On the CUSP: STOP BSI

Overview of STOP-BSI Program

What is CUSP?

- Comprehensive Unit-based Safety Program
- An intervention to learn from mistakes and improve safety culture
On the CUSP: Stop BSI Intervention

Comprehensive Unit-based Safety Program (CUSP)
- Improve or reinforce good cross-disciplinary communication and teamwork
- Enhance coordination of care
- Address overall patient safety
- Work towards healthy unit culture

BSI-Reduction Protocol
- Best-evidence supplies, organization of supplies
- Ensuring all patients receive the best practices
- Checklist to ensure consistent application of evidence

State Participation Map

* Additional states may opt to participate in Cohort 6
Learning Objectives

• To delineate the goals of STOP BSI

• To describe the project organization

• To define the interventions

• To outline the planned learning sessions

• To identify who to call for help
On the CUSP: STOP BSI Goals

- To work to eliminate central line-associated bloodstream infections (CLABSI): reaching state means less than 1/1000 catheter days, state median 0
- To improve safety culture by 50%
- To learn from one defect per quarter

Project Overview

Hospitals or Hospital Systems

State Hospital Associations

National Project Team

HRET
Clinical Faculty & Data Management
CUSP Faculty

Project Management
### National Project Team

<table>
<thead>
<tr>
<th>Partner</th>
<th>Team Members</th>
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</thead>
<tbody>
<tr>
<td>Michigan Health &amp; Hospital Association</td>
<td>Sam Watson, MSA; Chris George, RN, MS</td>
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<td>Keystone Center for Patient Safety &amp; Quality</td>
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<tr>
<td>Health Research &amp; Educational Trust</td>
<td>Steve Hines, PhD</td>
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<tr>
<td></td>
<td>Deborah Bohr, MPH</td>
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<td></td>
<td>Marchelle Djordjevic, MBA</td>
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<tr>
<td>Centers for Disease Control &amp; Prevention</td>
<td>Katherine Allen-Bridson, RN, BSN, CIC</td>
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<td>Carolyn Gould, MD, MSCR</td>
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<tr>
<td>Johns Hopkins Quality Safety Research Group</td>
<td>Sean Berenholtz, MD</td>
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<td></td>
<td>Chris Goeschel, MPA, MPS, ScD, RN</td>
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<tr>
<td>Ann Arbor VA Medical Center</td>
<td>Sanjay Saint, MD, MPH</td>
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<tr>
<td>University of Michigan Medical School</td>
<td>Sarah Krein, RN, PhD</td>
</tr>
<tr>
<td>St. John Hospital &amp; Medical Center</td>
<td>Mohamad Fakih, MD, MPH</td>
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### Measure

- **Have We Created a Safe Culture?**
  - How Do We Know We Learn from Mistakes?
- **How Often Do We Harm?**
  - Are Patient Outcomes Improving?
- **CUSP**
  - Comprehensive Unit based Safety Program
    1. Educate staff on science of safety
    2. Identify defects
    3. Assign executive to adopt unit
    4. Learn from one defect per quarter
    5. Implement teamwork tools
- **(TRiP)**
  - Translating Evidence Into Practice
    1. Summarize the evidence in a checklist
    2. Identify local barriers to implementation
    3. Measure performance
    4. Ensure all patients get the evidence

### Improve

www.onthecuspostophai.org
CUSP/CLASBSI Intervention

<table>
<thead>
<tr>
<th>CUSP</th>
<th>CLABSI</th>
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<tbody>
<tr>
<td>1. Educate staff on science of safety</td>
<td>1. Remove Unnecessary Lines</td>
</tr>
<tr>
<td>2. Identify defects</td>
<td>2. Wash Hands Prior to Procedure</td>
</tr>
<tr>
<td>3. Assign executive to adopt unit</td>
<td>3. Use Maximal Barrier Precautions</td>
</tr>
<tr>
<td>4. Learn from one defect per quarter</td>
<td>4. Clean Skin with Chlorhexidine</td>
</tr>
<tr>
<td>5. Implement teamwork tools</td>
<td>5. Avoid Femoral Lines</td>
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Safety Score Card
Keystone ICU Safety Dashboard

<table>
<thead>
<tr>
<th>How often did we harm (BSI) (median)</th>
<th>2004</th>
<th>2006</th>
</tr>
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<tbody>
<tr>
<td></td>
<td>2.8/1000</td>
<td>0</td>
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</table>

| How often do we do what we should   | 66%  | 95%  |

| How often did we learn from mistakes* | 100s | 100s |

<table>
<thead>
<tr>
<th>Have we created a safe culture</th>
<th></th>
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<tbody>
<tr>
<td>% Needs improvement in</td>
<td></td>
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<tr>
<td>Safety climate*</td>
<td>84%</td>
</tr>
<tr>
<td>Teamwork climate*</td>
<td>82%</td>
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CUSP is an intervention to improve these*
Project Organization

- State-wide effort coordinated by Hospital Association or designated collaborative agency
- Learning collaborative model (e.g., multisite participation, two face-to-face meetings, monthly calls)
- Standardized data collection tools and evidence
- Local unit modification of how to implement interventions

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On The CUSP
Stop BSI

1. Assemble a CUSP team, Partner with a senior executive;
   Baseline Data
   Exposure Survey
   and Technology Survey
   Culture Survey

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Technical CLABSI

1. CVC Insertion
   Evidence based BSI prevention (hands, site, skin prep, barrier, removal)
   1. Presentation of evidence
   2. CLABSI Recheck
   3. Insertion checklist
   4. Vascular access site
   5. Vascular access manual/policy
   6. Annotated bibliography

1. CVC Management
   1. Daily goals
   2. Dressing change
   3. Vascular access manual/policy protocol

1. Science of Safety Training
   1. Science of safety presentation
   2. Attendance sheet

1. Staff Identify Defects
   1. Staff safety assessment form
   2. Indentifying hazards presentation

1. Senior Executive Partnership
   LFD toolkit

1. Implement Tools for Teamwork and Communication
   1. Daily goals
   2. Shadowing
   3. AM briefing
   4. Call list
   5. Team check up tool

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Adaptive (CUSP)

1. Daily goals
2. Shadowing
3. AM briefing
4. Call list
5. Team check up tool
Intervention to Eliminate CLABSI/CAUTI

1. Summarize the Evidence
   - Identify interventions with improved outcomes
   - Select interventions with the largest benefits and lowest barriers to use
   - Convert interventions to behaviors

2. Identify local barriers to implementation: understand the process and context of work
   - Observe staff performing the interventions
   - “Walk the process” to identify defects in each step of intervention implementation
   - Enter all stakeholders to share concerns and identify potential gains / losses associated with intervention implementation

3. Measure Performance
   - Select measures (process and/or outcome)
   - Develop and pilot test measures
   - Measure baseline performance
   - Engage
     - Establish the improvement team
     - Communicate the improvement project
     - Coordinate and perform data collection

4. Ensure all patients receive the interventions
   - Educate
     - Develop performance measures
     - Ensure the education supports the intervention
Evidence-based Behaviors to Prevent CLABSI

- Remove unnecessary lines
- Wash hands prior to procedure
- Use maximal barrier precautions
- Clean skin with chlorhexidine
- Avoid femoral lines

MMWR. 2002;51:RR-10

Evidence-based Behaviors to Prevent CAUTI

- Make sure the catheter is indicated
- Adhere to general infection control principles (eg, aseptic insertion, proper maintenance, hand hygiene, education, feedback)
- Remove the catheter as soon as possible
- Consider other methods of prevention

MMWR. 2002;51:RR-10
Comprehensive Unit-based Safety Program (CUSP)

Pre CUSP Work

- Create a unit-level team
  - Nurse, physician administrator, others
  - Assign a team leader

- Measure culture in the unit

- Seek out a senior executive to participate on unit-level team
CUSP Elements

1. Educate staff on science of safety
2. Identify defects
3. Assign executive to adopt unit
4. Learn from one defect per quarter
5. Implement teamwork tools

Pronovost J, Patient Safety, 2005

We are on a Continuous Journey

• We have toolkits, manuals, websites, and monthly calls to learn from and with each other.

• Your job is to join the calls, share with us your successes and more importantly the barriers you face.

• Commit to the premise that harm is untenable.
To Get Help

• Email /call state project leader – Tina Eblen
tina@mtha.org or 406-457-8014

• Talk to your team leader

Action Items

• Review content of website at www.onthecuspstophai.org
  • Toolkits
  • Slidesets
  • Manuals
  • Project Management Checklists
    – Pre-Implementation Checklist
    – CEO/ Senior Leader Checklist
    – Infection Preventionist Checklist
References

Measuring Safety


References


