Student Protocol for the Operating Room

Authored by:
Vangie Dennis, RN, BSN, CNOR, CMLSO
Objectives

After completing this Computer-Based Learning (CBL) module, you should be able to:

- Describe the basics of a typical patient surgical experience.
- Identify the “surgical team environment” and the roles each member plays.
- List and describe these areas in the surgical suite:
  - Unrestricted
  - Semi-restricted
  - Restricted
Objectives, continued

After completing this Computer-Based Learning (CBL) module, you should be able to:

- List the requirements of each of the three areas of surgery.
- Describe the hazards in the peri-operative environment and ways to protect yourself during observation.
- Describe traffic flow in the OR to maintain the sterile field.
Surgical Services Team

The Surgical Services team consists of the:

- **Sterile team:**
  - Surgeon
  - First assistant (RN or PA)
  - Surgical technologist (scrub)

- **Unsterile team:**
  - Anesthesia: MD/CRNA/PA
  - Circulator
  - Environmental Services
  - Sterile Processing
Surgical Suite Traffic Patterns

The OR is divided into three areas for staff and visitors:

- Unrestricted
- Semi-restricted
- Restricted
Surgical Suite Traffic Patterns

Unrestricted Area

- Traffic is not limited.
- Street clothes are permitted in this area.
- This area is isolated by doors from the main hospital corridor.
- This area permits access for communication with department and hospital personnel.

Examples include:
- Locker rooms.
- Surgical scheduling office.
- Operating room supervisor’s office.
Surgical Suite Traffic Patterns

Semi-Restricted Area

- **Traffic is limited** to properly attired personnel.
  - You **must** wear scrub attire and caps in this area.
- This area includes the support areas of the surgical suite.
- Examples include:
  - Corridors outside the OR.
  - Storage areas for clean and sterile supplies.
  - Clean cores and sub-sterile rooms as designated by the facility.
Surgical Suite Traffic Patterns

Restricted Area

- **Appropriate OR attire required.**
  - You must wear scrub attire, caps and masks in this area.

- Includes areas where procedures are performed and where there are unwrapped sterile supplies.

- Examples include:
  - Operating room.
  - Procedure room.
  - Scrub area.
  - Clean cores and sub-sterile rooms as designated by the facility.
Appropriate OR Attire

Proper attire for the OR includes:

- OR scrubs (shirt and pants).
- Cover jacket.
- Comfortable shoes and shoe covers.
- Eye protection.
- Hair covers.
- Personnel protective equipment (PPE).
Additional Tips

- Wear only necessary jewelry.
- Wear minimal make-up.
- Do not wear perfume or cologne.
- Do not chew gum.
- Always wear name badge.
Don’t Faint!

- Eat breakfast!
  - Not just toast; something with protein that will last.
- If you feel faint, light headed or very warm, please tell someone.
  - It is fairly common for a student to have a fainting spell.
  - If this happens, we will take you somewhere private until you feel better.
  - When you feel better, you may return to the room.
Chemical Hazards in the OR

Chemical hazards associated with the OR include:

- Anesthetic gases can escape into air from machine or patient.
- Formaldehyde can cause skin irritation and rash.
- Bone cement (methyl methacrylate)
  - Not a problem for non-pregnant adults
Chemical Hazards

Bone Cement: Pregnancy

- If there is any chance that you might be pregnant, you must leave the room prior to the start of the mixing of the bone cement.
  - Please tell the clinician or the charge nurse.
  - No one else needs to know.
- These fumes are strong and contain carbon monoxide, hydrogen and methane.
- It is your responsibility to notify us.
Biological Hazards in the OR

Biological hazards associated with the OR include:

- The patient.
  - Potential blood and body fluid splash
  - Infection
- Cuts and needle sticks.
- Surgical smoke.
- Infectious wastes.
- Radiation exposure.
Transmission of Infections

Three elements must be present for an infection to occur:

1. An infectious agent
2. Transmission from one person to another
3. A susceptible host
Routes of transmission of infection include:

- Accidental injury that results in a skin puncture or cut by a sharp object soiled with infectious material.
- Infectious material contacting:
  - Open cuts.
  - Nicks.
  - Skin abrasions.
  - Dermatitis.
- Exposure of mucous membranes – eyes, nose, mouth – to infectious material.
Infection

Routes of Transmission, cont.

- Routes of transmission, continued:
  - Touching an object soiled with infectious material and then indirectly transmitting the infectious material to your:
    - Eyes.
    - Nose.
    - Mouth.
    - Open skin lesion.

- Casual contact with infected patients does **not** cause infection.
Barriers to Transmission of Infection

- **Hand washing** is your **best defense** against transmission of infection!

- Use of PPE:
  - Gloves
  - Gowns
  - Masks
  - Hair covers
  - Eye protection
Principles of Asepsis

- Asepsis is the absence of disease-causing microorganisms.

- Aseptic (sterile) technique:
  - Uses methods to prevent contamination from microorganisms.
  - Is used to maintain a sterile environment.
Sterile Field, Defined

A sterile field is defined as the areas that surround and include the surgical site in which aseptic (sterile) technique must be maintained.
OR Sterile Area

The sterile area in the OR includes:

- Back table.
- Mayo stand.
- Surgical team.
- OR bed with sterile drapes.
- Draped radiological equipment.
Sterile OR Technique

- Consider sterile barriers contaminated after penetration.
- Consider the edges of a sterile package or container contaminated after opening.
- **Sterile** persons touch only **sterile** items.
- **Non-sterile** persons touch only **non-sterile** items.
Moving Within a Sterile Field

When moving around a sterile field, maintain the sterility and integrity of the field.

- Stay 3 feet from the sterile field
- Do not walk between two sterile areas.
- As an un-scrubbed person, you must face the sterile field when passing by it.
  - Do not turn your back to the field, you may brush up against it with your scrubs.
Our Patients are Our First Priority

- We in the OR work as a team to ensure the most positive outcome for the patient.

- All of us are accountable for our actions while in the surgical arena.
Congratulations!

- You have completed this CBL module.
- Continue on and take the test that accompanies this CBL
- Questions? Contact:
  - Vangie Dennis
  - 678-312-6691
  - vdennis@gwinnettmemicalcenter.org