Non-Purulent SSTI

Erysipelas
- Associated with fever, well demarcated erythema
- Group A Streptococcus (GAS)

Impetigo
- Non-bullous: painless, erythematous base w/ honey-crusted exudate on face/limbs
- S. aureus, GAS
- Bullous: clusters of bullae/solidary lesions of exudate + desquamation
- Toxin producing S. aureus

Cellulitis
- Edema, pain, poorly demarcated erythema. Orbital cellulitis is a medical emergency!
- GAS, S. aureus

Necrotizing Soft Tissue Infection (NSTI)
- Generally, rapidly evolving, pain out of proportion, erythematous rash w/ fever, toxic appearance, & thrombocytopenia. Hemodynamically unstable.
- Monomicrobial
  - S. aureus most common
- Polymicrobial
  - GAS, MRSA, VRE, Clostridium

Purulent SSTI (Drainable Collection)

Cutaneous / Deep Soft Tissue Abscess
- Collection of pus
- S. aureus (community-acquired MRSA), GAS

Furuncles, Carbuncles + Cellulitis
- Furuncles (boils) are skin abscesses that involve a hair follicle. Carbuncles are clusters of furuncles.
- S. aureus (including MRSA), GAS

Cellulitis, Erysipelas, Necrotizing infection

Mild: cellulitis, erysipelas, ± purulence
Moderate: above w/ systemic signs
Severe: failed oral antibiotics, systemic symptoms, immunocompromised, signs of deeper infection (bullae, skin sloughing, hypotension, organ dysfunction)

 phúcle

Muscle

Sweat gland

Furuncle

Carbuncle

Hairs

Sweat gland

Furuncle

Carbuncle

Abscess

Necrotizing soft tissue infection (NSTI)

Erysipelas

Impetigo

Cellulitis

Dermis

Subcutaneous tissue

Fascia

Muscle

Sweat gland

Hair follicle

NSTIs IN PEDIATRICS

1) No skin manifestations in up to 50% of cases.
2) A prolonged prodrome or perceived slow onset should NOT rule out an NSTI.
3) May present with multifocal sites. Always check for additional sites during the physical exam.

EAGLE EFFECT

The Eagle Effect is the paradoxical effect of reduced penicillin efficacy at higher antibiotic doses. Clindamycin also inhibits bacterial toxin production.

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