Skin and Soft Tissue Infection in Children and Adolescents

**Possible signs and symptoms of skin and soft tissue infection (SSTI):**
1) Cutaneous erythema 4) Pain
2) Cutaneous warmth 5) Tenderness to palpation
3) Swelling 6) Fever

**Clinical picture consistent with SSTI?**

Yes

No

Consider alternative etiologies

**Cutaneous abscess** (MRSA most common pathogen)

Yes

No

**Purulent drainage, exudate, or pustules?**

Yes

Non-purulent cellulitis (Streptococci most common)

No

Severe β-lactam allergy OR Recent treatment with recurrence

**Hospital admission**

Yes

Severe infection

No

**Fluctuant mass consistent with cutaneous abscess?**

**Hospital admission**

Yes

Severe infection

No

**Cutaneous abscess** (MRSA most common pathogen)

Incision and drainage

If antibiotics to be initiated, send purulent material for gram stain/bacterial culture

**Yes**

Diameter >5cm

Extensive surrounding cellulitis

Inadequate drainage

Valvular heart disease

Immunosuppressing condition or medication

No

Antibiotic therapy may not be necessary†

**Purulent cellulitis/wound infection** (MRSA common)

1st line: **Clindamycin** 30mg/kg/day in 3-4 divided doses (max 450mg/dose)

Alternatives:

- **TMP-SMX** 8-12 mg/kg/day of TMP, divided BID* (max 1DS tab BID) OR
- **Doxycycline** 2 to 4 mg/kg/day divided BID (max 100mg BID) (if age >7 years)*

Severe β-lactam allergy OR Recent treatment with recurrence

Cephalaxin 25-50 mg/kg/d in 3-4 divided doses (max 500mg/dose) (if non-severe PCN allergy)

**Duration of antibiotic therapy: 5 days**

Encourage adjunctive therapies:
1) Elevate affected area
2) Ibuprofen if no NSAID contraindication

Note: This is intended only as a guide for evidence-based decision-making; it is not intended to replace clinical judgment. Assess for antibiotic allergies and use alternative agents as appropriate. Suggested antibiotic doses are for normal renal function; adjust for renal impairment when necessary.

*TMP-SMX and doxycycline may lack sufficient coverage against group A streptococci, therefore not optimal for simple cellulitis

**duration of therapy may be extended for poorly responsive disease

† incision and drainage alone may be sufficient for immunocompetent patients with abscess <5 cm: