GUIDELINES FOR PATIENTS WITH SKIN INFECTIONS DIAGNOSED IN THE REMOTE ENVIRONMENT

PURPOSE

This document is intended as a supplement and is not intended as a substitute to communication with medical control, but is intended as a guide in instances where communication with medical control is not possible.

1. RISK FACTORS
    a. close personal contact
    b. poor hygiene
    c. elevated humidity
    d. physical stress
    e. cutaneous injury
    f. recent hospitalization
    g. intravenous drug use
    h. indwelling IV access lines, dialysis

2. RECOMMENDATIONS:
    a. Frequent bathing
    b. Frequent hand washing
    c. Use of antibacterial hand cleansers (personal size)
    d. Use of antibacterial soaps
    e. Hibiclens showers for infected individuals
    f. Avoidance of facial grooming prior to thorough hand cleansing (nose and mouth care prior to antibacteriocidal soap/cleanser use
        i. (Goal- prevent nasal colonization and creation of carrier state)
    g. Aggressive identification of infected individuals
    h. Aggressive management of individuals with identified infections.

3. MANAGEMENT
    a. Notification of Rig Management and Medical Control of potentially infected personnel
    b. Daily evaluations
    c. Medic assistance with wound care and medical waste disposal
    d. Medications presented to patient daily by medic (do not dispense - make them show up for evaluation.)
    e. Follow drug administration guidelines.
    f. Frequent communication with Med Control regarding patients not responding as expected.
    g. AWARENESS that any individual has the option of evaluation on shore at the first reasonable opportunity.

h. Avoidance of exposure to contaminated articles by non-infected personnel.
    i. No sharing of personal hygiene items (razors, towels)
    ii. Bagging of contaminated clothing prior to daily showering (disrobe and bag in a low traffic area)
    iii. Bagging and removal of contaminated dressings prior to shower.
    iv. Removal of all contaminated clothing and dressings in bag system.
    v. Infected individuals to enter shower areas last and immediate, complete disinfection of the entire area post completion of personal hygiene tasks.
    vi. Thorough disinfection of common touch items such as hand rails, chairs, door knobs, telephones, and bathroom fixtures, light switches by housekeeping.
    vii. Washing contaminated clothing separately may be beneficial (Hot water cycles only).

4. TREATMENT:
    a. 1st line Antibiotic Therapy
        i. Trimethoprim/Sulfamethoxazole (Bactrim)
            1. Dosage: 1 double strength tablet BID (this is what is supplied)
            2. Contraindication: allergy to Sulfa, or a reaction to the drug previously.
        ii. Mupirocin (Bactroban)
            1. Dosage: apply thin film with dressing changes; may be applied up to QID
    b. 2nd line Antibiotic Therapy
        i. Doxycycline (Vibramycin)
            1. Dosage: 100 mg x i BID.
            2. Added to the regimen if the individual has ingested uncooked shellfish within 3-5 days of the onset of the infection.
            3. NOTE: this antibiotic should be added to any patient who is not allergic and who has a direct exposure to salt water or if the substance causing injury has been directly exposed to salt water.
        ii. Clindamycin (Cleocin)
            1. Dosage: 300 mg x i PO QID
            2. NOTE: reutilization of this drug is in response to the increasing number of drug resistant skin infections. This drug was used cautiously and continues to have

significant possible side effects including neutropenia (bone marrow suppression), and pseudomembranous colitis.

c. 3rd line Antibiotic Therapy
    i. Erythromycin
        1. Dosage
            a. Maleate 500 mg x i PO QID
            b. Stearate 500 mg x i PO BID
        2. Erythromycin is bacteriostatic (not bacteriocidal) and ½ of community acquired MRSA infections are resistant to this drug.
    ii. Floxacins
        1. Not good choices for Gram (+) -coccal skin and soft tissue infections

d. Antipyretic Therapy
    i. Acetaminophen
        1. Dosage: 10 mg per kilogram q 3-4 hours prn fever > 100.5 or pain
    ii. Ibuprofen
        1. Dosage: 10 mg per kilogram q 4-6 hours prn fever > 100.5 or pain.
    iii. These are universal doses for both children and adults unless bleeding disorders or liver dysfunction is present. Acetaminophen and Ibuprofen dosing is included as a reference and is based on dosing for ideal body weight.
    iv. Maximum recommended adult dose is 4 grams / 24 hour interval. Maximum dose recommended for adults with liver dysfunction is 2 grams/ 24 hours.
    v. There is some evidence to suggest that Ibuprofen may increase wound necrosis and thus acetaminophen may be the first choice antipyretic.

5. WOUND CARE:
    a. Wound salve (thin film of Neosporin or triple antibiotic ointment with dressing changes)
    b. Wound Packing
        i. An explanation about packing wounds and is intended for general consideration only. Patients requiring wound care at this level will be evacuated at the earliest possible point in time.
        ii. Open Wounds- pack with fluffed, moist 4x4.
            1. In general, the drier the pack, the coarser the weave of the dressing, and the tighter the wound is packed, the more debridement the dressing accomplishes.

2. Pack more loosely, more moist, and with finer gauze when the wound is progressing nicely.

c. Dressing Change
   i. Clean (sterile dressings are not required for open wounds which are not to be surgically closed) 4x4 cover with kling or kerlex to hold in place or tape if necessary
      1. (Avoid tape injury to skin if possible)
   ii. Dressing change BID or when saturated.
   iii. Placement of materials removed from patient in sealable plastic bags.
   iv. Dressing changes performed with gloved hands (non-sterile gloves)
   v. Dressings are to be placed in biohazard bags for subsequent disposal.

d. Warm, moist compresses to wound for 20 minutes 2-3 times day for vasodilatation and to promote consolidation of the wound for spontaneous drainage.

6. EVALUATION OF PROGRESS
   a. Ink or permanent marker (dot) at edge of erythema (redness) or induration (hardness) with daily measurement of progression or regression.
   b. Notify Med Control IMMEDIATELY IF:
      i. Failure or regression after 48 hours of antibiotic therapy.
      ii. Systemic Symptoms:
         1. sustained temperature > 100.5
         2. change in sensorium (unclear thoughts)
         3. Rigors (shaking)
         4. Progressing Lymphadenitis (Red Streaks)
   c. EXPECT decrease in drainage, decrease in pain, and decrease in erythema.
   d. Failure of wound progress at 48 hours will constitute an indication for a change in therapy unless specifically held by medical control (in this instance proceed to the next higher response outlined).
      i. This instruction is for instances when communication and evacuation are not possible.

Pearls:

1. Most infections you treat <u>will not</u> involve the MRSA type <u>S. aureus.</u> Always inquire about recent exposure to persons with chronic wounds, recently hospitalized or institutionalized relatives, etc. As a general rule, drugs used to treat Staph species will also treat Strep species. Rapidly spreading, bullous

(blistering) infections are usually Strep species and will respond to Penicillins / Cephalosporins.

2. Most infections will be of a mixed type and will respond to lesser antibiotics.
3. However, Vibrio species should also be suspected in patients with bullous lesions who are in a salt water environment.
4. Aeromonas species should be suspected in fresh water injuries.
5. Dosing schedule for common antibiotics:
    a. Amoxicillin 500 mg. PO q 8 hours
    b. Ampicillin 500 mg. PO q 6 hours
    c. Pen V.K. 500 mg. PO q 6 hours
    d. Cephalexin 500 mg. PO q 6 hours

References: MRSA Infections in Military Recruits
MRSA Infections in Competitive Sports Participants