So, What Do I Put on this Wound? Making Sense of the Wound Dressing Puzzle: Part I

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"We make a living by what we get. We make a life by what we give." – Winston Churchill

Bar none, the most frequent question I'm asked by students is "what dressing do I use on a patient with this type of wound?" Besides needing to know the physical condition of the patient and all pertinent medical treatments (remember, the Holistic Nursing Praxis) (Worley, 2004), you must take into consideration the location and characteristics of the wound (amount of drainage, condition of periwound skin, need for secondary dressing, etc.), patient's insurance or ability to pay for dressings out of pocket, and other vital information.

There are literally hundreds of dressings and dressing systems available to the wound care professional. Although some individuals are excited by the wide array of possible products, others are completely overwhelmed by the myriad of choices. Hopefully, at the end of this series of articles, the wound dressing puzzle won't be so, well, puzzling!

The Centers for Medicare and Medicaid Services (CMS) have divided all wound dressings into classifications and have assigned an "allowable" reimbursement rate called HCPCS codes (Healthcare Common Procedure Coding System) and utilization for each classification. These codes are the means by which products and services are identified for Medicare billing purposes. All wound dressings fall under the category of *durable medical equipment, prosthetics, orthotics,* and *supplies* (DMEPOS). The category HCPCS code is applied to all the products that fit into that classification, regardless of the cost of the individual product. In addition to the fixed reimbursement rate, the patient may only use a certain number of dressings weekly (this is a highly simplified explanation of the system). For example, the foam dressing "allowable utilization" is three dressings per week.

The categories to which a dressing may be assigned are: alginates, collagens, composites, contact layers, foams, gauze (impregnated and nonimpregnated), hydrocolloids, hydrogels (amorphous and sheet), silicone dressings, specialty absorptive dressings, transparent films, and wound fillers. As you can see, this is a lengthy list. In this series of articles, we will discuss each category of dressing, some features of each dressing type, advantages and limitations, and brand names. *This is by no means an all-inclusive list.* Space limitations prevent the description of each dressing in each category, so brand names will be limited to the most widely recognized. My apologies to wound dressing manufacturers everywhere!

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Alginates

Description. Primarily derived from seaweed, these nonwoven, nonadhesive dressings comprise calcium salts of alginic acid. Fibers are spun into pads and ropes. As the dry fibers come in contact with wound drainage, the calcium ions in the dressing slowly exchange places with the sodium ions in the wound drainage and form a gel. The type of seaweed used and the manufacturing process dictate the characteristics of the "sodium alginate" gel. Some alginates become almost amorphous gels that must be removed from the wound by irrigation while others form a cohesive gel that may be lifted out of the wound. These dressings conform to the dimensions of the wound in their gelled state.

Advantages. Manages moderate to heavy exudate; can be packed or tucked into irregularly shaped areas; provide a scaffold for platelet aggregation; can be used on infected wounds.

Limitations. Require a secondary dressing; cannot be used on third-degree burns; not recommended for minimally draining wounds (can dessicate these types of wounds); irrigation with saline is recommended for removal.

Brand names. Sorbsan® (Bertek Pharmaceuticals), Tegagen™ HG and HI (3M Health Care), Kaltostat® (ConvaTec), Curasorb® (Kendall), AlgiSite™ (Smith & Nephew, Inc.), SeaSorb™ (Coloplast Corp.).

Collagen Dressings

This category refers to products in various forms (gels, pastes, powders, pads, etc., but not injectable) derived from bovine, porcine, or avian collagen. Manufactures purify the bovine collagen source to render it nonantigenic, but cite sensitivity to bovine products as a contraindication. Collagen products may accelerate wound repair. Wounds must be moist and free of necrotic tissue prior to application of the product. Refer to manufacturer's instructions for use.

Advantages. May accelerate wound repair and be of benefit on recalcitrant wounds (wounds not responding to treatment or appear to have stalled in the wound healing process).

Limitations. Requires a secondary dressing; may have an unpleasant odor; contraindicated in third-degree burns; bovine products contraindicated in persons with sensitivities to such components; can be expensive; application can be difficult.

Brand names. Fibracol™ Collagen/Alginate Dressing (Johnson & Johnson); Promogran™ Matrix Dressing (Johnson & Johnson); Cellerate RX™ (Hymed Group Corporation).

Composites

Primarily wound covers, these types of dressings combine several distinctive structures into a single product. Bacterial barriers, foams, alginates, absorbent layers, hydrocolloids, or hydrogels can be incorporated into the dressing. The actual contact surface can be nonadherent or semi-adherent and also usually has an attached adhesive border to secure the dressing in place.

Advantages. Can be used as a primary or secondary dressing; one-hand application in certain instances; may be used as secondary dressings for daily applications of creams, ointments, or other topicals.

Disadvantages. Not appropriate for use in heavily draining wounds or instances requiring multiple applications of other substances as primary contact layers (creams, ointments, or other topicals); use with caution in persons with adhesive sensitivities or fragile skin.

Brand names. Alldress® (Molnlycke Health Care); Covaderm Plus® (DeRoyal), Op-Site® Post-OP (Smith & Nephew); Primapore® (Smith & Nephew); Tegaderm™ + Pad Transparent Dressing (3M Health Care); Telfa® Plus Barrier Island Dressing (Kendall); Viasorb® Wound Dressing (Kendall).

Contact Layers

Contact layer dressings are single layer, either woven or nonwoven materials designed to protect fragile tissue in the wound bed. They can be perforated or permeable, allowing exudates to pass through into another dressing layer or into a secondary dressing. These dressings are usually very thin and nonadherent. Contact layer dressings should be used on clean wounds that are free of necrotic tissue and may be used with topical medications. In deep wounds, packing gauze may be needed to keep the contact layer dressing fitted to the wound bed. Refer to the manufacturer's package insert for additional information.

Advantages. Protection of new tissue growth from trauma; allows passage of wound fluid; may be left in place up to 1 week with changes of secondary dressing as needed.

Limitations. Cannot be used with third-degree burns; not recommended for shallow or small-sized wounds; in the presence of viscous exudates or in wounds with tunneling or extensive undermining.

Brand names. Dermanet® (DeRoyal); Drynet® Wound Veils (Smith & Nephew, Inc.); Mepitel® Soft Silicone Wound Contact Layer (Molnlycke Health Care); Tegapore™ Wound Contact Material (3M Health Care).

References

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Ask Your Patients to Participate in "Patients' Perspectives: Living With..."

Dermatology nurses and other health care professionals may sometimes fail to appreciate and recognize the physical and emotional challenges faced by patients with a particular chronic dermatologic disease or condition. To better bring patients' feelings and perceptions into focus, the *Dermatology Nursing* Editorial Board is introducing a new series, "Patients' Perspectives: Living With...," and we need your help.

If you know of a patient who would be interested in sharing his/her experiences with the dermatology health care community, please ask him/her to briefly answer (3-5 sentences) for each of the following 10 questions.

1. When were you diagnosed with your disease/condition?
2. When and how did you find out you had the disease/condition?
3. How would you describe your appearance?
4. What kind of education and support were you given at the time of your diagnosis?
5. How has your disease/condition affected your life, physically and emotionally?
6. What would you like health care providers to know about treating people with your disease/condition?
7. What worked for you and what didn't (treatments, emotional support, etc.)?
8. What do you wish society knew about your disease/condition?
9. What would you tell other people who are newly diagnosed with this disease/condition?
10. How do you think living with this disease/condition will affect your life in the future?

To put a "face" on these insights, we also ask that patients include a color photo (headshot) of themselves. (Photos are optional; names will also be withheld upon request.) Our goal is that these important patient views and comments will improve patient care. Please consider asking interested patients to share their perspectives with dermatology nurses.

Submissions can be sent via e-mail to the journal office at dnjrnl@ajj.com or mailed to Patients' Perspectives, *Dermatology Nursing*, East Holly Avenue Box 56, Pitman, NJ 08071-0056.

Thank you for helping us in our efforts to improve dermatologic patient care.