

Diabetic Foot Infection

Imaging:

1. All patients should receive plain radiographs to evaluate for bone abnormalities
2. If soft tissue abscess or osteomyelitis is suspected or uncertain, obtain MRI

Further work-up:

1. Obtain blood cultures prior to antibiotics if systemic signs or symptoms of infection, or severe infection
2. If osteomyelitis is present, obtain bone specimen culture and pathology (either from debridement specimen or bone biopsy) prior to starting antibiotics.
3. Presence abscess, gas in tissue, bone/joint involvement indicates surgical consultation
4. Assess peripheral vasculature, consider arterial flow studies

Empiric therapy*:

Mild (Local infection, skin and subcutaneous tissue only, erythema >0.5 cm but ≤2cm from ulcer)

Non-purulent, no MRSA risk factors

1. Cephalexin 500mg PO QID
2. Amoxicillin-clavulanate 875/125mg PO BID

Purulent, MRSA risk factors

1. Trimethoprim-sulfamethoxazole DS 1-2 tabs PO BID
2. Doxycycline 100mg PO BID

Moderate (Local infection with erythema >2 cm from ulcer or deeper structures included without SIRS)

Non-purulent, no MRSA risk factors

1. Amoxicillin-clavulanate 875/125mg PO QID
2. Ampicillin-sulbactam 3g IV Q8h
3. Piperacillin-tazobactam 3.375g IV q8h extended infusion
4. Ciprofloxacin 500mg PO BID + clindamycin 450mg PO QID

Purulent, MRSA risk factors

1. Trimethoprim-sulfamethoxazole DS 1-2 tabs PO BID + cephalexin 500mg PO QID OR amoxicillin-clavulanate 875/125mg PO BID
2. Vancomycin 15-20mg/kg IV q8-12h + ampicillin-sulbactam 3g IV q8h OR cefepime 2g IV q8h OR ciprofloxacin 500mg PO BID

Severe (Local infection with systemic inflammation as evidenced by ≥2 SIRS criteria)

1. Vancomycin 15-20mg/kg IV q8-12h + cefepime 2g IV q8h OR ciprofloxacin 500-750 mg PO BID + metronidazole 500mg PO TID

*Consider antipseudomonal coverage with ciprofloxacin or levofloxacin if at risk for *Pseudomonas aeruginosa* infection (e.g. wet; failure of prior antibiotic therapy; chronic wound). Consider anaerobic coverage with metronidazole if foul-smelling and/or necrotic.

Notes: Antibiotics should be held if patient stable until deep tissue/operative cultures obtained.

Most diabetic foot infections are polymicrobial in nature.

Many wounds colonized with MRSA and/or *Pseudomonas* improve even when antibiotic treatment not directed at those pathogens are administered.

Culture results may guide therapy, but all pathogens identified may not require treatment.

Treatment is multidisciplinary and may require orthopedics, vascular, and/or endocrinology assessment and intervention.

Reference: Lipsky Bas et al. 2012 Infectious Diseases Society of America Clinical Practice Guideline for the Diagnosis and Treatment of Diabetic Foot Infections. Clin Infect Dis 2012;54(12):132-173.