# Skin and Soft Tissue Infections Care Guide

March 2019

CALIFORNIA CORRECTIONAL HEALTH CARE SERVICES

## SUMMARY

### GOALS

✓Early diagnosis and treatment
✓Incision and drainage (I&D) if abscess present, with close follow-up (See Attachment A)
✓Evidence based use of antibiotics
✓Prompt referral of severe infections or necrotizing fasciitis to higher level of care

### ALERTS

- Methicillin-resistant Staphylococcus Aureus (MRSA) is resistant to ALL Penicillins, and most Cephalosporins, Macrolides, and Quinolones
  - Methicillin-Sensitive Staphylococcus Aureus (MSSA) and MRSA resistance to Clindamycin is increasing
  - Consider local and institutional susceptibilities in antibiotic selection
- Closely monitor response to antibiotic therapy
- Human bites have high infection risk
- Spider bites rarely cause skin infections, think staph infection instead

### DIAGNOSTIC CRITERIA/EVALUATION[1]

The diagnosis of cellulitis, erysipelas, and skin abscess is usually based upon clinical manifestations. See page 5 for clinical descriptions. Treatment of Skin and Soft Tissue Infections (SSTIs) per the Infectious Disease Society of America (IDSA) is based on whether the infection is **nonpurulent** (cellulitis, erysipelas, necrotizing infections) OR purulent (draining cellulitis, abscess, carbuncles, furuncles); and the clinical severity of the infection (mild, moderate, severe).

**Mild (Nonpurulent or Purulent)** - No signs of systemic infection

**Moderate (Nonpurulent or Purulent)** - May have fever, but no other signs of Systemic Inflammatory Response Syndrome (SIRS)

**Severe (Nonpurulent)** - May be MRSA, if ↑ HR, ↑ RR ↓ BP or T > 38 °C or < 36 °C (SIRS) or immunocompromised, **or signs/symptoms of deep infections (Bullae, skin sloughing, hypotension, organ dysfunction), or failed antibiotic treatment**

**Severe (Purulent)** - May be MRSA, if ↑ HR, ↑ RR ↓ BP or T > 38 °C or < 36 °C (SIRS) or immunocompromised, **or failed I&D and failed oral and parenteral antibiotic treatment**

### TREATMENT/MONITORING[2] (SEE TREATMENT ALGORITHMS ON PAGES 2-3)

**DIAGNOSIS**

1. **Nonpurulent** Cellulitis, erysipelas - **Mild**

**NONPURULENT TREATMENT/MONITORING LIKELY Organisms⁺:** BHS; MSSA

- **Can typically be cared for in the institution**
- Oral Cephalexin OR Clindamycin (if severe beta-lactam allergy)
- **Recheck in 48-72 hours (See page 6)**

2. **Nonpurulent** Cellulitis, erysipelas - **Moderate**

**NONPURULENT TREATMENT/MONITORING LIKELY Organisms⁺:** BHS; MSSA

- **Can manage at the institution with CLOSE follow-up**
- Start oral antibiotics: TMP/SMX or Doxycycline or Clindamycin; may consider IV antibiotics (See algorithm page 2)
- **Follow-up every 12-24 hours (See page 6)**

3. **Nonpurulent** Cellulitis, erysipelas - **Severe**

**NONPURULENT TREATMENT/MONITORING LIKELY Organisms⁺:** BHS; MSSA

- **TRANSFER urgently to higher level of care (HLOC):** Obtain at least one set of blood cultures while arranging transport.

- Give dose of IV antibiotics to cover both staph (Vancomycin 15–20 mg/kg) and gram negative organisms (e.g., piperacillin-tazobactam). **(See page 6)**

**DIAGNOSIS**

1. **P<u>urulent</u>** Cellulitis, erysipelas - **Mild**

**PURULENT TREATMENT/MONITORING LIKELY Organisms⁺:** BHS; MSSA, MRSA

- **Can typically be cared for in the institution**
- **I&D any obvious abscess;** start oral antibiotics TMP/SMX or Doxycycline or Clindamycin
- **Recheck in 48-72 hours. (See page 8)**

2. **P<u>urulent</u>** Cellulitis, erysipelas - **Moderate**

**PURULENT TREATMENT/MONITORING LIKELY Organisms⁺:** BHS; MSSA. MRSA

- **Can manage at the institution with CLOSE follow-up**
- **I&D any obvious abscess–** send culture and sensitivity (C&S), start oral antibiotics TMP/SMX or Doxycycline or Clindamycin and **recheck in 12-24 hours (See page 8);** may consider IV antibiotics. (See algorithm page 3)

3. **P<u>urulent</u>** Cellulitis, erysipelas - **Severe**

**PURULENT TREATMENT/MONITORING LIKELY Organisms⁺:** BHS; MSSA, MRSA

- **TRANSFER urgently to higher level of care (HLOC):** Obtain at least one set of blood cultures while arranging transport.
- Give dose of IV antibiotics to cover both staph (Vancomycin 15–20 mg/kg) and gram negative organisms (e.g., piperacillin-tazobactam**). (See page 8)**

**DIAGNOSIS OTHER**

**Impetigo**

**TREATMENT/MONITORING**

- Limited area: Mupirocin topical ointment; Extensive disease: Oral cephalexin or TMP/SMP or Doxycycline or Clindamycin
- Recheck in 48-72 hours. **(See Other Infections on page 9)**

**Human Bite**

**TREATMENT/MONITORING**

- **Risk for serious bacterial infection.** Start oral antibiotics with **CLOSE follow-up. Recheck in 12-24 hours. (See Other Infections on page 9)**

*Beta-Hemolytic Streptococci=**BHS**; METHACILLIN-SENSITIVE STAPH AUREUS=**MSSA**; METHICILLIN-RESISTANT STAPH AUREUS=**MRSA**

**If 2 doses are listed for a given agent, the higher one is for the patients with higher weights (e.g., > 120kg) or more severe illness.