A Comprehensive Infection Prevention Program for the Ambulatory Surgery Center

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Infection Prevention & Control Consultant

Speaker Sponsorship for Today’s Lecture

3M
Speaker Declarations

- 3M
- Georgia-Pacific
- AHRQ HRET Extended Faculty
  National Safety Program for
  Ambulatory Surgery

Objectives:

- Identify items to be included on an ambulatory surgery (ASC) – specific risk assessment and infection prevention plan.
- Recall how the Centers for Medicare and Medicaid Services (CMS) ASC Surveyor Worksheet can guide evidenced-based practice in the ASC.
- Address common gaps in practice that place patients and healthcare workers at risk of infection.
Significant growth in numbers of ASCs and type and complexity of procedures

Infections, outbreaks, and patient notification events continue to identify infection prevention concerns/opportunities in outpatient settings

A Few of the Actual Concerns Noted

- The flush step in the cleaning of colonoscopes was omitted
- 20 minutes into an arthroscopy case, the nurse noted that the chemical indicator tape had not changed color
- At the end of the day, the technician collecting the autoclave sheets discovered that a set of instruments was put in the autoclave to be sterilized but for some reason the autoclave was not run. The instruments were removed from the autoclave unsterile and used for a patient

## More Concerns - CDC

**Pain management clinic 2012:**
- MRSA mediastinitis, meningitis, epidural abscess, and sepsis

- Contents from single-dose vials used for >1 patient
- 2) Healthcare personnel did not wear facemasks when performing spinal injections


## More Concerns – CDC*

**Group A Strep necrotizing fasciitis:**

- 1) Failure to wear surgical masks and gowns consistently
- 2) Visibly dirty equipment
- 3) No logs of autoclave use, maintenance, or performance checks

*Outbreaks and Patient Notifications in Outpatient Settings, 2010-14
More Concerns – CDC*

Plastic surgery center, 2013: surgical site infection; Nontuberculous mycobacteria, other

- 1) Off-label use of lubricating gel directly on sterile tissues
- 2) Reuse of single-use breast implants as sizers

*Outbreaks and Patient Notifications in Outpatient Settings, 2010-14

More Concerns – CDC*

Oral surgery clinic: Hepatitis C, 2013:

- 1) Mishandling of injectable medications including reuse of single-dose vials of propofol
- 2) Improper reprocessing of dental instruments

*Outbreaks and Patient Notifications in Outpatient Settings, 2010-14
More Recently…


So Where Do We Begin?
Let’s Examine Our Risks…

Multidisciplinary risk assessment

Multidisciplinary Risk Assessment

- Starting point to develop priorities and goals and objectives for the year
- Provides focus
- Meets regulatory requirements
- Conduct annually and when risks change
Consider:

- Geography (location, community, population)
- Care, treatment, and services provided
- Analysis of surveillance/other infection control data (incident reports, prophylactic antibiotics, hand hygiene (staff, patients, and families), etc.
- Personnel

Are Your Patients ...

- Elderly/young; both
- High risk lifestyle
- Migrant or ethnic groups
- Oncology &/or immunocompromised
- At risk for surgical site infections
- At risk for catheter-associated urinary tract infections
- At risk for MDROs
- At risk for resp. infections
What invasive procedures do you perform?

- Orthopedic surgery, eye surgery, plastic surgery, etc.
- Endoscopes, arthroscopy, TEEs, etc.
- Vaginal or rectal ultrasounds/probes
- Injections for chronic pain
- Others?

What equipment do you use?

- Disposable?
- Reusable?
- How processed: High level disinfection? Sterling?
- IFUs present and current? Followed?
- How well are items cleaned?
- How well is reprocessing monitored?
- Are single-use disposable items reused?
Have you made environmental rounds lately?

- Cleanliness?
- Ventilation proper?
- Space? (enough? clean & dirty separate?)
- Furnishings?
- Wastes?
- Construction/renovation?

How is your employees’ health status?

- Compliance with health reviews?
- Vaccinations?
- Work restrictions?
- Exposures?
What have you learned from your surveillance data?

- Surgical site infections: Trends?, unusual bugs, etc.?
- Compliance with injection technique? anesthesiologists/nurse anesthetists, nurses, surgeons, etc.)
- HCW needlesticks and blood exposures?
- Cleaning and disinfection of glucometers?
- HCW education; competency?
- Observance of center reprocessing?

What preventative measures do you take in your center?

- Hand hygiene
- Standard precautions (including safe injection technique, resp etiquette, etc.)
- Isolation
- Patient vaccination
So it’s time for you risk assessment

Big Categories

- Antibiotic resistant organisms
- Failure of prevention activities
- Isolation
- Policy and procedures
- Preparedness
- Etc.
Rate each risk against:

- Probability
- Risk/impact
- Current systems/preparedness

Risk Assessment Tool – Rate the Risk

<table>
<thead>
<tr>
<th>Problem</th>
<th>Probability</th>
<th>Risk/Impact</th>
<th>Current systems; preparedness</th>
<th>Score</th>
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<tbody>
<tr>
<td>Lack of safe injection technique</td>
<td>3</td>
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<td>3</td>
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<tr>
<td>Hand hygiene compliance</td>
<td>2</td>
<td>4</td>
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</table>
### Multiply the Scores

<table>
<thead>
<tr>
<th>Problem</th>
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<th>Current systems; prepared-ness</th>
<th>Score</th>
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<td>Lack of proper sterilization monitoring</td>
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<td>2</td>
<td>18</td>
</tr>
<tr>
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<td>2</td>
<td>5</td>
<td>3</td>
<td>30</td>
</tr>
<tr>
<td>Lack of staff flu vaccine</td>
<td>2</td>
<td>4</td>
<td>2</td>
<td>16</td>
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</table>

### So, Prioritize (in order)...

<table>
<thead>
<tr>
<th>Problem</th>
<th>Probability</th>
<th>Risk/Impact</th>
<th>Current systems; prepared-ness</th>
<th>Score</th>
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<td>Lack of proper sterilization monitoring</td>
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<tr>
<td>Hand hygiene compliance</td>
<td>2</td>
<td>4</td>
<td>2</td>
<td>16</td>
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</tbody>
</table>
Monitoring (Surveillance)

Outcomes Exs.
- Infections
- Patient satisfaction
- Needlesticks

Processes Exs.
- Compliance with:
  - Hand hygiene
  - Safe injection practices
  - Aseptic technique
  - HLD and sterilization

Don’t make everything a priority!
Issues to Goals

- Broad statement of what you want to improve

Joint Commission on “Goals”

Address:
- Prioritized risks
- Limiting unprotected exposure to pathogens
- Limiting transmission of infections associated with procedures
- Limiting transmission associated with use of equipment, devices, and supplies
- Improving compliance with hand hygiene guidelines
Let’s set some goals and objectives …

Objectives:

*Specific* measurable outcomes you want to obtain over a specific time period
Goal: Increase compliance with safe injection technique

Objective: Increase HCW compliance to 100% in next quarter for not keeping multidose vials in the immediate patient treatment area

What are our strategies for meeting this goal and objective?

1. “Round up”
2. Education – staff classes; physician newsletters/mailboxes; screen savers; observations in OR, preop holding, and PACU
3. Monitoring and feedback weekly by staff
Next Issue...

Goal: Increase personnel flu vaccine compliance

Objective: Increase flu vaccine to 70% by end of year with a focus on nurses and physicians

Strategies

1. Advertise and offer free vaccine on site all of flu season
2. Invite ID doc to come talk about influenza/dangers
3. Offer incentives to all who are vaccinated
## Evaluation

Did I meet my goals?

### Program Annual Evaluation

<table>
<thead>
<tr>
<th></th>
<th>Q1</th>
<th>Q2</th>
<th>Q3</th>
<th>Q4</th>
<th>Goal</th>
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<tbody>
<tr>
<td>Safe injections</td>
<td></td>
<td></td>
<td></td>
<td>90%</td>
<td>100%</td>
</tr>
<tr>
<td>Flu vaccine</td>
<td>70%</td>
<td>50%</td>
<td>75%</td>
<td>80</td>
<td>70% By end of year</td>
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<tr>
<td>Proper sterilization monitoring</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
</tr>
<tr>
<td>Hand hygiene</td>
<td>97%</td>
<td>98%</td>
<td>95%</td>
<td>96%</td>
<td>95%</td>
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</tbody>
</table>
Let’s Strategize

- Close the loop!
  - PI

Infection Prevention and Control
Written Plan – TOC (1)

- Risk assessment
- Description of IPC program
  - Authority
  - Scope
  - Organization-wide
  - Personnel (number, qualifications, etc.)
- Goals and objectives (at least one measurable objective for each goal)
- Strategies to reduce risks (each goal):
  - Interventions associated with procedures, devices, or equipment
  - Policies and procedures including Employee Health
  - Environmental issues
  - Personnel training
Written Plan – TOC (2)

- Surveillance
  - Risk assessment
  - Plan and description of indicators to monitor
    - Outcomes
    - Processes
    - MDROs
    - Communicable disease reporting
    - Outbreaks
    - Antibiogram
    - Reports (to whom sent and how often)

Written Plan – TOC (3)

- TB Plan (can be separate policy)
- Bloodborne Exposure Control Plan (can be separate policy)
- Performance improvement
- Emergency management and planning
- Annual evaluation process
Outbreaks! Why Do Outbreaks Occur in Ambulatory Settings?

- Responsibility for infection control program not always assigned
- HCWs not familiar with basic infection control practices

What are the sources of pathogens?

- **Exogenous**
  - Personnel infections /colonized, soiled attire, breaks in technique, inadequate hand hygiene)
  - Inanimate objects (equipment, materials, tools,)

- **Endogenous**
  - Patient flora (skin, mucous membranes, GI tract)
  - Infection from a distant site
Is It An Outbreak?

- Incidence of disease above baseline
- A cluster can be an outbreak
- One case of certain diseases can be an outbreak
- Does your state specify?
- Contact Epi Division of Health Department! Your friend!

Outbreaks - Line Listing

<table>
<thead>
<tr>
<th>MR #</th>
<th>Surgery</th>
<th>Date Sg.</th>
<th>Date SSI</th>
<th>Culture</th>
<th>Surgeon/Asst</th>
<th>OR #</th>
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<tbody>
<tr>
<td>134</td>
<td>TKR</td>
<td>1/30/17</td>
<td>2/14/17</td>
<td>2/14/17 Staph aureus</td>
<td>A</td>
<td>4</td>
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<tr>
<td>168</td>
<td>TKR</td>
<td>1/30/17</td>
<td>2/07/17</td>
<td>2/8/17 MRSA</td>
<td>A</td>
<td>1</td>
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<tr>
<td>982</td>
<td>Spine</td>
<td>1/15/17</td>
<td>2/07/17</td>
<td>2/13/17 MRSA</td>
<td>B</td>
<td>4</td>
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<tr>
<td>605</td>
<td>TKR</td>
<td>1/08/17</td>
<td>2/4/17</td>
<td>1/30/17 MRSA</td>
<td>A</td>
<td>4</td>
</tr>
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</table>
Outbreaks in Los Angeles County Ambulatory Care Settings, 2000-2012 (1)*
(28 outbreaks identified during time period)

<table>
<thead>
<tr>
<th>Setting Type</th>
<th>Number of Outbreak Investigations</th>
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<tbody>
<tr>
<td>Licensed by state</td>
<td></td>
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<tr>
<td>Yes</td>
<td>13 (46.4)</td>
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<tr>
<td>No</td>
<td>15 (53.6)</td>
</tr>
<tr>
<td>Hospital Affiliation</td>
<td></td>
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<tr>
<td>Yes</td>
<td>8 (28.6)</td>
</tr>
<tr>
<td>No</td>
<td>20 (71.4)</td>
</tr>
<tr>
<td>Setting Type</td>
<td></td>
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<tr>
<td>Office/Clinic</td>
<td>11 (39.3)</td>
</tr>
<tr>
<td>Ambulatory Surgery Center</td>
<td>6 (21.4)</td>
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<tr>
<td>Dialysis center</td>
<td>6 (21.4)</td>
</tr>
<tr>
<td>Contracted home health agency</td>
<td>5 (17.9)</td>
</tr>
</tbody>
</table>

Outbreaks in Los Angeles County (2)*

- 22/28 (78.6%) of investigations found at least one infection control violation
- 16/28 (57.1%) implicated a source related to infection control

Total case count: 168
- 59 cases (35.1%) were hospitalized
- 5 cases (3%) died
## Outbreaks in Los Angeles County (3)*

*Infection control breaches noted in outbreak investigations, Los Angeles County, 2000–2012*

<table>
<thead>
<tr>
<th>Infection Control Breach</th>
<th>Number of Investigations</th>
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<tbody>
<tr>
<td>Injection safety</td>
<td>10 (35.7)</td>
</tr>
<tr>
<td>Equipment processing and sterilization</td>
<td>10 (35.7)</td>
</tr>
<tr>
<td>Medication documentation</td>
<td>7 (25.0)</td>
</tr>
<tr>
<td>Environmental cleaning</td>
<td>6 (21.4)</td>
</tr>
<tr>
<td>Hand hygiene</td>
<td>5 (17.9)</td>
</tr>
<tr>
<td>Personal protective equipment</td>
<td>3 (10.7)</td>
</tr>
<tr>
<td>Documentation of IC policies and procedures</td>
<td>5 (17.9)</td>
</tr>
<tr>
<td>Credentials of staff</td>
<td>5 (17.9)</td>
</tr>
<tr>
<td>Single-use equipment</td>
<td>4 (14.3)</td>
</tr>
<tr>
<td>Knowledge &amp; adherence to policies and procedures</td>
<td>4 (14.3)</td>
</tr>
</tbody>
</table>

*Reference*

- County of Los Angeles Public Health
- Kelsey OYong, MPH Acute Communicable Disease Control Program June 3, 2016
Injection Safety

- Healthcare workers’ Drug Theft Leads to Outbreak, Patient Death
- Think drug diversion with a Gram negative bacteria healthcare-associated outbreak as a possibility

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Injection Safety

- Use aseptic technique
- Do not administer meds to multiple patients using the same syringe even if the needle is changed
- Do not reuse a syringe to access medications from a vial that may be used on multiple patients

Guideline for Isolation Precautions 2007
Injection Safety

- Do not administer medications from single-dose vials to multiple patients
- Do not use bags or bottles of intravenous solution as a common source of supply for multiple patients
- Do not keep multi-dose vials in the immediate patient treatment area

CMS ASC Worksheet

- Syringes are used for only one patient
- The rubber septum on the med vial (new or used) is disinfected with alcohol prior to piercing
- Medications are always entered with a new needle.
- Medications are always entered with a new syringe.
CMS ASC Worksheet

- Medications that are pre-drawn are labeled with the date and time of draw, initials of the person drawing, medication name, strength and beyond-use date and time.
- Single dose med vials are used for only one patient.
- Bags of IV solutions are used for only one patient (and not as a source of flush solution for multiple patients).
- Medication administration tubing and connectors are used for only one patient.

CMS ASC Worksheet

- Center has voluntarily adopted a policy that medications labeled for multi-dose use for multiple patients are nevertheless only used for one patient.
  - Multi-dose vials are dated when they are first opened and discarded within 28 days unless the manufacturer specifies a different (shorter or longer) date for that opened vial. Note: This is different from the expiration date for the vial.
  - Multi-dose medication vials used for more than one patient are stored appropriately and do not enter the immediate patient care area (e.g., operating room, anesthesia carts).
  - NOTE: If multi-dose vials enter the immediate patient care area, they must be dedicated for single patient use and discarded immediately after use (or dedicated for single patient use and discarded immediately after use).
All sharps are disposed of in a puncture resistant sharps container.

Sharps containers are replaced when the fill line is reached.

Adjunct, but not a replacement for AORN Guidelines for Perioperative Practice.
AORN: ASC Recommended Practices: Medication Safety

- Medication Safety Committee of which pharmacist is a member
- If on-site pharmacist not available, contract with consulting pharmacist
- CMS-certified facilities must meet CMS requirements for pharmaceutical services
- Comply with local, state, and federal regs and ensure solutions prepared per USP <797>

AORN: ASC Recommended Practices: Medication Safety

- Medications should be prepared as close as possible to the time of use
- Medications should be disposed of per local, state, and federal regs; manufacturer’s instructions, and organization policy
AORN: ASC Recommended Practices: Medication Safety

- Policies and procedures for safe medication practices, readily available, reviewed periodically, and address direct patient care and organizational level situations.
- Perioperative team should be involved in variety of QI activities consistent with organization’s plan and improve safe medication use by meeting or exceeding expectations from published national patient safety initiatives.

ASC *Staph aureus* Joint Infection Outbreak

- HD notified about cluster of joint infections (2 in a week’s time) in patients who had received outpatient magnetic resonance arthrograms (MRAs)
- Confirm presence of an outbreak
- Look for cases – contact all patients having an arthrogram in a 2 month period – 7 total cases

ASC Joint Infection Outbreak

- Review infection prevention practices – policy review; observations of staff
- No written procedures or documentation for IC, aseptic technique, cleaning and disinfection of med prep area, staff education, or competencies
- No lot numbers of injectable meds or dosages were recorded in chart

Noted

- Visually clean area to prepare the meds?
- No hand washing to prepare injectable solutions
- Techs with visibly soiled white coats
- Breaks in aseptic technique in prep of sterile tray, needle hubs/shafts, and med vials
- 10cc and 100 cc vials of contrast labeled as “single dose” by manufacturer were re-entered by RTs with new syringes and needles multiple times for use on multiple patients
- Syringes and needles were not reused and were disposed of properly
Immediate Recommendations

- Use single dose vials for only one patient and never reenter vial
- Discard any residual product immediately and do not save for use on other patients
- Develop policies and procedures and routine training on aseptic technique, and infection control and hold regular competency reviews

ASC Joint Infection Outbreak

- Develop case definitions
  - **Confirmed case**: arthrogram, signs/symptoms, positive joint fluid culture
  - **Probable case**: arthrogram, signs/symptoms, negative joint fluid culture
  
  (All diagnosed at ED or hospital)

- Line list – all same doc (radiologist); all same meds injected
Outcome

- Microbiologic testing showed no medication contamination (vials used on case patients already discarded, not tested)

- Deficiencies in injection safety and aseptic technique may have contaminated single dose vial that was used on multiple patients

Discussion

- Who is drawing up injectable meds in your facility?
- Is this allowable in their scope of practice
- Do they have competency trainings documented?
- Have you directly observed them and audited their practices?
If single-use devices are reprocessed, they are devices that are approved by the FDA for reprocessing

Reprocessed by an FDA-approved reprocessor

Disinfection and Sterilization
The Joint Commission: Most vulnerable for Lapses in High Level Disinfection and Sterilization

- Hospitals
- Critical access hospitals
- Ambulatory and office – based surgery


More Surveyor Sophistication on Noncompliance

- Manufacturer’s IFUs to pre-clean or sterilize
- Failure to pre-clean per evidence-based guideline (e.g., AAMI ST79)
- Failure to transport in a covered, rigid container*
- Failure to label that rigid container with a biohazard label
More Surveyor Sophistication on Noncompliance

- Arm hair exposed in the sterile prep and pack area of central sterile supply
- Failure to maintain sterilizers and washers per IFU
- Failure to perform and document biological indicator testing properly (e.g., having the control and load BI lot numbers match)

Joint Commission Noncompliance from:

- Risk to patients of bloodborne pathogens low
- Staff lack knowledge for proper procedures
- No access to evidence-based guidelines
- Lack of leadership oversight
- Reprocessing is low priority
- Lack of safety culture
- Processes not followed
- Time frames not followed
- No dedicated staff person to oversee processes
- Facility/space design
- Lack of monitoring/documentation of processes
- Equipment processed and stored in numerous locations
CMS ASC Worksheet - Sterilization

- Critical items sterilized?
  Onsite?/offsite?

- Precleaning per IFUs (or evidenced-based guidelines) at bedside/OR table

CSM ASC Worksheet

- Manual cleaning and automated cleaning
CMS ASC Worksheet

- Visually inspected and recleaned as needed

CMS ASC Worksheet

- Chemical indicator (process indicator) placed correctly, as per manufacturer’s instructions for use, in the instrument packs in every load.
Biological indicator is used at least weekly for each sterilizer and with every load containing implantable items, as evidenced by ASC documentation (i.e., log).

Each load monitored with mechanical indicators (e.g. time, temperature, pressure).
Documentation for each piece of sterilization equipment is maintained and up to date and includes results from each load.

- Items appropriately contained and handled during the process to assure that sterility is not compromised prior to use.
- After sterilization, stored in a designated clean area so that sterility is not compromised.
- Sterile packages are inspected for integrity and compromised packages are reprocessed.
CMS ASC Worksheet – Immediate Use

- Immediate use steam sterilization (IUSS) performed onsite?
- Are all of the following met (for IUSS)?
  - Work practices ensure proper cleaning and decontamination, inspection, and arrangement of the instruments into the recommended sterilizing trays or other containment devices before sterilization?
  - Once clean, the item is placed within a container intended for immediate use.

CMS ASC Worksheet

- The sterilizer function is monitored with monitors (e.g., mechanical, chemical and biologic) that are approved for the cycle being used.
- The processed item must be transferred immediately, using aseptic technique, from the sterilizer to the actual point of use, the sterile field in an ongoing surgical procedure.
CMS ASC Worksheet

- Not performed on:
  - Implants
  - Post-procedure decontamination of instruments used on patients who may have Creutzfeldt-Jakob disease or similar disorders
  - Devices that have not been validated with the specific cycle employed
  - Single-use devices that are sold sterile.

Proper Steps

- Preclean at point of use
- Transport
- Leak test of scope per IFU
- Manually clean and mechanically clean
- Evaluation of cleaning – visual inspection with lighted magnification, ATP, borescope, etc.
- Mechanically high level disinfected or sterilize
- Storage
High Level Disinfection (HLD)

- Activated? Immersed?
- Tested with strips before each use (MEC)?
- Discarded per test strip OR expiration date of solutions?
- Strip bottles dated?
- Strip timed for dipping and reading?
- QC test performed?
- Documentation?
- OPA and urology scopes?

CMS ASC Worksheet

- Semi-critical items high level disinfected or sterilized? Onsite/off-site?
- Items are pre-cleaned per manufacturer’s instructions or….. evidence-based guidelines (EBGs)?
- Visually inspected and re-cleaned as needed?
- High-level disinfection equipment maintained per manufacturer instructions
Following high-level disinfection, items are placed in a designated clean area in a manner to prevent contamination.

Chemicals for HLD:
- Prepared per manufacturer instructions for use (IFUs)?
- Tested for appropriate concentration per IFUs?
- Replaced per IFUs?
- Documentation per IFUs?

HLD for appropriate length of time per IFUs or…EBGs?

HLD for appropriate temperature per IFUs or…EBGs?

Items undergoing HLD are allowed to dry before use?
Tips from Joint Commission - Disinfection and Sterilization

- Use and follow Clinical Practice Guidelines and Recommended Practices
- Ensure availability of manufacturers’ instructions for use
- Develop and follow facility policies based on clinical practice guidelines
- Verify competency and make sure the individual assessing competency is competent

Helpful Hints

- IP must monitor!
- Training and updates
- Competencies by competent personnel on hire and at least annually
- Periodical observe - auditing/feedback
Surgical Attire

- OR must own!
- All hair covered (head and face – OR and CSP)
- Facility-laundered scrubs
- In restricted areas, masks in presence of open sterile supplies or scrubbed personnel
WWWTP??

WORK

who said it can't be fun?
Attire

- In restricted area, long sleeved jacket, snapped closed; also while preparing and packaging items in clean assembly area of Sterile Processing
- Clean shoes, dedicated for use in perioperative area
- Jewelry

Environmental Cleanliness

- Are EVS staff /OR staff rushed to turn over room?
- Cleaning responsibility for every item assigned?
- How clean are shelves where sterile supplies are stored?
- Do staff know disinfectant contact times and follow?
- Daily, between case, and terminal cleaning performed as well as that on a schedule?
CMS ASC Worksheet - Environmental Cleaning

- ORs cleaned and disinfected after each procedure with an EPA-registered disinfectant
- ORs terminally cleaned daily
- Environmental surfaces in patient care areas cleaned and disinfected with an EPA-registered disinfectant on a regular basis (e.g., daily), when spills occur, and when surfaces are visibly contaminated.
- Procedure in place to decontaminate gross spills of blood.

AORN: ASC Recommended Practices: Safe Environment of Care

- Policies and procedures
- Reviewed periodically
- Revised as necessary
- Readily available in the practice setting
Other AORN: ASC Recommended Practices: Retained Surgical Items

- Standardized measures for reconciling count discrepancies should be taken during the closing count and before the end of the surgery. When a discrepancy in the count is identified, the surgical team should take actions to locate the missing item.

- Policies and procedures for prevention of retained surgical items should be developed, reviewed/revised periodically, and readily available.

AORN: ASC Recommended Practices: Transmissible Infections

- Use “Droplet” and “Airborne” Precautions as needed

- Initial and ongoing education and competency validation of understanding of standard, contact, droplet, and airborne precautions

- Policies and procedures for multidrug-resistant organisms (MDROs)

- Perioperative team should participate in variety of QI activities to monitor and improve prevention of infections and MDROs
CMS ASC Worksheet

- Hand hygiene and glove use
- Point of care devices

Hand Hygiene

- Hand hygiene even (especially) in the OR
- Approved lotion
- No artificial nails in perioperative environment
2017 CDC Guidelines for Prevention of Surgical Site Infections – Category I Recommendations

- See Core Recommendations in document
- Pre-op antimicrobial(s) only when indicated, timed such that a bactericidal concentration is in the serum and tissue when the incision is made. Cat 1B
- Appropriate parenteral prophylactic antimicrobial(s) prior to skin incision in all cesarean sections. Cat IA
- In clean and clean-contaminated procedures, do not administer additional prophylactic antimicrobial after the incision is closed in the OR, even in the presence of a drain. Cat IA

CDC Guidelines – Category I Recommendations

- Do not apply antimicrobials (ointments, solutions, powders) to the incision for the prevention of SSI. Cat 1B
- Perioperative glycemic control using blood glucose targets < 200 mg/dL in all patients. Cat 1A
- Maintain perioperative normothermia. Cat 1A
Perioperative Hypothermia Increases Risk of SSI

- Vasoconstriction
- Decreased tissue oxygenation
- Decreased neutrophil activity
- Decreased deposition of collagen
- Decreased immune function
- SSI risk triples

Perioperative Hypothermia Increases Risk of:

- Morbid cardiac events
- Blood loss and need for transfusion
- Impaired drug metabolism
- Increased cost of care
“Active” Hypothermia Strategies

- Increasing OR room temp
- Radiant warming (blanket, gown)
- Forced–air warming (blanket, warm air gowns)
- Water-filled mattress
- Circulating water garments
- Warmed IV and irrigation fluids
- Electronic warming blankets
- Carbon fiber blankets
- Resistive polymer blankets
- Electric heating pads
- Thermal exchange chambers
- Negative pressure warming systems

“Passive” Hypothermia Strategies

- Cotton blankets
- Surgical drapes
- Plastic sheeting
- Blankets or garments of reflective composite fabric (space blankets)

For patients with normal pulmonary function undergoing general anesthesia with endotracheal intubation, administer increased FiO2 intraoperatively and post-extubation in the immediate postop period. To optimize tissue O2 delivery, maintain perioperative normothermia and adequate volume replacement. Cat 1A

Advise patients to full body shower or bathe with antimicrobial or non-antimicrobial soap or an antiseptic on at least the night before the operative day. Cat 1B

Intraoperative skin prep with alcohol-based antiseptic, unless contraindicated. Cat 1A
CDC Guidelines – Category I Recommendations (Con’t)

- Do not withhold transfusion of necessary blood products from surgical patients as a means to prevent SSIs. Cat 1B

CDC Guidelines - Category I Recommendations (Con’t)

- For prosthetic joint arthroplasty patients, Rec. 1E applies: In clean and clean-contaminated procedures, do not give additional prophylactic antimicrobial doses after incision closed in OR, even in presence of a drain. Cat 1A
CDC Guidelines


SHEA Compendium, Strategies to Prevent SSIs, 2014

- “Special” approach: Screen for Staphylococcus aureus and decolonize patients with an antistaphylococcal agent in pre-op settings for high risk procedures, including some orthopedic and cardiothoracic procedures (quality of evidence: II)
Strategies for Implementation

- Does the ASC have a licensed health care professional qualified through training in infection control and designated to direct the ASC’s infection control program? (CMS)
- Use teams to facilitate the work?

Strategies for Implementation

- Does the ASC’s infection control program follow nationally recognized infection control guidelines? (CMS)
- Documentation of above? (CMS)
Strategies for Implementation

- Does the IP do observations (rounds) and interviews with HCWs to determine compliance with CMS Infection Control Surveyor Worksheet/others? (CMS)

- Documentation to the Board and feedback to HCWs? (CMS)


So I Ask You …

- Would you want your family to have surgery in your Ambulatory Surgery Center?
References


References


References


