Treating a Wound

1. Use the following procedure when treating a wound

Wash hands and apply gloves. Prepare/open dressing items on table. If dressings need to be cut to size, use clean scissors. Open packages and cut tape. Place initials and date on tape or the dressing. Reposition resident to expose area to be dressed.

Note date on soiled dressing, remove the dressing and place in trash bag. Remove gloves, wash hands and apply new gloves. Continually monitor resident throughout the procedure for response to interventions and episodes of pain.

3. To clean a linear wound:
   Clean from top to bottom.
   • Use new swab or gauze for each downward stroke

4. To clean an open wound:
   Clean wound in full or half circles, beginning in the center and working outward. Use a new swab or gauze for each circle.

5. Clean to at least 2” beyond the wound margins.
Measure the size of the wound in centimeters, thinking of the wound like a clock:

a: Length is head (12) to toe (6) direction
b: Width is hip (3) to hip (9) direction and depth is the deepest part of the visible wound bed

For foot ulcers, measure heels (12) to toes (6).

Document any undermining/tunneling and sinus tracts using the clock system with the head at 12 o'clock (i.e., 2 cm undermining at 4 o'clock).

Effective cleansing is accomplished by combining an appropriate cleansing solution with an adequate mechanical force. Room-temperature normal saline is the preferred cleansing agent.
Describe the wound edges. Document the signs of infection—fever, streaking, redness, increased drainage, increased odor, etc.

Describe the surrounding tissue—color, edema, firmness, intact, induration, lesions, texture, scarring, rash, staining and/or moisture.

Document the signs of infection—fever, streaking, redness, increased drainage, increased odor, etc.

Describe the exudate type, amount and odor. Be sure to cleanse the wound first.

NOTE: Describe the wound drainage, not the dressing exudate.
Apply liquid barrier film or moisture barrier to periwound area if ordered.

Apply the dated tape to the dressing by "picture framing" it. Tape should extend at least half an inch beyond the dressing.

Remove gloves and reposition resident. Discard used gloves and all other supplies in the trash bag and wash hands.

Describe the characteristics of the tissue in the wound bed, including adherence, amount and tissue types.
Wound Dressing Decision Tree

Answer the following questions to choose the best dressing for a wound.

- **Is necrotic tissue present?**
  - **No**
    - Choose how to debride ulcer (autolytic, mechanical, sharp, enzymatic) and proceed to dressing choices.
  - **Yes**
    - Are signs and symptoms of bacterial bioburden present?
      - **No**
      - Choose an antimicrobial dressing and proceed through dressing choices (i.e., silver dressings and AMD dressings).
      - **Yes**
        - Is there any undermining or tunneling occurring?
          - **No**
          - Choose a foam dressing or a calcium alginate and proceed through dressing choices.
          - **Yes**
            - Does the wound present moderate to heavy exudate?
              - **No**
              - Lightly pack the wound (use wound fillers, primary dressings and fluffed gauze) and proceed with a secondary dressing that will protect and insulate the wound bed, i.e., waterproof dressings or dressings designed for three days or longer wear time.
              - **Yes**
                - Secure the dressing with waterproof retention tape.
          - **Yes**
            - Is the wound deeper than 0.5 cm?
              - **No**
              - Choose a primary dressing that will protect and insulate the wound bed, i.e., waterproof dressings or dressings designed for three days or longer wear time.
              - **Yes**
                - Is the wound in an area that can be saturated with urine or feces?
                  - **No**
                    - Secure dressing with retention tape.
                  - **Yes**
                    - Gently fill all wound tracts and undermining with a wound filler or a rope dressing. (If moderate or more drainage, a calcium alginate rope should be used.) Proceed through dressing choices.

**NOTE:** Apply a moisture barrier around the periwound area if wound edges are macerated.

In-Service Guide: Wound Care
Collagen Dressings
Derived from bovine (cattle) or porcine (pig) collagen, collagen dressings transform into a soft, cooling gel when in contact with wound exudates.

Product Tips
Collagen dressings must be used with a secondary dressing.

Wound Indications
- Pressure, venous and diabetic ulcers
- Ulcers from mixed vascular etiologies
- Donor sites
- Graft sites
- Abrasions
- Traumatic wounds
- Dehisced surgical wounds
- First- and second-degree burns

Function
Collagen dressings support moist wound healing of stalled chronic wounds and encourage the formation of granulation tissue.

Features
Collagen dressings maintain a moist wound environment and provide ideal conditions for healing. They may be trimmed or layered for management of deep wounds.

Precautions
Collagen dressings are contraindicated for third-degree burns and for residents with a known sensitivity to collagen, sodium alginate, carboxyl methylcellulose and ethylenediamine-tetraacetic acid (EDTA).

Reminders
Change daily or as good nursing care dictates.

Calcium Alginate Dressings
Topical calcium alginate wound dressings are designed for moderate to highly exuding wounds and may help control minor bleeding. Alginate ropes can be used to fill or pack the dead space in a wound. A secondary dressing is needed to hold alginates in place and to protect the wound from outside contaminants. The dressing conforms readily to the wound bed and creates and maintains a moist wound healing environment. Calcium alginates may absorb up to 17 times their own weight, will not stick to healing tissue and will maintain a hydrophilic environment.

Product Tips
Calcium alginate, a seaweed extract, contains guluronic and mannuronic acids, which provide tensile strength, and calcium and sodium alginates, which confer absorptive capacity. Some of these can leave fibers in the wound if not thoroughly irrigated. Do not use on minimal or no exudate wound beds because they will dry out the wound bed. Must be used in moist wounds.

Wound Indications
- Draining partial-thickness wounds
- Wounds with moderate to heavy exudate
- Draining full-thickness wounds

Function
Alginate ropes form a gel in the wound base when they come in contact and mix with the wound exudate. Alginate fibers trapped in a wound are readily biodegraded.

Features
Moldable, absorbent, non-adhesive, provide moist wound healing environment, easy to use, absorb excessive drainage.

Precautions
If the wound bed is dry, the dressing will not form gel and may adhere to tissue, causing trauma. This dressing, when used in large wounds, may dehydrate the wound.

Reminders
Irrigate the wound with normal saline or pH balanced surfactant cleanser between dressing changes. Cover with secondary dressing. Change as needed, usually 1-3 days, depending upon drainage. It is inappropriate to moisten this product before using or to use with hydrogel. Do not use on third-degree burns, eschar-covered wounds, minimal-drainage wounds or dry wounds.
Composite Island Dressings
Waterproof composite island dressings have four distinct layers designed to cover all stages of wound care. Layer 1, a non-adherent contact layer, protects the wound site and will not stick to granulating tissue. Layer 2, a soft pad, absorbs drainage. Layer 3, a non-woven backing with an adhesive border, securely holds the contact pad in place. Layer 4, a semi-occlusive, polyurethane film, helps deter external contaminants and maintain an optimal wound environment. The vapor-permeable film coating allows showering and protects the wound from water and contamination. It also protects clothing and bed linens from blood or exudate strike-through.

Product Tip
To remove the dressing, gently grasp the edge and slowly peel the dressing from the skin in the direction of hair growth.

Wound Indications
• Superficial and/or surgical wounds
• Partial or full-thickness wounds

Function
Highly conformable dressing is easy to apply, conforms to body contours and flexes with movement or swelling. Absorbent, vapor-permeable, self-adhesive primary dressing. Waterproof and bacteria proof.

Features
Usable on infected wounds, compatible with topicals, self-adhering, moisture-vapor permeable, adhesive border, flexible, intact when saturated, one-piece removal, bacteria or fluid barrier. Unique non-adherent pad promotes normal wound healing with less pain and trauma. Can function as either a primary or a secondary dressing on a wide variety of wounds and may be used with topical medications. Convenient, all-in-one dressing reduces application time.

Precautions
Hemostasis of the catheter site or wound should be achieved before applying the dressing. The skin should be dry and free of detergent residue to ensure good adhesion. Mechanical skin trauma may result if tension is applied.

Reminders
Change the dressing when exudate appears to be absorbed through the soft cloth. For best results, the dressing should be large enough to have a margin that adheres to dry, healthy skin around the wound site. The site should be observed frequently for signs of infection. If infection occurs (which may be signaled by fever, pain, redness, swelling or an unusual odor or discharge), remove the dressing, take standard precautions and notify the physician.

Foam Dressings
Semi-permeable polyurethane foam dressings have a non-adherent or semi-adherent contact layer and hydrophobic or waterproof outer layer. Not for daily dressing changes.

Product Tip
Non-bordered dressings will require a secondary or cover dressing to be held in place.

Wound Indications
• Moist partial or full-thickness wounds
• Light to moderate exudate
• Red, granular wounds
• Wounds with softened necrotic tissue

Function
Provide moist wound environment and reduce hypergranulation tissue.

Features
Thermal insulation and absorption.

Precautions
The wound bed may desiccate if there is no exudate from the wound.

Reminders
Do not use on dry wounds or third-degree burns.

Hydrogel Dressings
Hydrogel dressings are primary dressings that may be used for the management of acute or chronic partial- and full-thickness wounds that are dry or have minimal exudates.

Product Tip
Hydrogel dressings must be used with a secondary dressing.

Wound Indications
• Pressure, venous and diabetic ulcers
• Abrasions
• First- and second-degree burns

Function
Donates moisture to help provide an optimal wound healing environment.

Features
Hydrogel dressings are easy to apply, latex-free and support autolytic debridement.

Precautions
Contraindicated for infected wounds and wounds with heavy drainage.

Reminders
Change daily or as needed.
Hydrocolloid Dressings
These dressings contain hydrophilic colloidal particles in an adhesive compound laminated onto a flexible, water-resistant outer layer. Moisture from the wound causes the wafer to form a gel over the wound.

Product Tips
Change every 3-7 days as needed. Apply dressing 1-2 inches larger than wound. Monitor for peri-wound maceration. Warm hydrocolloid sheets (e.g., between the hands) prior to application as this aids in effective adhesion and makes the dressing more pliable.

Wound Indications
- Intact skin or newly healed wounds as prevention
- Partial or full-thickness wounds

Function
Occlusive wafer dressings that cover the wound and prevent oxygen, bacteria or fluids from interacting with the wound. Promotes a moist wound environment and autolytic debridement.

Features
Adhesive and moldable, reduce pain, provide moisture barrier, provide moist wound healing and easy to apply. It is very effective at promoting granulation and epithelialization. Good bacterial and environmental barrier.

Precautions
The dressing may dislodge with shearing, friction or heavy drainage. Not recommended for infected wounds. Odor when removed. May injure fragile skin.

Reminders
Upon removal, dressing residue may be noted on wound. (It is not necessary to remove residual.) Clean wound before assessment. Use extreme vigilance if used on diabetic feet. May secure edges with tape, if necessary. Daily dressing changes are not appropriate. Do not use on full-thickness burns, wounds with heavy drainage, fragile peri-wound areas, infected wounds, fungal lesions, herpetic lesions or wounds with deep tunnels, tracts and undermining.

Transparent Film Dressings
Multipurpose transparent film dressings provide a thin, flexible covering to help protect the wound surface or secure catheters and IVs. The dressings are water-resistant to enable resident bathing and transparent to permit observation without removing the dressing. Their moisture vapor permeability allows excess moisture to vent while maintaining a moist wound environment conducive to healing. The latex-free adhesive is gentle on the skin.

Product Tips
Skin must be clean and dry. Need approximately a two-inch border of intact skin. Apply without tension or stretching. Change every 3-5 days for autolytic debridement.

Wound Indications
- Partial-thickness and shallow granular wounds with minimal drainage
- Full-thickness wounds covered with dry necrotic tissue
- Must be used in moist wounds
- To protect from shear and friction over bony prominences
- To protect intact blisters

Function
They act as a “blister roof” and provide a moist environment for wound healing, promoting autolysis and protecting wounds from mechanical trauma and bacterial invasion.

Features
Promotes selective debridement via autolysis.

Precautions
Non-absorptive dressing. Does not adhere well in moist areas. Adhesive may cause stripping of surrounding skin. May dislodge in high-friction areas.

Reminders
A buildup of exudate is indicative of autolytic debridement and a normal occurrence. Do not use on full-thickness burns, fragile wound skin or thin skin, moderate to heavily draining wounds, wounds with known or suspected infection, fungal infection or active herpetic lesions.
Wound Documentation Tips
1. Document the type of wound and its location.
2. Describe the stage of the wound, but only if it’s a pressure ulcer.
   - **Stage I**: Non-blanchable erythema of intact skin, in individuals with darker skin, discoloration of the skin, warmth, edema, induration, or hardness may also be indicators.
   - **Stage II**: Partial thickness skin loss involving epidermis, dermis, or both. The ulcer is superficial and presents clinically as an abrasion, blister, or shallow crater.
   - **Stage III**: Full thickness skin loss involving damage to or necrosis of subcutaneous tissue that may extend down to but not through underlying fascia. The ulcer presents as a deep crater with or without undermining.
   - **Stage IV**: Full thickness skin loss with extensive destruction, tissue necrosis, or damage to muscle, bone, or supporting structures. Undermining and sinus tracts also may be associated with Stage IV ulcers.
   - **Non-stageable**: A pressure ulcer cannot be accurately staged until the deepest viable tissue layer is visible; this means that wounds covered with eschar and/or slough cannot be staged, and should be documented as non-observable or non-stageable.
   - **Deep tissue injury**: Pressure-related deep tissue injury under intact skin or deep tissue injury under intact skin.
3. Document size by measuring in centimeters – ALWAYS document length x width x depth.
   - **Length**: head to toe direction
   - **Width**: hip to hip direction
   - **Depth**: measure deepest part of visible wound bed
4. Document any undermining/tunneling/sinus tracts by using the “Clock System” with head = 12:00 o’clock.
   - **Example**: 2 cm undermining at 3 o’clock
5. Describe any exudates – type, amount, or odor using the descriptions below:
   - **Type**:
     - Sanguineous: thin, bright red
     - Serosanguineous: thin, watery, pale red to pink
     - Serous: thin, watery, clear
     - Purulent: thick or thin, opaque tan to yellow
     - Foul Purulent: thick opaque yellow to green with offensive odor
   - **Amount**:
     - None: wound tissues are dry
     - Scant: wound tissues are moist; no measurable drainage
     - Small: wound tissues are very moist; drainage <25% dressing
     - Moderate: wound tissues are wet; drainage 25-75% dressing
     - Large: wound tissues filled with fluid; drainage >75% dressing
   - **Odor**: Describe presence or absence of odor – strong, foul, pungent, fecal, musty and/or sweet.
6. Describe the various types/characteristics of tissue in wound bed including:
   - **Foreign bodies**
   - **Adherence of the tissue**:
     - Nonadherent: easily separated from wound base
     - Loosely adherent: pulls away from wound, but attached to wound base
     - Firmly adherent: Does not pull away from wound
   - **Amount**: Describe in percentage. The “clock system” can also be used in describing location of necrotic tissue in wound bed.
     - **Example**: 50% wound bed covered with soft yellow slough. 50% beefy red granulation tissue.
   - **Tissue types**:
     - Slough: Usually lighter in color, thinner and stringy in consistency; color can be yellow, gray, white, green or brown.
     - Eschar: Usually darker in color, thicker and hard consistency; color can be black or brown.
     - Granulation Tissue: It is usually beefy red, granular, bubbly in appearance; should be differentiated from a smooth red wound bed; color of tissue can be red, pink, pale pink or full dusky red.
     - Epithelialization: Can appear as deep pink, then progress to pearly pink/light purple from the edges in full thickness wound or may form islands in the wound base with superficial wounds
7. Describe wound edges:
   - **Definition**: Defined or undefined edges
   - **Attachment**: Attached or unattached edges
   - **Rolled Under (Epibole)**: Macerated, fibrotic, callused
   - **Border shape**

8. Describe surrounding tissue: color, edema, firmness, intact, induration, pallor, lesions, texture, scar, rash, staining, moisture

9. Describe any indicators of infection: fever, streaking, redness, increased drainage, odor, warmth, elevated WBC, induration, malaise, edema, weeping, increased pain, discolorations

10. Document any pain: location, causative factors, intensity, quality, duration, alleviating factors, patterns, variations, interventions

11. Document interventions for healing: dietary supplements, vitamins, lab tests, turning repositioning schedules, support surface, cushion, padding, pillows, elevation, heel protection, incontinence management, skin protection (barrier ointments)

12. Document any conditions which would affect healing: mobility/turning surface and positioning limitations, nutritional status, continence, abnormal labs, presence of biofilm, deterioration of medical condition, non-compliance, steroids or anti-inflammatory meds

13. Document: current topical treatment plan, response to treatment, modifications to plan, implementation of new orders, reason for not changing treatment plan, referrals

14. Resident and caregiver education.

Wound Documentation Tips referenced from Wound Care Education Institute, May 2, 2016: http://www.wcei.net/