

# Diabetic foot ulcers

An algorithm for assessment

# Holistic foot ulcer management

## Assessment of patients and their feet

### 1 Medical history

- Physical, physiological and psychosocial health

### 2 Feet inspection

- Callus, cracks
- Colour, erythema
- Temperature
- Dry skin
- Eczema
- Edema of feet/lower legs
- Deformities e.g. Charcot foot (need for x-ray/MRI)
- Previous amputations
- Gangrene
- Inspecting nails and between the toes

### 3 Neuropathy

- **Motor neuropathy** (deformities)
- **Sensory neuropathy** (loss of sensation and vibration. Tests with 10g Monofilament or Ipswich Touch Test and tuning fork)
- **Autonomic neuropathy** (dry skin, cracking skin, callus)

### 4 Vascular status and oxygenation levels

- Palpation of peripheral pulses: femoral, popliteal and pedal (dorsalis pedis and posterior tibial) pulses
- Doppler assessment and ABPI
- Toe-brachial index (TBI)
- Potential referral to a specialist for a full vascular assessment
- Consider oxygen assessment e.g. with transcutaneous oximetry (TcPO<sub>2</sub>)

### 5 Wound and periwound



#### Infection:

Local signs of infection can be: increased exudate, non-healing, malodor, friable or discoloured granulation tissue, redness, pain, heat and swelling. If osteomyelitis is suspected, or an active spreading infection, refer to a multidisciplinary footcare team immediately.



#### Wound bed, status/color:

- Black necrotic tissue
- Yellow slough
- Red granulation tissue, pink epithelialization



#### Depth



#### Exudate

- Amount (none, low, moderate, high)
- Consistency/color

#### • Wound location

#### • Wound size (area/depth)

- **Wound edge** (raised edge, undermining/tracks/sinuses)
- **Surrounding skin** (maceration/excoriation, erythema, edema)
- **Exposed bones, tendons, joint capsules or orthopaedic implants**
- **Pain** (location, frequency, cause, type, intensity and duration)
- **Odor** (presence and nature)

### 6 Classification

e.g. Wlfl, University of Texas, Wagner, PEDIS or SINBAD



## Goals of treatment, education and concordance with the patient

60-second Diabetic Foot Screen a Screening tool (2018).<sup>1</sup>

## Management of DFU<sup>2</sup>

A patient with a diabetic foot ulcer (DFU) or at risk of developing a DFU needs to be referred to a multidisciplinary footcare team (MDFT). They can provide with e.g.

- Offloading wound and risk areas with specialist foot wear.
- Full vascular assessment.
- Oedema treatment.
- Infection control and treatment.
- Wound debridement/cleansing and treatment recommendation.
- Nutritional advice.
- Optimal diabetes control.

#### Remember:

- Assess and manage pain (local and systemic) before dressing changes.
- Be aware of the arterial blood supply. If dry black necrosis – keep dry and refer for a full vascular assessment.
- Moisturize lower extremities and feet daily. Do not put lotion between toes.
- Educate on self-treatment for healthy feet.

For complete and updated assessment and management guidance please visit International Working Group on the Diabetic Foot (IWGDF) [www.iwgdfguidelines.org](http://www.iwgdfguidelines.org)

## Be aware of systemic infection symptoms:

- Fever
- Rigor
- Chills
- Hypotension
- Multi-organ failure

#### Read more at:

[www.mdcalc.com/sirs-sepsis-septic-shock-criteria](http://www.mdcalc.com/sirs-sepsis-septic-shock-criteria)

These recommendations are aligned with the International best practice guidelines: IWGDF practical guidelines on the prevention and management of diabetic foot disease, 2019.

# ent in patients with diabetes

## ► Infection

Requirement for antimicrobial\*

No requirement for antimicrobial

## ► Wound bed

Black dry  
Necrosis

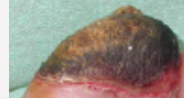


Red or Yellow



\*\*Topical oxygen therapy

Black dry  
Necrosis



Red or Yellow



\*\*Topical oxygen therapy

## ► Depth



Cavity



Superficial



\*\*Topical oxygen therapy



Cavity

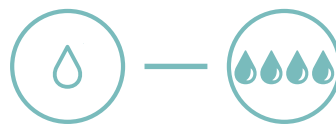


Superficial



\*\*Topical oxygen therapy

## ► Exudate level



Use a dressing with good absorption and retention capacity, adapted to the amount and viscosity of the wound exudate.

If ulcer size has not reduced by more than 50% by 4 weeks reassess and refer to a MDFT or consider other/advanced technologies<sup>2-4</sup>.

\*\* Topical oxygen therapy (TOT) is suitable for patients at high risk of delayed wound healing<sup>5</sup>.



\* For infected DFUs (see picture), aggressive debridement, topical antiseptics and systemic antibiotics are generally recommended. Active spreading infection must be referred as a matter of urgency to a MDFT. Topical antimicrobial agents, e.g. in cleansers or dressings, may be used in combination with antibiotics to treat mild infections. Such dressings or cleansers may also be used alone to treat DFUs which are highly at risk of developing infections.<sup>2,6</sup>

- Optimal wound management with provision of local treatment need to be supported with appropriate management of systemic disease, pressure offloading and debridement. Remember that surgical debridement is contraindicated if ischemia is present<sup>4</sup>
- Monitor at each dressing change and reassess regularly. Be sure that the dressing is compatible with shoes and other offloading therapies and can be accommodated without bulk and creasing
- If you need to cut the dressing, consider using non-bordered products
- For fixation, consider using tubular dressing
- If you need to dress a toe, consider using a good dressing with good conformability
- The choice of dressings must be based on local protocols and clinical judgement

## Proven choice for a better outcome

Safetac<sup>®</sup> is the original less-pain contact layer with silicone adhesion. We designed it to mould softly to skin without sticking to the moist wound<sup>7</sup> – so you can remove it easily without damaging the skin<sup>8</sup>. That means less pain for your patients<sup>9</sup>.

Safetac also protects new tissue and intact skin – so wounds remain undisturbed to support faster natural healing<sup>10-13</sup>. And it seals the wound margins to protect skin from damaging leaks and maceration<sup>14,15</sup>. This combination of less pain<sup>9</sup> and less skin damage<sup>8,11-14,16</sup> – to support faster healing<sup>10-13</sup> – can also reduce the cost of treatment<sup>11,12,16</sup>.

You can trust Mölnlycke<sup>®</sup> dressings with Safetac, for better patient and economic outcomes.

**Safetac**  
TECHNOLOGY



Skin stripping occurs with traditional adhesive<sup>8</sup>



No skin stripping occurs with Safetac technology<sup>8</sup>

**Please note:** This guide is not comprehensive and the reader should always refer to local guidelines.

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