CE **1.0**
ANCC CONTACT HOUR

BY JILL COX, PhD, RN, APN-C, CWOCN

**Abstract:** The clinical nurse may be the first caregiver to assess changes in a patient's skin and initiate wound care. This article provides practical guidelines that any nurse can implement.

**Keywords:** arterial ulcer, diabetic ulcer, incontinence-associated dermatitis, MASD, moisture-associated skin damage, pressure injury, skin tear, venous ulcer, wound care

IF A WOUND CARE NURSE is not available, the clinical nurse may be the first caregiver to assess changes in a patient's skin. Managing these changes, including wounds, can be challenging, as patients present with diverse disorders and tissue damage can range from superficial to deep. But by applying a few basic principles, starting with a skin and wound assessment, the nurse can simplify the process and determine an appropriate treatment plan. This article provides practical guidelines that any nurse can implement.

## Assessment basics

Successful wound management starts with a thorough assessment of the wound and periwound skin. The assessment should include the following components.[1]

- **Anatomic location**. Location can provide information regarding possible causes of the wound. For example, a wound over the sacral area in a bedbound or immobile patient could be a pressure injury, a wound in a lower extremity with accompanying edema could be a venous ulcer, and a wound on the plantar surface of the foot may be a neuropathic ulcer.[2]
- **Degree of tissue damage.** Determining the degree of tissue damage in a wound will help to guide the care plan and will provide some information regarding the healing trajectory. Wounds can be described as *partial thickness*, with damage limited to the epidermal and/or dermal layers, or *full thickness* with damage evident in the subcutaneous layers and below (see *Skin anatomy*). For pressure injuries, the staging classification defined by the National Pressure Ulcer Advisory Panel (NPUAP) is used to describe the appearance of the wound and the extent of tissue damage (see *Key resources*).[3]
- **Type of tissue in the wound.** Tissue in the wound bed can be described as viable or nonviable. Viable tissue can appear beefy red as with granulation tissue, or light pink in the case of new epithelial tissue. In contrast, the appearance nonviable or necrotic tissue varies: Eschar may be black, brown, or tan; fibrin slough is described as stringy or adherent and yellow in color.[1,4]
- **Wound size.** Describe the size of a wound according to linear dimensions (length times width). Measure a

ZAPOZJUN AND MEGO STUDIO / SHUTTERSTOCK

wound's length using the head-toe axis; measure its width from side to side. If the wound has depth, measure from the deepest point of the wound to the wound surface using a sterile cotton-tip applicator.

Assess for sinus tracts (sometimes called tunneling), which can occur in full-thickness wounds. This dead space has the potential for abscess formation. The depth of a sinus tract can be measured by *gently* probing the area with a sterile cotton-tip applicator. The distance from the visible wound base to the end of the tract indicates the tract's depth. Identify and measure the location of sinus tracts using the analogy of a clock face, with 12:00 pointing toward the patient's head.

Undermining is tissue destruction at the edge of the wound, creating a liplike effect. This can also be measured by *gently* probing the area with a sterile cotton-tip applicator and recording the location using the clock face analogy.[1,4]

• **Wound edges and periwound skin.** The outer edge of the wound can provide information regarding how long a wound has been present and may even assist in determining the etiology. Wounds over bony prominences with defined edges may be related to pressure. Venous wounds found on the leg are characterized by an irregular shape and undefined edges.

Periwound skin can provide information about other factors that contribute to wound development or nonhealing. For example, weeping or excess wound drainage surrounding a venous ulcer can macerate periwound skin, giving it a wet, waterlogged appearance that may be soft and gray white in color.[5]

• **Infection.** Note the presence or absence of signs and symptoms of local infection (erythema, induration, pain, edema, purulent exudate, wound odor) during the wound assessment. Keep in mind that patients with chronic wounds may not exhibit these classic signs and symptoms of infection due to the presence of biofilm. This extracellular polysaccharide matrix embeds microorganisms, delays healing, and renders infection difficult to diagnose.[6]

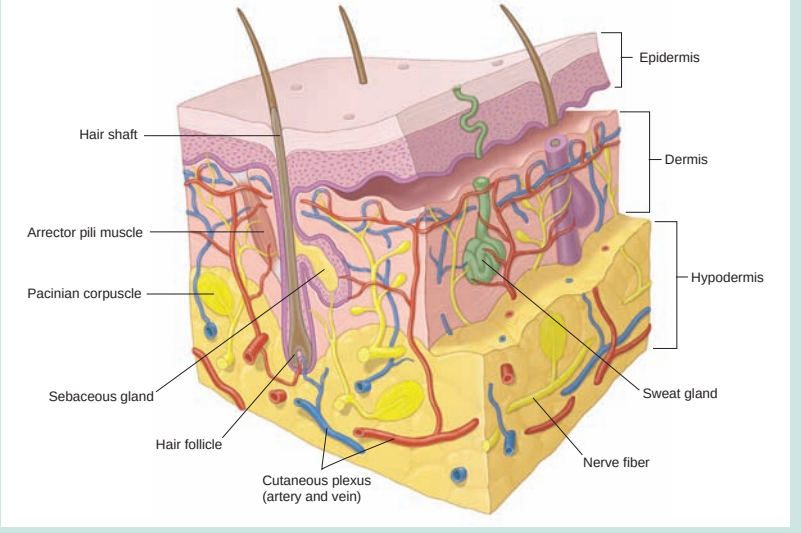
• **Pain.** The presence and intensity of pain associated with the wound can provide some important information regarding wound etiology and wound chronicity. However, the degree of pain may not correlate to the extent of injury. Skin tears, for example, can be very painful because damage confined to superficial skin can expose nerve endings in the dermal layer.[7] Conversely, patients with neuropathic ulcers on the plantar aspect of the foot and concomitant peripheral neuropathy may feel little or no pain, even if the wound is grossly infected.[8,9]

## Key resources

Visit the following websites for more information about skin and wound care.

- International Diabetes Federation: www.idf.org
- International Skin Tear Advisory Panel: www.skintears.org
- National Pressure Ulcer Advisory Panel: www.npuap.org
- World Council of Enterostomal Therapists: www.wcetn.org
- Wound, Ostomy and Continence Nurses Society: www.wocn.org

## Skin anatomy: Looking at layers




Source: Gabriel A, Nahabedian MY, Sigalove SR, Maxwell GP. *Prepectoral Techniques in Reconstructive Breast Surgery*. Philadelphia, PA: Wolters Kluwer; 2018.

## Identifying wound etiology

After the nurse conducts a thorough assessment of the wound and periwound skin, its etiology may become more evident. Common types of wounds encountered in the acute care setting include pressure injuries, venous ulcers, arterial ulcers, skin tears, diabetic foot wounds, and moisture-associated skin damage (see *Common wound types*).

***Pressure injuries*** (formerly known as pressure ulcers) are defined by the NPUAP as localized damage to the skin and/or underlying soft tissue, usually over a bony prominence or related to a medical or other device. The injury can present as intact skin or

## Common wound types[11,17,19,27,28]

| Wound type/*Common locations* | | Nursing considerations |
|---|---|---|
| **Pressure injury**<br>*sacrum, heels, ischia, coccyx* |  | • Occurs over bony prominences; wounds typically have a circular appearance.<br>• Staged based on the extent of tissue damage observed according to NPUAP pressure injury stages. |
| **Venous ulcer**<br>*lower leg, often on medial aspect* |  | • Usually has irregular edges and may be highly exuding.<br>• Associated changes in the lower extremities include dark discoloration to surrounding skin (hemosiderosis), edema, and hardening of surrounding skin (lipodermatosclerosis).<br>• Compression dressing/multilayer bandaging systems are the gold standard to control edema and aid healing. |
| **Arterial ulcer**<br>*feet, ankles, heels, toes* |  | • Alternate term: ischemic ulcer.<br>• Wound base ranges from pale pink to necrotic.<br>• Can be painful, with well-defined wound edges.<br>• Revascularization may be needed to achieve wound healing. Patient should be referred to a vascular surgeon for vascular work-up and intervention. |
| **Diabetic ulcer**<br>*feet (plantar aspect), toes* |  | • Alternate term: neuropathic ulcer.<br>• Wound base can range from pink/red to necrotic.<br>• May have a "punched out" appearance with defined borders and callous formation to surrounding skin.<br>• Commonly associated with peripheral arterial disease.<br>• Meticulous foot care is an essential element of the care plan. |
| **Skin tear**<br>*upper and lower extremities, dorsum of the hands* |  | • Susceptible patients include older adults and those with a history of skin tears, mobility deficits, and long-term steroid use.<br>• Wound bases are typically painful and likely to bleed.<br>• Classified by the degree of skin flap loss (Type 1 to Type 3), according to the ISTAP Skin Tear Classification System. |
| **Moisture-associated skin damage (MASD)**<br>*buttocks, perineal area, skin folds, around leaking stoma appliances or enteral feeding tubes* |  | • Skin may appear erythematous and macerated with denuded areas.<br>• Skin exposed to chronic moisture should be assessed for signs and symptoms of candidiasis.<br>• Cleanse skin after incontinent episodes and apply a skin barrier cream or ointment to protect the skin and support healing of denuded areas.<br>• Incontinence-associated dermatitis (IAD) is a common form of MASD. The mnemonic ACT (assess, cleanse, treat) can help guide caregivers treating IAD. |

Sources: Kowalski MT, Rosdahl CB. *Textbook of Basic Nursing*. 11th ed. Philadelphia, PA: Wolters Kluwer; 2019 (pressure injury). Knight L, Cohen BJ. *Medical Terminology: An Illustrated Guide Canadian Edition*. 2d ed. Philadelphia, PA: Wolters Kluwer/Lippincott Williams & Wilkins; 2013 (venous ulcer). Weber JR. *Nurses Handbook of Health Assessment*. 8th ed. Philadelphia, PA: Wolters Kluwer/Lippincott Williams & Wilkins; 2013 (arterial ulcer). Zgonis T. *Surgical Reconstruction of the Diabetic Foot and Ankle*. 2d ed. Philadelphia, PA: Wolters Kluwer; 2017 (diabetic ulcer). Photos of skin tear and MASD courtesy of the author.

an open ulcer and may be painful. The injury results from intense and/or prolonged pressure or pressure combined with shear. The tolerance of soft tissue for pressure and shear may also be affected by microclimate, nutrition, perfusion, comorbidities, and condition of the soft tissue. Pressure injuries are described according to the NPUAP staging system based on damage that is clinically observed.[3]

***Venous ulcers*** are related to incompetence of the valves of the lower extremities, allowing blood to reflux into the superficial venous system and causing edema. Incomplete emptying of the deep veins can result in higher-than-normal pressure in the peripheral venous system of the lower extremities, which can eventually result in ulcerations.[10-12]

***Arterial wounds*** result from severe tissue ischemia. One of the most common causes of lower extremity arterial disease and ulceration is atherosclerosis of peripheral arterial vessels.[12,13]

***Diabetic foot wounds*** are also called neuropathic ulcers. Peripheral neuropathy is present in over 80% of patients with foot ulcers.[8] Neuropathy promotes ulcer formation by altering both pain sensation and pressure perception in the foot. Neuropathy can also alter the microcirculation and impair skin integrity. Once wounds occur, healing may be difficult to achieve, especially in patients with deep tissue or bone infections and in those with diminished blood flow to the foot.[8]

A ***skin tear*** is defined by the International Skin Tear Advisory Panel (ISTAP) as a traumatic wound caused by mechanical forces (shear, friction, or blunt force), such as the mechanical force required to remove adhesives. Severity may vary by depth but does not extend through the subcutaneous layer. The nurse should use the classification system for skin tears developed by ISTAP to describe the degree of skin damage:

- Type 1: no skin loss; a skin flap can be positioned to cover the exposed wound base.
- Type 2: partial loss of the skin flap.
- Type 3: total loss of the skin flap; entire wound bed is exposed.[7,14]

***Moisture-associated skin damage (MASD)*** is defined as the inflammation and erosion of the skin that accompanies exposure to many different types of moisture, such as urine, perspiration, and wound drainage.[15,16] Chronic exposure to moisture macerates the skin, impairing its protective mechanisms and disrupting normal skin flora, which can predispose the patient to cutaneous infections such as candidiasis. Incontinence-associated dermatitis (IAD), a subtype of MASD, is caused by chronic exposure to urine and/or liquid stool.[16,17]

## Topical therapy: Eight key objectives

Once the wound is assessed and the etiology of the wound has been determined, the nurse can initiate topical therapy. Topical dressings create an environment that fosters the normal healing process. Bryant and Nix outline eight objectives for the caregiver to consider when selecting the most appropriate interventions.[18]

*1. Prevent and manage infection.* One of the primary goals of topical wound care is to protect the wound base from outside contaminants such as bacteria. If infection is evident in the wound, wound cultures should be considered and the need for topical antimicrobial/antiseptic products should be discussed with the primary provider.

Topical antibiotics destroy microorganisms; topical antiseptics inhibit microbial growth. Examples include cadexomer iodine, honey, silver sulfadiazine, and topical antibiotics. These products, which are covered with a secondary dressing, can be used in partial-thickness and full-thickness wounds that are infected or at high risk for infection. They should not be used long-term.[18]

*2. Cleanse the wound.* Routine cleansing should be performed at each dressing change with products that are physiologically compatible with wound tissue. Normal saline is the least cytotoxic; when delivered at a pressure of 4 to 15 PSI, it is adequate to remove wound debris.[19,20] Commercially available wound cleansers can also be used, but avoid hypochlorite solutions, betadine, hydrogen peroxide, and acetic acid in routine wound cleansing as these agents can be cytotoxic to fibroblasts.[19]

*3. Debride the wound.* If necrotic tissue is visible in the wound bed, removal of this devitalized tissue is indicated in most circumstances. One exception to this is stable, dry eschar on the heel. In this circumstance, leaving the eschar in place is recommended until the patient's vascular status can be determined.[19]

Wound debridement can be accomplished with several different methods. Autolytic debridement, the slowest form of debridement, is accomplished through use of moist topical dressings that foster autolysis of necrotic tissue. Enzymatic debridement is accomplished by applying the prescribed topical agent directly to the wound bed. It is usually applied daily and covered with a dressing such as gauze, moistened gauze, or foam. Sharp wound debridement may be performed at the bedside (conservative wound debridement) or in the OR (surgical wound debridement) by a qualified healthcare provider. Wounds that are necrotic and showing signs of infection should be treated with sharp/surgical debridement as soon as feasible.[19,21]

*4. Maintain appropriate moisture in the wound.* A moist wound environment

has been shown to facilitate wound healing, reduce pain, and decrease wound infection.[19] In wounds that are heavily draining, the nurse should apply the type of dressings that will help absorb excess drainage so that an appropriate level of moisture can be maintained in the wound bed.

*5. Eliminate dead space.* Wounds that have depth need to be packed. Packing agents, such as normal saline and hydrogel-impregnated dressings, can keep the wound bed moist. In wounds that are too moist, alginate or hydrofiber dressings can help control excess drainage. Packing material should be easy to remove from the wound base during each dressing change to avoid injuring healing tissue.

*6. Control odor.* To manage odor, if present, the nurse should consult with the provider about the frequency of dressing changes, wound cleansing protocol, and the possible need for debridement or topical antimicrobials.[22,23] The primary healthcare provider or wound care specialist should be consulted regarding treatment options to control wound odor.

*7. Manage wound pain.* Wounds that are painful should be thoroughly assessed for the presence of infection or other etiology (such as an associated fracture or a foreign object in the wound) and treated accordingly. The use of moisture-retentive dressings can help to decrease pain associated with dressing removal and can also decrease the need for frequent dressing changes in painful wounds.[24]

*8. Protect periwound skin.* Heavily draining wounds or the improper use of a moist dressing can lead to maceration of the periwound skin, altering tissue tolerance and damaging the wound edges. Skin barrier creams/ointments, skin protective wipes, or skin barrier wafers can be used to protect the periwound skin.[18]

The selection of an appropriate topical dressing should be guided by the objectives described above. Always follow the manufacturer's guidelines in addition to your facility's policies and procedures for specific use of these products. See *Choosing a wound dressing* for more details on common products used in the clinical setting.


**By applying a few basic principles, the nurse can simplify the wound care process and determine an appropriate treatment plan.**

## Look at the whole picture

Because wounds do not occur in isolation, wound management involves not only the topical care, but also attention to other systemic or local factors that can be contributing to wound development or impaired healing. Consider the following:

- In the case of pressure injuries, minimizing pressure and shear must be part of the treatment plan.[19]
- With neuropathic wounds, decreasing the risk of further injury, especially in patients with diminished sensation, is an important educational intervention.
- Controlling lower extremity edema in patients with venous ulcers through compression is a fundamental component of a successful treatment plan. Compression dressings and multilayer bandaging systems are the gold standard for venous ulcers.[11]
- Establishing adequate perfusion to the extremity in patients with arterial ulcers is essential to wound healing. Some patients will need revascularization to support healing.
- In patients with skin tears, protecting the skin is a priority, especially in those with fragile skin or other risk factors.[7]
- In patients with a history of diabetes mellitus, glycemic control is an important factor to consider in wound development and wound healing.[9]

Nutrition is another component of an overall wound treatment plan. The prevalence of malnutrition in the hospitalized population has been cited as between 30% and 50%.[25] Nutrition and hydration are essential to normal cellular function and successful wound healing. Assessing the patient's nutritional status in consultation with the registered dietitian is essential to determine the patient's potential to heal. A nutritional plan should take into consideration the patient's overall health and nutritional status and include appropriate nutritional and micronutrient supplementation. For example, in patients with pressure injuries, 30 to 35 kcal/kg of body weight is recommended daily, as is 1.25 to 1.5 g/kg of protein daily and micronutrient supplementation in patients who have a known or suspected vitamin deficiency.[19,26]

Detailed documentation of ongoing assessment findings and interventions serve as an important communication tool for all caregivers, including the wound care

professional who will augment and clarify the plan of care.

### Follow key principles and guidelines

Nurses can begin managing wounds before a wound care provider is available by keeping in mind the components of a wound assessment, identification of the wound etiology, and the principles of appropriate topical management described here. Wound care performed by the nurse should be guided by the nurse's scope of practice and institutional policy and procedures, based on type of wound and topical agents available in the facility. Other factors such as infection or malnutrition need prompt consideration. These

## Choosing a wound dressing[15,16,19,28]

| Type | Description/use | Nursing considerations |
|---|---|---|
| **Gauze** | • Can be used as a wound packing, usually moistened<br>• Can be used as a primary dressing | • If unmoistened, gauze can adhere and traumatize the wound base.<br>• Dressings must be changed frequently (at least daily) because gauze dressings tend to dry out quickly. |
| **Nonadherent dressings** (nonadherent gauze, petroleum impregnated gauze, petroleum blend impregnated gauze, oil emulsion dressing) | • Applied over open wounds, secondary dressing needs to be applied<br>• Nontraumatic to intact skin and wound base<br>• May be applied over skin tears and covered with a secondary dressing | • Dressing changes are necessary every 24 to 48 hours to prevent the product from drying and adhering to the wound bed. |
| **Transparent films** | • Can be used on wounds with very little exudate<br>• Retain moisture<br>• Enhance autolytic debridement<br>• Commonly used as a secondary dressing to secure other dressing materials, such as foams | • Do not use on skin tears or fragile skin.<br>• Surrounding skin can macerate if the wound has more than minimal drainage. |
| **Hydrocolloids** | • Occlusive<br>• Thicker hydrocolloids absorb moderate amounts of drainage<br>• Promote moist wound healing<br>• Promote autolytic debridement | • Avoid use in the presence of wound infection.<br>• Wound may have odor upon removal related to the composition of the hydrocolloid.<br>• Change dressing every 3 to 5 days. |
| **Hydrogels** | • Create a moist wound environment for healing; used in wounds with little or no exude<br>• If in gel form, applied directly to the wound and covered with a secondary dressing | • Can be soothing in painful wounds.<br>• Dressings are commonly changed daily.<br>• Be careful to apply the gel to the wound only and not on the surrounding skin, as maceration can occur. |
| **Silicone-based dressings** | • Nonadherent<br>• Used on moderately to highly exuding wounds<br>• Nontraumatic to wound bed or surrounding skin<br>• Promote a moist healing environment | • Can be used for all types of wounds, including skin tears.<br>• Sacral and heel-shaped silicone dressings are used for pressure injury prevention in the ICU setting. |
| **Foam** | • Absorptive<br>• Nonadherent to wound base | • Can be used as a primary dressing.<br>• Can be used under compression dressings to manage exudate in venous ulcers. |
| **Calcium alginates/ hydrofibers** | • Highly absorptive for highly exuding wounds<br>• Will not adhere to the wound base, permitting nontraumatic removal<br>• Alginates have hemostatic properties<br>• Used for wound packing in full-thickness wounds such as Stage 3 or 4 pressure injuries. | • Can be used as a primary dressing for exuding wounds such as venous stasis ulcers, and covered with a secondary dressing such as foam or silicone.<br>• Dressings can be left in place for multiple days based on the amount of wound drainage; usually changed every 24 to 48 hours.<br>• Do not use in dry wounds or wounds with minimal drainage as this may cause desiccation of the wound bed. |

basic early interventions can set the patient on the path to healing.

Treating wounds requires a multidisciplinary approach with the frontline nurse an essential member of this team. When provided with the appropriate resources, the nurse can have a positive impact on the patient's wound healing trajectory. ■


REFERENCES

1. Nix D. Skin and wound inspection and assessment. In: *Acute and Chronic Wounds*. 5th ed. St Louis, MO: Elsevier; 2016.

2. Wound Ostomy and Continence Nurses Society. Differential assessment of lower extremity wounds. In: Doughty DB, McNichol LL, eds. *Core Curriculum: Wound Management*. Philadelphia, PA: Wolters Kluwer; 2016.

3. National Pressure Ulcer Advisory Panel. Pressure injury stages. www.npuap.org/resources/educational-and-clinical-resources/npuap-pressure-injury-stages.

4. Bates-Jenson B. Assessment of the patient with a wound. In: Doughty DB, McNichol LL, eds. *Core Curriculum, Wound Management*. Philadelphia, PA: Wolters Kluwer; 2016.

5. Thayer D, Rozenboom B, Baranoski S. "Top down injuries:" prevention and management of moisture-associated skin damage, medical adhesive related skin injury and skin tears. In: Doughty DB, McNichol LL, eds. *Core Curriculum: Wound Management*. Philadelphia, PA: Wolters Kluwer; 2016.

6. Stotts N. Wound infection: diagnosis and management. In: *Acute and Chronic Wounds*. 5th ed. St Louis, MO: Elsevier; 2016.

7. LeBlanc K, Campbell KE, Wood E, Beeckman D. Best practice recommendations for prevention and management of skin tears in aged skin: an overview. *J Wound Ostomy Continence Nurs*. 2018;45(6):540-542.

8. McCullough DK. Evaluation of the diabetic foot. UpToDate. 2019. www.uptodate.com.

9. International Diabetes Federation. *IDF Clinical Practice Recommendations on the Diabetic Foot—2017. A Guide for Healthcare Professionals*. www.idf.org.

10. Carmel J, Bryant R. Venous ulcers. In: *Acute and Chronic Wounds*. 5th ed. St. Louis, MO: Elsevier; 2016.

11. O'Donnell TF Jr, Passman MA, Marston WA, et al. Management of venous leg ulcers: clinical practice guidelines of the Society for Vascular Surgery and the American Venous Forum. *J Vasc Surg*. 2014;60(2 suppl):3S-59S.

12. Wound, Ostomy and Continence Nurses Society. *Venous, Arterial, and Neuropathic Lower-extremity Wounds: Clinical Resource Guide*. Mt. Laurel, NJ; 2017.

13. Doughty D. Arterial ulcers. In: *Acute and Chronic Wounds*. 5th ed. St. Louis, MO: Elsevier; 2016.

14. International Skin Tear Advisory Panel. www.skintears.org.

15. Gray M, Black JM, Baharestani MM, et al. Moisture-associated skin damage: overview and pathophysiology. *J Wound Ostomy Continence Nurs*. 2011;38(3):233-241.

16. Bryant R. Types of skin damage and differential diagnosis. In: *Acute and Chronic Wounds*. 5th ed. St Louis, MO: Elsevier; 2016.

17. McNichol LL, Ayello EA, Phearman LA, Pezzella PA, Culver EA. Incontinence-associated dermatitis: state of the science and knowledge translation. *Adv Skin Wound Care*. 2018;31(11):502-513.

18. Bryant R, Nix D. Principles of wound healing and topical management. In: *Acute and Chronic Wounds*. 5th ed. St. Louis, MO: Elsevier; 2016.

19. National Pressure Ulcer Advisory Panel, European Pressure Ulcer Advisory Panel and Pan Pacific Injury Alliance. In: Haesler E, ed. *Prevention and Treatment of Pressure Ulcers: Clinical Practice Guideline*. Osborne Park, Western Australia: Cambridge Media; 2014.

20. Armstrong D, Meyr A. Basic principles of wound management. UpToDate. 2018. www.uptodate.com.

21. Ramundo J. Wound debridement. In: *Acute and Chronic Wounds*. 5th ed. St. Louis, MO: Elsevier; 2016.

22. Emmon K, Dale B. Palliative wound care. In: Doughty DB, McNichol LL, eds. *Core Curriculum: Wound Management*. Philadelphia, PA: Wolters Kluwer; 2016.

23. Bryant R. Managing wounds in palliative care. In: *Acute and Chronic Wounds*. 5th ed. St Louis, MO: Elsevier; 2016.

24. Hopf H, Shapshak D, Junkins S, O'Neill D. Managing wound pain. In: *Acute and Chronic Wounds*. 5th ed. St. Louis, MO: Elsevier; 2016.

25. Jensen GL, Compher C, Sullivan DH, Mullin GE. Recognizing malnutrition in adults: definitions and characteristics, screening, assessment, and team approach. *JPEN J Parenter Enteral Nutr*. 2013; 37(6):802-807.

26. Stotts N. Nutritional assessment and support. In: *Acute and Chronic Wounds*. 5th ed. St Louis, MO: Elsevier; 2016.

27. Bryant R, Nix D, eds. *Acute and Chronic Wounds*. 5th ed. St Louis, MO: Elsevier; 2016.

28. Doughty DB, McNichol LL, eds. *Core Curriculum: Wound Care*. Philadelphia, PA: Wolters Kluwer; 2016.



**Jill Cox is a clinical associate professor at the Rutgers University School of Nursing in Newark, N.J., and a wound/ostomy/continence advanced practice nurse at Englewood Hospital and Medical Center in Englewood, N.J.**


**Jill Cox has disclosed an ongoing relationship with Hill Rom International. This article has been reviewed, and all potential or actual conflicts have been resolved. The planners have disclosed no potential conflicts of interest, financial or otherwise.**


DOI-10.1097/01.NURSE.0000580632.58318.08