## Diabetic Foot Infections

What elements in the history are *essential*?

Past history of occurrences to the foot (surgery, prior infections, PVD)
Failed outpatient therapy or MRSA activity
Systemic toxicity

What dangerous differentials should I not miss?

Osteomyelitis especially in ulcer that is chronic or overlies a bony prominence
Necrotising fasciitis
Critical limb ischaemia

What should I look out for on examination?

| Infection | Clinical Manifestation |
|---|---|
| Mild | Presence of ≥2 manifestations of inflammation (purulence, or erythema, pain, tenderness, warmth, or induration), but any cellulitis/erythema extends ≤2 cm around the ulcer, and infection is limited to the skin or superficial subcutaneous tissues; no other local complications or systemic illness. |
| Mod | Infection (as above) in a patient who is systemically well and metabolically stable but which has ≥1 of the following characteristics: cellulitis extending >2 cm, lymphangitic streaking, spread beneath the superficial fascia, deep-tissue abscess, gangrene, and involvement of muscle, tendon, joint or bone. |
| Severe | Infection in a patient with systemic toxicity or metabolic instability (eg, fever, chills, tachycardia, hypotension, confusion, vomiting, leukocytosis, acidosis, severe hyperglycemia, or azotemia). |

Also look out for:

- Gangrene
- Vascular compromise
- Osteomyelitis more likely if:
    - Bone on view
    - Ulcer > $2cm^2$
    - Duration of ulcer > 2 weeks

References :

1. Lipsky BA, et al. 2012 Infectious Diseases Society of America clinical practice guideline for the diagnosis and treatment of diabetic foot infections. *Clin Infect Dis* 2012
2. UptoDate 2012
3. CGH Antimicrobial Guidelines 2012

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What tests should I do?

First time patients presenting with a new infection/ulcer - Radiographs to look for bony abnormalities (deformity, destruction) or soft tissue gas or bodies.

What treatment should I institute?

Wound management - to absorb exudate and promote healing

Cultures are necessary for vast majority of patients prior to antibx Rx. Superficial swabs are generally unreliable.

This is from our hospital guide:

| Antibx therapy: | 1st Line | 2nd Line |
|---|---|---|
| Non-limb threatening | IV augmentin 1.2g or<br>PO augmentin 625mg TDS | PO clindamycin 450mg QDS<br>**plus**<br>PO ciprofloxacin 500mg BD |
| Life or limb threatening | IV piperacillin-tazobactam 4.5g<br>**plus**<br>IV vancomycin 15-20mg/kg | IV ciprofloxacin 400mg<br>**plus**<br>IV metronidazole 500mg<br>**plus**<br>IV vancomycin 15-20mg/kg |

Can the patient go home if all tests are normal?

Mild infections only with caveats

- Sugar under control
- Good outpatient GP or OPS support for wound care and review
- Good family support

References :

1. Lipsky BA, et al. 2012 Infectious Diseases Society of America clinical practice guideline for the diagnosis and treatment of diabetic foot infections. *Clin Infect Dis* 2012
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