

MHHS
MEMORIAL HERMANN HOSPITAL - TMC AND CHILDREN'S MEMORIAL HERMANN
HOSPITAL
POLICY AND PROCEDURE MANUAL

POLICY TITLE: Skin Preparation of the Surgical Patient

CATEGORY: Perioperative Services
INDEX NUMBER: PES-00027
ORIGINAL DATE: 6/1/2000
LAST REVIEW DATE: 2/7/2012
SUPERCEDES: 04/01/2009, 02/01/2010

1.0 POLICY PURPOSE:

- 1.1 All patients undergoing surgical intervention in which the integrity of the skin will be compromised will receive effective preoperative skin preparation. The purpose of doing this is:
- 1.1.1 To remove dirt, skin oil and microbes from the skin.
 - 1.1.2 To reduce the microbial count as low as possible in the shortest period of time with the least amount of skin irritation.
 - 1.1.3 To achieve effective skin antisepsis by a combination of mechanical and chemical action without disrupting the skin integrity.
 - 1.1.4 To leave an anti-microbial residual on the skin to prevent microbial growth throughout surgery.
 - 1.1.5 To inhibit the rapid, rebound growth of microorganisms.

2.0 POLICY STATEMENT:

- 2.1 The agent used to prepare the skin will be ChlorPrep® unless the patient's allergies, sensitivities or manufacturer recommendations contraindicate use of this solution.
- 2.2 It is CMHH policy that **chlorhexadine gluconate-containing surgical skin preparations will not be used in infants less than 48 weeks post conception age**
- 2.3 **Chlorhexadine gluconate-containing surgical skin preparations are contraindicated for the following:**
- 2.3.1 Non-intact skin
 - 2.3.2 Burned, denuded, or traumatized skin

2.3.3 Eyes, ears, ostomy sites, any mucosal lining or mucus membranes (including male and female genitals)

2.3 Alternative surgical skin preparations listed in this policy should be used for the above contraindications

3.0 PROCEDURE:

3.1 Chlorhexedine Gluconate and Alcohol Solutions (i.e. ChlorPrep®)

3.1.1 The area to be prepped is exposed being mindful of patient privacy.

3.1.2 Observe the skin for any abnormal areas or irritation.

3.1.3 Hair removal is not recommended.

3.1.3.1 Clippers alone will be used if hair removal is a necessity.

3.1.4 Open the sterile supplies on a prep stand in an aseptic manner.

3.1.5 The person doing the prep dons sterile gloves and places towels around the outer edge(s) of the area to be prepped, to absorb excess solutions. Use a cotton tipped applicator to clean the umbilicus, if applicable.

3.1.6 Prep skin according to antiseptic agent manufacturer's recommendations and AORN Recommended Practices for Preoperative Patient Skin Antisepsis

3.1.7 Start at the surgical site and apply the solution in repeated back and forth strokes for approximately 30 seconds to dry surgical sites (i.e. abdomen/arm) and approximately 2 minutes for moist surgical sites (i.e. inguinal folds, axilla). Completely wet the treatment area with antiseptic.

3.1.7.1 Solution contains alcohol and gives off flammable vapors

3.1.7.2 Do not allow the solution to pool on or around patient

3.1.7.3 Avoid getting solution into hairy areas. If this occurs, wipe hair with a towel. Solution may take much longer to dry or may not dry completely.

3.1.7.4 Remove towels/ wet materials from prep area aseptically

3.1.8 Allow the area to dry for 3 minutes before draping the surgical area or using any type of ignition source. Do not blot or wipe away from incision site. Dry aseptically with sterile towels if solution has pooled in other areas.

3.2 Wet prep (Povidine Iodine scrub 7.5%, Povidone Iodine paint solution 10%)

3.2.1 Prepare the area to be prepped the same as in 3.1.1 through 3.1.6.

3.3 Contaminated or Open Wounds

- 3.3.1 Prep the surgical site last to prevent the spread of contamination outward.
- 3.3.2 If there is an open wound, verify with the surgeon/manufacturer's recommendations of the use of Povidone – Iodine (Betadine) to the surgical site.
- 3.3.3 If allergic to Povidone – Iodine (Betadine) place a sterile soaked sponge (Sterile Normal Saline) on the open site. Proceed with the prepping of the surrounding area with Chlorhexide gluconate ensuring that the product does not come in contact with any exposed mucous membranes.

3.4 Facial Prep

- 3.4.1 **Never use** chlorhexidine gluconate on the eyes, ears, or any mucosal lining. Refer to manufacturer recommendation and surgeon preference for preparation agent.
 - 3.4.1.1 Do not allow solution to enter the eyes or ears (place a cotton ball inside the ear; transparent dressing over eyes for protection).

3.5 Extremity Prepping

- 3.5.1 If a tourniquet is to be used make sure that the cotton padding and the tourniquet are protected so that the solution cannot get underneath the tourniquet next to the skin. This can cause blistering.
- 3.5.2 If it is a foot or an arm, use a positioning pad or rolled sheet to elevate the extremity so that a circumferential prep can be completed without the extremity being held during the prep.
- 3.5.3 If it is a leg that needs to be prepped or a large arm, then a second person with sterile gloves should be asked to support the leg or arm while the prep is done. Make sure the area where the leg or arm is being supported is prepped.

3.6 Vaginal Preps

- 3.6.1 Open a red rubber catheter if the bladder is to be drained or a Foley catheter kit if drainage will be needed during and/or after surgery
 - 3.6.1.1.1 Usually the Foley is opened to the back table, the balloon is tested by the scrub, and then Foley is passed to the circulator after prep
- 3.6.2 If an abdominal/vaginal prep is used do the vaginal prep first and insert the Foley with this prep. The abdominal prep will then be done.
- 3.6.3 Prepare the area to be prepped the same as in 3.1.1 through 3.1.7.

- 3.6.3.1 Two pair of gloves may be worn so that one pair can be discarded if the person prepping feels that the gloves have become contaminated.
- 3.6.4 Prep skin according to antiseptic agent(Povidone – Iodine) Betadine manufacturer’s recommendations and AORN Recommended Practices for Preoperative Patient Skin Antisepsis
 - 3.6.4.1 When prepping the vagina the sponge should be applied once to that area and then discarded.
- 3.6.5 After completion of the skin prep, a red rubber catheter may be aseptically inserted to drain the bladder or a Foley catheter may be aseptically inserted to monitor the urine during the procedure.
 - 3.6.5.1 If a Foley is used make sure the catheter is inserted all the way to the hub before inflating the balloon. This decreases the possibility of injuring the urethra and the bladder neck.
- 3.6.6 **If allergic to Povidone-Iodine**, follow manufacturer’s recommendation for the use of Chlorhexide Gluconate.
 - 3.6.6.1 Vaginal Prep follows the same technique in Section 3.6.5.1. Flushing vaginal area immediately with sterile normal saline.
- 3.7 Documentation will include:
 - 3.7.1 Skin integrity before the prep
 - 3.7.2 The prep solution used
 - 3.7.3 The site prepped
 - 3.7.4 The person completing the prep
 - 3.7.5 Length of drying time for prep before placing drapes
 - 3.7.6 Foley or catheter placement and results
 - 3.7.7 Any adverse outcome to skin if applicable
- 3.8 Any abnormal findings should be communicated to the person taking the postoperative report and a variance report completed.

References:

Association of periOperative Registered Nurses (AORN). Recommended practices for preoperative patient skin antisepsis. *Perioperative Standards and Recommended Practices*, AORN, Inc. 2011; pp.361-379.

Chapman AK, Aucott SW, Milstone AM. Safety of chlorhexadine from the intact skin of newborn infants. *Arch Dis Child*, 1979;54:379-383.

Tamma PD, Aucott SW, Milstone AM. Chlorhexadine use in the neonatal intensive care unit: Results from a national survey. *Infect Control Hosp Epidemiol*, 2010;31(8):846-849.

APPROVED:

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