Subject: Aseptic Technique

Purpose: Basic principles and practices provide direction for establishing and maintaining a sterile field.

Policy: It is the responsibility of the RN circulator and the scrub to establish and maintain the sterile surgical field.

Supportive Data: 
AORN Standard of Care

Equipment List: 
Sterile supplies, room equipment.

Content:

Procedure Steps          Key Points

A. Sterile Gowns and Gloves

1. Scrubbed persons wear sterile gowns. Materials are selected according to AORN Standards and Recommendations for protective barrier materials for surgical gowns and drapes.  
   1. Surgical gowns establish a barrier that minimizes the passage of microorganisms between nonsterile and sterile areas.

2. Surgical hand scrubs performed before donning sterile gown and gloves. Refer to policy M-42.  
   2. Transfer of microorganisms is reduced by scrubbing hands and wearing sterile gloves.

3. The scrubbed person dons a sterile gown and gloves should be from a sterile field other than the main instrument table.  
   3. Avoids contamination.

4. Sterile gowns are considered sterile in front from the chest to the level of the sterile field and the sleeves are considered sterile from 2” above the elbow to the cuff.  
   4. Consider the following areas unsterile: Neckline, shoulders, underarms, back, and sleeve cuff.

5. Scrubbed persons should inspect gloves for integrity after donning them.  
   5. After the original gloves are donned, the cuff is considered contaminated.

6. Changing gloves. The preferred method is for one member of the sterile team to glove the other. If this is not possible, the contaminated glove is changed by the open glove method. If both gloves are contaminated and cannot be regloved by another member of the sterile team, the scrubbed person will regown and reglove.

B. Sterile Drapes

1. Sterile drapes are used to establish a sterile field and are placed on the patient, all furniture, and equipment to be included in the sterile field.  
   1. Surgical drapes are selected according to AORN Standards and Recommendations for selection of surgical drapes and gowns.

2. During the draping process, draping material is kept compact, held higher than the OR bed, and draped from the operative site to the periphery.  
   2. The movement of sterile drapes from clean areas to dirty areas help prevent contamination of the sterile field.

3. During draping sterile gloves should be protected by cuffing the draping material over the hands.  
   3. Avoids contamination.
Procedure Steps

4. Once the sterile drape is placed in position it should not be moved.

C. Items used within a sterile field should be sterile.

1. Methods of sterilization, storage and handling of sterile items will meet AORN/AAIMI Standards for disinfection and steam, steris and sterrad sterilization.

2. All items presented to the sterile field will be checked for proper packaging, processing, moisture, seal integrity, package integrity, the appearance of the sterilization indicator, and expiration dates.

D. All items introduced onto a sterile field will be opened, dispensed and transferred by methods that maintain sterility and integrity.

1. When opening wrapped supplies, unscrubbed personnel should open the wrapper flap farthest away from them first and the nearest wrapper flap last.

2. All wrapper edges will be secured when supplies are presented to the sterile field to avoid contamination.

3. Sterile items are presented to the scrubbed person or placed securely on the sterile field.

4. Sharp and/or heavy objects will be presented to the scrubbed person or opened on a separate surface.

5. When dispensing solution to the sterile field:
   a) the entire bottle contents will be poured into the receptacle and the remainder discarded
   b) the solution receptacle will be placed near the edge of the table or held by the scrubbed person
   c) fluids should be poured slowly to avoid splashing

E. The sterile field is constantly monitored and maintained.

1. Sterile fields are prepared as close as possible to the time of use.

2. Sterile fields may be covered using sterile technique per AORN standards.

3. Unguarded sterile fields are considered contaminated.

4. Every team member will observe for events that may contaminate the sterile field, and corrective action will be initiated.

5. Conversation will be minimal in the operating room.

Key Points

4. Shifting or moving the sterile drape compromises the sterility of the field.

C. Packaging materials will ensure sterility of contents until opened for use and permit removal of contents without contamination.

2. The inspection of the package helps ensure that only sterile items are presented to the sterile field.

1. This method is used to prevent contamination by passing an unsterile arm over the sterile item.

2. Secured wrapper edges prevent contaminating the contents of the sterile field.

4. Sharp and heavy objects may penetrate barriers.

5. Because the edge of a bottle cap is considered contaminated once the cap has been removed from the bottle, the sterility of the bottle contents cannot be ensured if the cap is replaced.

1. There is a direct correlation between the time the sterile field is established and the length of exposure to airborne contamination.

3. Chances for contamination of an unguarded sterile field are numerous. Without direct observation there is no way to ensure sterility.

4. Application of the principles of aseptic technique depend primarily on the individual and his/her surgical conscience.

5. Even though surgical team members wear masks, excessive talking generates free moisture droplets that are forcefully dispensed into the surrounding air.
Procedure Steps

6. All cables, tubing, etc., for equipment will be secured to the sterile field with non perforating device.
7. Non sterile equipment brought into and/or over the sterile field will be draped with a sterile material or covering.
8. Do not “flap or fan” the sterile area.

F. All personnel moving within or around a sterile field will do so in a manner to maintain the integrity of the sterile field.
1. Scrubbed people will remain close to the sterile field. Under certain circumstances scrubbed people may enter sterile hall for a limited time.
2. Scrubbed surgical team members will move from sterile field to sterile areas. If they change position, they will turn back to back or face to face while remaining a safe distance between each other.
3. Scrubbed persons will keep arms and hands within the sterile area at all times.
4. Scrubbed persons should avoid changing levels and should be seated only when the entire surgical procedure will be performed at that level.
5. Unscrubbed people will face sterile areas on approach and will not walk between two sterile fields and will maintain an awareness of the need for distance from the sterile field.

Key Points

6. A sterile barrier that has been perforated is considered contaminated.
7. Only sterile items will touch or extend over the sterile surfaces.
8. Flapping or Fanning the sterile area causes air currents that contain particles that can contaminate the surgical area.

1. Decreases the potential for contamination.
2. Scrubbed people move only in areas of similar preparation to prevent contamination.
3. Contamination of hands and arms may occur when they are lowered below the level of the sterile field.
4. When changing levels exposure of the unsterile portion of the gown is likely.
5. Establishing patterns of movement around the sterile field helps prevent accidental contamination.

Documentation:
Intraoperative Nursing Notes

Reference:
AORN Standards and Recommended Practices

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