LOUISIANA STATE UNIVERSITY HEALTH SCIENCES CENTER - SHREVEPORT

Skin Preparation For Invasive Procedures

**Purpose:** To reduce the microbial flora of the patient’s skin prior to performing an invasive procedure.

1. **ANTISEPTICS (IN ORDER OF EFFECTIVENESS) FOR INVASIVE PROCEDURES AND CENTRAL LINE CARE:**
   Biopsies, Central Lines, Arterial Punctures, and Cutdowns.

   A. **Chlorhexidine – 4%**
      1. **Chlorhexidine solution**
         - Apply chlorhexidine and cleanse area thoroughly for 2 minutes.
         - Blot dry with sterile 3x3.
         - Repeat steps above 2 steps.
         - Carry out procedure.

   2. **Chlorhexidine prep (ChloraPrep® One Step) – 2%**
      Directions:
      - Assure skin is thoroughly clean.
      - Pinch wings on applicator to break ampule. Do not touch the sponge. Wet the sponge by repeatedly pressing and releasing the sponge against the treatment area until liquid is visible on the skin.
      - **Dry surgical sites** (such as abdomen): Starting at the site of incision or puncture, apply the antiseptic using concentric circles, working outward, making certain that the entire prepared area is completely wet. Allow the area to dry completely, approximately 2 minutes. Do not blot or wipe off.
      - **Moist surgical sites** (such as the inguinal fold): Starting at the site of incision or puncture, apply the antiseptic using concentric circles, working outward, making certain that the entire prepped area is completely wet for two minutes. Allow the area to completely dry, approximately one minute. Do not blot or wipe away.
      - Discard the applicator after a single use. Do not use a single applicator to prep multiple sites, such as bilateral groin biopsies or bilateral breast biopsies.
The maximum treatment area for one applicator is approximately 130 cm\(^2\) (about 4” x 5”). Multiple applicators may be used for larger prep area.

Chlorhexidine can be used any time the skin needs to be prepped for an invasive procedure with the following exceptions:
- Not to be used for
  1. NICU patients;
  2. Children less than 2 months of age;
  3. The prep of an eye or ear;
  4. Patients with known allergies to chlorhexidine or alcohol;
  5. Lumbar puncture or in contact with the meninges;
  6. Open skin wounds or as a general skin cleanser;

A. Iodophor
- Clean skin with iodophor scrub that has been diluted with sterile water as to develop a rich lather. Starting at the site of incision or puncture, apply the antiseptic using concentric circles, working outward, making certain that the entire prepared area is completely wet. Blot dry.
- Prep skin with iodophor solution for 5 minutes. Starting at the site of incision or puncture, apply the antiseptic using concentric circles, working outward, making certain that the entire prepared area is completely wet.
- Leave on skin until dry. Do not blot or wipe away.
- Carry out procedure.

C. Iodophor/Alcohol Combination (DuraPrep) (Used for surgical preps only)
- Assure skin is thoroughly cleaned.
- Prep skin with a swab solution. Starting at the site of incision or puncture, apply the antiseptic using concentric circles, working outward, making certain that the entire prepared area is completely wet.
- Allow to dry approximately 3 minutes. Do not wipe off.
- Carry out procedure.

D. Alcohol - 70% (Only if patient is allergic to all of the above antiseptics)
- Assure skin is clean.
- Prep skin thoroughly with 70% alcohol. Starting at the site of incision or puncture, apply the antiseptic using concentric
circles, working outward, making certain that the entire prepared area is completely wet.
• Allow to dry.
• Carry out procedure.
• Assure skin is thoroughly dried and fumes not present if electrosurgical instruments are used.

Note: Chlorhexadine, DuraPrep, and alcohol must be dry and free of fumes if electro surgical instrument such as a cautery or laser is used.

2. SKIN PREP FOR INTRAMUSCULAR INJECTIONS AND PERIPHERAL IV’S

A. Alcohol – 70%
• Clean skin thoroughly if visibly soiled.
• Prep area thoroughly.
• Allow to evaporate.
• Carry out procedure.

3. BLOOD CULTURE TECHNIQUE

A. Tincture of Iodine (Agent of Choice):
• Mechanically clean the skin with 70% alcohol.
• Apply Tincture of Iodine.
• Allow to dry (10-15 seconds).
• Wipe off skin with 70% alcohol.
• Carry out procedure.
• Use with caution if electrosurgical instrument are used.

B. Iodophor
• Clean skin thoroughly if soiled.
• Apply antiseptic solution and allow to evaporate (10-15 seconds).
• Wipe off with 70% alcohol.
• Carry out procedure.

If palpation is necessary before procedure, prep gloved finger with antiseptic being used or wear sterile gloves.

4. DRAPING

A. Sterile drapes must be used and maintained when a large sterile field is required, i.e., central lines, biopsies.
5. **PERSONAL PROTECTIVE EQUIPMENT**

A. Personnel performing the above preps should wear PPE (mask, sterile gloves, and gown) as deemed appropriate based upon the procedure and possibility of splashing.

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Administrator

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Date

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