Author, Journal, Year, Title	Dressing	Purpose	Study Design	N	Results	Clinical Relevance
Ovington, L. *Advances in Skin & Wound Care*, March/April 2002; Hanging Wet-to-Dry Dressings Out to Dry.	Wet-to-Dry Gauze	To present information on effective alternatives to wet-to-dry dressings in the management of wounds.	Review including retrospective and prospective clinical studies	NA	A wound is healed within 4 weeks of treatment with an advanced dressing while only 50% healed in 4 weeks with gauze. Gauze and saline costs more than $115 per 1% reduction in wound size, whereas the semiocclusive foam dressing costs approximately $13 for the same reduction.	Wet-to-Dry dressing is non-selective, allows a loss of tissue temperature, and is associated with higher infections rates as compared to transparent films or hydrocolloids. Removal disperses airborne bacteria. Semiocclusive dressings are more financially feasible from a total cost perspective.
Zehnder M, Kosicki D, Luder H, et al. *Oral Surg Med Oral Pathol Radiol Endod,* 2002; Tissue-dissolving capacity and antibacterial effect of buffered and unbuffered hypochlorite solutions.	Dakin's Solution	To compare Dakin's (0.5% solution buffered at a pH of 9) to unbuffered 2.5% and 0.5% sodium hypochlorite solutions and 0.5% solution buffered at a pH of 12.	Cross-sectional	4 animal tissue specimens	The filter paper test showed that both unbuffered NaOCl and Dakin's eradicated E faecalis. The Dentin block test showed that both unbuffered NaOCl and Dakin's disinfected the cultivated dentin layers at o.5% and 0.25%; 0.05% had no effect.	Regardless of pH, osmolarity, or buffer capacity, Dakin's is equally aggressive on living or decayed tissue. It is effectively antibacterial, but these findings confirm the indication to only use Dakin's on heavily necrotic wounds with no viable tissue present.
Sloss JM, Cumberland N, Milner SM. *J r Army Med Corps*, 1993; Acetic acid used for the elimination of Pseudomonas aeruginosa from burn and soft tissue wounds.	Acetic Acid	To further evaluate the ability of topical acetic acid to eliminate P. aerugoinosa from colonized and infected burn and chronic superficial wounds.	Prospective clinical study	16 patients age 14-88; (8 skin ulcers, 8 burns between 2% and 30% total body surface)	Pseudomonas aeruginosa was eliminated from 14 of the 16 wounds within 2 weeks of treatment. 5% Acetic Acid was most effective for elimating P. aeruginosa from wounds.	Acetic acid is an inexpensive and effective agent for eliminating P. aeruginosa from burn and soft tissue wounds.
Glat P, Kubat W, Hsu JF, et al. *Journal of Burn Care & Research*, March/April 2009. Randomized Clinical Study of Silvasorb Gel in Comparison to Silvadene Silver Sulfadiazine Cream in the Management of Partial-Thickness Burns.	Silvasorb vs. Silvadene	To assess the clinical, microbiological, and patient comfort characteristics of two silver-based topical agents in the management of partial-thickness burn wounds.	Randomized Clinical Study	24 patients age 2 months-18; total body surface area burns between 1% and 40%.	More patients receiving Silvasorb Gel reached reepithelialization within the 21-day study period than those in the Silvadene group, but was insignificant with a P-value of 0.949.	There were no statistically significant differences regarding rate of infection, time to reepithelialization, or the number of dressing changes required during treatment. Silvasorb patients reported less pain using the Wong-Baker Pain Scale and greater satisfaction.

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Thomas A, Harding KG, Moore K. *Biomaterials*, Sept 2000; Alginates from wound dressings activate human macrophages to secrete tumour necrosis factor-alpha.	4 types of alginate: Kaltostat, Tegagen, Seasorb, and Sorbsan	To determine whether alginate containing dressings may induce macrophage activation in vitro.	Prospective experiment	Unquantifiable number of cells of the human histiocytic lymphoma cell line U937	All four types of alginate induce secretion of Tumor Necrosis Factor-alpha (this indicates macrophage activation), with Kaltostate having the greatest effect. Kaltostat has the thickest fibers and exerted the greatest bioactivity by inducing cytokine secretion by macrophages.	Alginates induce secretion of TNF-alpha which exerts a transient pro-inflammatory effect that recruits fresh leucocytes from the blood to re-initiate the cascade of events necessary for healing.
Shi L, Carson D. *Journal of Wound, Ostomy, and Continence Nursing,* Nov/Dec 2009; Collagenase Santyl Ointment: A Selective Agent for Wound Debridement.	Santyl Collagenase	To present evidence that demonstrates that collagenase ointment is an effective, selective, and safe wound debriding agent.	Review	NA	Santyl is the only enzymatic wound debriding product that targets collagenous materials in necrotic tissue. Other agents, such as papain and trypsin, are nonspecific or specific to other fibrous proteins. After 8 days of treatment with Santyl, 85% of animals with partial-thickness wounds had completely reepithelialized compared to 10% treated with petrolatum and 0% treated with moist dressing and 0% untreated.	Santyl acts only on necrotic tissue while sparing viable tissue and valuable growth factors. Santyl improves quality and rate of reepithelialization in both partial- and full-thickness wounds. Santyl is effective in digesting collagen debris in necrotic tissues. Santyl and the resulting degradation products have the potential to promote cell migration.
Leaper DJ, Durani P. *Int Wound J*, 2008; Topical antimicrobial therapy of chronic wounds healing by secondary intention using iodine products.	Iodosorb	To evaluate the use of iodine products in chronic wound care including povidone-iodine solutions and cadexomer iodine.	Review	NA	Iodosorb has been found to be nontoxic to fibroblasts in culture and to stimulate experimental epidermal regeneration and be able to stimulate healing clinically. It is antibacterial against Pseudomonas and MRSA. In an early multicenter comparison against standard therapy in leg ulcers, Iodosorb reduced pain, pus, infection, odor, and erythema; it improved rate of granulation tissue and achieved healing in the 93 patients treated.	The slow iodine release, ease of application, lack of toxicity, and antibacterial properties of Iodosorb make it superior for use in chronic open wound care. Iodosorb can destroy biofilms.
Bianchi J, Gray D,	Foam	To examine key	Review	NA	In venous leg ulcers, pressure	There is little difference in clinical

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Timmons J, Meaume S. *Wounds UK,* 2011. Do all foam dressings have the same efficacy in the treatment of chronic wounds?		studies which analyze the effectiveness of foam dressings to manage exudate in chronic wounds and determine if any particular foam product has proven greater efficacy over the competition.	examining 8 RCTs		ulcers, and arterial leg ulcers, 2581 patients studied in 8 RCTs achieved similar results in terms on time to healing (5.6-10.7 weeks), healing rates (34%-66.7%), and decrease in ulcer size. Foams studied included: Cutinova, Allevyn, Allevyn Adhesive, Lyofoam Extra, Biatain, Mepilex Border, Versiva, Alione, and Tielle/Tielle Plus.	efficacy between types of foam products. This review suggests that clinicians choose dressings based on patient comfort, dressing retention, dressing profile, and ease of use.
Schultz GS, Sibbald RG, Falanga V, et al. *Wound Rep Reg*, 2003. Wound bed preparation: a systematic approach to wound management.	Impregnated Gauze	To provide an overview of the current status, role, and key elements of wound bed preparation.	Review	NA	Infected, exudative wounds require debridement and should then be covered by salt-impregnated gauze (or calcium alginate, foam, or hydrofiber). NaCl gauze needs to be changed daily whereas the dressings listed in parenthesis can be worn for up to 1 week.	Foams, hydrofibers, and salt-impregnated gauze are the most appropriate for sloughy or exudative wounds. NaCl gauze also offers mechanical debridement and has antibacterial properties.
Meaume S, Ourabah Z, Romanelli M, et al. *Current Medical Research and Opinion,* 2008. Efficacy and tolerance of a hydrocolloid dressing containing hyaluronic acid for the treatment of leg ulcers of venous or mixed origin.	Hydrocolloid	To compare efficacy and tolerance of a new hydrocolloid dressing containing hyaluronic acid to a reference hydrocolloid not containing hyaluronic acid in the treatment of leg ulcers of venous or mixed origin.	Open, prospective study, randomized in parallel groups	125	There was no statistically significant difference between healing. After 42 days of treatment, the median reduction of ulcer area for the hydrocolloid with hyaluronic acid group was -42.6% while the hydrocolloid group was -31%. Wounds dressed with hydrocolloid plus hyaluronic acid achieved a ≥90% reduction of initial ulcer area in 15 patients as opposed to only 7 patients in hydrocolloid group. Both treatments were well tolerated.	Hydrocolloid dressings with hyaluronic acid seem to be more effective than original hydrocolloid dressing with a trend toward increased healing and decreased fibrinous tissue in the wound bed. A previous meta-analysis (2004) that included 12 RCTs (N=819 chronic wounds) found hydrocolloid dressings to heal 72% more ulcers than conventional gauze dressings.**
Dornseifer U, Fichter AM, Herter F, et al. *Ann Plast Surg,* 2009. The Ideal	Film	To determine the efficacy of a modified	Cross-sectional	30 donor sites 0.010 to 0.015	Patients reported zero to minimal pain with wearing dressing, and only minimal pain	This film dressing is associated with a reliable, rapid rate of epithelialization. It controlled

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Split-Thickness Skin Graft Donor Site Dressing, Rediscovery of Polyurethane Film.		perforated, polyurethane film dressing in the healing of leaking skin graft donor sites.		inches thick, 48 to 1050 cm^2, mean size 202 cm^2	with removal. The film layer preserved a moist wound environment while reepithelialization was progressing. 26 patients achieved complete reepithelialization by day 10. 2 patients incurred infection, 0 formed hematomas or seromas.	leakage and caused no to minimal pain. This dressing is suitable for differently shaped and large donor sites. This modification seems to be a more practicable, comfortable, and cost-effective film dressing for split-thickness skin grafts.

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