# Diagnosis

Cellulitis

* Relatively sudden onset of redness, warmth, tenderness, and swelling of the skin
  + **Nonpurulent**: no evidence of abscess/phlegmon; most cases caused by beta-hemolytic streptococci (usually group A strep but also B, C, or G) that are suceptible to penicillin; ~10% of cases caused by methicillin-susceptible *Staphylococcus aureus* (MSSA)
  + **Purulent:** evidence of abscess/phlegmon; caused by *S. aureus*, often methicillin-resistant (MRSA)
* Almost always unilateral
* Fever in 22–71%; elevated white blood cell count in 35–50%
* Usually associated with skin surface disruption due to recent trauma, tinea pedis, cutaneous ulcer, past saphenous venectomy, or impaired venous or lymphatic drainage
* Blood cultures are low yield; consider for patients with severe illness or immunocompromise
* Obtain wound culture if purulence is present
* Obtain ultrasound if concern for abscess/phlegmon and physical exam is equivocal

*Note: Several noninfectious conditions can mimic cellulitis including venous stasis dermatitis, which is often bilateral, associated with skin hyperpigmentation, pitting edema, serous drainage, itchiness; minimal pain and absence of fever*

# Treatment

Elevate the affected extremity and treat underlying predisposing conditions.

* **Nonpurulent cellulitis**
  + Cover beta-hemolytic strep and MSSA; MRSA coverage is not routinely indicated
  + [Place local treatment recommendations here]
  + [Place local treatment recommendations here]
  + [Place local treatment recommendations here]
* **Purulent cellulitis**
  + Incision and drainage of abscess is essential
  + For skin abscess with minimal cellulitis, antibiotics are of modest benefit once abscess is drained in uncomplicated cases
  + Antibiotics are recommended for patients with associated systemic illness, diabetes, immunocompromise, extremes of age, location of abscess in an area where drainage is difficult, or the presence of more than minimal cellulitis
  + Cover *S. aureus*, including MRSA
  + [Place local treatment recommendations here]
  + [Place local treatment recommendations here]
  + [Place local treatment recommendations here]
* **Narrowing and oral therapy**
  + Narrow based on available culture results
  + Transition to oral therapy when patient has clincial improvement; erythema may initially persist or extend despite appropriate therapy but overall improvement (e.g., reduction of erythema and local inflammation and resolution of fevers) generally occurs by day 3

*Note: Patients who are critically ill, neutropenic, severely immunocompromised or with suspected necrotizing fasciitis should receive empiric broad-spectrum antibiotics. Patients with aquatic injuries, bites, and cellulitis associated with long-standing diabetic foot ulcers may also require alternative antibiotics. Discuss these cases with the antibiotic stewardship program and/or infectious diseases consultant.*

# Duration

* 5–7 days if clincial response by day 3

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