



# 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

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

# Debridement Goals

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- **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

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- **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<sup>9</sup>

- 4 mm diameter disposable sharp curette can be bent into various shapes to fit into various shapes of various
- Large curette used for central area
- Other curettes used for debriding undermined

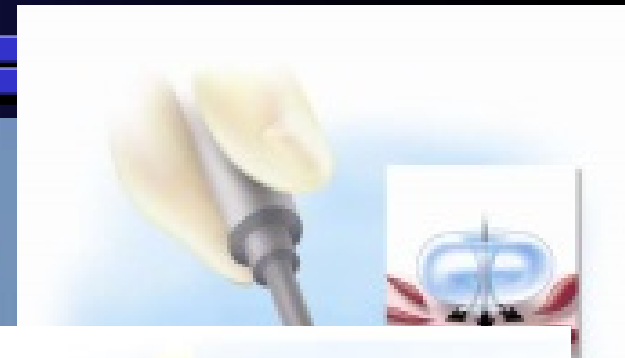


## Surgical blades

- A #10 blade used for debridement of necrotic tissue
- A #15 blade used for debridement of necrotic tissue

## Nondisposable

- Plastic surgical instruments that will not be used on the same patient



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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,
- Surgical/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 - ???infection
- 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

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- 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

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- **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

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- 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:

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- 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

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- “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

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- “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

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- **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

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- **Bleeding you can't see source of.....**
- **Bleeding you can hear.....help had better be nearby**

# Pain Control in Debridement

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- **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

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

# Documentation

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- **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**