As wound care nurses, dealing with patients with wounds in the end-of-life stage can be very challenging. The first instinct is to create the environment for healing by addressing systemic issues and providing the appropriate topical treatment. However, this feat is not always practical or realistic given a palliative care situation (Langemo & Brown, 2006). When the body is failing, healing is unlikely or less likely, regardless of the treatment. However, failure to aggressively treat a wound may be interpreted by patients and their families as neglectful or uncaring. Palliative wounds often can be maintained with less expensive topical treatments that would keep the wound clean and stable as well as provide comfort to patients. However, without clear progress in wound healing, expensive treatments may continue until death because the overall prognosis has not been accepted by the patient or family. Lack of healing progress is defined as an “unresponsive” wound over a two to four week period despite optimal care, possibly from the presence of cofactors that were not or cannot be addressed (Nix, 2007). Another scenario is that the wound has been healed at all cost but the patient dies anyway. Aesthetically, this may be more pleasing to the family as the patient dies with their skin intact. However, wounds can occur because of the dying process. The skin is the largest organ so, as multi-organ failure continues, the skin fails as well (Stokowski, 2008). These wounds often are attributed to poor nursing care instead of to the natural process that causes them. This natural process of wound denigration from multiorgan failure also may bring other signs and symptoms, such as malodor and pain. Choosing appropriate topical treatments to address these issues may provide comfort to the patient by avoiding embarrassing odors and the pain sometimes associated from dressing placement and removal.

Wound Types and Care

The wound healing process is dependent on an interplay of factors. Wound healing requires an adequate absorption of nutrients, absence of an infectious process, and absence or control of a pathologic condition (Rolstad & Ovington, 2007). These factors may be difficult to correct or control as the body fails. Patients with cancer may present with malnutrition, poor immune function, edema, and physical limitations that place them at higher risk for developing pressure ulcers and other chronic wounds that do not heal. Wound care specialists are obligated to provide evidence-based topical treatments and ensure that systemic elements are in place to promote wound healing (e.g., glycemic control, infection control, pressure redistribution surfaces). Wounds should be treated by their characteristics, but certain principles also should be followed when determining the best topical treatments (Baranoski & Ayello, 2007; Rolstad & Ovington) (see Table 1).

Dry, Shallow Wounds

A moist wound bed promotes healing as it facilitates cellular movement (Rolstad & Ovington, 2007). Topical treatment options and typical oncology wounds should be kept moist and clean by using products that provide moisture to the wound bed. Examples include hydrogels, impregnated gauzes, and gauze with Ringer solution. For dry, shallow wounds, a typical dressing might use a small amount of a hydrogel on gauze moistened with normal saline and covered with dry gauze and a transparent dressing.

Wet, Shallow Wounds

Topical treatments that absorb excessive moisture, which promote bacterial growth, are required. Examples include hydrofibers that are placed in the wound dry or as foam. If the wet, shallow wound is a painful radiation desquamation, a hydrogel dressing can provide a cooling effect for the patient and promote healing by cleaning the devitalized tissue and creating a viable wound bed.

Dry Cavity Wounds

Dry cavity wounds require moisture. An example would be to cleanse the wound with normal saline, apply a small amount of hydrogel into the cavity followed by a loosely packed and moistened normal saline gauze, and then cover the dressing. Dressings should be changed daily.

Wet Cavity Wounds

Wet cavity wounds require absorptive topical treatment options such as an alginate or a hydrofiber. A foam cover can

Barbara Delmore, PhD, RN, CWCN, is a clinical nurse specialist in the Langone Medical Center at New York University and Diane Duran, MSN, RN, CWOCN®, is a clinical nurse specialist in the Weill Cornell Medical Center at New York-Presbyterian Hospital, both in New York.

Digital Object Identifier: 10.1188/09.CJON.381-383
add an extra absorbency capacity that gauze does not have. An example would be to gently irrigate the wound with normal saline, gently pack a calcium alginate into the cavity, and cover with a foam dressing. Dressings should be changed daily or when saturated.

Pouching is another option that can be used in situations where a percutaneous endoscopic tube cannot be stabilized and copious drainage is present. Typical topical treatments may be too costly to use in this case because of the frequency of changing required as well as the likelihood of the treatment being ineffective in containing copious drainage. When surgery is not an option, fungating wounds and fistulas (particularly those located in the abdominal area) become easier to manage with a pouching system. Pouching keeps wounds clean and reduces nursing effort. Pouches will contain odor and drainage but can be changed every three to four days and will ultimately help the patient experience less pain and feel like the situation is under control.

Antimicrobial Products

Wounds always have bacteria present; however, bioburden (when bacteria compete for the same nutrients and oxygen needed for wound healing) often occurs, delaying the wound-healing process (Stotts, 2007). For wound healing to progress, a product that has an antimicrobial effect should be added to the topical treatment regimen to destroy bacteria and, at the same time, allow wound healing.

Antimicrobial agents come in different forms and include silver, iodine, or gauze impregnated with polyhexamethylene biguanide (PHMB). Sustained-release silver products have a bactericidal effect and, to some degree, will rid a wound of cellular debris. Products that have sustained-release iodine also have a bactericidal effect and can clean the wound of cellular debris. Products with PHMB have a bactericidal effect but do not rid the wound of cellular debris unless PHMB-impregnated gauze is used in a wet-to-dry circumstance. However, a wet-to-dry regimen should only be used when a wound is slough filled and malodorous, as this type of dressing protocol can cause bleeding and pain to the patient.

Choosing the right antimicrobial product depends on wound characteristics. Antimicrobial topical treatments in gel form or a product that can be moistened before placing in a wound bed, such as a hydrofiber, alginate, or PHMB-impregnated gauze, should be chosen if a wound bed is shallow and dry. If a wound is shallow but exudative, then an antimicrobial topical treatment that provides exudate management, such as an alginate, hydrofiber, or foam, should be used.

If a cavity wound is dry, then an antimicrobial topical treatment that can adequately fill the cavity space and donate moisture to the wound, such as a gel with a dampened normal saline gauze or a moistened hydrofiber, should be used. If a cavity wound is exudative, then an antimicrobial topical treatment that could fill the cavity and absorb the excess exudates, such as a dry hydrofiber, an alginate, or a “wick” foam dressing, is recommended.

Before proceeding with a topical treatment option, goals for wound healing should be set, including a discussion with the various members of the healthcare team, the patient, and the patients’ family so all involved can come to an understanding regarding the patient’s care and prognosis. Overall, the wound care nurse’s responsibility is to make the patient as comfortable as possible while recommending treatment that is easy and acceptable to the patient.

Nursing Implications

The wound care nurse in these situations can serve as an excellent resource to guide the appropriate topical treatments, particularly when options are

<table>
<thead>
<tr>
<th>Table 1. Topical Treatments for Wound Characteristics</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>WOUND CHARACTERISTICS</strong></td>
</tr>
<tr>
<td>Dry, shallow wounds</td>
</tr>
<tr>
<td>Wet, shallow wounds</td>
</tr>
<tr>
<td>Dry cavity wounds</td>
</tr>
<tr>
<td>Wet cavity wounds</td>
</tr>
<tr>
<td>Wounds with increased bioburden</td>
</tr>
<tr>
<td>Draining tube sites or fistulas with draining, fungating wounds</td>
</tr>
</tbody>
</table>

*Note. Based on information from Baranoski & Ayello, 2007; Rolstad & Ovington, 2007; Stotts, 2007.*
limited. Most facilities have on-site, certified wound care nurses who can be easily consulted. When a facility does not have this resource on site, as may be the case in skilled nursing facilities or in home care, certified wound care nurses usually are contracted as consultants for assistance.

Nurses often take on a supportive role and provide rationale for the patient and significant others as to the appropriate palliative wound treatment when life span is limited. Nurses can help the family understand that complete wound healing may not be the best outcome when the overall prognosis is poor. More expensive and aggressive topical treatments may not be the most suitable options for the patient and often can be painful and complicate the patient’s care. In fact, aggressive topical treatments may be costly on the patient’s part when discharged home if the patient’s insurance does not reimburse the recommended products. This may not allow for continuity of care and compromise the patient’s quality of life (Hughes, Bakos, O’Mara, & Kovner, 2005) or give false hope for recovery. Topical treatments that are cost effective, easy to use, and support a clean wound environment are available.

**Conclusion**

One of the main functions of nursing is to be an advocate for the patient at the end of life. As healthcare providers, nurses must always put the patient’s comfort first while considering the aggressiveness of treatment for wounds that all involved know will not heal. Nurses must remember not to add to the patient’s pain or the family’s burden, physically or financially. Wound care nurses have a responsibility to make appropriate wound care treatment recommendations and, at the same time, support the oncology nurse at the bedside. Each encounter makes the patient and family feel that the facility is doing everything to make the patient comfortable and, at the same time, provide the best care possible.

The authors take full responsibility for the content of the paper. The authors did not receive honoraria for this work. No financial relationships relevant to the content of this article have been disclosed by the authors or editorial staff.

**Author Contact:** Barbara Delmore, PhD, RN, CWCN, can be reached at barbara.delmore@nyumc.org, with copy to editor at CJONEditor@ons.org.

**References**


---

Do You have an Interesting Topic to Share?

Oncology Nursing 101 provides readers with a brief summary of oncology nursing basics. Length should be no more than 1,000–1,500 words, exclusive of tables, figures, inserts, and references. If interested, contact Associate Editor Debra L. Winkeljohn, RN, MSN, AOCN®, CNS, at dwinkeljohn@comcast.net.