Debridement
Principles of local wound management (TIME)

- **T** - tissue viability
  - Debride non-viable tissue
  - (unless contraindicated)

- **I** - infection & inflammation control
  - Look for clinical signs
  - Antimicrobials, antibiotics

- **M** - moisture control
  - Dressings

- **E** - edge
  - Edge characteristics
  - Edge advancement
Debridement Goals

- Wound cleansing
- Reduce bacterial contamination
- Provide an optimal wound environment for healing
- Preparation of surgical intervention
Debridement Goals

- The decision to debride & which method to use, is determined by:
  - The patient condition
  - Goal of care
  - The wound assessment
  - Environmental considerations
  - Skill of the caregiver
  - Frequency of the procedure/treatment
  - Financial implication
  - Time
Debridement Goals

• After debridement wounds often increase in size and/or shape
• Using a combination of techniques will expedite the process
• Debridement and healing often take place at the same time
Methods of Debridement

- **Surgical/sharp**
  - Extends into healthy tissue

- **Conservative sharp**
  - Does not extend into nor excise healthy tissue

- **Autolytic**
  - Uses dressings to achieve the optimal moisture balance to facilitate the body’s processes

- **Enzymatic/chemical**
  - Use of enzymes or chemicals to break up non viable tissue

- **Larval**
  - Use of sterile blue-bottle fly maggots
  - Only commercially produced maggots should be used

- **Mechanical (including ultrasound and hydrosurgical)**
  - Uses force Eg. Wet-to-dry gauze, hydrosurgery, dry gauze
Methods of Debridement

Curettes
- 4 mm diameter disposable sharp curette can be bent into various shapes to fit into concavities and pockets of various shapes.
- Large curettes are available in central and peripheral debridement.
- Other curettes are used in central and peripheral debridement.

Surgical blades
- A #10 blade is used for removal of necrotic tissue.
- A #15 blade is used for debridement.

Nondisposable scalpels
- Plastic surgerical scalpels that will not leave metal trauma.

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Methods of Debridement

- Use mechanical, autolytic, enzymatic, and/or biological methods of debridement when there is no urgent clinical need for drainage or removal of devitalized tissue.
- Conservative sharp debridement is recommended in the presence of extensive necrosis, advancing cellulitis, crepitus, fluctuance, and/or sepsis secondary to ulcer-related infection.
- Conservative sharp debridement and surgical/sharp debridement must be performed by specially trained, competent, qualified, and licensed health professionals consistent with local legal and regulatory statutes.
- Use sterile instruments for conservative sharp and surgical/sharp debridement.
- Use conservative sharp debridement with caution in the presence of:
  - immune incompetence,
  - compromised vascular supply, or
  - lack of antibacterial coverage in systemic sepsis
Wound Assessment

- Presence of eschar – Slough, dead tissue, hard or soft, yellow to black in color
- Erythema – Peripheral inflammation, local heat, swelling, pain - infec
- Induration – Mushy boggy feel, may indicate deep tissue death
- Pigmentary changes - chronic ischemia, venous disease, prolonged edema
- Purulence – Differentiate this from tissue slough
- Blistering – Adjacent skin or that overlying the region of tissue damage
- Bleeding – Presence or absence in portions of the wound
- Pulses – Check for adjacent pulses – confirm vascular flow
Indications for Debridement

• Presence of deep eschar – such that other methods will not work
• Gross purulence, infection
• Quantity of dead tissue such that other methods would be too slow
• As an adjunct to allow other methods to work (following debridement)
Aggressiveness of Debridement

• Depends on the “load” of devitalized tissue
• Consider patient tolerance limits
• Consider your time constraints, help situation, etc
• Important to set limits:
  – 15 – 30 minutes for each clinician
  – plan for serial sessions
  – limit patient and clinician fatigue/discomfort
  – limit bleeding
When to Stop Debridement

- Impending exposure to bone, tendon, or nerve
- Location of fascial plane
- "Finding" a named structure
- Excessive bleeding
- When you get nervous
When is a Physician Required:

- Patient is febrile or on a downhill course
- No wound improvement over several weeks or sessions
- New cellulitis
- Unexpected gross purulence
- Impending exposure of bone, tendon, nerve
- Abscess within tissues
- Encounter named structures, vessels
Warning Signs:
Consider asking for Reevaluation

- “Holes” places you don’t want to be
- Extensive undermining such that you can’t see
- Presence of gross purulence/infection that was unexpected
Bleeding during Debridement

- “All bleeding stops eventually ……..”
- “If it doesn’t bleed it is already dead”
- Should not be a source of fear
- Causing bleeding does increase amount of scarring
Methods to Stop Bleeding

- Pressure – simple, effective, and always with you
- Electrocautery – superb but very unlikely to be available
- Suture – Not likely to have or use
- Topical agents – Thrombin, Surgicel, Gelfoam. All are expensive, ? available
- Silver nitrate sticks – for minor bleeding only
Bleeding to Fear

• Bleeding you can’t see source of......
• Bleeding you can hear.......help had better be nearby
Pain Control in Debridement

- Topical methods have been fairly ineffective
- Oral/IM/IV methods work well, require some advance preparation
- Medications given 30 minutes prior to procedure increase tolerance
- Major debridement may need to be done in the OR
Post Debridement Care

- Cleans the wound with saline/water
- Apply appropriate dressing for location/wound
- Use of antibiotics varies with patient
Documentation

• Record in patient record or progress notes, summary of procedure:
  • Time and date
  • Type and amount of drainage
  • Condition of wound
  • Problems during debridement
  • Type of wound covering applied