

Pulling Back the Mask: Detecting Infection in the Diabetic Foot

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In the person living with diabetes, foot ulceration and subsequent infection can be the events that lead to a lower limb amputation. Diabetic foot wound infections must be treated quickly, but identifying wound infection can be a challenge.

Classic clinical signs of a chronic wound infection include

- increased pain
- foul odour
- wound breakdown
- friable granulation tissue

Acute wound infections can also present with

- loss of function

- swelling
- heat and redness

However, in the person with diabetes, the classic signs of infection may be masked by a host of factors. For instance, diabetic sensory neuropathy may negate complaints of pain, while a blunted inflammatory response may decrease redness. Delayed healing could be related to an impaired immune response, and loss of function could be related to a motor neuropathy.

Therefore, diabetic foot wound infections may not present in the “usual way.” Much like a guest at a masquerade party, you must look past the disguise in order to make a positive identification of infection.

Steps for Identifying Infection in Diabetic Foot Wounds

- Examine the old dressings** and peri-wound area noting any increase in wound drainage or a change in the character of the wound fluid.
- Irrigate and debride** the wound if appropriate. (You must be sure there is sufficient blood flow to support healing prior to debridement.)
- Measure** the length, width and depth of the wound in a standardized, reproducible way. Record and compare with earlier measurements. The increasing size of a wound can be a sign of infection.
- Probe the wound.** Probing to the wound base and contacting bone suggests osteomyelitis and should be treated as such until proven otherwise.
- Compare** the patient’s recent **blood sugar readings** to those from the week before and note any erratic changes. Increased impairment in glucose regulation without an obvious reason can be indicative of an infection.

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When the diabetic foot wound is not progressing as it should, even when best practice is being followed, this enabler can be utilized to help cue the clinician that there may be an underlying infection. By “unmasking” an infection, we are then able to proceed with appropriate interventions in the best interest of the people we serve.