Skin and Soft Tissue Infections (SSTI)

NONPURULENT
Necrotizing Infection/Cellulitis/Erysipelas
[Usually Streptococcus pyogenes (Group A Strep)]

Mild: No systemic signs of infection*

Oral Antibiotic Therapy

Select ONE:
- Penicillin VK 250-500 mg PO Q6H
- Cephalexin 500 mg PO Q6H
- Dicloxacillin 250 mg PO Q6H
- Clindamycin 300-450 mg PO Q6H

Moderate: Systemic signs of infection*

Intravenous Antibiotic Therapy

Select ONE:
- Penicillin 2-4 million units IV Q4-6H
- Ceftriaxone 1 gm IV Q24H
- Cefazolin 1 gm IV Q8H
- Clindamycin 600-900 mg IV Q6H

Severe: (any of the following):
- Systemic signs of infection*, failed antibiotic treatment, immunocompromise, hemodynamic instability, or deep infection

Emergent Surgical Inspection/Debridement
- Rule out necrotizing process
- Culture & Sensitivity

Empiric Treatment
- Vancomycin 15 mg/kg IV** PLUS
- Piperacillin/tazobactam 3.375 gm IV Q6H +/-
- Clindamycin 900 mg IV Q8H***

Defined Treatment (Necrotizing Infections)

Monomicrobial
- Streptococcus pyogenes
  - Penicillin 2-4 million units IV Q4-6H PLUS Clindamycin 600-900 mg IV Q8H
- Vibrio vulnificus
  - Doxycycline 100 mg IV Q12H PLUS Ceftazidime 2 gm IV Q8H
- Aeromonas hydrophila
  - Doxycycline 100 mg IV Q12H PLUS Ciprofloxacin 400 mg IV Q12H

Polymicrobial
- Vancomycin 15 mg/kg IV** PLUS Piperacillin/tazobactam 3.375 gm IV Q4H

*Systemic signs of infection include, but are not limited to, temperature >38°C, tachycardia (heart rate >90 beats per minute), tachypnea (respiratory rate >24 breaths per minute) or abnormal white blood cell count (>12 000 or <4000 cells/µL).
**Refer to section on Vancomycin Dosing and Monitoring in Adult Patients.
***Consider this addition for necrotizing fasciitis.

Note: Refer to Table of Contents for section on Antimicrobial Dosing for Adult Patients Based on Renal Function for dosing in patients with renal impairment.

References:
Skin and Soft Tissue Infections (SSTI)

PURULENT Furuncle/Carbuncle/Abscess
(Usually Staphylococcus aureus)

**Mild:** No systemic signs of infection*

- **No Antibiotic Therapy**
- **Incision and Drainage**

**Moderate:** Systemic signs of infection*

- **Incision and Drainage and C&S**
- **Oral Antibiotic Therapy**

**Severe:** (any of the following): Failed I&D and oral antibiotics, systemic signs of infection*, immunocompromise, hemodynamic instability, or deep infection

- **Incision and Drainage and C&S**
- **Intravenous Antibiotic Therapy**

**Empiric Therapy (select ONE):**
- TMP/SMX 1-2 DS tablets PO Q12H
- Doxycycline 100 mg PO Q12H
- **Defined Therapy**
  - MRSA
  - TMP/SMX (see empiric dose)
  - ** MSSA (select ONE):**
    - Dicloxacillin 500 mg PO Q6H
    - Cephalexin 500 mg PO Q6H

**Empiric Therapy (select ONE):**
- Vancomycin 15 mg/kg IV**
- Daptomycin 6 mg/kg IV Q24H
- Linezolid 600 mg IV Q12H
- Ceftaroline 600 mg IV Q12H
- **Defined Therapy**
  - MRSA
  - See empiric therapy above
  - **MSSA (select ONE):**
    - Nafcillin 1-2 gm IV Q4H
    - Cefazolin 1 gm IV Q8H
    - Clindamycin 600 mg IV Q8H

*C system signs of infection, but are not limited to, include temperature >38°C, tachycardia (heart rate >90 beats per minute), tachypnea (respiratory rate >24 breaths per minute) or abnormal white blood cell count (>12 000 or <4000 cells/µL).

**Refer to section on Vancomycin Dosing and Monitoring in Adult Patients.

References:
# Skin and Soft Tissue: Diabetic Foot Infections

<table>
<thead>
<tr>
<th>SEVERITY OF INFECTION</th>
<th>SUSPECTED ORGANISMS</th>
<th>RECOMMENDED EMPIRICAL TREATMENT</th>
<th>DURATION</th>
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<tbody>
<tr>
<td><strong>Mild</strong></td>
<td>MSSA <em>Streptococcus spp.</em></td>
<td><strong>Oral</strong> Amoxicillin/clavulanate 875 mg PO Q12H OR Cephalexin 500 mg PO Q6H OR Dicloxacillin 250 – 500 mg PO Q6H</td>
<td>1–2 weeks</td>
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<tr>
<td></td>
<td>MRSA</td>
<td><strong>Doxycycline 100 mg PO Q12H OR SMX/TMP 2 DS tablets PO Q12H (Does not cover Group A Strep)</strong></td>
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</tr>
<tr>
<td><strong>Moderate</strong></td>
<td>MSSA <em>Streptococcus spp.</em> Enterobacteriaceae Obligate anaerobes</td>
<td><strong>Oral OR Initially Parenteral</strong> Ampicillin-sulbactam 1.5–3 gm IV Q6H OR Ceftriaxone 1 gm IV Q24H <em>Penicillin Allergy:</em> Ciprofloxacin 500 mg PO Q12H AND Clindamycin 300 mg PO Q6H OR Ceftriaxone 1 gm IV Q24H</td>
<td>1–3 weeks</td>
</tr>
<tr>
<td></td>
<td>MRSA</td>
<td><strong>Linezolid 600 mg IV/PO Q12H† (Requires ID Consult) OR Daptomycin 6 mg/kg IV Q24H† (Requires ID Consult) OR Vancomycin 15 mg/kg IV</strong>*</td>
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<tr>
<td></td>
<td><em>Pseudomonas aeruginosa</em></td>
<td><strong>Piperacillin-tazobactam 3.375 gm IV Q4H</strong></td>
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</tbody>
</table>

DS= Double Strength; H= hour(s); IV= intravenous; MRSA= methicillin resistant *S. aureus*; MSSA= methicillin sensitive *S. aureus*; PO= by mouth; Q= every; SMX-TMP= sulfamethoxazole/trimethoprim; spp= species

† Restricted Antibiotic – refer to Table of Contents for Guidelines for Restricted Antimicrobials
* Refer to Table of Contents for section on Vancomycin Dosing and Monitoring in Adult Patients
** Consult Infectious Diseases and Podiatry

NOTE: Dosing based on normal renal function. Refer to Table of Contents for section on Antimicrobial Dosing for Adult Patients Based on Renal Function
## Skin and Soft Tissue: Diabetic Foot Infections

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<td>Severe**</td>
<td>MSSA/MRSA P. aeruginosa Streptococcus spp. Enterobacteriaceae Obligate anaerobes</td>
<td>Initially Parenteral Vancomycin 15 mg/kg IV* AND** Cefepime 2 gm IV Q8H + metronidazole 500 mg IV Q6H OR Piperacillin-tazobactam 3.375 gm IV Q4H</td>
<td>2–4 weeks</td>
</tr>
</tbody>
</table>

** Systemic signs of infection present:
- Temperature <96.8°F OR >100.4°F
- P > 90 BPM
- RR > 20 BPM
- PaCO₂ < 32 mmHg
- WBC < 4000 cells/mm³ OR >12,000 cells/mm³
- ≥ 10% immature (band) forms
- Perform incision and drainage as necessary

* Restricted Antibiotic – refer to Table of Contents for Guidelines for Restricted Antimicrobials
* Refer to Table of Contents for section on Vancomycin Dosing and Monitoring in Adult Patients
** Consult Infectious Diseases and Podiatry
† Discuss plan with Infectious Diseases, Podiatry, and Vascular

### References: