huddleston, MD,*† Daniel A. Diedrich, MD,§ Gail C. Kinsey, RN,||
Mark J. Enzler, MD,‡ and Dennis M. Manning, MD*
ROI Depends on Leadership

WITHOUT action from leadership:
- Physician and nursing engagement
- Patient safety culture enhancement

WITH action from leadership
- Cost avoidance (eg, ICU days, wrongful death suits)
- Improved efficiency (eg, time-to-therapy, flow, LOS)
- Improved efficacy (eg, right provider, right place)
- Improved diagnosis (eg, accurate, timely diagnoses)
- Improved outcome (eg, decreased mortality rate)
- Improved patient experience (eg, “good” deaths)
Thank you for joining us on our journey to end suffering caused by healthcare delivery.