HEN 2.0 SSI WEBINAR

AHA/HRET HEN 2.0 SSI REDUCTION: GOING DEEPER INTO THE IMPROVEMENT PROCESS

July 21, 2016
11:00 a.m. – 12:00 p.m. CT
WELCOME AND INTRODUCTIONS

Marina Levin, Program Manager | HRET | 11:00 – 11:05AM
<table>
<thead>
<tr>
<th>Time</th>
<th>Session Title</th>
<th>Details</th>
<th>Presenter(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>11:00-11:05 AM</td>
<td>Welcome and Introductions</td>
<td>Open and housekeeping information, including review of relevant HRET HEN resources, change packages and Listserv®.</td>
<td>Marina Levin, MPH Program Manager, HRET</td>
</tr>
<tr>
<td>11:05-11:10 AM</td>
<td>HEN Data Update</td>
<td>Topic-specific data update – not limited to national percent reduction and percent reporting.</td>
<td>Julia Heitzer Data Analyst, HRET</td>
</tr>
<tr>
<td>11:10-11:35 AM</td>
<td>Safe Surgery Saves Lives</td>
<td>Learn powerful and practical tips to improve the reliability of SSI reduction practices and ways to impact physician involvement and behavior.</td>
<td>William Berry, MD, MPH, MPA Chief Medical Officer/Director of Safe Surgery Program Ariadne Labs Boston, MA</td>
</tr>
<tr>
<td>11:35-11:50 AM</td>
<td>Hospital Story</td>
<td>Hear from project managers for SSI reduction on how they have adopted new data metrics to identify trends and improve surgeon engagement.</td>
<td>Connie Popper, RN, MSN and Jill Dykstra-Nykanen, RN, MSN, CPHQ Clinical Quality Specialists Orlando Health Orlando, FL</td>
</tr>
<tr>
<td>11:50-11:55 AM</td>
<td>Open Time for Sharing</td>
<td>Participants will have the opportunity to share challenges and solutions related to SSI prevention with their peers.</td>
<td>Barb DeBaun, RN, MSN, CIC Improvement Advisor Cynosure Health</td>
</tr>
<tr>
<td>11:55 AM-12:00 PM</td>
<td>Bring it Home</td>
<td>Action items and tying together of didactic, hospital-level and improvement science information.</td>
<td>Marina Levin, MPH Program Manager, HRET</td>
</tr>
</tbody>
</table>
SSI CHANGE PACKAGE

• SSI driver diagrams and change ideas
• Example PDSA cycles
• Descriptions and guidance on how to use change package effectively
• Referenced appendices
SIGN UP TODAY: INFECTIONS LISTSERV®

- Infections Analytics Listserv® is available for:
  - Sharing of:
    - HRET Resources
    - Publicly Available Resources
    - Best Practices
    - Learnings from Subject Matter Experts
  - Troubleshooting for Data Reporting and Analysis

Sign Up Here
HEN DATA UPDATE

Julia Heitzer, Data Analyst | HRET | 11:05 – 11:10AM
**SSI RATES**

**TOPIC: Surgical Site Infections**
Data submitted to AHA/HRET as of: 6/30/2016

Figure SSI-3: Surgical Site Infection Rates, Colon Surgeries and Abdominal Hysterectomies

<table>
<thead>
<tr>
<th></th>
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</tr>
</thead>
<tbody>
<tr>
<td><strong>SSI Rate - Colon surgeries</strong></td>
<td>5.10</td>
<td>4.73</td>
<td>5.52</td>
<td>4.65</td>
<td>4.54</td>
<td>4.06</td>
<td>4.98</td>
<td>4.83</td>
<td>3.82</td>
<td>-10%</td>
</tr>
<tr>
<td><strong>Number (%) of hospitals reporting</strong></td>
<td>907 (92%)</td>
<td>917 (93%)</td>
<td>919 (93%)</td>
<td>915 (92%)</td>
<td>876 (88%)</td>
<td>844 (85%)</td>
<td>799 (81%)</td>
<td>624 (63%)</td>
<td>380 (38%)</td>
<td>--</td>
</tr>
<tr>
<td><strong>SSI Rate - Abdominal hysterectomies</strong></td>
<td>1.58</td>
<td>1.60</td>
<td>1.38</td>
<td>1.61</td>
<td>1.62</td>
<td>1.14</td>
<td>1.35</td>
<td>1.25</td>
<td>0.58</td>
<td>-21%</td>
</tr>
<tr>
<td><strong>Number (%) of hospitals reporting</strong></td>
<td>685 (94%)</td>
<td>688 (94%)</td>
<td>685 (94%)</td>
<td>683 (94%)</td>
<td>661 (91%)</td>
<td>634 (87%)</td>
<td>585 (80%)</td>
<td>461 (63%)</td>
<td>271 (37%)</td>
<td>--</td>
</tr>
</tbody>
</table>

Results for months in which data submission was less than 50% should be interpreted cautiously, as the data on which the results are based is not yet complete.
SSI RATES

TOPIC: Surgical Site Infections
Data submitted to AHA/HRET as of: 6/30/2016

Figure SSI-4: Surgical Site Infection Rates, Hip and Knee Surgeries

To date, there is no current reporting mandate for total hip replacements and total knee replacements.

<table>
<thead>
<tr>
<th></th>
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<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>SSI Rate - Total knee replacements</td>
<td>0.77</td>
<td>0.60</td>
<td>0.61</td>
<td>0.54</td>
<td>0.52</td>
<td>0.60</td>
<td>0.55</td>
<td>0.77</td>
<td>0.43</td>
<td>-20%</td>
</tr>
<tr>
<td>Number (% of hospitals reporting)</td>
<td>639 (64%)</td>
<td>636 (64%)</td>
<td>640 (65%)</td>
<td>635 (64%)</td>
<td>625 (63%)</td>
<td>596 (60%)</td>
<td>532 (54%)</td>
<td>383 (39%)</td>
<td>210 (21%)</td>
<td>--</td>
</tr>
<tr>
<td>SSI Rate - Total hip replacements</td>
<td>1.17</td>
<td>1.06</td>
<td>0.98</td>
<td>1.09</td>
<td>0.96</td>
<td>1.23</td>
<td>0.78</td>
<td>0.67</td>
<td>0.60</td>
<td>-23%</td>
</tr>
<tr>
<td>Number (% of hospitals reporting)</td>
<td>633 (64%)</td>
<td>634 (64%)</td>
<td>630 (64%)</td>
<td>638 (64%)</td>
<td>607 (61%)</td>
<td>584 (59%)</td>
<td>521 (53%)</td>
<td>372 (38%)</td>
<td>217 (22%)</td>
<td>--</td>
</tr>
</tbody>
</table>

Results for months in which data submission was less than 50% should be interpreted cautiously, as the data on which the results are based is not yet complete.
SSI RATES

TOPIC: Surgical Site Infections
Data submitted to AHA/HRET as of: 6/30/2016

Figure SSI-5: Surgical Site Infection Rates, Composite Rate, all Reported Surgeries

This measure represents surgical site infection rates for all surgeries reported by a facility, for the four surgeries:
1 - Colon surgeries;
2 - Abdominal hysterectomy (OB hospitals only);
3 - Knee replacements; and
4 - Hip replacements.

<table>
<thead>
<tr>
<th>Baseline</th>
<th>2015-10</th>
<th>2015-11</th>
<th>2015-12</th>
<th>2016-01</th>
<th>2016-02</th>
<th>2016-03</th>
<th>2016-04</th>
<th>2016-05</th>
</tr>
</thead>
<tbody>
<tr>
<td>SSI Composite</td>
<td>2.09</td>
<td>1.74</td>
<td>1.78</td>
<td>1.69</td>
<td>1.65</td>
<td>1.51</td>
<td>1.55</td>
<td>1.62</td>
</tr>
</tbody>
</table>

Relative reduction, baseline to Feb - Apr 2016: -26%

Data submission varies by surgery, see previous pages for submission by area.
Safe Surgery Saves Lives
William Berry, Chief Medical Officer/Director of Safe Surgery Program | Ariadne Labs | 11:10 – 11:30 AM
SURGICAL SITE INFECTIONS
Common Sense and Science

William R. Berry, MD, MPA, MPH | Chief Medical Officer/Director, Safe Surgery | Ariadne Labs

Brigham and Women's Hospital | Harvard T.H. Chan School of Public Health
wberry@ariadnelabs.org
THE VIRULENCE OF *STAPHYLOCOCCUS PYOGENES* FOR MAN. A STUDY OF THE PROBLEMS OF WOUND INFECTION

S. D. ELEK AND P. E. CONEN

*From the Department of Bacteriology, St. George’s Hospital Medical School (University of London), London, S.W.1*

Received for publication 9 August, 1957

Natural infection with the full minimum pus-forming dose is highly improbable. It is suggested that factors delaying the normal defence mechanism allow the critical pus-forming dose to be reached, and that in wound infections the circumstances of the infection play the major part in the development of clinical lesions.
SSI ARE CAUSED BY BACTERIA BUT THE IMMUNE RESPONSE REALLY MATTERS.

THIS IS A BATTLE BETWEEN BACTERIA AND THE BODY.
WHAT CONTRIBUTES TO THE RISK OF SSI...

THE AMOUNT OF BACTERIA THE PATIENT HAS TO FIGHT

• The patient:
  – Bacteria that the patient carries on the skin and elsewhere
• The procedure:
  – Some surgeries are “clean,” others not so much
  – Some take a long time, others don’t – the time the wound is open
• The environment:
  – Air
  – The surgical field – including the skin
  – The surgical team
• Antibiotics
  – Timing, re-dosing, selection
WHAT CONTRIBUTES TO THE RISK OF SSI...

HOW GOOD THE PATIENT IS AT FIGHTING THE BACTERIA

- Things that affect the PATIENT’S ability to fight infection:
  - Body temperature
  - Hyperglycemia
  - Amount of oxygen in the blood
  - Abrasions on the skin from shaving
  - “Rough” handling of the tissue
  - Diseases that suppress the immune response
  - Medications that suppress the immune response
GUIDELINE FOR PREVENTION OF SURGICAL SITE INFECTION, 1999

The BASICS

• No prior infections (IA)
• Positive pressure ventilation in OR (IB)
• 15 air changes/hour in OR (IB)
• Keep OR doors closed (IB)
• Use sterile instruments (IB)
• Stop tobacco use prior to surgery (IB)
• Wear a mask (IB)
• Shower with antiseptic soap (IB)
• Cover hair (IB)
• Closed suction drains, if used (IB)

• Wear sterile gloves (IB)
• Surgeon’s nails short (IB)
• Surgeons scrub hands (IB)
• Prep skin with appropriate agent (IB)
• Gentle tissue handling (IB)
• Delayed primary closure for heavily contaminated wounds (IB)
• Exclude infected surgical personnel (IB)
• Sterile dressing for 24-48 hr (IB)
REDUCING SSI IN COLON SURGERY

- The COLON is an organ filled with BACTERIA so:
  - Prophylactic antibiotic timing, re-dosing and selection really matter
  - Normothermia matters
  - Oxygen levels matter – HYPEROXIA during and after surgery is probably good
  - Normal blood sugars and avoidance of hyperglycemia probably matters
  - Mechanical bowel preparation with oral antibiotics probably matters
Implementation is Hard
Build an Implementation Team
INCLUDE REPRESENTATIVES FROM EACH ROLE IMPACTED BY THE CHECKLIST

- Anesthesiologists
- Certified registered nurse anesthetists
- Nurses
- Physician assistants
- Surgeons
- Technicians
- Others
FIND PEOPLE WHO ARE:

• Enthusiastic
• Well-respected
• Interested in efforts to improve patient safety
• Confident with the checklist
“Quality Improvement has Largely been Carried on the Back of the Nurses”
SURGEON Acceptance is a Critical Factor in Meaningful Change in the Operating Room
PHYSICIAN ENGAGEMENT OBSERVED DURING A SURGICAL CHECKLIST IMPLEMENTATION
Evidence “Driven” Behavior
Believing
The one-on-one conversation: A Path to Meaningful Implementation
Changing Minds
Changing Hearts
Giving a Path
Change Takes Time
TAKE HOME MESSAGES

• Engage leadership
• Build a multi-disciplinary team
• Test before you use with patients
• Engage everyone individually
• Train people how to use it
• Coach to better performance
• Never stop seeking feedback
CASE STUDY: HOSPITAL STORY
Connie Popper and Jill Dykstra-Nykanen, Clinical Quality Specialists | Orlando Health | 11:30 – 11:50AM
ABOUT US

• Private, not-for-profit network of community and specialty hospitals based in Orlando, Florida.
• Orlando Health comprises Orlando Regional Medical Center, Arnold Palmer Hospital for Children, Winnie Palmer Hospital for Women & Babies, Dr. P. Phillips Hospital, South Seminole Hospital, South Lake Hospital (50 percent partnership), Health Central and UF Health Cancer Center – Orlando Health.
• Central Florida’s fifth largest employer - nearly 14,000 employees and more than 2,000 affiliated physicians.
• Serves 1.6 million Central Florida residents and several thousand international patients annually.
• We are a teaching facility with educational ties to UCF, UF and FSU.
ABOUT US

- The surgical site infection team is a multi-disciplinary team with representation from each of the seven system hospitals.
- The team includes physicians, administrators, OR, PACU and unit nurses, quality specialists, clinical specialists, physical therapy, pharmacy, clinical informatics, infection prevention, learning specialists and anesthesiology.
Orlando Health SSI Intervention Status

- Eight of the ten HRET interventions are in place.
- The remaining two HRET interventions have been addressed and are in development.
ORLANDO HEALTH SURGICAL SITE INFECTIONS

<table>
<thead>
<tr>
<th>Row Labels</th>
<th>Total Infections</th>
<th>Total Cases</th>
<th>Infection Rate</th>
<th>Expected Rate</th>
<th>Standardized Infection Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>2013</td>
<td>256</td>
<td>24584</td>
<td>1.04%</td>
<td>1.66%</td>
<td>0.63</td>
</tr>
<tr>
<td>2014</td>
<td>345</td>
<td>38286</td>
<td>0.90%</td>
<td>1.74%</td>
<td>0.52</td>
</tr>
<tr>
<td>2015</td>
<td>261</td>
<td>36026</td>
<td>0.72%</td>
<td>1.73%</td>
<td>0.42</td>
</tr>
</tbody>
</table>

**FY2016 Goal**
Reduce Orlando Health surgical site infections by 40% *(SIR 0.36)* by September 30, 2016.
TESTS OF CHANGE AND WHAT WE LEARNED
PERIOPERATIVE OPTIMIZATION: A MULTIFACETED ISSUE

Perioperative Optimization Project

PRE-OPERATIVE RISK ASSESSMENT
- Pre-operative Checklist
- Evidence-based medicine guideline
- Hyperglycemic orderset
- Standardized PAT orderset
- Obstructive Sleep Apnea
- Cardiac Risk
- HbA1C
- STOPBANG questionnaire

PERI-OPERATIVE HYPERGLYCEMIC CONTROL
- EHR glucose tool (Sunrise, Endotool, Glucomander)
- Physician / nurse education
- Hyperglycemic orderset
- Physician/office education regarding PAT
- Sleep Center expansion
- Physical PAT space at each facility
- Enhanced Recovery After Surgery (ERAS)

INFECTION PREVENTION
- Antibiotic guidelines
- “Back to Basics” initiative
- Hospital-laundered scrubs
- Antisepsis protocol
- Educational video
- Physician / team member education

PATIENT EDUCATION
- Patient peri-operative expectations
- Healthy living goals
- Smoking cessation
- Nutrition
- Increased exercise
- Reduced alcohol intake
- Weight reduction

CONSENT
- Physician / team member education

PATIENT EDUCATION
- Smoking cessation
- Nutrition
- Increased exercise
- Reduced alcohol intake
- Weight reduction
PRE-OPERATIVE RISK ASSESSMENT

Goal

– Development of pre-operative risk assessment checklist
– Engagement of internal medicine group in a decentralized model of pre-operative optimization

Status

– Beta-test checklist in select OHPG surgical practices for one month, beginning February 1, 2016, to identify areas for improvement
– Checklist to include the following assessments:
  - STOP-Bang Score (obstructive sleep apnea screening questionnaire)
  - HgbA1C
  - Nutrition status
  - Cardiac risk
# Orlando Health Preoperative Optimization Checklist

## Step 1: Assess Perioperative Risk

<table>
<thead>
<tr>
<th>Risk Factor</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age ≥ 65</td>
<td></td>
</tr>
<tr>
<td>ASA III, IV, or V</td>
<td></td>
</tr>
<tr>
<td>BMI &gt; 35 or &lt; 21</td>
<td></td>
</tr>
<tr>
<td>Anticipated length of stay &gt; 3 days</td>
<td>If ONE or more risk factors are present, complete the American College of Surgeons Risk Calculator (<a href="http://riskcalculator.facs.org">http://riskcalculator.facs.org</a>)</td>
</tr>
</tbody>
</table>

If the patient has no risk factors OR risk of "Any Complication" on the ACS Risk Calculator is Below Average, proceed to Pre-Admission Testing (PAT). If the risk of "Any Complication" on the ACS Risk Calculator is Above Average, proceed with remaining Perioperative Optimization Checklist.

## Step 2: Assess Pulmonary Risk

<table>
<thead>
<tr>
<th>Risk Factor</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>Do you have obstructive sleep apnea (OSA)? Pulmonologist:</td>
<td>Pulmonology clearance</td>
</tr>
<tr>
<td>Do you use CPAP? If so, advise patient to bring their CPAP machine with them to OR</td>
<td></td>
</tr>
<tr>
<td>Are you currently smoking or are exposed to second-hand smoke?</td>
<td></td>
</tr>
</tbody>
</table>

If THREE or more of the following are present, consider Pulmonary consult for OSA:

- Do you snore loudly at night?
- Do you often feel tired?
- Has anyone observed you stop breathing during sleep?
- Do you have hypertension?

## Step 3: Assess Cardiac Risk

<table>
<thead>
<tr>
<th>Risk Factor</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>Myocardial infarction</td>
<td>Cardiology clearance</td>
</tr>
<tr>
<td>Congestive heart failure</td>
<td>Cardiology clearance</td>
</tr>
<tr>
<td>Atrial fibrillation</td>
<td>Cardiology clearance</td>
</tr>
<tr>
<td>Stroke</td>
<td>Cardiology clearance</td>
</tr>
<tr>
<td>Angina</td>
<td>Cardiology clearance</td>
</tr>
</tbody>
</table>

If ANY of the following are present, consider Cardiology consult for cardiac clearance:

- Peripheral vascular disease
- COPD
- Uncontrolled hypertension
- Current anti-coagulation therapy
- Active malignancy/recent treatment

## Step 4: Assess Endocrine/Hematologic/Renal Risk

<table>
<thead>
<tr>
<th>Risk Factor</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diabetes mellitus</td>
<td>HbA1C level</td>
</tr>
<tr>
<td>History of anemia</td>
<td>Medicine consult</td>
</tr>
<tr>
<td>Abnormal bleeding history</td>
<td>Hematology consult</td>
</tr>
<tr>
<td>Acute/chronic renal failure</td>
<td>Nephrology consult</td>
</tr>
</tbody>
</table>

If ANY of the following are present, consider Medicine consult for optimization:

- If checked, what is the most recent HbA1C level?
- If checked, consider Hematology consult
- If checked, consider Nephrology consult

## Step 5: Assess Nutrition Risk

<table>
<thead>
<tr>
<th>Risk Factor</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>BMI &lt; 21</td>
<td>Nutrition consult</td>
</tr>
<tr>
<td>Unintended weight loss in past 3 months</td>
<td>Nutrition consult</td>
</tr>
<tr>
<td>Decreased oral intake over past week</td>
<td>Nutrition consult</td>
</tr>
</tbody>
</table>

If ANY of the following are present, consider Nutrition consult for optimization:

- Acute/Severe illness

## Step 6: Assess Infectious Disease Risk

<table>
<thead>
<tr>
<th>Risk Factor</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>Open wounds or acute dermatologic issues</td>
<td>Wound Care consult</td>
</tr>
<tr>
<td>Dental caries</td>
<td>Dental consult</td>
</tr>
</tbody>
</table>

If ANY of the following are present, consider MRSA screening:

- Antibiotic usage in past 6 months
- UTI symptoms / history of frequent UTIs

## Step 7: Assess Rehabilitation Potential

<table>
<thead>
<tr>
<th>Risk Factor</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>Timed Up &amp; Go ≥ 12 seconds</td>
<td></td>
</tr>
<tr>
<td>Age &gt; 70</td>
<td>Rehabilitation consult</td>
</tr>
<tr>
<td>Delirium history</td>
<td>Rehabilitation consult</td>
</tr>
</tbody>
</table>

If ANY of the following are present, consider Rehabilitation consult:

- Pre-existing cognitive impairment
- Current use of benzodiazepines
- Alcohol abuse history
PERIOPERATIVE HYPERGLYCEMIC CONTROL

Goal
• Implement a standardized surgical order set for hyperglycemic management for diabetic and non-diabetic patients

Status
• Order set to be developed by Corporate Diabetes Management Task Force
• Recommended inclusions are:
  ▪ EHR glucose tool
  ▪ Physician/nurse education
  ▪ Evidence based medicine guidelines (completed)
ENHANCED RECOVERY AFTER SURGERY (ERAS)

Goal

- Develop a corporate Enhanced Recovery After Surgery (ERAS) pathway to improve surgical patient care

Status

- Subcommittee has developed a ERAS pathway for Abdominal Surgery based upon existing pathways from multiple institutions
- Physician education handout completed
- Patient education handout completed
- PAT order set under revision
- Pilot Beta test 1 – starts 2/1/2/16 for one month
INFECTION PREVENTION

Goal

• Improve surgical patient care by compliance with OH antibiotic guidelines (including re-dosing requirements), OR attire P&P and antisepsis protocol

Status

• Updated *Back to Basics OR Attire, OH P&P* went live on 1/18/2016
• Hospital laundered scrubs pilot in process at SSH
  – Other sites on hold until Spring 2016
• Antisepsis protocol compliance is monitored. Additional education provided for OR draping and waterless hand scrub technique
  – The inpatient CHG bath compliance is in process
• Antibiotic selection and guidelines for redosing are posted in OR and will be mailed out to all surgeons in January 2016
**“Back to Basics”**

**Dress Code Changes for Corporate Surgery**

<table>
<thead>
<tr>
<th>When:</th>
<th>Effective January 18th, 2015</th>
</tr>
</thead>
<tbody>
<tr>
<td>Where:</td>
<td>All surgical areas corporate-wide</td>
</tr>
<tr>
<td>Who:</td>
<td>All surgeons, team members, students, PAs/ARNPs, vendors/reps</td>
</tr>
<tr>
<td>Why:</td>
<td>To decrease surgical site infections (SSI)</td>
</tr>
<tr>
<td>How:</td>
<td>Reduction in bacterial contamination through stricter adherence to best practice dress code guidelines</td>
</tr>
</tbody>
</table>

The human body and inanimate surfaces of the surgical environment are major sources of contamination and transmission of bacteria. Microorganisms shed from the hair and skin of perioperative personnel are potential causes for surgical site infections (SSI).

In 2015, Orlando Health surgeons and team members decreased the corporate SSI rate by 22% with an estimated savings of up to $35,000 per infection. The Corporate Surgical Collaborative Committee recommends adoption of the following initiatives to further reduce SSI and improve the quality of care provided to our patients.

- **Surgical scrubs**
  - must be changed daily, when contaminated by blood or other potentially infectious materials, and following all infected procedures
  - non-scrubbed personnel must wear a freshly laundered hospital scrub warm up jacket (where available), snapped closed with cuffs down to the wrists
  - all undergarments must be covered by surgical scrubs

- **Head coverings**
  - all head and facial hair (including beards) must be covered
  - fabric head coverings (washed daily) may be worn under a single-use head covering
  - skull caps may only be worn with short-cropped hair contained within the cap

- **Surgical masks**
  - a fresh mask must be used for each case and removed before exiting the department

- **Footwear / shoe coverings**
  - footwear must be clean, closed toe and back, low heels, non-skid soles and worn with stockings or socks
  - shoe covers (worn to protect shoes when exposure to blood and/or body fluids is expected) must be removed before leaving the department

- **Backpacks, briefcases, and fanny packs**
  - may not be taken into the operating room unless in a clean patient belonging bag

*Implemented at SSH;

**BACK TO THE BASICS**

- Antibiotic re-dosing education for surgeons and OR team
- Intra-operative draping – education
- Pre-op waterless hand scrub – audit and education
- Back to the basics – OR Attire Corp P&P Revised and Implemented January 18, 2016
TESTS OF CHANGE & WHAT WE LEARNED

SSI rates declined initially with:

- Weight-based antibiotic dosing
- WHO safe surgery checklist
- SCIP infection core measure for processes

What We Learned:

- Front line team involvement is crucial to success
- Physician champion for each pilot
- Less is more in workgroups
- Monitor workflow-include front-line staff and providers
- Bundles work-valuable knowledge gained from CLABS, CAUTI and VAP initiatives
- Standardize and build redundancy into the process
BARRIERS AND HOW WE RESOLVED

- Multi-disciplinary and system level steering committee
- Meeting date and time consistency
- Smaller work groups to report back to the system collaborative
- Tests of change - keep it smaller than once thought necessary
- One data source for tracking SSI
- Education is only one step to process improvement
MEASURES – WHAT AND HOW

Measure the improvement

• Infection prevention provides a deep dive of each SSI occurrence in the system
• Small group of three surgeons review SSI and classify as non-preventable, potentially preventable and preventable status
• Notification and follow up is provided on the potentially preventable or preventable cases
• Tracking and trending SSI data occurrences

Sharing the Data

• NHSN classified SSI rates are reported monthly to the system collaborative by facility
• SSI trend data is reported quarterly as a system
WRAP UP AND NEXT STEPS

Surgical site infections often represent a complex and multifactorial process – the mechanistic etiology or the search for resolution may be quite elusive.

Next steps

• Maintain momentum by team involvement, ownership and process redundancy
• Roll out all components of the ERAS initiative
Connie Popper: Connie.Popper@orlandohealth.com
Jill Dykstra-Nykanen: Jill.Dykstra@orlandohealth.com
Peer Sharing: SSI Challenges and Solutions
Barb DeBaun, Improvement Advisor | Cynosure Health | 11:50 – 11:55AM
DEBRIEF AND DISCUSSION

Change is a process, not an event.
BRING IT HOME

Marina Levin, Program Manager | HRET | 11:55 – 12:00PM
What are you going to do by next Tuesday?
- Ask another surgeon to observe your method of conducting the surgical safety checklist
- Use the feedback to tweak the tool or change technique as necessary

What are you going to do in the next month?
- Review the last three colon surgery patients who developed an SSI and determine ‘preventability’ potential
- Conduct a deeper dive into cases where there was a high ‘preventability’ potential
- Observe the team members in the surgical suite to assess for compliance with hospital policy for surgical attire
UNIT-BASED TEAM ACTION ITEMS

What are you going to do by next Tuesday?
- Identify a nurse who will champion chlorhexidine skin bathing in his/her next in-patient who becomes a surgical candidate
- Identify potential barriers and suggestions for getting over them

What are you going to do in the next month?
- Review the HRET ‘Top Ten’ SSI Checklist to identify potential gaps and ideas for testing
- Retrospectively review the records of the three most current colon SSI to assess for potential areas of opportunity
HOSPITAL LEADERS ACTION ITEMS

What are you going to do by next Tuesday?
- Understand the SSI data in your hospital
- Talk to a colo-rectal surgeon to better understand challenges associated with preventing SSI in his/her patients

What are you going to do in the next month?
- During Leadership Walk Rounds, speak with nurses on the post-op unit to determine their knowledge of SSI rates in your hospital
- Ask staff what is getting in the way of process improvement
PFE LEADS ACTION ITEMS

What are you going to do by next Tuesday?
- Speak with a patient who was instructed to perform pre-operative surgical skin antisepsis and ask how that went
- Find a story about a patient who developed an SSI after colon surgery. Discuss with leaders and make it real

What are you going to do in the next month?
- Identify barriers faced by patients who are prepping for surgery
- Convene a team to strategize how to overcome stated challenges and barriers
UPCOMING EVENTS

• Sepsis Webinar – July 26
• Data Webinar – July 28
• VAE Webinar – August 2

Register Now! http://www.hret-hen.org/events/index.dhtml
THANK YOU!

Find more information on our website: www.hret-hen.org

Questions/Comments: hen@aha.org