Diabetic Foot Ulcer Flow Chart

Assessment

History

- Medical
- Medications
- Wound
- Psychosocial / activities of daily living

Characteristics of the wound

- Use a validated classification tool

Inspect for foot deformities

Diagnostic investigations*

- Screen all clients for peripheral arterial disease (PAD), including an ankle brachial pressure (ABPI)
- An ABPI less than 0.9 indicates arterial disease
- ABPI greater than 1.2 indicates a need for further investigation
- Use monofilament testing to assess for loss of sensation and neuropathy

* *Assessment should only be undertaken by a trained health professional*

Wound Bed Management

- Cleanse the wound with a neutral, non-irritating solution e.g. warm water or normal saline
- Cleanse wound bed gently to avoid trauma
- Remove necrotic or devitalised tissue, unless revascularisation is needed*

* *Mechanical or sharp debridement should only be done by a trained health professional*

- **Select a dressing which will:**
  - maintain a moist wound environment (except where dry gangrene or eschar is present)
  - protect the surrounding skin
  - manage wound exudate
  - topical antimicrobial dressings will help chronically or heavily colonised wounds

Monofilament testing to check sensation

Management

- Reduce pressure – offload pressure points e.g. use crutches, wheelchairs, custom shoes or inserts, orthotic walkers, diabetic boots, or total contact casts
- Promote oxygenation of the wound by avoiding dehydration, smoking, cold, stress and pain
- Optimise glucose control
- Regularly document progress in healing
- Re-evaluate treatment if failure to achieve 40% ulcer size reduction after 4 weeks
- A multidisciplinary team is needed; include podiatrists, orthotists, dietitians, GPs, wound care nurses and endocrinologists
- Consult remote expert advice with digital imaging for clients living in remote areas

Prevention

- Assess all clients with diabetes for PAD, neuropathy and foot deformity and classify the level of risk
- Protective footwear is required for those at risk, i.e. with PAD, neuropathy, callus, foot deformity and/or previous ulceration
- Offload pressure points as detailed under 'Management'
- Practise good foot care and daily inspection of feet
- Ensure an annual foot examination by a health professional (3 – 6 monthly if at moderate or high risk)
- Monitor and optimise blood glucose levels
- Quit smoking

Characteristics of a Diabetic Foot Ulcer

Diabetic ulcers typically:

Occur on the sole of the foot or over pressure points e.g. toes

The wound bed can be shallow or deep, producing low to moderate amounts of exudate

The surrounding skin is usually dry, thin and frequently has callous formation

When to Refer

- Uncertainty of diagnosis
- There is a low or high ABPI
- Symptoms impact on quality of life
- Complicated ulcers e.g. multiple aetiology
- Signs of infection or wound probes to bone
- No progress in healing or deterioration of ulcer

References:

Steed DL et al. Guidelines for the treatment of diabetic ulcers. *Wound Rep Regen* 2006. 14(6):680-692 • Steed DL et al. Guidelines for the prevention of diabetic ulcers. *Wound Rep Regen* 2008. 16(2):169-174 • *National Evidence-Based Guideline on Prevention, Identification and Management of Foot Complications in Diabetes*. Melbourne Australia 2011 • Scottish Intercollegiate Guidelines Network *Management of diabetes*. Edinburgh: SIGN 2010 • RNAO *Assessment and Management of Foot Ulcers for People with Diabetes*. Toronto: RNAO 2005 • McIntosh A et al. *Prevention and Management of Foot Problems in Type 2 Diabetes*. Sheffield: NICE 2003

promoting healthy skin

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