Unstageable Ulcer
Staging

According to the National Pressure Ulcer Advisory Panel (NPUAP), pressure ulcers should not be “down staged” or “reverse staged,” however the RAI manual directs the MDS user to do so. [RAI manual pp. 3-135, HCFA Q&A #8].
Staging

- The recommendation is for specific facility policy to reflect “best practice” by not reverse staging in the resident’s record, but rather document the stage of the pressure as initially visualized (and/or at its highest stage), then document progress according to specific assessment parameters.
Assessment of the Pressure Ulcer: Undermining

- Generally appears as an area of skin ulceration at the margins of the ulcer
- Usually an indication of regression
- Measured in cm described according to a clockface

- “0.7cm undermining from 9:00 to 12:00”
Assessment of the Pressure Ulcer: Tunneling

- A passageway under the surface of the skin
- Usually an indication of regression
- Measured in cm, described according to a clock face

- “1.5cm tunneling at 10:00”
Assessment of the Pressure Ulcer: Exudate

- Often called drainage
- Fluid extruded from a wound bed
Assessment of the Pressure Ulcer: Necrotic Tissue

- “Dead tissue”

- May present as gray, brown, yellow slough or leathery brown, black eschar
Assessment of the Pressure Ulcer: Granulation Tissue

- Pink/red moist tissue that contains new blood vessels and essential components to promote growth.

- Healthy components of a wound bed, presents like a “good beef steak”
Assessment of the Pressure Ulcer: Epithelialization

- Migration of cells across the top of the wound bed
- Necessary for wound closure
Assessment of the Pressure Ulcer: Periwound skin

- Skin surrounding the wound
  - Erythema-redness of the intact skin
    - some redness is normal response to healing
  - Maceration-dampness of the skin
    - skin will look white, wrinkled
  - Induration-hardness of the skin
Assessment of the Pressure Ulcer: Pain

- Routine assessment/management of pain should occur ongoing, specifically with each dressing change and with any invasive procedure.

- Increasing pain may indicate regression or worsening of a wound.
Reassessment of the Pressure Ulcer

- Wound bed and periwound skin should be reassessed daily or with every dressing change if less than daily.

- Documentation of wound progress should occur weekly unless there is evidence of worsening.
Reassessment of the Pressure Ulcer

- Evidence of wound healing is expected within 2-4 weeks

- Increases in exudate, edema, necrosis, pain, and/or loss of granulation tissue indicate wound regression
Treatment of Pressure Ulcers

“Goals of pressure ulcer treatment should not only include assessment and management of the wound, but overall assessment and management of the individual.”

Treatment of Pressure Ulcers

“Ulcer healing may not be achievable in all cases; however, in the absence of complications, some improvement in ulcer characteristics should be expected in most patients.”

AMDA Practice Guideline for Pressure Ulcers (2008)
Treatment Factors

- Ulcer location, size, and depth (full or partial thickness)
- Presence of undermining or tunneling
- Presence of necrotic tissue
- Type & amount of drainage
- Presence of granulation or epithelialization
- Presence of surrounding skin erythema, edema or induration
- Presence & severity of ulcer related pain
Treatment of the Pressure Ulcer
Wound Cleansing

- Cleanse initially and with each dressing change
  - Use normal saline or *approved* wound cleanser
  - Avoid skin cleansers or antiseptic agents i.e., betadine, alcohol, hydrogen peroxide, acetic acid
  - Avoid aggressive cleansing/scrubbing of the wound bed.
Cleansing

- Only use safe and effective ulcer irrigation pressures (4 to 15 pounds per square inch [PSI]).
  - Normal saline in a 35cc syringe with an 18 gauge needle delivers 8 psi.
  - Water pik at lowest setting delivers 6 psi, mid setting 42 psi, high setting > 50 psi.
  - Pressure settings too low are ineffective, too high can drive bacteria back into the wound bed and cause serious problems.
Cleansing

- Whirlpool treatments are appropriate for cleansing ulcers that have thick exudate or necrosis.
- Clean wounds tend to dry out and are not appropriate for WP treatments.
Treatment of Pressure Ulcers
Dressing Selection

- **Stage I - ”Intact Skin”**
  - Goal is to provide pressure relief, pressure relief, pressure relief
  - Only appropriate dressing would be hydrocolloid (i.e., duoderm) if friction is a factor
  - May not have any dressing at all
Stage II-IV clean wound covered with granulation tissue

- Goal is a moist, clean wound bed
- If the wound is a shallow stage II, may only use moisture barrier or hydrocolloid.
- May use hydrogel (water like jelly) covered with gauze.
- Loosely pack with gauze if depth is present
Dressing Selection

- Stage III or IV exudating wounds
  - Goal to absorb exudate, prevent breakdown of periwound skin and prevent drying out of wound bed
  - Should use absorptive dressing (i.e., calcium alginate) with moisture barrier applied to periwound skin
  - Whirlpool treatments daily to twice daily
Dressing Selection

- Stage III or IV necrotic wound
  - Goal to debride necrotic tissue to promote healing

- EXCEPTION: stable heel ulcers with dry eschar (no edema, erythema, exudate (drainage)…aggressive pressure relief only
Dressing Selection

- **Types of debridement**
  - Sharp (knife, scalpel, scissors...must be done by a physician or licensed qualified staff i.e. therapist, RN)
  - Mechanical (wet to dry, whirlpool, wound irrigation)
  - Enzymatic (collagenase – FDA approved)
  - Autolytic (bodies own mechanism of fighting – self digest...may use hydrocolloid)
Not all Ulcers Require Debridement
Not all ulcers require debridement
Eschar

Sharp Debridement
Sterile Instruments
Sharp Debridement
Autolytic Debridement
Enzymatic Debriding Agents

Collagenase Santyl® Ointment

250 u/g
15 g
Also available in 30 g
Enzymatic debriding agents

- Collagenase Santyl® Ointment is a sterile enzymatic debriding ointment which contains 250 collagenase units per gram of white petrolatum USP. The enzyme collagenase is derived from the fermentation by Clostridium histolyticum. It possesses the unique ability to digest collagen in necrotic tissue.

- Prior to application the wound should be cleansed of debris and digested material by gently rubbing with a gauze pad saturated with normal saline solution, or with the desired cleansing agent.
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Santyl Ointment may be applied once a day and PRN to the wound or to a sterile gauze pad which is then applied to the wound and properly secured.

Use of Collagenase Santyl Ointment should be terminated when debridement of necrotic tissue is complete and granulation tissue is well established.
Dressing Selection

- **Cardinal rule**—Keep wound bed moist and surrounding intact skin dry.
What's wrong with this wound???
Is this wound going to heal?
What’s is wrong with the dressing that is being used?
Why isn’t this wound healing?
This is what a good healing wound looks like
Treatment Categories

- Polyurethane Film (Tegaderm™, Op-Site™)
  - Adhesive and transparent
  - Stages 1-2
  - Occlusive and waterproof
  - Impermeable to bacteria & contamination
  - Change every 3-7 days
Hydrocolloid (Duoderm®, Replicare®)
- Adhesive wafers composed of gelatin, pectin and carbocymethyl-cellulose
- Stages 1-4
- Occlusive and waterproof
- Moderately absorbent
Treatment Categories

- Hydrogels (Hypergel®, SoloSite◊)
  - Glycerin or water based gels, wafers, sheets & impregnated gauze with or without adhesive border
  - Stages 2-4
  - Non-adherent
  - Fills dead space
  - Easy to apply and remove
Treatment Categories

- Foams (PolyMem®, Allevyn®)
  - Hydrophillic polyurethane foam, available in wafers, sheets and pillow with foam covering
  - Stages 2-4
  - Non adherent
  - Easy to apply and remove
  - Highly absorbent
Treatment Categories

- Alginates (Sorbsan™, Kaltostat®)
  - Non woven fibers containing calcium sodium slats of alginic acid, available in pads or ropes
  - Stage 2 wounds with a lot of exudate
  - Stages 3-4
  - Non-adherent
  - Promotes moist wound healing
  - Can be used on infected wounds
Antimicrobial (ACTICOAT◊, ALLEVYN Ag◊)

- Ionic silver & cadxomer idenit that provides sustain antimicrobial barrier to bacteria include MRSA and VRE
- Can be found in alginates, gels and polyurethane film
- Stage 2 wound if antimicrobial is needed
- Stages 3-4
- Manages bacterial burden
- Non-cytotoxic
Treatment Categories

- **Collagen (Biostep◊, Prisma®)**
  - Provides the matrix for the body’s tissue structure. Stimulates wound healing
  - Can be found as dried collagen matrix, hydrogel with collagen, hydrogel base)
  - Wounds that have stalled in healing
  - Chronic wounds
  - Pulls wound edges together
Treatment Categories

- **Gauze, Dry or wet**
  - Woven natural cotton fibers, available in pads, and rolls, sterile and non sterile
  - Stages 2-4 especially if wound is deep or has tissue that needs debridement
  - Facilitates moist to dry debridement
Related Treatment Option

- Wound Vacs (KCI Vac®, V1STA ®

  - Controlled negative pressure to promote wound healing
  - Pulls infectious materials and excess interstitial fluid from the wound
  - Pressure Ulcers, traumatic wounds, post op dehisced and surgical wounds
Surgical intervention – skin flap
Infection Control Practices

- Use clean gloves for each resident.
- When treating multiple ulcers on the same resident, attend to the most contaminated ulcer last.
- Remove gloves and wash hands between residents.
Caregivers must wash their hands before contact with the supply of clean dressings or dressing supplies. Once the CG hands are soiled with secretions, they should not come into contact with the remaining clean supplies until gloves are removed and hands are washed.
Managing Infection

- Minimize colonization by effective wound cleansing and debridement
- Protect PU from exogenous sources of contamination (feces, urine)
- Do not use swab cultures to dx wound infection since all PU are colonized. If a wound is not healing consider a 2 week trial of topical antibiotics (i.e., silver sulfadiazine, triple antibiotic)
- Institute appropriate systemic antibiotics for pts with s/s of systemic infections (sepsis, advancing cellulitis, osteomyelitis).
Infection Control

- Use sterile instruments to debride (sharp debridement should be done by a physician or qualified licensed staff, I.e. APN, therapist)
- Use clean dressings rather than sterile dressings to treat pressure ulcers as long as dressing procedures comply with facility I.C. practices
Support Surfaces

- **Static Mattress/Cushion**
  - Pressure reducing device designed to provide support; characteristics remain constant (foam overlay, cushion, water, egg crate [> 4in])
  - Used what a person can assume a variety of positions without bearing wt on a pressure ulcer
  - Watch for “bottoming out”
Dynamic Surfaces

- Pressure reducing device that changes its support characteristics in a cyclical fashion (alternating air mattress)
- Used when a person cannot assume a variety of positions without bearing wt on a pressure ulcer
Mattress Overlay
Support Surfaces (cont)

- **Low Air Loss**
  - Interconnected woven fabric pillows that allow some air to escape through the pillows. Pillows can be variably inflated to adjust level of pressure

- **Air-Fluidized**
  - Uses a high rate of air flow to fluidize fine particulate material to produce a liquid medium
  
  Both types used for large stage III/IV ulcers on multiple turning surfaces
  
  Both types $$$$$$$ to buy or lease
Assessment and Management of the Resident

- Monitor for potential wound related complications
  - Cellulitis—inflammation around wound site, may advance beyond the wound
  - Osteomyelitis—inflammation of the adjacent bone
  - Sepsis—presence of infection in the blood
Assessment and Management of the Resident

- **Nutrition/Hydration**
  - Monitor and document intake
  - Offer assistance as necessary to ensure adequate intake
  - Protein, vitamin, mineral supplements as appropriate
    - Vitamin C and Zinc most commonly used
Assessment and Management of the Resident

- **Pain**
  - Routine assessment every 4 hours, prior to dressing change, and any invasive procedures
  - Assessment of cause of pain, worsening pain may indicate worsening of the wound
  - Interventions to include pharmacologic and non-pharmacologic measures
Assessment and Management of the Resident

- Psychosocial
  - Potential for depression and/or problem behavior due to wound presence, pain or change in function
  - Appropriate management of depression symptoms and problem behaviors should be occurring
Documentation

- Initial and ongoing risk assessments
- Weekly wound record to include assessment of wound bed and periwound skin
- Record of changes to treatment plan as wound changes (heals or regresses)
RAp that addresses:

- Resident specific risk(s), specific MDS items that triggered. Should include skin risk assessments, medical dx, nutritional status that affect resident specifically.
- Prevention modalities
- Presence/absence of actual wounds
- History of pressure ulcers
Care Plan to address

- Problem statement including resident specific risks and any actual wounds
- Appropriate, realistic goals determined with interdisciplinary input
- Interventions for prevention and/or treatment as appropriate
- Interventions for management of the resident (nutrition, hydration, mobility, etc)
At the time of the identification, the clinician is expected to document the clinical basis (e.g. underlying condition contributing to the ulceration, ulcer edges and wound bed, location, shape, condition of surrounding tissue) which permit differentiating the ulcer type, especially if the ulcer has characteristics consistent with a pressure ulcer, but is determined not to be one.