

Drug	Use
Rifampin and Ethambutol	Infection by <i>Mycobacterium marinum</i> in the form of cellulitis or as raised erythematous nodules.
Praziquantel	A single dose for <b>Schistosomiasis</b>
Dapsone and Rifampin	(Anti mycobacterial drugs) for <b>Leprosy</b>
Flucloxacillin or Vancomycin	<b>Pyomyositis</b> ; directed against <i>S. aureus</i> and streptococci (if MRSA is suspected or there is a risk of MRSA).
Penicillin (Flucloxacillin, Clindamycin)	Erysipelas
Rifampicin and $\beta$ -lactams	Staphylococcal osteomyelitis involving prosthetic material
Mupirocin and Chlorhexidine	Preventing operative infections
Empirically - IV piperacillin–tazobactam $\pm$ vancomycin	<ul style="list-style-type: none"> <li>Septic arthritis</li> <li><b>Pyomyositis</b>, in immunocompromised patients.</li> </ul>

Table 22.1 Aetiology of diabetic foot infections

Foot infection syndrome	Pathogens
Cellulitis	$\beta$ -haemolytic streptococci (groups A, B, C, and G), <i>S. aureus</i>
Infected ulcer, antibiotic-naïve	Often monomicrobial: <i>S. aureus</i> or $\beta$ -haemolytic streptococci (groups A, B, C, and G)
Infected ulcer, chronic, previous antibiotic therapy	Usually polymicrobial: <i>S. aureus</i> , $\beta$ -haemolytic streptococci (groups A, B, C, and G), <i>Enterobacteriaceae</i>
Macerated ulcer	<i>P. aeruginosa</i> $\pm$ other organisms as above
Long-standing, non-healing wound, prolonged antibiotic therapy	Usually polymicrobial with antibiotic-resistant organisms: aerobic Gram-positive cocci ( <i>S. aureus</i> , CoNS, enterococci), diphtheroids, <i>Enterobacteriaceae</i> , <i>Pseudomonas</i> spp., non-fermentative GNRs, fungi
'Fetid foot': extensive necrosis or gangrene	Mixed aerobic Gram-positive cocci ( <i>S. aureus</i> , CoNS, enterococci), <i>Enterobacteriaceae</i> , non-fermentative GNRs, obligate anaerobes

TABLE 22-2

TREATMENT OF COMMON INFECTIONS OF THE SKIN			
DIAGNOSIS/CONDITION	PRIMARY TREATMENT	ALTERNATIVE TREATMENT	SEE ALSO CHAP(S).
Animal bite (prophylaxis or early infection) <sup>a</sup>	Amoxicillin/clavulanate, 875/22 mg PO bid	Doxycycline, 100 mg PO bid	35
Animal bite <sup>a</sup> (established infection)	Ampicillin/sulbactam, 1.5–3 g IV q6h	Clindamycin, 600–900 mg IV q8h, plus Ciprofloxacin, 400 mg IV q12h, or Cefoxitin, 2 g IV q6h	35
Bacillary angiomatosis	Erythromycin, 500 mg PO qid	Doxycycline, 100 mg PO bid	65
Herpes simplex (primary genital)	Acyclovir, 400 mg PO tid for 10 days	Famciclovir, 250 mg PO tid for 5–10 days, or Valacyclovir, 1000 mg PO bid for 10 days	84
Herpes zoster (immuno-competent host >50 years of age)	Acyclovir, 800 mg PO 5 times daily for 7–10 days	Famciclovir, 500 mg PO tid for 7–10 days, or Valacyclovir, 1000 mg PO tid for 7 days	85
Cellulitis (staphylococcal or streptococcal <sup>b,c</sup> )	Nafcillin or oxacillin, 2 g IV q4–6h	Cefazolin, 1–2 g q8h, or Ampicillin/sulbactam, 1.5–3 g IV q6h, or Erythromycin, 0.5–1 g IV q6h, or Clindamycin, 600–900 mg IV q8h	38, 39
MRSA skin infection <sup>d</sup>	Vancomycin, 1 g IV q12h	Linezolid, 600 mg IV q12h	38
Necrotizing fasciitis (group A streptococcal <sup>b</sup> )	Clindamycin, 600–900 mg IV q6–8h, plus Penicillin G, 4 million units IV q4h	Clindamycin, 600–900 mg IV q6–8h, plus Cephalosporin (first- or second-generation)	39
Necrotizing fasciitis (mixed aerobes and anaerobes)	Ampicillin, 2 g IV q4h, plus Clindamycin, 600–900 mg IV q6–8h, plus Ciprofloxacin, 400 mg IV q6–8h	Vancomycin, 1 g IV q6h, plus Metronidazole, 500 mg IV q6h, plus Ciprofloxacin, 400 mg IV q6–8h	69
Gas gangrene	Clindamycin, 600–900 mg IV q6–8h, plus Penicillin G, 4 million units IV q4–6h	Clindamycin, 600–900 mg IV q6–8h, plus Cefoxitin, 2 g IV q6h	46

**TABLE 23-1**

**MICROORGANISMS THAT CAUSE OSTEOMYELITIS**

ORGANISM	COMMENT
<b>Frequently Encountered Bacteria</b>	
<i>Staphylococcus aureus</i>	<p>Most likely bacterial pathogen</p> <p>Aggressive, invasive</p> <p>Often metastatic foci with bacteremia</p> <p>Consider surgery early</p>
Staphylococci other than <i>S. aureus</i> (coagulase-negative)	<p>Usually associated with foreign material or implants</p> <p>Biofilm production</p>
Streptococci	<p>May spread rapidly through soft tissues</p>
Enterobacteriaceae ( <i>Escherichia coli</i> , <i>Klebsiella</i> , others)	<p>Considerable variation in antibiotic susceptibility</p> <p>Increasing antibiotic resistance with overuse</p> <p>May become resistant to antibiotics during therapy</p>
<i>Pseudomonas aeruginosa</i>	<p>Increasingly resistant to antibiotics</p> <p>Frequent successor to other bacteria when initial therapy fails</p> <p>May be related to contamination</p>

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## Unusual Organisms

Anaerobic bacteria	Usually mixed with aerobic bacteria May be synergistic Survival dependent on devitalized tissue
<i>Bartonella henselae</i>	Associated with cat scratches and probably with fleas
<i>Brucella species</i>	Prominent in developing countries, especially with unpasteurized milk
Fungi	<i>Candida</i> the most likely genus Considerable variation in susceptibility, depending on species Surgery may be helpful if infection is invasive.
<i>Mycobacterium tuberculosis</i>	May involve any bone Vertebral osteomyelitis common in some countries
Mycobacteria other than <i>M. tuberculosis</i>	Need special culture media to recover
Viruses	Associated with some viral infections, including varicella and varicella