



Rancho Los Amigos National Rehabilitation Center

DEPARTMENT OF NURSING

OPERATING ROOM

POLICY AND PROCEDURE

SUBJECT: SURGICAL SKIN PREPARATION

Policy No.: OR97
Supersedes: OR 98, 99, & 100
Revised Date: 01/2016
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Purpose of Procedure: To clearly define the recommended skin preparation for surgical procedures that will (1) remove soil and transient microorganisms from the skin (2) reduce the resident microbial count to sub pathogenic levels in a short period of time and with the least amount of tissue irritation and (3) inhibit rapid rebound growth of microorganisms.

Performed By: Operating room nurse, surgical technician, Physician

Policy Guidelines:

1. All surgical patients will receive adequate skin preparation using an antiseptic agent with a broad range of germicidal action.
2. The area around the surgical site will be free of soil and debris.
3. If the patient is allergic to iodine preparations, a 4% chlorhexidine gluconate product is recommended.
4. If the skin condition is such that use of antiseptics is not acceptable because of presumed absorption, irritation or tissue trauma, as with burn patients or eye surgery, mechanical cleansing with sterile saline is acceptable.

Procedural Steps:

Directions for 3M Duraprep (Iodine povacrylesx, isopropyl alcohol)

1. When applying solution:
 - Do not scrub. Paint a single, uniform application and do not reprep area
 - Do not allow solution to pool.
 - Clean umbilicus with enclosed swabs.
 - Avoid getting solution into hairy areas. Wet hair is flammable. Hair may take up to 1 hour to dry.
 - When prepping skin folds, toes, or fingers, use a sterile-gloved hand to spread skin apart until completely dry, otherwise skin may adhere to itself.
 - After applying **solution**, to reduce the risk of fire, wait until solution is completely dry (minimum of 3 minutes on hairless skin up to 1 hour in hair).
2. **Do not use duraprep on the following patients:**
 - on Patients with known allergies to iodine or any other ingredients in this product.
 - on open wounds or mucus membranes
 - in infants less than 2 months old due to the risk of excessive skin irritation and transient hypothyroidism.

Directions for using Chlorhexidine Qluconate (CHG) and isopropyl (IPA) Solution

- I.
 1. Prepare equipment:
 - Sterile towel pack
 - Sterile Gloves
 2. Hospital approved prep solution in appropriate size
 3. Inspect surgical site for pustules, rash, abrasions and excessive hair. Report any abnormality to the Operating surgeon and document on the intraoperative notes.
 4. Place sterile towel pack on prep stand and open wrapper.

- Key Point:** Wrappers are to be opened by established procedures for opening sterile packs
- 5. If prepping an extremity place in a padded holder or place non-conductive roll position device under thigh or shoulder.
Key Point: This is done to minimize the weight of the extremity.
- 6. Place plastic linen saver underneath the extremity or body part to be prepped on the table.
Key Point: This is done to prevent pooling of prep solutions or wet linen under the patient during surgery.
- 7. Don sterile gloves by open glove method (see "Gloving Procedure")
- 8. Place a sterile towel over the tourniquet cuff if used and place a sterile towel under foot if leg holder is used. Then square off sterile prep area with sterile towels.
- 9. Activate prep solution by pointing the sponge tip parallel to the floor and either pressing the cap end of the applicator or clamping the handle of the wand.
- 10. Wait for fluid level to reach indicator line of applicator barrel.
- 11. In a single, uniform stroke apply solution in a circular motion from the center of the surgical site outwards.
Key Point: Do not scrub solution. Do not allow solution to pool. Use sponge applicator to absorb excessive solution.
- 12. When prepping skin folds, toes or fingers, use a sterile-gloved hand to hold skin apart until solution is completely dry. **Key Point: Skin may adhere to itself if not dry)**
- 13. To reduce the risk of fire wait until solution is completely dry. Minimum of 3 minutes or hairless skin up to an hour on hair.
Key Point: Solution will turn from a shiny to a dull appearance indicating the solution is dry and no longer flammable.
- 14. Remove towels keeping the integrity of the sterile area.
- 15. Remove drapes and any positioning device used. Check for any possible pooling. If an extremity was prepped the surgeon will take the extremity in his hand with 2 sterile stockinettes and begin the draping procedure.
- 16. Discard all used material in appropriate container

II. The following time elements will be adhered to when performing a surgical scrub with Povidone iodine solution and soap.

Orthopedic Surgery	Time (minutes)
a.All arthroplasties and other instrumentations.....	10
b.All spinal fusions	10
c.Releases or transfers involving the groin, hips or axilla regions	10
d.Release or transfers <u>not</u> involving the groin, hips or axilla regions	5 or gel
e.All clean hand surgeries <u>not</u> involving instrumentation or implantation	5 or gel
f.All clean foot surgeries <u>not</u> involving instrumentation or implantation	5

General Surgery	Time (minutes)
a. All general surgery procedures	5 or gel
b. All chest procedures.....	10
c. Node biopsy involving axilla or groin.....	10

Gynecological Surgery	Time (minutes)
a. Abdominal or vaginal procedure.....	5

Cleft Palate Surgery	Time (minutes)
a. Lip and palate repairs ..	none
b. Bone or cartilage graft donor sites	5
c. Maxiofacial procedures	5

Plastic Surgery	Time (minutes)
a. Skin grafts; donor and recipient site	saline
b. Microsurgeries, mammoplasties or lipectomies	5
c. Pressure sore management cases	5
d. Physician choice-Betadine	5

Ophthalmology Service	Time (minutes)
a. All cases Dilution 50% Solution Betadine and NaCl..... (4% chlorhexidine gluconate should <u>not</u> be used)	3

Otolaryngology, Head and Neck	
a. Tracheostomy	5 or gel
b. Soft tissue dissection (i.e. radical neck)	5
c. Endoscopes.....	none

Urology Service	
a. Endoscopes.....	5
b. Soft tissue dissections, implants.....	10

Equipment Solution Preparation:

- Sterile disposable "prep" tray
- Sterile gauze sponges
- Leg holder, if desired or surgeon's preference
- Small non-conductive roll position device
- Povidone iodine soap solution
- Povidone iodine solution
- Sterile water
- Sterile gloves

Procedural Steps:

1. Inspect surgical site for pustules, rash or abrasions. Report any abnormality to the surgeon and document on intraoperative notes.
2. Place sterile "prep" set on prep stand and open wrappers.
KEY POINT: Wrappers are to be opened by established procedures for opening sterile packs.
3. Pour, prep solution's in sterile prep tray.
KEY POINT: Pour solutions slowly and deliberately to prevent contamination by splashing.
4. Open gauze sponges and towels. Place on tray.
KEY POINT: Wrappers are to be opened by established procedure for opening small packs.
5. If prepping an extremity place in padded holder or place non-conductive roll position device under thigh or shoulder.
KEY POINT: This is done to minimize the weight of the extremity.
6. Place plastic linen saver underneath the extremity or body part to be prepped on the table.
KEY POINT: This is done to prevent pooling of prep solutions or wet linen under the patient during surgery.
7. Don sterile gloves by open glove method. (See "Gloving procedure".)

8. Place a sterile towel over the tourniquet cuff if used and also place a sterile towel under foot, if leg holder is used.
10. Starting at identified surgical incision site, begin scrubbing circumferentially with the antiseptic agent. Continue scrubbing, moving to the outer limits of designated prep site or to the edge of the tourniquet cuff if used and discard the sponge.
KEY POINT: Surgical incision site must be the cleanest area of the surgical prep field.
 - a. Always begin at cleanest area and radiate circumferentially to the periphery of prep field and discard sponge. Preparing areas of high microbial counts (e.g., umbilicus, pubis, open wounds) are prepared last. Isolate colostomy site from the prepared area, cover the site with an antiseptic-soaked sponge, and prepare the colostomy site last.
 - b. Each time you return to the proposed incision site, you must use a clean sponge or gauze.
11. Continue scrubbing the entire prep area applying a mild pressure for friction.
12. Blot the prep site thoroughly with sterile towels beginning at the incision site and working out to the periphery.
13. If using povidone solution paint entire area with povidone solution, starting at the incision site and working out to edges of site or fingers and toes.
KEY POINT: Sponge should contain sufficient solution to cover surface without pooling.
14. Remove drapes and any positioning devices used. Check for any possible pooling.
KEY POINT: Preventing antiseptic agent pooling beneath patients, pneumatic tourniquet cuffs, electrodes, or electrosurgical unit dispersive pads to reduce the risk of chemical burns.
15. If an extremity was prepped the Surgeon will take extremity in his hand with a sterile stockinette and begin the draping procedure.
16. Remove the bag from the kick bucket containing the prep sponges, add prep tray and unused sponges and tie bag tightly.
17. Discard bag into the refuse container in operating room prior to the incision being made.
KEY POINT: NO UNCOUNTED SPONGES are to be left loose in the operating room after surgery begins. These sponges can become mixed, resulting in incorrect counts.
18. Prior to application of the post-op dressing, remove the residual gel or antiseptic

Procedural Steps for Gel Prep

1. Place sterile “prep” set on stand and open wrappers
KEY POINT: Wrappers are to be opened by established procedures for opening sterile packs.
2. Don sterile gloves from the “prep” set by the open glove method.
3. Apply the topical gel directly to the prepping sponge or to the patient’s skin. Prep as instructed above.
KEY POINT: Suds or lather will not develop, but the gel will become more or less viscous after a period of time depending on the amount of gel initially applied.

Revised by: Susie Choi, RN

Guidelines for perioperative practice 2015 edition “Patient skin antisepsis”

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07/99 – Reviewed
04/03 – Revised – Combined with OR98 & OR99 .& OR100
04/06 – 05/12 Reviewed
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