A Few Housekeeping Notes

To download the handouts, click the sheets of paper symbol in the upper right-hand corner.

The slides and other resources will be posted to your PSO web portal in the next week or two. (Look under User Group on the web page.)

For full screen, click the screen with the arrows in the lower right-hand corner, or click F5.

Dial *1 to access the operator.

ECRI Institute PSO

Moderator

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Presenters

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Available for Q&A Session

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User Group Meeting

- Patient safety work product is privileged and confidential, is not subject to discovery and cannot be used as evidence.
- Being a member of a PSO enables events to be discussed in a safe environment to improve patient care.
- Include User Group Meetings in your PSES documentation.
- Participants are encouraged to share information from the User Group Meeting with others in their facility for further dissemination and discussion.

Agenda

- User Group: The Processes of Sterile Processing
  - Background
  - Case Studies
  - Risk Reduction Strategies

Background

- Sterile Processing is an essential patient safety function
- OR and SP Departments both have an important role in maintaining clean, safe instruments
- Contaminated instruments cost safety, time, and money due to:
  - Infections, prolonged anesthesia exposure due to delayed procedures
  - OR schedule disruptions, downtime, damaged/worn instruments
  - Lawsuits and claims
  - And it is in the news – damage to your reputation
Reprocessing of Reusable Instruments

<table>
<thead>
<tr>
<th>Reprocessing</th>
<th>HLD or Sterilize?</th>
<th>Storage &amp; Handling</th>
</tr>
</thead>
<tbody>
<tr>
<td>At Point of Use</td>
<td>According to manufacturer recommendation in designated area</td>
<td>Follow instructions regarding cleaning agents and cleaning methods</td>
</tr>
<tr>
<td>During procedure area and clean</td>
<td>Follow high temperature sterilization guidelines and temperature specifications</td>
<td>In clean area of CSP</td>
</tr>
<tr>
<td>After procedure, assemble, open hinged and wash in area with soap and water</td>
<td>Sufficient cooling time after high temperature sterilization</td>
<td>During transportation to instrument decontamination room immediately after procedure ends</td>
</tr>
<tr>
<td>Transport</td>
<td>Inspect</td>
<td>After high temperature sterilization, thoroughly rinse with sterile water</td>
</tr>
<tr>
<td>In leak proof enclosed containers</td>
<td>Function test</td>
<td>Sufficient cooling time after high temperature sterilization</td>
</tr>
<tr>
<td>In clean area of CSP</td>
<td>Thoroughly dry</td>
<td>Follow instructions for instrument as well as reprocessing method used</td>
</tr>
</tbody>
</table>

Mechanical Issues

- Surgical Instruments are Tough to Clean
  - Scopes with narrow channels
  - Instruments with hinges, sleeves, or valves
  - Hard to take apart and put back together to clean all surfaces
  - Manufacturer instructions frequently change or are unavailable
  - Volume: Sterile Processing handles tens of thousands of unique instruments per day

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COMPLEX INSTRUMENTS

NARROW LUMENS AND CHANNELS

Hinged, Multiple Parts, and Complex
Systems Issues

- Time pressure for quick turnaround
- Communications disconnect between OR and sterile processing department
- Peak times of high demand/volume: shifts don't correspond
- Inadequate training and orientation
- Inefficient workflows
- Multi-step, multifactorial process
- Roles and responsibilities unclear at each step

Detail on Case Studies:

- Reflect system breakdowns rather than individual fault.
- Real events reported to the PSO.
- No providers or facilities are identified.

Case Study 1

- Surgery delayed due to contaminated instruments:
  - During case set up bone and tissue were observed in the instrument tray for joint replacement surgery.
  - The tray was removed, and a new sterile field needed to be created and the OR requested replacement instruments sets to be sent up to the room.
  - The second tray was also contaminated by bioburden—procedure delay until third tray became available.
  - The procedure was then delayed while instruments were reprocessed.
Case Study 2

- Bronchoscopy performed using a contaminated scope;
  - A patient required a bronchoscopy during the evening shift
  - The pulmonologist grabbed a scope from the pulmonary lab
  - After the procedure was completed it was learned that the bronchoscope had not been reprocessed after its final use of the scheduled day

Contributing Factors

- Team Coordination
  - Communication between OR and CSP
  - Realistic case scheduling

- Operating Environment
  - Mfg. Recommendations easily available
  - Workflow

- Workflow/Task
  - Time pressures

- Management/Organization
  - Adequate time allowed for orientation and ongoing education

- Staff/Individual
  - Professional—Certification and Competency
  - Accountable

Efficiency-Thoroughness Trade-Off (ETTO)

- Consider what contributing factors might be causing ETTO at each stage of sterile processing:
  - Precleaning: What factors prevent point-of-use precleaning?
  - Transport: Are used instruments being sent to SP after the case closes, or do they wait around the OR in contaminated state?
  - Decontamination/Cleaning: Is there adequate time for chemicals to work according to manufacturer’s directions?
Consider what contributing factors might be causing ETTO at each stage of sterile processing:

- **Inspection**: High volume preventing adequate inspection of every instrument and set?
- **Sterilization/Disinfection**: Are indicators and cooling times observed and documented?
- **Storage/Handling**: Enough space for proper packing and handling in sterile areas?

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**Risk Reduction Strategies**

- **HIGH**
  - Automate
  - Incorporate forcing functions
  - Incorporate fail-safe mechanisms

- **MEDIUM**
  - Minimize choices
  - Standardization
  - Optimize redundancy

- **LOW**
  - Policies
  - Education/Training
  - Documentation

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Low-Impact Strategies

- Audit Policies and Procedures
- Report and analyze near miss and adverse events
- Competency-based training program and employee incentives

Medium-Impact Strategies

- Develop SOPs for the sterile processing department that are easily accessible
- Provide supervision on all shifts to manage work volume and flow

High-Impact Strategies

- Address surgical device cleaning issues before purchase to ensure SP can properly clean and maintain
- Integrated software that supports instrument tracking, SOPs, and documentation
- Quality Assurance program in SP that monitors each step in cleaning, decontamination, inspection, disinfection, storage
Group Sharing and Discussion
(You only need to give your first name)

Resources
- Maurer, S. Sterile Processing: The other side of surgical services. The Surgical Technologist, August 2012
- ECRI Institute Navigator, August 2012
- ECRI Institute Presentation, Building Bridges: Event Theory and Human Error, June 2012

Mark Your Calendars!
- Webinar: Your Falls Data and Strategies: Learn a New Pearl from Your Peers
  — September 25, 2012 – 2:30-3:30 (ET)
- User Group: Discharge Orders: Piecing the Care Transitions Puzzle Together
  — October 15, 2012 – 2:30-3:30 (ET)
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