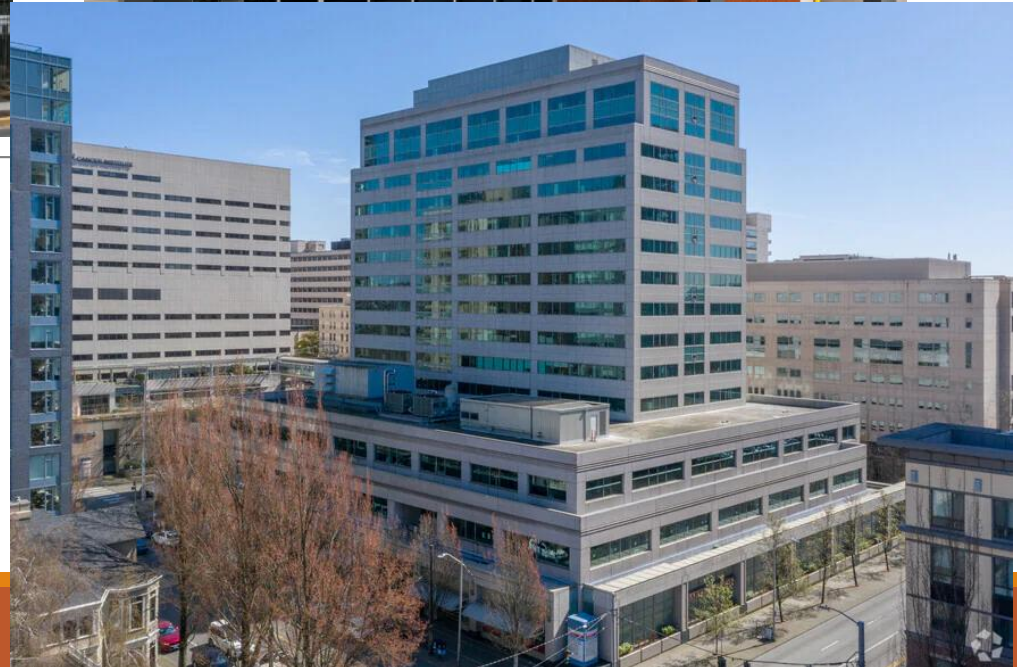


ASC Provider Training



Objectives

Learn appropriate hand hygiene techniques

Understand infection prevention principles to prevent healthcare-associated infections

Appreciate the importance of handling sharps safely

Understand the importance of safe injection practices

Identify single-use devices and items approved for reprocessing by the FDA

Recognize environmental controls important to the prevention of infection

Understand Fire Safety in the OR

Recognize appropriate surgical attire and PPE

- Understand the role of hair removal in post-operative infections

Identify appropriate aseptic technique

Understand the appropriate use and cleaning of patient care devices and areas

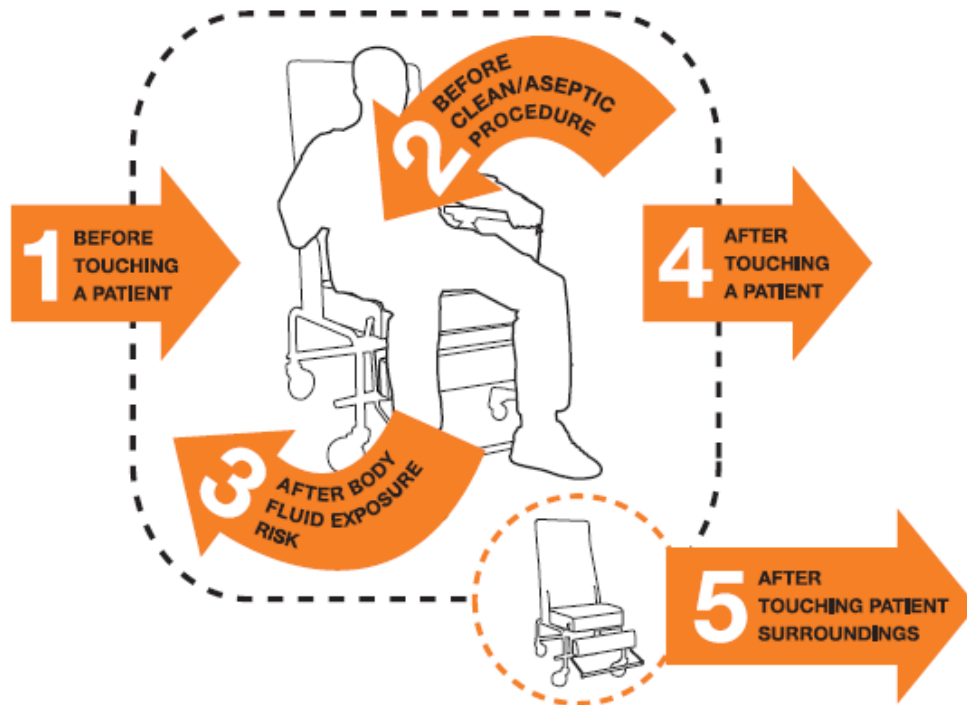
Appreciate the importance of keeping surgical instrumentation free of debris

Recognize the importance of appropriate antibiotic administration and maintaining normothermia throughout the perioperative period

Understand age-related differences in pediatrics/geriatrics

Hand Hygiene

Your 5 Moments for Hand Hygiene



Single most important procedure for preventing healthcare-associated infections

Hand Hygiene

Nails should be kept short, less than ¼ inch long

Artificial nails should never be worn when taking care of patients

Jewelry has been shown to harbor bacteria and should not be worn on hands or wrists when taking care of patients

When hands are visibly soiled or there has been potential contact with infectious spores (i.e. *Clostridium difficile*), wash with soap and water

- Wet hands with warm water, apply soap, rub hands together vigorously for *15 seconds*, covering all surfaces of the hands and fingers.
- Rinse hands with warm water and dry thoroughly with paper towel. Use paper towel to turn off faucet.

For routine decontamination of hands, an alcohol-based hand rub (ABHR) is the most effective

- Apply ABHR to palm of one hand, rub hands together, covering all surfaces, until hands are dry

Apply healthcare approved lotion regularly to minimize dryness

Surgical Hand Antisepsis

Remove debris from underneath fingernails using a nail cleaner, under running water

Surgical hand antisepsis may be performed using either an antimicrobial soap or an alcohol-based hand rub with persistent activity

- When using an antimicrobial soap, scrub hands and forearms for the length of time recommended by the manufacturer, usually 2-6 minutes
- When using an alcohol-based surgical hand-scrub:
 - At start of day, prewash hands and forearms with soap and completely dry hands and forearms
 - Apply alcohol-based surgical hand-scrub product according to the manufacturer's instructions
 - Allow hands and forearms to dry thoroughly before donning sterile gloves

Safe Injection Practices

ONE NEEDLE, ONE SYRINGE, ONLY ONE TIME CAMPAIGN:

- Never administer medications from the same syringe to more than one patient, even if the needle is changed
- Do not enter a vial with a used syringe or needle
- Single-use vials should never be used for more than one patient
- Multi-use vials should be assigned to a single patient whenever possible
- Bags or bottles of intravenous solutions should not be used for more than one patient



Safe Injection Practices

Medications should be drawn up in a clean medication prep area

Medication vials tops and IV ports should be cleansed with a sterile 70% alcohol swab, for 10-15 seconds and allowed to dry, before drawing up or administering medications

Medications drawn up, that are not immediately administered, should be administered within 1 hour and labeled appropriately:

- Medication name and dose
- Preparation time and date
- Expiration time (i.e. 1 hour) and date
- Initials of the licensed RN, CRNA, PA-C or MD/DO who has filled the syringe

A sterile transfer device should be used when transferring medications to the sterile field

Sharp Safety

PROPERLY / DISPOSE OF NEEDLES AND LANCETS



Use a sharps safety device whenever possible

Use a hard surface to activate safety devices. Never use your hand or body to activate.

Avoid manipulating sharps with your hand

Avoid transporting uncapped or unprotected sharps

Place used sharps into a biohazard container, as soon after use as possible


Personally dispose of used sharps that you have handled

Avoid recapping needles whenever possible, if recapping is necessary use the horizontal hands-off approach

When passing of sharps is required, use a neutral zone as an alternative to hand to hand passing

Single Use Devices

Single-use items:

- Are labeled either single use or with a  symbol
- Should only be used on one patient
- Should be discarded after use

FDA approved single-use items that are sent out for reprocessing include:

- Arthroscopic shavers
- Tourniquets
- Pneumatic compression sleeves
- Plastic trocars

Disposable single-use, auto-disabling lancets should be used for only one patient

Environmental Controls



Direction Air Flow Indicators (D.A.F.I.) allows continual monitoring of the air flow in the restricted areas of the ASC

Positive Pressure Rooms (i.e. OR and CS/SPD)

- When the door is closed, the **green** ball should be visible in the corridor
- When the door is opened, the **green** ball should be visible in the room

Negative Pressure Rooms (i.e. Decontamination)

- When the door is closed, the **red** ball should be visible in the room
- When the door is opened, the **red** ball should be visible in the corridor

Contact the department supervisor or facilities if the D.A.F.I. is not working properly

Temperature and Humidity Requirements:

- Temperature in the OR should be kept between 68-73°F and below 75°F in CS/SPD
- Humidity in the OR should be kept between 20-60% and CS/SPD below 70%
- Temperature parameters reduce bacterial growth while keeping the patient comfortable
- Humidity levels prevent condensation formation and reduce static electricity

Fire Safety

FIRE TRIANGLE



Understanding the "fire triangle" is the most basic concept in fire prevention and control. In order for any fire to occur, three critical elements must be present:

- A fuel or combustible material.
- An ignition or heat source.
- Oxygen in sufficient quantities to support combustion.

When all three of these elements come together, combustion is the result. However, if only one of these elements is removed from contact with the other two, the threat of fire can be minimized. Thus, if oxygen, heat or the fuel supply can be removed, there is minimal risk of fire.



AORN Surgical Attire Recommendations for Restricted Areas

Scrubs:

Should be donned at the facility before entry and from an accredited laundry facility or be disposable

Two-piece suits should be tucked in or the scrub suit should fit close to the body

Personal clothing must be completely covered by the scrub suit. An undershirt may be worn to cover chest hair.

Should be changed daily, when it becomes contaminated with blood or body fluids, and before re-entry when healthcare personnel leave the healthcare facility (i.e. traveling between facilities or leaving the building for lunch)

Non-scrubbed personnel should wear a long-sleeve warm-up jacket when open sterile supplies are present

Hats:

Head and facial hair, including beard, sideburns, and nape of the neck, should be completely covered

If cloth hats are worn, they must be covered with a disposable bonnet

Shoes:

Shoes should be clean with closed toes and backs.

Shoe covers should be worn when gross contamination is likely or if shoes are not used exclusively in the restricted area

Changing Scrubs:

If you leave the ASC between your scheduled cases, you will need to change your scrubs when you return before entering the restricted areas.

Personal Protective Equipment (PPE)

Personal protective equipment should never be worn outside of the patient care area and should be disposed of as soon as possible after use. If you leave the ASC and go outside, you will need to change into new scrubs when you return

Goggles/Face Shields:

Eye protection should be worn if splashes to the eyes or face from blood or body fluids is anticipated

Disposable eye protection should be disposed of after use and re-usable eye protection should be cleaned routinely or when contaminated

Masks:

Should be worn, when open sterile supplies are present, if splashes to the face from blood or body fluids is anticipated, when placing a catheter or injecting material into the spinal canal or subdural space, and when adhering to droplet precautions (i.e. seasonal flu)

Should cover the mouth and nose, fit tight to the face and be secured appropriately

Should be handled by the loops or ties only and discarded after use. Masks should never hang around the neck or be placed on top of the head

Personal Protective Equipment (PPE)

Gloves:

Should be worn when contact with blood or body fluids is likely or when cleaning or handling contaminated items and surfaces

Hand hygiene should be performed before donning gloves and after removing gloves

New gloves should be donned for each patient or task and when moving from a contaminated-body site to a clean-body site during patient care

Gowns:

Should be worn if splashes to skin or clothing from blood or body fluids is anticipated and if contact with clothing is likely during contact precautions

Disposable gowns should be disposed of after use and re-usable gowns should be placed into the appropriate receptacle as soon as possible after use

Aseptic Technique

Sterile Field:

Should be prepared in the location it will be used and as close as possible to the time of use

Hand hygiene should be performed before opening sterile supplies

Items introduced should be opened, dispensed and transferred in a manner to maintain sterility

Should be maintained and constantly monitored

Movement in or around the field should be done in a manner to maintain sterility

Traffic Patterns:

To prevent air turbulence and possible contamination of the sterile field, movement during an invasive procedure should be kept to a minimum and doors should be kept closed

Breaks in Aseptic Technique:

Should be “Called Out” and corrected immediately

Patient Care Devices and Areas

Patient care areas should be cleaned between patient uses, focusing on high touch areas

An EPA-registered clinic approved cleaner/disinfectant should be used

Manufacturer's recommended wet contact times should be followed

Re-usable patient items should be low-level disinfected between patient uses (i.e. blood pressure cuffs and stethoscopes)

Stethoscopes should not be worn around the neck or put in pockets, to prevent cross contamination

Patient care items should not be stored in pockets (i.e. tape and scissors)

Patient care items (i.e. tape for dressings) should be prepared away from the patient area, if they are not single use

Other Important Factors

Personal items:

Should not be taken into the semi-restricted or restricted area of the ASC (i.e. OR, Endoscopy Lab, or ESI Procedure Room)

- Restricting these items prevents contamination of the environment and the personal item
- Please use the locker rooms to store your personal items

Hair removal:

If hair removal is necessary for the procedure, clipping is the preferred method

Patients should be instructed not to shave at the operative site for 48 hours before their surgery

Instrumentation:

During the procedure, instruments used should be kept free of gross debris and kept moist during transport to decontamination

Antibiotics and Temperature

Antibiotics

Pre-operative antibiotics should be initiated within one hour prior to surgical incision

- Exception: Patients who receive vancomycin or a fluoroquinolone (i.e. Metronidazole or Ciprofloxacin) should have the antibiotics initiated within two hours prior to their surgical incision

If used, the antibiotic should be administered prior to inflation of the tourniquet

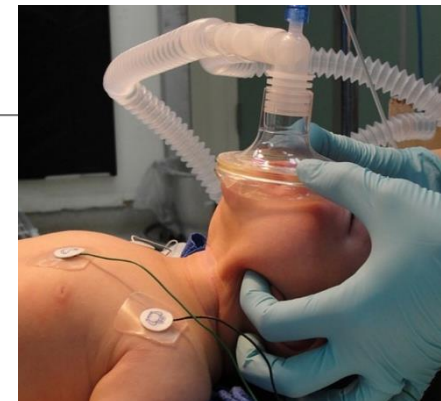
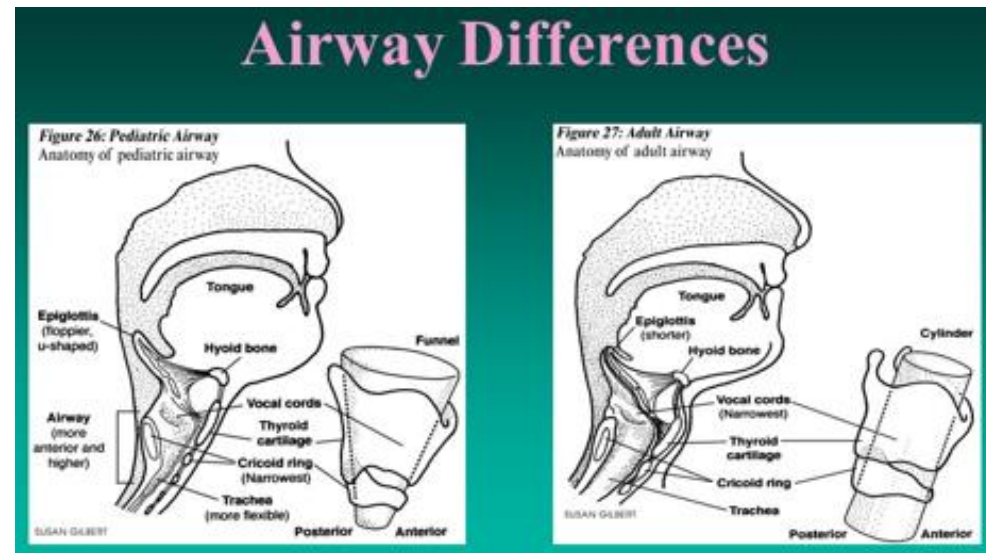
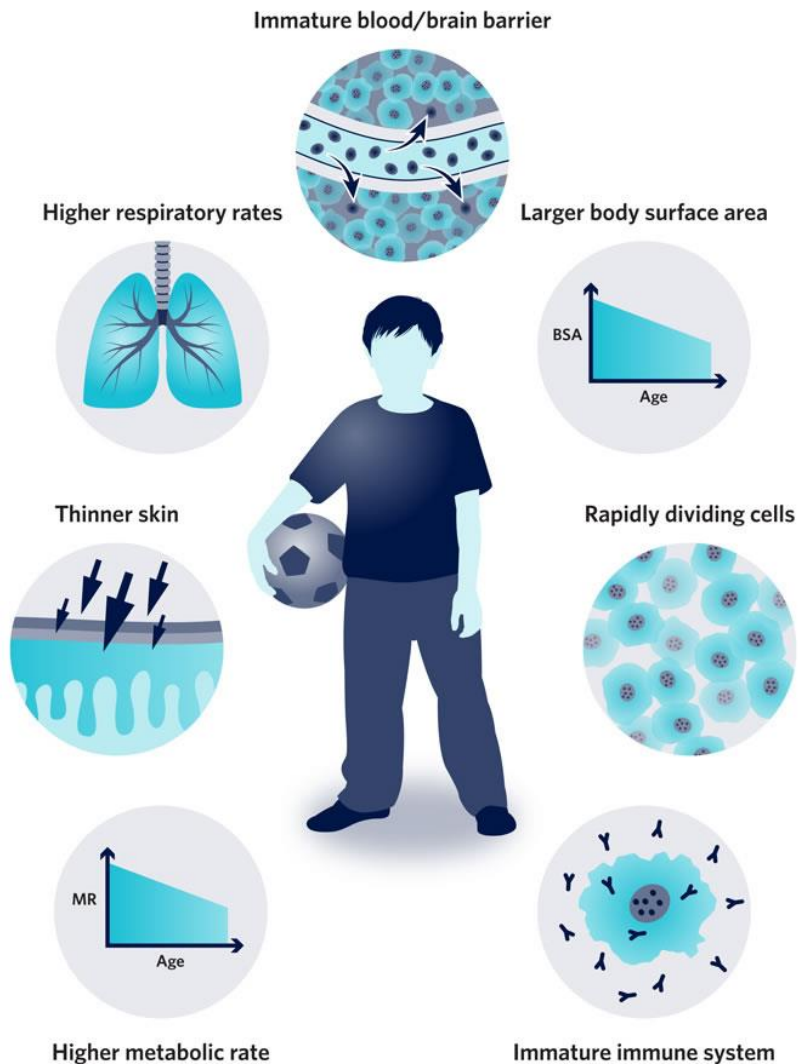
Prophylactic antibiotics should be discontinued within 24 hours after anesthesia end time (i.e. oral antibiotics)

Temperature

The patient should maintain normothermia (96.8°F – 100.4°F) throughout their surgical procedure

Their temperature should be $\geq 96.8^{\circ}\text{F}/36^{\circ}\text{C}$ within 15 min of arriving in Phase 1 (Normothermia audits tracked monthly)

Age Specific Considerations - Pediatrics



Age Specific Considerations - Geriatrics

- Respiratory Changes:
 - Increased AP chest diameter
 - Alveoli become thinner and less elastic
 - Increased residual lung volume and decreased vital capacity
- Respiratory Changes may lead to:
 - Dyspnea
 - Tachypnea
 - Difficulty coughing up secretions
 - Increased susceptibility to infections

Age Specific Considerations - Geriatrics

Cardiac Changes:

- Heart pumps less efficiently, decreasing cardiac output
- Blood vessels narrow and less elastic
- Blood pressure may increase/decrease

Neurological Changes:

- Decreased blood flow to brain
 - Interference with thinking, reacting, interpreting, remembering, sense of taste, smell, vision and diminished hearing
-

Musculoskeletal Changes:

- Decreased muscle tone, volume and strength
- Changes can cause loss in height, decreased mobility, weakness, slower movements, balance issues and difficulty with fine motor skills

Congratulations!

You have completed this learning module

Please close this screen and proceed to the attestation.