Product Know-How: The Different Types of Wound Care Dressings

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Blog Category: Dressings
by the WoundSource Editors

Do you, as a wound care clinician, know the ingredients of the dressings you are using on your patients? Do you know brand names, or do you know dressing categories? There are over 6,000 dressings, and we as clinicians cannot possibly learn about every dressing. However, learning the categories of dressings, along with indications, can help simplify the puzzle. You first want to ask yourself what you are trying to do. Absorb exudate or donate moisture? Is there a biofilm contained in the wound? Is there a formulation or composition of the dressing that would work best?

Any break in the skin will most likely need a type of treatment for faster healing. Selecting the type of dressing can be a challenge to many health care professionals working in the wound care arena. There are countless topical agents and wound care dressings available in the wound care market. In this blog, we will be reviewing wound care dressings. Learning the dressing categories, ingredients, and variations available is beneficial in facilitating appropriate dressing selection with your patients.

Advanced Wound Dressings Categories

Advanced wound care products are designed to treat more complex wounds. A physician's order is required for the dressing to be covered by insurance, and many insurance companies will require specific documentation before approving coverage. Always check you patient’s payer source before choosing a dressing.

- **Alginate** – Fibers derived from brown seaweed or kelp. Available in a pad or a rope and can be impregnated with calcium, silver, or honey.
| **Antimicrobials** – Available in beads, creams, foams, gels, ointments, pads, pastes, pillows, powders, sheets, and strands. Can be impregnated with silver, cadexomer iodine, iodine tincture, or polyhexamethylene biguanide (PHMB). |
| **Cadexomer Iodine** – Contains 0.9% weight per weight iodine. Do not use in patients with known or suspected iodine sensitivity. |
| **Collagen** – Derived from bovine, equine, porcine, and/or avian sources, this dressing is available in a pad, sheet, particle, powder, and/or alginate and can be impregnated with silver. |
| **Composites** – Multiple layers that incorporate a semi- or non-adherent pad. There is an assortment of sizes available for this dressing. |
| **Contact Layers** – Woven or perforated material to line a wound bed, to protect a graft site or fragile epithelium. There is an assortment of sizes available for this dressing, and they can be impregnated with silicone or silver. |
| **Foam** – Polyurethane or polymer solutions capable of holding large amounts of fluid. They are available in bordered or non-bordered forms, layers, and strips; thickness varies. They can be impregnated with silver, honey, methylene blue, gentian violet, or silicone. |
| **Gauze** – Non-woven or woven sponges, strips, pads, bordered and can be impregnated with hydrogel, silver, or honey. |
| **Gelling Fibers** – Composed of sodium carboxymethylcellulose, blended super absorbents, gelling fibers are available in pads, ropes, and bordered. They can be impregnated with hydrogel, silver, or honey. |
| **Honey (medical grade)** – Manuka honey or active *Leptospermum*. Medical grade honey is available as a gauze, gel, alginate, hydrocolloid, or sheet. |
| **Hydrocolloid** – Made of gelatin, pectin, polysaccharides, or sodium carboxymethylcellulose, hydrocolloids are available in an assortment of sizes, shapes, wafers, pastes, powders, gels, sheets, films, and thin or thick available. They can be impregnated with silicone, alginate, silver, honey, or charcoal. |
| **Hydrogel** – Glycerin and water based, hydrogels are available in gauzes, gels, and sheets and can be impregnated with silver or collagen. |
| **Negative Pressure Wound Therapy (NPWT)** – This dressing is available as a foam that is plain, antimicrobial, or a higher density for tunneling and undermining. It can be impregnated with silver. |
| **Petrolatum and Oil Emulsions** – These dressings are available in an assortment of sizes. |
Silicone Sheets – Cross linked polymers. Available in an assortment of sizes.

Specialty Absorbents/Super Absorbents – Multilayer system of highly absorptive fibers, such as cellulose, cotton, or rayon. Available in an assortment of sizes and shapes.

Transparent Film – Polymer membranes that are impermeable to liquid, water, and bacteria. They are permeable to moisture vapor and atmospheric gases. They are available in an assortment of sizes, sheets, and roll style and come in sterile and bulk. They can be impregnated with silver.

Wound Filler – Beads, creams, foams, pillows, gels, ointments, pastes, pads, powders, strands, or other formulations to maintain a moist wound healing environment. Can be impregnated with cadexomer iodine, silver, honey, or antibiotics.

Topical Agents

Topical Antifungals

Antifungal creams, powders, liquids, or sprays are used to treat fungal infections of the skin. They include clotrimazole, econazole, ketoconazole, miconazole, tioconazole, terbinafine, and amorolfine.\(^2\)

Topical Antibiotics

Antibiotic creams and/or ointments—such as bacitracin, triple antibiotic ointment (polymyxin B, neomycin, bacitracin), gentamicin, mupirocin, and erythromycin—are used to treat skin infections.\(^3\)

Topical Corticosteroids

Corticosteroids are used to treat dermatitis, rash, pruritus, and eczema. There are four classifications of corticosteroid potency.\(^4\)

1. **LOW**: alclometasone dipropionate (Aclovate), desonide (Desowen, Verdeso), and hydrocortisone (Hytone)
2. **MEDIUM**: betamethasone valerate (Luxiq), clocortolone pivalate (Cloderm), fluocinolone acetonide (Synalar), flurandrenolide (Cordran), fluocinonide (Lidex), fluticasone propionate (Cutivate), hydrocortisone butyrate (Locoid), hydrocortisone valerate (Westcort), mometasone furoate (Elocon), and prednicarbate (Dermatop)
3. **HIGH**: amcinonide (Cylocort), desoximetasone (Topicort, Topicort LP), halcinonide (Halog), clotrimazole-betamethasone dipropionate (Lotrisone), and triamcinolone acetonide (Kenalog)
4. **VERY HIGH** betamethasone dipropionate (Diprolene), clobetasol propionate (Clobex, Temovate, Olux), diflorasone diacetate, fluocinonide (Vanos), tacrolimus (Protopic), and halobetasol propionate (Ultravate)

How much do you know about wound dressing selection and application? Take our 10-question quiz to find out! [Click here.](#)

**Topical Antiseptics**

Many topical antiseptics are active against gram-positive and gram-negative bacteria, though each type will have different efficiency rates against the more robust bacteria, such as *Pseudomonas aeruginosa* or *Staphylococcus*. Make sure to review manufacturer information regarding indications and contraindications before applying a topical antiseptic.⁵

- **Acetic Acid** – 0.25%, 0.5%, and 1% solutions. Active against gram-positive and gram-negative bacteria, including *Pseudomonas aeruginosa*.

- **Cadexomer Iodine** – Gel, ointment, pad. Broad spectrum.

- **Chlorhexidine Gluconate** – 40% solution. Active against fungi and bacteria. NOT active against *Pseudomonas aeruginosa*.

- **Dialkycarbonyl Chloride (DACC)** – Available in different shapes and sizes. Bacterial spectrum. Irreversibly binds bacteria, then removes bacteria at dressing removal. Four-day wear time for wound bed preparation; 12- to 24-hour wear time for critically colonized and infected wounds.

- **Hexachlorophene** – Liquid and foam formulations. Biguanide that is bacteriostatic against *Staphylococcus* species and other gram-positive bacteria.

- **Hydrogen Peroxide** – 1% and 3%. Oxidizing agent active against many gram-positive and gram-negative bacteria.

- **Iodine Compounds/Tincture** – Solutions. Microbicidal against bacteria, fungi, viruses, spores, protozoa, and yeasts.

- **Sodium Hypochlorite** – 0.0125%, 0.125%, 0.25%, and 0.5%. Vegetative bacteria, viruses, and some spores and fungi.

**Topical Antimicrobials**

- **Medical Grade Honey** – Gel, gauze, and alginate. Broad spectrum. ⁵
Silver Dressings

Silver dressings are broad spectrum against gram-positive and gram-negative bacteria.

**Silver Ion** – Silver ions (Ag+) are released in the presence of exudate, binding to bacteria cells. The amount of silver ions released are proportionate to the amount of exudate.  

**Silver Nitrate** – Swabs, solution, and ointment available.

**Silver Sulfadiazine** – Cream 1%. Broad spectrum against Candida; used to prevent and treat serious burn and wound infections.

**Gentian Violet** – Antiseptic dye and weak antibacterial used to treat fungal infections of skin, abrasions, ringworm, athlete’s foot. Can be in a solution or impregnated into polyurethane foam. Effective antimicrobial and antifungal properties; reduces bacterial load. Early and sustained antimicrobial protection; helps prevent biofilm.

**Methelyne Blue** – Can be impregnated into a foam dressing. Strong affinity for dead cells, not viable cells. Strong Caution: draws negatively charged bacteria. Attracts protein rich exudate (bacteria and dead tissue) into the dressing. Effective antimicrobial and antifungal properties; reduces bacterial load. Early and sustained antimicrobial protection; helps prevent biofilm.

**Conclusion**

As health care professionals, we have many choices for dressing treatments. Knowledge of dressing category and ingredients will help you to make the appropriate dressing selection. However, keep in mind that patient’s wound history, comorbidities, needs, environment, and payer source may play a large part in that decision.

*Note: The information provided herein is for informational purposes. Always refer to manufacturer information for Indications, Warnings and Precautions for a specific product.*

**References**


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February 25th, 2021

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January 7th, 2021

By: Emily Greenstein, APRN, CNP, CWON, FACCWS

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April 21, 2021 1:00 pm to 2:00 pm EDT Register

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