Key Practices for Infection Control, Quality Assessment & Performance Improvement

Sandra Jones, CASC, LHRM, CHCQM, FHFMA

Practices

- Habitual or customary performance
- Repeated performance or systematic exercise for purpose of acquiring skill or proficiency
- Condition arrived at by experience or exercise

Knowing what, when, how to do something and doing it that way all the time.

Controlling outcomes

- Patient safety
- Staff safety
- Regulatory compliance: Access to reports
- Standards of care, validation
- Accreditation
- National comparison through G code reporting

Statement of Deficiencies Public

- On State web sites
  - Some states have already implemented. All states must.
- Posted deficiencies and plan of correction.
- Frequently cited deficiencies
  - What is found during surveys and how it is reported
- Lesson: Know your stuff and know it best

Regulations

- CMS Conditions for Coverage
- State licensing of surgery center, reporting of adverse events and infections
- Local and State biomedical waste
- OSHA: Sharps Safety, BBP, PPE, Hazardous Materials

Examples: IC reporting to State

- Infection that “occurs as a result of being in a healthcare setting” (Missouri)
- Audits of how you monitor, how you investigate, how you document
  - Did infection occur as a result of care at your ASC? Or, did it occur because of patient behavior that you could not control?

Guidelines

- Recommendations and standards of practice
  - AORN
  - CDC
  - WHO
  - APIC
  - AAMI

Review Guidelines

- Handling and laundering of scrubs (CDC, AORN, APIC)
  - What do you want to follow?
    - Statement that you are following xyz guidelines
    - Develop policy that follows guidelines
    - Follow your policy
- Instrument processing (CDC, AAMI)
- Sharps Injury Prevention (AORN, NIOSH)

Guidelines

- Validation
  - Urban myth: Storage under the sink & parameters.
- Immediate Use Sterilization
- Manufacturers Instructions for Use
  - Manufacturer's validated testing of product
  - Required by FDA Quality System regulation

Immediate Use Sterilization

- 3-10 minute cycle, unwrapped, not dried
- Cleaning with recommendation solutions
- Appropriate brushes, sonic washer
- Flush lumen
- Immediate use = not stored, awaiting case in 20 minutes or next case after lunch
- Cannot store unwrapped, non-dried instruments in container

CDC Environmental Infection Control: Example 1

Infection-Control and Ventilation Requirements for Operating Rooms: Implement environmental infection-control and ventilation measures for operating rooms.

- Maintain positive-pressure ventilation in corridors & adjacent areas.
- Maintain >15 Air Changes per Hour (ACH), of which >3 ACH should be fresh air.
- Filter all recirculated and fresh air through appropriate filters, providing 90% efficiency (dust-spot testing) at a minimum.
- **Keep operating room doors closed except for the passage of equipment, personnel, and patients, and limit entry to essential personnel.**

CDC EIC Example 2

Clean, disinfect, and maintain ice-storage chests on a regular basis.

- Follow manufacturer's instructions for cleaning.
- Use an EPA-registered disinfectant suitable for use on ice machines per label instructions.
- Flush and clean the ice machines and dispensers if they have not been disconnected before anticipated lengthy water disruptions.

Example: Manufacturer's Instructions, Ice Machine

- Clean grill and splash panel daily
- Remove foreign material from drip tray to prevent drain blockage
- Check weekly for proper water drainage from drip tray
- Monthly clean and sanitize the hopper interior
- Do not use solvents or other cleaning agents, as they may attack the plastic material.
- Soap solution - Use a mixture of mild detergent and warm (100 degrees F) potable water.

Manufacturer's Instructions, Phaco Handpiece

STERILIZATION

Double wrap the Phaco handpiece in muslin, i.e. CSR blue hospital wrap, and sterilize using steam following validated procedures and cycle parameters.

Use the following temperatures and times for

Type of Sterilizer	Temperature Exposure Time	Dry Time
Gravity	270 F for 15 minutes	30 minutes
Pre-Vacuum	270 F for 4 minutes	20 minutes

Compliance

- Know what to do so you can check what you do
- Set up checklist to document assessment of practice
- Review with staff how to document, maintain manufacturer's instructions, and practice the detail

Performance Measures: AAMI Recommendations

- Monitor environmental, performance, and process factors
- **Decontamination area:**
  - condition of floors, walls, ceilings, and work stations; ventilation, including ACH and air flow pattern; temperature and humidity readings; traffic control; hand hygiene facilities; and area cleanliness.
- **Personnel :**
  - staff education, development, training; verification of competency of personnel; health and personal hygiene; and proper attire, including PPE.

Performance Measures: AAMI Recommendations

- **Handling of contaminated items at point of use, containment, and transport:**
  - placement of contaminated items within containment system;
  - labeling of contaminated items;
  - placement of items on transport carts;
  - condition of items upon receipt in the decontamination area.

Performance Measures: AAMI Recommendations

- **Decontamination processes:**
  - selection & use of appropriate PPE, cleaning agents,
  - sorting & disassembly of instruments, cleaning & rinsing;
  - water quality; care of cleaning tools;
  - correct loading of items & selection of appropriate cycle;
  - accessibility of equipment instrument manuals;
  - verify testing & acceptance, routine inspection & cleaning, routine replacement of parts as recommended by the manufacturer, and routine maintenance recommended by equipment manufacturer (e.g., lubrication, calibration);
  - inspection of decontaminated items.

Performance Measures: AAMI Recommendations

- **Documentation of cleaning verification:**
  - Ongoing monitoring and documenting effectiveness of manual and mechanical cleaning processes.

Infection Prevention Quality Assessment / Performance Improvement

- Develop tools to document, observe, educate, communicate, check
- Assess
- Determine opportunities for improvement
- Set goal
- Determine action plan
- Implement
- Check

Resources

- **ANSI/AAMI ST79:2010 & A1:2010 & A2:2011**
  - **Comprehensive guide to steam sterilization and sterility assurance in health care facilities**
- **AORN Recommended Practices**
- **AORN Sharps Safety**

Resources (free)

- **NIOSH (cdc.gov/niosh), Sharps safety workbook**
- **CDC: Guideline for Disinfection and Sterilization in Healthcare Facilities, 2008**
- **CDC: Guidelines for Environmental Infection Control in Health-Care Facilities, 2003**
- **CDC: Guidelines for Prevention of Surgical Site Infection, 1999**

Selection

- High volume:
  - Procedures that occur frequently
  - Activities frequently performed
  - Processes that affect large number of patients
- High risk:
  - Potential liability and/or patient injury risk
  - Care delivered inconsistent with standards
  - Acts of omission/commission
- Problem prone:
  - New techniques/procedures
  - New equipment
  - New staff

Assessing, Trending

- Use nationally recognized standards to set up assessments
- Specify in yearly IC program plan which areas to assess.
  - Changes needed due to new procedures, techniques, staff?
  - Changes needed because other assessments are always 100% compliant?

Data Analysis & Presentation

INDICATORS	Bench-mark	July	Aug	Sept	Oct	Nov	Dec
Handling of contaminated items at point of use, containment, transport	100%	78%	77%				
Ice Machine cleaning per MDFU	100%	100%	100%				
Decontamination Process audit	100%	95%	98%				
OR daily cleaned per policy	100%	100%	98%				
OR additional cleaning performed per ASC specific schedule	100%	100%	100%				
Sterilizer documentation per policy	100%	74%	98%				
Sterilizer cleaned per MDFU	100%	54%	72%				

Improvement Activities

- Education of new staff member.
- Clarification of MDFU
- Write out steps in manufacturer's instruction book. Post on wall.
- Discuss other ways to help employee comply

Check Results

- Did improvement activities work?
- What is percentage of compliance now?
- If not 100%, is it good enough?
- How often do I check it now?
- To whom do I report the results?

Q&A

- sjones@aboutascs.com