Clinical Fact Sheet

VENOUS INSUFFICIENCY (STASIS)

DEFINITION: Disturbance in the forward flow of blood in the lower extremities that may progress to increased hydrostatic pressure, venous hypertension and ultimately dermal ulceration.

EXPECTED OUTCOMES:
- Patient attains/maintains intact skin.
- Patient and significant other participates in goal setting, methods of prevention and individual management.
- Patient is free of preventable complications.

ETIOLOGY:
- valvular incompetence
- obstruction of deep venous system
- congenital absence or malformation of valves in the venous system
- regurgitation from deep to superficial venous system

RISK FACTORS:
- thrombosis of deep venous system
- lower extremity muscle weakness
- post phlebitic syndrome
- congestive heart failure
- pregnancy
- obesity
- trauma
- immobility
- family history
- previous history of lower extremity ulcers
- advanced age

TYPICAL ASSESSMENT:

History
- deep vein thrombosis, pregnancy (number), leg trauma, phlebitis, obesity, family history of lower extremity ulcers, orthopedic surgery
- arterial disease (diabetes, arthritis, anemia, sickle cell anemia)
- smoking: amount and duration
- traumatic injury to extremity
- vascular procedures/surgeries

Pain
- usually minimal unless infected or desiccated

Perfusion
- peripheral pulses palpable (may be difficult to assess due to edema)
- skin temperature normal, may be warm with chronic inflammation present
- capillary refill normal (less than 3 seconds)

Trophic skin changes
- brown/black discoloration of the lower extremity
- non-pitting (brawny) edema
- stasis dermatitis
  - eczematous changes
  - erythema
  - scaling
  - weeping dermatitis
- evidence of healed ulcers

ULCER CHARACTERISTICS/DATA TO COLLECT:

History
- event that precipitated ulcer
- length of time ulcer present
- type of treatments used

Location
- medial aspect of lower leg and ankle
- superior to medial malleolus
- seldom, if ever, occur on foot or above knee

Wound appearance
- irregular wound margins
- color of base ruddy
- granulation frequently present
- depth usually shallow, superficial crater
- exudate commonly moderate to heavy

Surrounding skin
- erythema
- possible induration
- cellulitis

Pain
- minimal unless infected or desiccated
  NOTE: Rule out arterial disease (see Arterial Insufficiency Fact Sheet)
- obtain ankle-brachial index: a ratio of less than 0.8 may indicate arterial disease.
- treating patient with arterial disease with compression can result in necrosis and/or amputation.

(Continued on reverse)

Clinical Fact Sheet

VENOUS INSUFFICIENCY (STASIS)

NURSING MANAGEMENT:

Prevention:

Patient education

- ◆ no smoking
- ◆ adequate nutrition
  - • low salt
  - • high fiber
  - • maintain/attain ideal body weight
- ◆ skin care
  - • avoid trauma (mechanical, chemical, thermal)
  - • maintain clean, well lubricated skin
- ◆ optimize venous return
  - • elevate legs above heart
  - • discourage sitting with legs crossed
  - • discourage standing for prolonged periods
  - • ambulate to tolerance several times daily
- ◆ comply with prescribed medications
- ◆ follow up with health care provider
- ◆ compression therapy

Treatment:

Control underlying medical and nutritional disorders

Patient education (See Prevention)

Control edema

- ◆ leg elevation
- ◆ compression therapy: **CAUTION: rule out arterial disease; compression is contraindicated if arterial disease is present and can result in necrosis and/or amputation.**
  - • short stretch bandages
  - • therapeutic support stockings
  - • Unna's Boot
  - • 4 layer wrap
  - • mechanical pumps
- ◆ exercise as tolerated
- ◆ comply with medications

Topical therapy

- ◆ promote favorable environment for healing by removing/preventing impediments (necrosis, infection, excessive or pooled exudate)
- ◆ wound cleansing with saline or noncytotoxic commercial cleanser
- ◆ remove necrotic tissue
  - • mechanical (conservative sharp debridement, wet to dry)
  - • chemical (enzymes)
  - • autolysis (dressings that maintain moist wound surface)
- ◆ non necrotic ulcers
  - • moist wound healing (film, hydrogels, collagen, hydrocolloid, alginates, unna boot, medicated creams/ointments)
- ◆ protect surrounding skin to avoid maceration
  - • ointments, protective skin sealant, or absorptive dressing
- ◆ NOTE:
  - • if wound appears infected or fails to respond to treatment within 2-4 weeks, consider culture and sensitivity with gram stain and/or punch biopsy and antibiotic therapy
  - • if wound fails to heal or pain increases refer for vascular workup

COMPLICATIONS:

- ◆ infection
- ◆ osteomyelitis (may result in amputation)
- ◆ chronic ulcer

REFERENCES:

- ◆ Standards of Care: Patient with Dermal Wounds: Lower Extremity Ulcers. WOCN 1993.
- ◆ Bryant, R. (ed): Acute and Chronic Wounds: Nursing Management. Mosby Year Book, St. Louis 1992.
- ◆ Morris, J., Dowlen, S., Cullen, B. 1994, JWOCN "Early clinical experiences with topical collagen in vascular wound care" 21,6, PP 247-250.

This fact sheet is provided by:

◆ Name _____
Title _____
Phone _____
Fax _____

The ET Nurse is a graduate of an educational program accredited by the Wound, Ostomy and Continence Nurses Society (WOCN). ET Nurses specialize in the care of patients with selected disorders of the gastrointestinal, genitourinary and integumentary systems, such as: stomas; draining wounds; fistulas/tubes; vascular ulcers; pressure ulcers; neuropathic ulcers; and incontinence.

The Wound, Ostomy and Continence Nurses Society, an association of ET Nurses, is the largest international organization of professionals devoted to improving quality of care for person with wounds, ostomies and incontinence. The WOCN supports its members by promoting educational, clinical and research opportunities to guide the delivery of expert health care to individuals with wounds, ostomies and incontinence.

For more information about the services provided by WOCN, ET Nursing, education, membership, or for an ET Nurse referral, please write to the address listed below or call (888) 224-WOCN. Thank you.