



Building Blocks of Clinical Practice

Helping Athletic Trainers Build a Strong Foundation



Issue #2: Bacterial Infections of the Skin

Folliculitis

Definition:

- Inflammation of a hair follicle
- Can progress down hair follicle or into multiple follicles and result in a furuncle or carbuncle

Causes:

- Bacterial or viral infection, chemical irritation
- Secondary to skin injury, which introduces bacteria to the area
- Shaving hairy areas may facilitate infection
- Occlusion of hair-bearing areas may facilitate growth of microbes
- Friction
- Hyperhidrosis

Symptoms:

- Areas are usually non-tender or slightly tender
- Area may itch
- Erythematous perifollicular papules or pustules may develop
- Grouped lesions

Types:

- Most common form is staphylococcal folliculitis

Diagnosis

- Confirmed by laboratory findings

Treatment:

- Antiseptic washes
- Warm compress
- Topical antibiotics
- Moderate and severe cases may require a systemic antibiotic

Prevention:

- Wash areas with antibacterial soap or benzoyl peroxide
- Practice good hygiene
- Avoid sharing razors and towels

Carbuncles

Definition:

- A complication of folliculitis, a carbuncle is several furuncles that have merged
- Carbuncles are readily transmitted by skin-to-skin contact. Often, the direct cause of a carbuncle cannot be determined

Causes:

- Most carbuncles are caused by the bacteria staphylococcus aureus. The infection is contagious and may spread to other areas of the body or other people

Symptoms:

- A carbuncle is a swollen lump or mass under the skin which may be the size of a pea or as large as a golf ball
- The carbuncle may be red and irritated and might hurt when you touch it
- Pain gets worse as it fills with pus and dead tissue
- Other signs and symptoms include itching at the site of infection, skin inflammation around the wound, general ill feeling, fever, or fatigue. Pain improves as it drains

Diagnosis:

- Diagnosis is primarily based on the appearance of the skin
- Skin or mucosal biopsy culture may show staphylococcus or other bacteria

Treatment:

- Use of a warm, moist cloth several times a day on the carbuncle helps it to drain, which speeds healing
- Never squeeze a boil or attempt to cut it open because this can spread the infection and make the condition worse. It may drain on its own but more often than not a medical professional will drain it for the patient
- Once open, keep clean and use topical antibiotic ointments and keep covered



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Continued...

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Issue #2: Bacterial Infections of the Skin

continued...

Impetigo

Definition:

- A bacterial infection caused by both streptococci and staphylococci species

Causes:

- Infects athletes with close skin to skin contact

Symptoms:

- Well defined, erythematous, yellow, crusted plaques distributed on the extremities and the head and neck

Diagnosis:

- Impetigo is usually diagnosed on the basis of clinical findings
- Bacterial culture and sensitivity are recommended (1) in cases to identify methicillin-resistant *Staphylococcus aureus* (MRSA), (2) if an outbreak of impetigo has occurred, or (3) if poststreptococcal glomerulonephritis is present
- Exudate from underneath the crust is sent for culture

Treatment:

- Both topical and oral antibiotics. Individuals should be kept from sporting activities that involve skin to skin contact until 5 days after the initiation of therapy



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Furuncles/Boils

Definition:

- A bacterial infection (typically *Staphylococcus aureus*) of the hair follicle

Causes:

- Furunculosis and carbunculosis are often caused by bacteria (germs) called *Staphylococcus aureus* or Staph
- The Staph bacteria are commonly found on the skin, between the buttocks (rear end) and groin, and in the nose

Symptoms:

- Initially, a red, swollen nodule that is exquisitely tender
- The lesion eventually develops a yellow, pus-filled center that may have drainage. The patient may also develop a fever

Diagnosis:

- The diagnosis is made based on symptoms
- The drainage should be cultured to determine appropriate antibiotic therapy

Treatment:

- Initially, warm soaks will allow lesion to drain spontaneously
- Large or unresponsive lesions should be surgically lanced
- Systemic antibiotics may be prescribed for large lesions and for lesions on the face

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