

SKIN INFECTIONS, BACTERIAL

Level II

Skill Level: RN

Definition: Skin infections can be broadly divided into purulent (pus producing) and non-purulent (not producing pus) infections of the skin. Pus producing lesions such as pustules, abscesses, furuncles, and carbuncles are frequently caused by Staph infections. Non-pus producing skin infections, such as cellulitis, erysipelas, and necrotizing skin infections are frequently caused by Strep infections.

MODERATE	
<p>Subjective:</p> <ul style="list-style-type: none"> • "I have a cut that is red, swollen and draining." • "I have a skin infection." • "I have Staph." • "I have an infected bug/spider bite." • "I am a Diabetic and I have an infected foot" 	<p>Assessment:</p> <ul style="list-style-type: none"> • Alteration in skin integrity • Potential for infection • Alteration in comfort.
<p>Objective:</p> <ul style="list-style-type: none"> • Greater than 2 cm lesion of face, greater than 4 cm lesion of skin elsewhere, or multiple areas of involvement. • Edema, erythema and induration present; purulent drainage may be present. • Will feel warm/hot to touch. • No temperature of 100.4 degrees F or higher. • New tattoo, laceration, IV drug use, abrasion, or open wound. • Foreign body or medical device may be present. • Not Diabetic. • No circulatory or immune compromise. 	<p>Plan:</p> <ul style="list-style-type: none"> • If abscess, carbuncle, or furuncle is present, refer patient to provider for possible Incision & Drainage. Do not manipulate the wound to express drainage or instruct patient to do so. • Always check Tetanus status and provide Td booster if last booster was >5 years ago. • Nurse follow-up daily until clearly resolving. • If infection not resolving, schedule for follow-up with provider. • If patient is diabetic, has kidney failure, or is otherwise immune compromised, call provider for advice and schedule provider appointment. • Patients with recurrent infection (more than one episode in a three month

	<p>period) should be scheduled to see a provider.</p> <ul style="list-style-type: none">• IV catheters or other foreign devices related to infection should be removed if possible. (Contact medical provider for instructions)• If able, send specimen of any purulent material to the lab for culture. Place the swab into the lesion rather than obtaining the specimen from the skin surface.• Check for allergies to medications.• Call provider if Temperature is 100.5 degrees or greater <p>CHECK FOR ALLERGIES TO MEDICATIONS</p> <ul style="list-style-type: none">• Consider antibiotic therapy for purulent infections (pus is present): <p>Septra DS 2 Tabs BID x 10 days (*, **) OR Doxycycline 100mg BID x 10 days</p> <p>*Septra at this dose can be a problem for those suffering from Kidney Failure. Call provider before treating patients with Kidney Failure.</p> <p>**Use Septra with caution for patients on Warfarin due to increased risk of bleeding – consider review with provider before starting on this medication.</p> <ul style="list-style-type: none">• Consider antibiotic therapy for non-purulent (signs of infection without evident pus) infections: Keflex 500 mg TID for 10 days OR Augmentin 875 mg BID for 10 days• <u>Call provider before issuing any medications to pregnant patients, complete pregnancy test as needed.</u>• If you have any questions about starting antibiotic therapy, or which antibiotic to start, contact a provider.• Fever clearly indicates need for daily
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	<p>follow-up, contact with the provider if any worsening in 24 hours, and an appointment scheduled with the provider for the next working day.</p> <ul style="list-style-type: none"> • Always call provider if temperature of 100.4 degrees F or higher. • Clean wound with saline or other wound cleanser available, and cover with dry dressing. • Warm compresses 3-4 times daily. Instruct patient to use a warm, moist towel or washcloth. Patient will need an additional towel to use for this purpose only. • Daily wound check and dressing changes if indicated. Observe lesion for any further signs and symptoms of progressive infection. • May issue patient a small amount of Betasept for skin washing. Remind the patient to keep Betasept out of the eyes and ears.
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SEVERE	
<p>Subjective:</p> <ul style="list-style-type: none"> • "I have a bad infection" • "I'm running a fever" or "I'm having chills and sweats"." 	<p>Assessment:</p> <ul style="list-style-type: none"> • Alteration in skin integrity • Potential for infection • Alteration in comfort.
<p>Objective: In addition to "Moderate" infection findings, may see:</p> <ul style="list-style-type: none"> • Temperature greater than 101 degrees with chills. • Tender to touch. • Hot to touch. • Red streak(s) extends from lesion • S/S septic shock may be present. (e.g., decrease in B/P, increase in pulse, respiration greater than 20, color pale/flushed, skin cool/moist or warm/moist. 	<p>Plan: Provide Level II Moderate treatment plan plus:</p> <ul style="list-style-type: none"> • If already on oral antibiotic, contact provider for possible further antibiotic orders. • If S/S Shock present, prepare patient for transfer to an emergency facility. • Notify provider if time permits while transfer is being arranged.

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Nursing Education:

1. A conservative, mechanical approach is the treatment of choice for minor skin and soft tissue infections. This means that the lesion is relatively small, localized and there are no signs of systemic illness.
2. Frequently, incision and drainage of any fluid collections ("pus pocket", "boil", abscess, furuncle, carbuncle) by a provider can provide relief without the use of oral antibiotics.
3. Necrotizing soft tissue infections are characterized clinically by fulminant tissue destruction, systemic signs of toxicity, and high mortality rate. Conditions associated with necrotizing infection include diabetes, drug use, obesity, immunosuppression, recent surgery, and traumatic wounds.
4. Patients with Diabetes, Immune or Circulatory compromise must be seen by provider at next available time for followup.
5. See ODOC Document "Skin Infections in a Corrections Setting" for further information, especially regarding "Transmission and Prevention". Patients may need a single cell or special showering arrangements if drainage is difficult to control. Special care, including special showering arrangements, should not be done in an infirmary setting.
6. To prevent the spread of infection, patients with skin infection who are sick enough to require infirmary care should be physically isolated from other infirmary patients who do not have a Staph infection.
7. Staph Aureus is the most common bacterial cause of skin infection. Staph bacteria have developed resistance to many of the more commonly used antibiotics. Some medical experts believe that the resistant strains of Staph are more aggressive than other strains, but this has not been proven.
8. To prevent new resistance, it's very important to use antibiotic therapy appropriately for serious infections only.
9. In choosing antibiotic therapy, consider phoning the provider if there are questions. If there have been Strep skin infections in the institution recently, a different antibiotic approach may be indicated. It is difficult to distinguish Staph and Strep infections of the skin, by examination, and antibiotic treatments are different for the two.
10. Severe Staph infections with systemic illness are usually treated in an infirmary or hospital setting with IV antibiotics, often using a very potent antibiotic, Vancomycin.
11. Patients with Kidney Failure, particularly those being treated with Renal Dialysis may not tolerate Septra in the higher dose range. Always contact a provider before starting Septra at this dose for these patients.

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Patient Education: See handout attached.

APPROVED:

Medical Services Manager

Date

Chief Medical Officer

Date

Steve Shearon M.D.

2/24/2015

Medical Director

Date

Effective Date

3/2015

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Patient Education—General Instructions for Skin Infections

The following instructions are for patients diagnosed with a skin infection.

Hand-washing and General Hygiene

- Regularly wash your hands with soap and water for at least fifteen seconds, especially:
 - Before and after touching a wound.
 - Before and after using the toilet.
 - Before eating.
- Shower frequently and put on clean clothes. Change clothing when it is soiled with wound drainage.
- Do not squeeze pimples or pus heads.
- If you have an open wound, especially if it's draining, it should be covered at all times with a bandage or bandaid.
- If your bandage comes off, dispose of it carefully in a leak-proof container as instructed by staff. Wash your hands. Inform a Correctional Officer that you need a new bandage if you don't have a spare.
- Keep nails trimmed short, and don't scratch.
- Don't share personal items such as razors, towels, wash cloths, bars of soap, etc.
- Don't allow other inmates to touch your wound.

Warm Compresses

- You may be instructed to apply warm compresses to your wound. Use a towel that you only use for this purpose. Get it wet with warm water. Apply to the wound three or four times daily. If your wound begins to drain, be sure to keep it covered at all times. You may need to contact Health Services for a bandage if the bandaids available on the units aren't large enough to cover and control your draining wound.

Antibiotic Therapy

- For severe infections, antibiotics may be prescribed. Take all prescribed medications exactly as instructed.

Report Any of the Following to Health Services

- Fever
- Red streaks that trail up from the wound.
- Increased wound drainage.
- Increased foul smell from the wound drainage.
- Enlarging or spreading infection.