

**ProCare Training Manual**  
**Chapter 4**  
**Basic Wound Care**

**Wound Care Orders**– Wound care orders are normally written by the physician. However, policies and procedures related to skin and wound care differ from hospital to hospital and you will need to read your hospital’s policies and procedures.

As a case manager, it is your responsibility to ensure that orders are properly written. Some of the things that need to be included in the order are:

- 1) Wound description, cause, location, appearance and size
- 2) Cleaning agent and method to be used
- 3) Dressing type for the primary and all additional layers
- 4) Topical medications if needed
- 5) Time frame for dressing changes and re-evaluation of wound

**Wound Care Plan** – A wound care plan is based on the whole patient, his condition, his needs and the wound profile. The goals of wound care include:

- 1) Promoting wound healing by eliminating causative factors
- 2) Removing necrotic tissue (debridement) as needed
- 3) Preventing or managing infection
- 4) Enhancing adequate blood flow
- 5) Providing nutrition and hydration support
- 6) Establish and maintaining a clean, moist, protected wound bed
- 7) Managing wound drainage and fluid
- 8) Maintaining the periwound to ensure it remains dry and intact

While the aim of healing any wound is a moist, clean and free from debris environment. The care plan will vary according to the patient assessment and the nature of the wound.

**Cleaning the Wound** – The goal of wound cleaning is to remove debris and contaminant from the wound without damaging healthy tissue. The wound should be cleaned initially and repeated as needed before a new dressing is applied. Since open wounds are colonized with bacteria, observe clean technique when cleaning. Non-sterile gloves are the standard. Always use universal precautions when performing wound care.

The most common cleaning agent is normal saline solution. There are numerous commercial preparations available and marketed as safe wound cleansers but many of these are toxic to new granulation tissue and should be avoided. A good rule to go by is “if you would put it in your eye, you can put it on a wound”.

The basic purpose of a dressing is to provide an optimal environment in which the body can heal itself. There are many things to be considered before selecting a dressing they include:

- 1) Protecting the wound from contaminants and trauma
- 2) Providing compression if bleeding or swelling is present
- 3) Applying medications
- 4) Absorbing drainage or debride necrotic tissue
- 5) Filling or packing the wound
- 6) Protecting the surrounding skin

The goal of your dressing is to keep the wound moist and the area around the wound dry. It needs to absorb drainage, conform to the wound and be adhesive to surrounding skin yet also be easily removed. It should be user friendly, require minimal changes, decrease the need for a secondary dressing layer and be cost-effective and comfortable for the patient.

**Basic Dressing Change Technique** – Gather supplies needed per physician orders. Use a clean or sterile technique depending on the physician’s orders. **Wash Your Hands!** Provide privacy and explain the procedure to the patient. Position the patient in a way that maximizes his comfort while allowing easy access to the wound site. Cover bed linens with a linen-saver to prevent soiling.

**Let’s Begin**

- Open the cleaning solution container and carefully pour cleaning solution into a bowl to avoid splashing, if single unit containers are available use them
- Open packages and supplies

- Put on gloves
- Gently roll or lift an edge of the soiled dressing to obtain a starting point. Support adjacent skin while gently releasing the soiled dressing from the skin. When possible, remove the dressing in the direction of hair growth.
- Put on a clean pair of gloves
- Inspect the wound, note color, amount, and odor of drainage and necrotic debris
- Fold sterile 4' X 4' gauze pad into quarters, make sure the folded edges face outward
- Dip the folded gauze into the cleaning solution
- When cleaning, be sure to move from the least-contaminated area to the most-contaminated area. For a linear-shaped wound, such as an incision, gently wipe from top to bottom in one motion. For an open wound, such as a pressure ulcer, gently wipe in concentric circles, starting directly over the wound and moving outward.
- Discard the gauze pad in the hazardous waste container
- Use a clean gauze pad for each wiping motion, until you have cleaned the entire wound
- Dry the wound with 4' X 4' gauze pad in the same way it was cleaned
- Measure the perimeter of the wound with a disposable tape measure. Measure the longest length and the widest width at a 90 degree angle of the length. Mark this axis on your initial photograph left in the patient's chart in order to serve as a guide for the next person. This ensures continuity and accurate weekly assessments.
- Measure the depth of the wound by inserting a sterile cotton-tipped applicator gently into the deepest part of the wound bed and placing a mark on the applicator where it meets the skin level. Measure the marked applicator to determine wound depth.
- Gently probe the wound bed and edges with a sterile-cotton-tipped applicator to assess for wound tunneling or undermining. Tunneling usually signals wound extension along fascial planes. Gauge tunneling depth by determining how far you can insert a sterile cotton-tipped applicator.
- Next, reassess the wound; note the character of the clean wound bed and the surrounding skin
- Look for any adherent necrotic material, notify the physician
- Prepare to apply the appropriate topical dressing; this can be simple saline gauze or a hydrocolloid dressing
- As you apply the dressing, carefully smooth out wrinkles and avoid stretching the dressing
- If the dressing's edges need to be secured with tape, apply a skin sealant to the intact skin around the wound. After the area dries, tape the dressing to the skin. The sealant protects the skin. Avoid using tension or pressure when applying the tape.
- Remove your gloves and discard them in the hazardous waste receptacle

## Applying Various Dressings

### Moist Saline Dressing

- Moisten the gauze dressing with normal saline solution, wring out excess fluid and unfold all layers to "fluff" gauze
- Gently place the dressing into the wound bed. Gently guide into the wound bed to fill it but do not pack too tightly
- To protect the surrounding skin from moisture, apply a sealant or barrier
- Change the dressing often enough to keep the wound moist

### Hydrocolloid Dressing

- Choose a clean, dry, pre-sized dressing, or cut one to overlap the wound by about 1"
- Remove the dressing from its package, pull the release paper from the adherent side of the dressing, and apply the dressing to the wound
- Hold the dressing in place with your hand (the warmth will mold the dressing to the skin)

### Transparent Dressing

- Clean and dry the wound as described earlier
- Select a dressing to overlap the wound by 1" – 2"
- Gently lay the dressing over the wound, avoid wrinkling the dressing. Do not stretch it over the wound
- Press firmly on the edges of the dressing to ensure adherence. Even though the edges are adherent you may need to use additional tape to ensure adherence.
- Change the dressing every 3 to 5 days, depending on the amount of drainage. If the edges come loose and the seal is broken change the dressing.
- Monitor wound edges for maceration

### Alginate Dressing

- Apply the alginate dressing to the wound surface
- Cover the area with a secondary dressing (such as gauze pads or transparent film) as ordered
- Secure the dressing with tape or elastic netting
- If the wound is draining heavily change the dressing once or twice daily. As the drainage decreases change it every 3 to 5 days.
- When the wound looks dry, stop the alginate dressing

### Foam Dressing

- Gently lay the foam dressing over the wound
- Some foam dressing come with adhesive edging to assist in placement
- If not, use tape, elastic netting or gauze to hold the dressing in place
- Change the dressing, as needed depending on the amount of drainage

### Hydrogel Dressing

- Apply a moderate amount of gel to the wound bed
- Cover the area with a secondary dressing
- Change the dressing daily or as needed to keep the wound bed moist
- If the hydrogel dressing is in a sheet, cut to overlap the wound by 1", then apply as you would a hydrocolloid dressing
- Hydrogels dressings come in many different forms and you should follow the manufacturer's directions

### Debridement

There are several ways to debride a wound. Debridement of a wound must include many factors including the patient's nutritional status, vascular status, comorbidities and immune status to name a few. At ProCare, we suggest using sharp debridement whenever a debridement is indicated and appropriate. It has been proven that sharp debridement performed by a physician leads to quicker healing of wounds.

**Sharp debridement** which is categorized as either conservative or surgical, involves removing necrotic tissue from the wound bed with the use of a cutting tool, such as a scalpel, scissors, or a curette. The wound center advocates surgical debridement of their patients by a physician. A surgical debridement converts a chronic wound to a clean, acute wound. Surgical sharp debridement is typically beyond the practice of a non-physician. Caution should be used when debriding a patient that has a low platelet count or who is taking anticoagulants.

**Autolytic Debridement** involves the use of moisture-retentive dressings to cover the wound bed. Necrotic tissue is then dissolved through self-digestion of enzymes in the wound bed. Although autolytic debridement takes longer than other debridement methods it can be appropriate for patients that cannot tolerate any other form of debridement. This should not be done on an infected wound.

**Enzymatic debridement** with chemical agents is a selective method of debridement. Enzymes are applied topically to areas of necrotic tissue only, breaking down necrotic tissue elements. Enzymes digest only necrotic tissue, they don't harm healthy tissue. Follow manufacturer's directions for applying these agents. Stop using them when the wound is clean.

**Mechanical debridement** includes wet-to-dry dressings, irrigation, and hydrotherapy. In wet-to-dry dressings a wet dressing is applied to the wound when it is dry it is removed along with necrotic tissue.

We do not advocate this type of debridement at the wound center.

**Bleeding from debridement** – In most cases bleeding will be minimal. However, if bleeding does occur, apply gently pressure on wound with sterile 4" X 4" gauze pads. Then apply the hemostatic agent. If bleeding persists, notify the physician and maintain pressure on the wound. Follow physician orders as directed.

## **Wound Specimen Collection**

Wound specimen collection involves using a sterile cotton-tipped swab, aspiration with a syringe, or punch tissue biopsy to help identify pathogens.

Swab specimens are limited in that they only obtain surface cultures. Needle aspiration of fluid or punch tissue biopsy is recommended for accurate wound culturing. These techniques are performed by physicians at the center.

When obtaining a culture you will need :

- Sterile gloves
- Alcohol swabs
- Sterile swabs
- Sterile 10-ml syringe
- Sterile 21G needle
- Sterile culture tubes
- Labels
- Special anaerobic culture tube containing carbon dioxide or nitrogen
- Fresh dressings for the wound
- Laboratory request
- Patient labels

## **To Begin**

- Provide privacy and explain procedure to patient
- Wash your hands, prepare a sterile field, put on sterile glove
- Remove the dressing
- Clean the wound well
- Inspect the wound noting the color, amount, and odor of the drainage and necrotic tissue
- Clean the area around the wound with an alcohol pad to reduce the risk of contaminating the specimen with skin bacteria. Allow area dry.

## **Aerobic culture**

- Compress the edges of the wound to elicit new drainage
- Rotate a sterile cotton-tipped swab on the sides and base of the wound bed
- Remove the swab from the wound, and immediately place it in the aerobic culture tube
- Label the culture tube and send it to the laboratory immediately.

## **Anaerobic culture**

- Obtain fluid sample as in the aerobic example. Immediately place in the anaerobic culture tube.
- Alternatively, insert a sterile 10-ml syringe, without a needle into the wound and aspirate 1 to 5 ml of exudates into the syringe. Then attach the 21 G needle to the syringe, and immediately inject the aspirate into the anaerobic culture tube.
- Complete laboratory forms needed
- Note recent antibiotic therapy on the laboratory request