Wound and Skin Assessment

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Skin

• The largest Organ
• Weighs between 6 and 8 pounds
• Covers over 20 square feet
• Thickness ranges from 0.5 mm (eyelid) to 6 mm (sole of foot)
• Receives one-third of the body’s circulating blood volume
Skin Functions

- Protection from:
  - Fluid and electrolyte loss
  - Mechanical injury
  - Ultraviolet injury
  - Pathogens

- Temperature regulation

- Fluid and electrolyte balance

- Metabolism

- Sensation

- Synthesis

- Communication
When and How Often to Assess

• On admission or first visit
  – Document what is already there
  – Document areas that are suspicious

• Depending on circumstances:
  – Inpatient – once a day or once a shift
  – ICU – every 4 hours when on pressors
  – Home Health – with every visit
  – Wound Clinic – with every visit
Wounds

Why do you describe it?

• Share the information
• Document appropriately
• Get the right treatment at the right time
Basic Skin Inspection

• Temperature – Hot ? Cold ? Clammy ?
• Turgor – Dehydrated ?
• Edema – Staged from 1 to 4 (mild to pitting) Anasarca ?
• Integrity – wound ? Intact ?
Skin Integrity

• Wound – disruption of the integrity and function of tissues in the body (may be surgical)

• Chronic wound – wound that does not follow the usual cycle of healing after 2-4 weeks

• Ulcer – chronic wound with a defined pathophysiology
  – Ischemic arterial ulcers
  – Diabetic ulcers
  – Venous ulcers
  – Vasculitic ulcers
  – Rheumatoid ulcers
  – Pressure ulcers
Be Systematic

• Start with the wound
  – Length
  – Depth
  – Width
  – Undermining or tunneling

• Periwound
  – Maceration
  – Edema

• Risk Factors – Braden Score
Ways to Categorize Wounds / Ulcers

• National Pressure Ulcer Advisory Panel – Pressure Ulcer Staging Definitions
• Wagner Diabetic Ulcer Classification (lower extremity only)
• University of Texas Diabetic wound classification system
• Payne – Martin Classification system for skin tears
• Red – Black – Yellow
• And more...
Pressure Ulcer Statistics

• Pressure Ulcers cost ~$43,000 to heal
• 1 in 10 patients in long term care have a pressure ulcer
• AHRQ: 1 or the 3 most common incident reports in US hospitals (2000-2002) was skin breakdown (~500,000 of the 1.4 million safety incidences in US Hospitals)
More Statistics

• Pressure ulcers cost $550,000 per 165 bed facility (long term)

• Pressure ulcers in hospitals cost $400,000 to $700,000 per year (Pompeo, MG 2001)
Stage 1 Pressure Ulcer

- Intact skin with
  - Non-blanchable redness
  - Of a localized area
  - Usually over a bony prominence
Stage 2 Pressure Ulcer

- Partial thickness loss of dermis
- Usually presents as a shallow open ulcer
- No slough
- May present as a blister
Stage 3 Pressure Ulcer

- Full thickness skin loss
- Subcutaneous fat may be visible but no bone, tendon or muscle are exposed
- Slough may be present
- Undermining or tunneling may be present
Stage 4 Pressure Ulcer

- Full thickness tissue loss with exposed bone, tendon or muscle
- Slough and eschar are usually present but only cover part of the wound bed
Deep Tissue Injury (DTI)

• Purple or maroon localized area of discolored intact skin or blood filled blister due to damage of underlying soft tissue from pressure and / or shear.
Unstageable

• Full thickness tissue loss in which the base of the ulcer

• Base of the ulcer is covered by
  – Slough
  – Eschar

• Unable to distinguish the base of the ulcer
Staging

• Pressure ulcers can get worse
  – Go from Stage 1 to Stage 4
  – Reclassified

• Pressure ulcers can get better
  – Go from what ever stage it was to healed
  – Ulcers are not reclassified or reverse scored
  – Labeled as a healing Stage 3 or 4
  – NPUAP PUSH Tool (Pressure Ulcer Scale for Healing)
WAGNER’S GRADING OF FOOT LESIONS

- Commonly used with Diabetic ulcers on the foot and ankle
- Disadvantage
  - doesn’t use depth or infection consistently
  - Only vascular parameter is Gangrene
Wagner Grade 0

• **Grade 0** The grade 0 foot has intact skin. It has been found that this is the greatest protection to the diabetic foot.

• There may be bony deformities
  – Bunions
  – depressed metatarsal heads
  – claw toes
  – Charcot breakdown
Grade 1

- The grade 1 foot has a superficial ulcer.
  - The base may be necrotic
  - or may be viable with early granulation tissue.
Grade 2

• This lesion is through the subcutaneous layer

• May expose
  – bone
  – ligament
  – tendon
  – joint capsule
  – deep fascia.

• There is no abscess or Osteomyelitis.
Grade 3

- Progression of the previous lesions has resulted in a
  - deep abscess
  - osteitis
  - osteomyelitis

- The exact extent of the lesion is frequently difficult to determine from superficial examination.
Grade 4

• In a grade 4 lesion some portion of the toes or forefoot is gangrenous.
• The gangrene may be moist or dry.
Grade 5

• A grade 5 foot represents complete involvement with gangrene
• No foot healing or local procedure is possible.
Wounds

• Depending on the etiology
  – Needs different treatment
  – Needs different bandaging
  – Needs surgery (topical or vascular)

• Require
  – Vigilance
  – Assessment
  – Documentation
  – Follow through
Wounds

• Need you and your attention to heal!