**Purulent SSTI**

* **Folliculitis:** Infections at the superficial layer that involve inflammation of the hair follicle. Only the epidermal layer contains pus.
* **Furuncles:** Infections that spread to the subcutaneous tissue from a hair follicle. Containing purulent material.
* **Carbuncles:**  A collection of coalesced furuncles that extends into the subcutaneous tissue.
* Most common cause: **S. aureus**
  + Other causes: P. aeruginosa and Candida

**Nonpharmacologic Treatment**

* Moist compresses for non-open wounds, proper wound care, anti-inflammatory agents/analgesics

**Pharmacologic Treatment**

\*Systemic signs of infection are defined as tachypnea >24 breath per minute, tachycardia >90 beats per minute, WBC >14K or <400 cells/µL, temperature >38 C or <36 C, hypotension.

**Non-Purulent SSTI**

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| --- | --- | --- | --- |
|  | **Erysipelas** | **Cellulitis** | **Necrotizing Infection** |
| **Common pathogens** | S. Pyogenes | S. pyogenes and S. aureus | Aerobes (including MRSA and streptococcal species) and anaerobes (clostridial species). |
| **Risk factors** | * Infants/young children * Elderly * patients with nephrotic syndrome | * Wound from trauma, ulcer, surgery, or abrasion | * Diabetes * Peripheral vascular disease * Neoplasm |
| **Clinical Presentation** | Symptoms:   * Flu-like symptoms   Signs:   * Lesion is erythematous and edematous with lymphatic streaking * Raised boarder | Symptoms:   * Area is warm to touch/painful * Fever/chills * Hypotensive, dehydrated, AMS (severe cases)   Signs:   * Non-elevated lesions * Erythema, warmth, edema * Inflammation with minimal or no necrosis | Symptoms:   * Fever/chills * painful * Failure to antibiotic therapy   Signs:   * Rapid progression (medical emergency) * Hot, erythematous, swollen * Shiny, tender, hard, wooden feel |
| **Antibiotic therapy** | Mild/Moderate:   * Procaine Penicillin G IM **x 1 dose** * Penicillin VK PO   Severe:   * Aqueous Penicillin G IV x 2-3 days, then switch to PO penicillin VK   Allergy: Clindamycin (PO/IV) | Mild (PO):   * Penicillin VK **or** cephalosporin **or** dicloxacillin **or** clindamycin   Moderate (IV):   * Penicillin G **or** ceftriaxone **or** cefazolin **or** clindamycin   Severe (IV):   * Vancomycin **and** piperacillin/tazobactam | Surgical intervention and debridement  Empiric therapy:   * vancomycin **and** piperacillin/tazobactam **or** carbapenem **and** clindamycin * MRSA: Vancomycin * Streptococcal or clostridial species: Penicillin G **and** clindamycin |
| **Duration of therapy** | 7-10 days | Mild cases: 5 days  Moderate-Severe Cases: 10 days | Antibiotics are given until no surgical intervention is needed, clinical improvement, and patient is afebrile for at least 2 days. |
|  | Illustration: Typical characteristics of erysipelas – as described in the article | Illustration: Typical characteristics of cellulitis – as described in the information |  |

1. Fish DN. Chapter 133: Skin and Soft Tissue Infections. In: DiPiro JT, Yee GC, Posey ML, Haines ST, Nolin TD, Ellingrod VL, eds. Pharmacotherapy: A Pathophysiologic Approach. 12th ed. New York, NY: McGraw-Hill; 2021. https://accesspharmacy-mhmedical-com.maproxy.palni.edu/content.aspx?sectionid=268015487&bookid=3097&Resultclick=2. Accessed July 09, 2023.
2. Skin Infections. Centers for Disease Control and Prevention. Available at: https://www.cdc.gov/antibiotic-use/skin-infections.html. Accessed July 09, 2023.
3. Stevens DL, Bisno AL, Chambers HF, et al. Practice guidelines for the diagnosis and management of skin and soft tissue infections: 2014 update by the Infectious Diseases Society of America. *Clin Infect Dis*. 2014; 59(2): e10-e52. doi:10.1093/cid/ciu444.
4. Multiple-Entries. Lexi-Drugs. Lexi-Comp Online. Lexi-Comp, Inc. Hudson, OH. Available  
   at: http://online.lexi.com/crlonline. Accessed July 09th, 2023.
5. *Erysipelas and cellulitis*. informedhealth.org. (n.d.-a). https://www.informedhealth.org/erysipelas-and-cellulitis.html