Wound Assessment
Clues to Wound Healing

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Objectives

• State 5 components of wound assessment
• Describe how wound assessment can provide clues regarding the wound healing process
Wound assessment provides clues to the following:

A) Etiology of wound

B) Stage of wound

C) Type of dressing to use to promote healing.

D) All of the above
Answer: D

• Basic assessment of the wound can provide information that can provide important clues to the etiology, care needed to promote healing and expected outcome.
Anatomic Location

• Provide accurate description of wound to colleagues
• Clues about etiology: Knowing Etiology is key to healing the wound
• Plan of care needs
Size

• Provides overall gross size change as healing indicator
• Can vary by clinician
• Centimeters
• Length
• Width
• Depth
• Frequency
Undermining

- Tissue destruction under intact skin on the wound edges
- Pressure ulcers with injury from shearing
Tunnel

• Channel that extends from any part of wound through subcutaneous or muscle
Extent of Tissue Damage

- Guides interventions to promote healing
- Helps predict length of time to heal
- Must clean wound of necrotic tissue, particulate matter or dressing residue
Partial Thickness

- Confined to *skin* layers
- Does not penetrate below dermis
- May be limited to epidermal layers only
- Heals by epithelialization
Full Thickness

• Tissue loss below the dermis
• Healing occurs with granulation, wound contraction and epithelial migration from the wound edges
Pressure Ulcer Staging

- Stages I, II, III, IV
- Unable to Stage
- Possible Deep Tissue injury
- Reverse Staging
Skin Tear Categories
Payne-Martin Classification System

I. Skin tear can fully approximate wound
   A. Linear skin tear
   B. Flap-type skin tear

II. Skin tear with partial-thickness loss
    A. Scant tissue loss 25% or less
    B. Moderate to large tissue loss > 25%

III. Skin tear with complete tissue loss
Diabetic Ulcer Classification

• Numerous classifications exist in literature
• Wagner Ulcer Classification
  – Six grades based on depth and presence of osteomyelitis or gangrene
  – Pre-ulcer to Beyond salvage
Wound Bed
Percentage & Type of Tissue

- Granulation
- Hypergranulation
- Slough
- Eschar vs. Scab
- Wound edges
A scab and eschar are the same? 

A) True  
B) False
Answer: False

- Scab is dried blood and wound drainage
- Eschar is dead tissue
Epithelial tissue

- Regenerated epidermis across the wound surface
- Pale pink and dry
Rolled Wound Edges
This wound bed appearance is a clue that:

A) The wound bed has been too moist.

B) The wound bed has been too dry.

C) The wound has not had adequate off load.

D) The dressing has been on too long.
Answer: C

The purple discoloration to the granulation tissue can indicate pressure or trauma.

If proper off loading is not obtained wound healing will be delayed and even impossible.
Periwound Skin

- Color (erythema, purple, white)
- Texture (moist, dry, indurated, boggy)
- Temperature
- Integrity (denuded, stripping, pustules)
Venous Insufficiency

- Edema
- Brawny discoloration
- Hemosiderin staining
- Dermatitis
- Scaling
- Exudate
Arterial Insufficiency

- Pale
- Cool
- Dependent rubor
- Absent hair
Infection

- Erythema
- Fever
- Pain
- Heat
- Edema
- Induration
Pressure

- Hyperemia
- Edema
- Induration
- Discoloration
Wound Exudate

Contributes to healing process when it contains the right mix of growth factors and other components to stimulate tissue regeneration and cellular migration, debride necrotic tissue, and limit bacteria growth.

Amount varies by individual health, healing stages, type of wound

Is it contained in the dressing?
Exudate

- Color
- Odor
  - Clean wound first
  - Nonviable tissue
  - Dressing type
  - May indicate infection
  - Negative pressure therapy odor
Edema

• Edema interferes with wound healing
• Compression?
Circulation

- Lower extremity wounds
- Capillary refill > 2-3 seconds abnormal
- Pulses
- ABI
- Arterial Ultrasound
- Debride?
Sensation

- Monofilament testing
Wound Pain

- Infrequently measured
- Can interfere with treatment
- Venous not usually painful
- Arterial often painful especially when extremity elevated
- Neuropathic insensate
  - Underlying tissue damage can be worse than we think
Your patient has severe pain at night when in bed. You notice he is hanging his foot over the side of the bed.

This ulcer is most likely:

A) Neuropathic
B) A skin tear
C) Arterial
D) Venus Stasis
Answer: C

Pain with elevation is typical with severe arterial insufficiency.

Patients with arterial ulcers should not have the extremity elevated above the level of their heart.
Social Issues

What are the patient and caregivers able and willing to do?
The most likely etiology for this wound is:

A) Pressure
B) Diabetic
C) Venus Stasis
D) Arterial Insufficiency
Answer: A

Pressure from the cervical collar is the cause for this wound.

Thorough assessment of the wound environment must be done to determine treatment.
Questions?