Evidence Based Outcomes

- Diagnosis before prescribing treatment: Non healing wounds are cutaneous manifestations of a primary cause

- Intrinsic resources

- Healthy people do not develop non healing ulcers

- How to document potentially poor outcome

Document

- Patient does not have sufficient intrinsic resources to promote resolution of wound at this time based on the following:
  - CBC
  - CMP
  - Nutritional Status
  - Doppler: Ankle brachial pressure to determine the ability to heal. Must be > 80 mm Hg.
Mutually Acceptable Goals

Pain Arterial Ulcer
- Sudden
- Very Painful
- Intermittent Claudication

Pain
Intermittent claudication: Cardinal symptom
Blood flow is insufficient to meet metabolic demand of Leg muscle
Accumulation of lactate and other toxic metabolic Products
Present with: leg pain, aching, cramping, numbness, In calf, buttock, hip, thigh, or arch of foot.

Pain
- 30% of patients will develop ischemic pain at rest
- Restoration of blood flow (reperfusion injury) causes even more damage.
- Mechanisms involve leukocyte-endothelium interactions.
- Reperfusion is responsible for intense and persistent Skeletal muscle contraction or spasm.
Hair

- Hair Loss Distal to Occlusion

Skin

- Pale with dependent rubor
- Thin, shiny, dry
- Cool

Location

- On or between the toes is the most common area

Characteristics Arterial Ulcers

- Regular well defined wound margin
- Wound bed deep with necrosis or gangrene
- Minimal Exudate
Pulses
- Diminished to absent
- Pulses palpable in the foot disappear when the patient exercises
- Assess ankle brachial index; usually lower
- ABI 0.60-0.80 = claudication
- ABI below 0.40 = resting pain

Risk for Arterial Ulcers
- Obesity
- Smoking
- Atherosclerosis = Most common cause
- Age: 20% > 65 have PAD only 25% are treated

Assessment for Arterial Ulcers
- History and Physical
- Diseases associated with Arterial Insufficiency
  - Large vessel disease
  - Vasculitis
  - Sickle Cell
  - Rheumatoid arthritis
  - Polycythemia vera
  - Acute trauma

Assessment
- Sensory Assessment
- Vascular Testing
- Pulses and pressures
Treatment Options
• Treatment goal is preservation of viable tissue.

Medical Treatment
• Platelet inhibitors
• Antilipid
• Angiotensin Converting Enzyme Inhibitors
• Medications may prevent and treat atherosclerosis, they have a minimal role in treating an arterial ulcer.

Surgical Treatment
• Bypass grafting
• Percutaneous angioplasty and stent placement
• Aortoiliac bypass
• Femoral popliteal bypass
• Amputation

Topical Treatment
• Focus on etiology not wound
Venous Insufficiency

- Most common presentation:
  - PAIN
  - Edema
  - Infection

Signs and Symptoms

- Edema: Pitting or non pitting
- Venous Dermatitis: Erythema, scaling, weeping, edema
- Hemosiderin Staining
- Active Cellulitis

Risk Factors

- Gender
- Obesity
- Diabetes
- Job: Guess who
- Varicosities
- CHF
- Cellulitis
Assessment

- Pain: Burning
- Peripheral Pulses: Present and Palpable
- Capillary Refill: Normal < 3 seconds

- Location:
  Medial Aspect of the lower leg and ankle
  Superior medial malleolus

Characteristics

- Superficial
- Ruddy granular tissue
- Irregular wound margin
- Exudate

Edema

Venous Dermatitis
Scaling

Hemosiderin Staining

Topical Therapy
- Absorb exudates
- Active dermatitis (may use hydrocortisone sparingly)
- Infection management: Systemic vs. Local

Treatment Compression
- Elevate legs
- Compression therapy at least 30mm Hg compression
  Briggs & Closs indicated that only 56% of patients were able to tolerate full compression
- Anti embolism stockings once healed
Compression

Pain relief Venous Statis Ulcers
- Trifecta of pain relief
  - Anti depressant
  - Anti seizure medication (neurotin)
  - NSAID

Differences

Arterial
- Diminished or absent pulse
- Thin, cool, pale shiny skin, no hair growth, dependent rubor
- Regular wound margins
- Minimal exudate
- Deep
- PAIN: Intermittent claudication
- NO COMPRESSION

Venous
- Palpable pulse
- Edema. Redness, staining, hair
- Irregular wound margins
- Superficial
- Heavy exudate
- Burning, nerve pain
- Compression

One more time

Arterial
Venous
THANK YOU, HAPPY NURSES WEEK