


Wound Care Treatment Options



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Wound Treatment Options

- Driven by condition of wound bed and surrounding tissue.
- Treatments may be combined to create an optimal healing environment. 
- A given wound may have several appropriate treatment options
- Treatment should be changed in non-healing wound after 2-4 weeks if no known cause for healing delay

Basic Treatment Categories

Moisture donating

Moisture absorbing

Enzymatic

Hemostatic

Antimicrobial

Cavity filling

Stimulatory

 Substrate providing

Artificial membranes

Treatment Decisions

- If you have necrotic tissue—Debride it
- If it is too wet—Absorb it
- If it is too dry—Moisten it
- If there is a cavity—Fill it
- If there is infection—Kill it
- If there is bleeding—Stop it
- If there is odor—Eliminate it

Debridement Options

Autolytic: Slowest, uses bodies own enzymes to slowly eat away necrotic tissue

- Mechanical: Physical removal of necrotic tissue, ie wet-to-dry, pulse lavage, whirlpool, ect...
- Enzymatic: Chemical enzymes that debride away necrotic tissue over a period of days to weeks.

Surgical Sharp Debridement

- Removal of necrotic tissue with a curette or blade.
- Well documented effectiveness in healing and prevention of infection.
- Removal of senescent cells in the presence of little visible slough
- Repeated procedures necessary to achieve optimal effect.
- Performed by a trained clinician (Physician or trained Nurse Practitioner).

Current Enzymatic Debriding Agents

- Collagenase (Santyl)
 - Obtained from bacteria
 - Selective debridement of tissue types
 - Viewed as working from wound base up
- Papan-urea
 - From papaya plant
 - Non selective necrotic tissue debridement
 - Viewed as working from the top down
- Avoid use with silver products


Antimicrobials

- Antibiotics: Over-use may lead to resistant bugs
- Silver: Bacteriostatic; no known resistance, not an antibiotic, therefore no resistance develops, but patient sensitivity can
- Avoid treating cultures of biofilm

Wound Cultures

- Avoid cultures in well healing wounds without signs of infection
- Gold standard is tissue biopsy after removal of necrotic tissue and slough
- Lavine technique when biopsy not possible
- Biopsy should be performed by trained clinician.

Cavity Filling

- Calcium Alginate (maxorb)
- Hydrofibers (aquacel)
- Iodaform 
- Silvasorb Cavity
- Hydrogel impregnated gauze

Stimulatory Agents


- Collagen Dressings (Fibercol, Puracol, Cellerate)
- Growth Factors (Regranex, Oasis)
- Trypsin containing agents (Xenoderm, Granulex)

Tissue dressings

- Apligraf
- Skin Grafts
- Skin Flaps



Older Treatments to Avoid

- On rare occasions these treatments may still be appropriate.
 - Wet-to-dry 
 - Dakin's Solution
 - Betadine, Iodine, ect...

Closing Remarks

- Wound bed condition drives treatment choice.
- Removal of necrotic tissue prevents infection, reduces bioburden, and stimulates new growth.
- Re-evaluate wounds frequently and consider changes if 2-4 weeks pass without improvement.