WOUND CLEANSING

Wound Definition

Wound cleansing helps optimize the healing environment and decreases the potential for infection. It loosens and washes away cellular debris such as bacteria, exudate, purulent material and residual topical agents from previous dressings. Most wounds should be cleansed initially and at each dressing change.

Goals

- Determine the most effective method of cleansing.
- Minimize chemical irritation.
- Minimize mechanical trauma

NOTE: The procedures listed above are guidelines. They are not meant to replace any existing protocols or institutional policies. The dressings used on these pages may not be covered under current Medicare reimbursement guidelines. Contact your local Sales Representative for more information.
WOUND CLEANSING

Wound Cleansers and Solutions

**Normal Saline:**
- Saline is the preferred cleanser for most wounds because it is physiologic and will ALWAYS be safe.
- It will not clean well in dirty, necrotic wounds.
- Studies have shown that bacterial growth in saline may be present within 24 hours of opening the container.

**Commercial Wound Cleansers (such as CONSTANT-CLENS):**
- These products contain surfactants which help lift bacteria and cellular debris out of wounds with minimal force. Trigger sprays also help direct the cleanser more effectively.
- These products may enhance cleansing in wounds with adherent cellular debris or in dirty, necrotic wounds.
- Most commercial wound cleansers contain preservatives to retard the growth of bacteria, molds, and fungi. This extends the product shelf life. Check with the manufacturer for more detailed information.

**Povidone Iodine:**
- Cytotoxic to healthy cells and granulating tissues.
- Broad spectrum antimicrobial effective against a variety of pathogens including Staphylococcus aureus.
- Dries and discolors skin. It may cause local irritation to the periwound skin.

**Hydrogen Peroxide:**
- Cytotoxic to healthy cells and granulating tissues.
- Effervescent cleansing action helps to lift debris from the wound surface when used at full strength. If used full strength, irrigation with normal saline after use is recommended.
- Ineffective at killing bacteria.
- Do not use on wounds with sinus tracts.

**Sodium Hypochlorite (Dakin Solution):**
- Cytotoxic to healthy cells and granulating tissues.
- Bactericidal effect against most organisms commonly found in open wounds.
- Frequently used in pressure ulcers with necrotic tissue to help control infection.
- Occasionally used over cancerous growths to control bacteria and minimize odor.
- Should not be used for periods longer than 7-10 days.

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**WOUND CLEANSING**

**Normal Saline**

- Sterile normal saline is the most commonly used irrigating solution. Due to its physiologic nature, it is always safe to use in wounds. However, it does not contain any surfactants (found in commercial wound cleansers) which are more effective at lifting bacteria and debris from the wound or periwound area. Normal saline also does not contain any preservatives to prevent microbial growth. It should be discarded after as little as 24 hours after opening,

- AHCPR guidelines suggest using a 30cc syringe with an 18 or 19 gauge tip for irrigation. Safe and effective wound irrigation pressures range from 4 to 15 pounds per square inch (psi). Pressures lower than 4 psi will not cleanse the wound adequately, while pressures greater than 15 psi may damage tissue and force bacteria deeper into the tissue. Ensure that sharp devices do not come into contact with the wound bed.

**Commercial Wound Cleansers (such as CONSTANT-CLENS)**

- Commercial wound cleansers are designed specifically to remove or soften necrotic tissue and debris. Most are also non-toxic to healthy tissue and cells. They often come in spray application bottles which are designed to allow safe cleansing of the wound bed without undue pressure.

- Clean from the center of the wound outward towards the periwound skin margins. After cleansing the wound, pat the surrounding skin dry with a sterile gauze pad or sponge.

**Povidone Iodine**

- The AHCPR guidelines discourage the use of antiseptic solutions such as povidone iodine, hydrogen peroxide, or sodium hypochlorite. They are not effective at killing bacteria at concentrations that are safe to healing tissue. Avoid their use in all but the most contaminated wounds.
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Hydrogen Peroxide

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