

Promoting Appropriate Wound Care Product Use

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Cytotoxic antiseptics are ordered far too often for use in wound care. A key role of WOC nurses is to educate staff and patients by providing instruction on the use of these types of products.

Cytotoxic products, including hydrogen peroxide, Dakin's (diluted bleach) solution, acetic acid (diluted vinegar), and 10% povidone-iodine, interfere with fibroblast formation. Fibroblasts are responsible for producing growth and angiogenic factors necessary in the wound healing process. Hydrogen peroxide also has been linked to the formation of air emboli. Although Dakin's solution frequently is ordered because it can decrease heavy bioburden and odor, it remains an impediment to the wound-healing cascade. Povidone-iodine 10% has been shown to be effective when dealing with gangrenous toes in speeding the drying process leading to auto amputation but only should be considered for longer use in such circumstances. Thus, these products, if used at all, need to be limited to short-term use.

A multitude of dressings that maintain a clean, moist, healthy wound environment are available. These products are designed to improve wound granulation and healing as well as debride slough when used correctly. Many available dressings minimize bioburden and odor.

Wounds with any depth should be cleansed with a noncytotoxic cleanser (normal saline or commercial wound cleanser); lightly packed, including all tunnels and undermining, with an appropriate wound filler; and covered with a semi-permeable dressing. Semi-permeable dressings can be used as a primary dressing or cover dressing for more shallow wounds. Dressing a wound in this manner will reduce dressing change frequency, subsequently decreasing the discomfort caused by more frequent dressing changes while maintaining a moist, temperature-stable wound bed.

Nurses have the responsibility to keep up with the latest developments in advanced wound care products and their applications while continuing to discourage the use of inappropriate, potentially harmful products. Proper wound care can reduce practitioner liability associated with such practices. ■

Commentary from Ferris Mfg. Corp.

PolyMem® dressings continuously help autolytically debride, cleanse, and reduce wound odors while supporting rapid wound closure. These multifunctional dressings usually eliminate the need for manual wound cleansing during dressing changes. As the dressings adsorb the nonviable tissue, wound odor, as well as the patient's persistent and procedure-related wound pain, is also usually reduced or eliminated.¹ Unlike other advanced wound care products, clinicians report that multifunctional PolyMem® dressings, with or without silver, usually eliminate the risk of bacterial and fungal wound overgrowth, even when used in hot, humid environments.²

In a representative case study,³ a foot ulcer in a 67-year-old woman with diabetes continuously deteriorated during 6 weeks of treatment with povidone-iodine ointment and silver hydrofiber dressings. At the point when amputation was considered, the dressing regimen was changed to PolyMem Silver® Rope covered with PolyMem Silver dressings. Using PolyMem Silver dressings helped rapidly clear both the infection and slough in the wound. The patient's persistent and procedure-related wound pain decreased and the wound progressed to healing. PolyMem Silver dressings were used to wound closure due the patient's high risk for wound infection. ■

Reference

1. Sessions RC. Can a Drug-Free Dressing Decrease Inflammation and Wound Pain? What Does the Evidence Say? Poster presented at the Symposium on Advanced Wound Care (SAWC) Fall, Washington, DC: September 16–19, 2009.
2. Benskin L. Complete Closure of Extensive Third-Degree Burn Wound Using PolyMem Membrane Dressings. Poster presented at the 19th Annual Symposium on Advanced Wound Care (SAWC), San Antonio, TX: April 30–May 3, 2006.
3. Yip WCA, Wong WCM, Yu OHI, Choi YN, Tang SF, Hui HK, NG MKM. Extensive, Amputation Threatening, Diabetic Foot Ulcer Closed Rapidly with Multifunctional Silver Polymeric Membrane Dressings. Poster presented at the Australian Wound Management Association, Perth, Western Australia: March 22–24, 2010.



June 15: wound measures 15 cm x 4 cm x 1.5 cm. PolyMem Silver Rope initiated, covered with PolyMem Silver



October 16: wound closed after 18 weeks. Patient was happy to walk in her sandals.