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FACT SHEET FOR HEALTH CARE PROVIDERS: Community-Onset MRSA Among HIV-Positive MSM

Recently, the Los Angeles County Department of Health Services (LACDHS) has received an increasing number of reports of skin infections with methicillin-resistant *Staphylococcus aureus* (MRSA) among predominantly HIV-positive MSM (men who have sex with men). In response, LACDHS is pursuing an investigation into risk factors for MRSA skin infections in this community. This fact sheet is meant to improve awareness among health care providers of these infections and their management and prevention.

Clinical Presentation:

MRSA is commonly found among hospitalized patients, however, clinicians should be aware that MRSA skin infections with community-onset are increasingly more common, both locally and nationally.

MRSA skin infections may present in a number of forms:

- **Cellulitis:** Inflammation of skin
- **Impetigo:** Bullous (blistered) lesions or abraded skin with honey-colored crust
- **Folliculitis:** Infection of hair follicle (like a pimple)
- **Furunculosis:** Deeper infection below hair follicle
- **Carbuncle:** Multiple adjacent hair follicles and substructures are affected
- **Abscess:** Pus-filled mass below skin structures
- **Infected Laceration:** Pre-existing cut becomes infected

Other manifestations (i.e. blood or joint infections) are less common, however, the predominant strain of MRSA seen in this investigation may have factors causing the organism to be more virulent.

Diagnosis:

1. We encourage the use of culture to determine appropriate antibiotic selection.
2. Microbiologic culture of skin lesions is especially useful in recurrent or persistent cases of skin infection.
3. In the absence of symptomatic infection, culture for MRSA colonization is generally not necessary.

Treatment:

1. Health care providers should continue prudent management of skin lesions and selective use of antibiotics, as antibiotic use has been associated with the development of MRSA infection.

2. The first line of treatment for boils and similar skin infections is incision, drainage, and local care, rather than antibiotic treatment.
3. At this time, LACDHS is not recommending changes in the empiric antibiotic treatment of *S. aureus* infections.
4. The predominant strain of MRSA found in this investigation is resistant to penicillin, cephalosporins, erythromycin, and fluoroquinolones. At this time, it is not clear whether resistance patterns vary by subpopulations within Los Angeles County.
5. If the patient is found to have an MRSA skin infection and antibiotics are indicated, consider treatment with two drugs that the organism is susceptible to, in order to prevent the emergence of broadened resistance. In previous outbreaks of MRSA, combination therapy with TMP/SMX (Bactrim) and rifampin, or clindamycin and rifampin, have been used. However, the use of rifampin in patients taking protease inhibitors is generally contraindicated.

Prevention:

Skin infections with MRSA are thought to be transmitted by close skin to skin contact with another person infected with MRSA or by contact with a fomite or surface contaminated with MRSA.

Risk factors for MRSA skin infection might include exposure to health care settings, jails or prisons, occupations or recreational activities with regular skin to skin contact (i.e. wrestling), exposure to antibiotics, severe illness, advanced age, and immune suppression.

The following precautions might help prevent the spread of MRSA in the health care setting:

1. Between patients, wash hands regularly with soap and warm water. Antibacterial soaps containing chlorhexidine, alcohol, or triclosan are effective against MRSA.
2. Launder any linens that come into patient contact in hot water (>160°F) and bleach. The heat of commercial dryers improves bacterial killing.
3. Clean surfaces of exam rooms with commercial disinfectant or a 1:100 solution of diluted bleach (1 tablespoon bleach in 1 quart water).
4. Wear gloves when managing wounds and dispose of dressings carefully. After removing gloves, wash hands with soap and water.
5. Carefully dispose of dressings and other materials that come into contact with blood, urine, or pus from patients infected with MRSA.

The Center for Disease Control and Prevention website provides additional details on handwashing and environmental control in the health care setting:

http://www.cdc.gov/ncidod/hip/GUIDE/handwash_pre.htm

Surveillance

While MRSA is not a reportable disease, health care providers can report to LACDHS unusual clusters of patients with MRSA infections. Otherwise, health care providers can track the characteristics of skin lesions seen in their practices to identify patterns of antibiotic resistance, which can help you identify unusual trends and make appropriate treatment decisions. LACDHS has developed a skin lesion log for your own use. Please contact LACDHS if you have questions about the use of the skin lesion log.

If you have additional questions, please contact Nolan Lee, MD, MPH, (213) 989-7083, nlee@dhs.co.la.ca.us.