

# Outpatient<sup>†</sup> management of skin and soft tissue infections in the era of community-associated MRSA<sup>‡</sup>

## Patient presents with signs/ symptoms of skin infections:

- Redness
- Swelling
- Warmth
- Pain/tenderness
- Complaint of "spider bite"
- Folliculitis, Furuncle, Carbuncle

**YES** ➔

## Is the lesion purulent (i.e., are any of the following signs present?):

- Fluctuance – palpable, fluid-filled cavity, movable, compressible
- Yellow or white center
- Central point or "head"
- Draining pus
- Possible to aspirate pus with needle and syringe

**NO** ➔

## Possible cellulitis without abscess: **THINK MRSA**

- Provide antimicrobial therapy with coverage for MRSA, for *Streptococcus* spp., and/or other suspected clinical pathogens.
- See chart below for options for empiric antimicrobial therapy.
- **Follow-up within 24 to 48 hours is critical after any treatment of a presumed MRSA case.**

**YES**

## **THINK MRSA:**

1. Drain the lesion (I&D) or aspirate pus.
2. Send wound drainage for culture and susceptibility testing.
3. Advise patient on wound care and hygiene.
4. Discuss follow-up plan with patient.
5. **Follow-up within 24 to 48 hours is critical after any treatment of a presumed MRSA case.**
6. Treatment with I&D alone may be adequate for a mild infection in a healthy patient.
7. Consider antimicrobial therapy with coverage for MRSA in addition to I&D if there are systemic symptoms, severe local symptoms, immune suppression, or failure to respond to I&D. See options on reverse for empiric<sup>§</sup> therapy.

## **SPECIAL CONSIDERATIONS FOR CHILDREN**

Children with systemic or severe local infections due to MRSA often do not present with fever. School and childcare exclusion rules may apply. Patient education on hygiene and wound care may need to address athletic participation, other shared exposures.

† For patients with systemic symptoms including fever, severe local symptoms, immunocompromised status or if patient is an infant, hospitalization and consultation with an infectious disease specialist are recommended.

‡ Visit [www.cdc.gov/mrsa](http://www.cdc.gov/mrsa) for more information.

§ Empiric treatment is only appropriate for patients unlikely to have health care associated MRSA.

## **Abbreviations:**

I&D – incision and drainage

CA-MRSA – community-associated methicillin-resistant *S. aureus*

SSTI – skin and soft tissue infection

**See reverse for options for empiric<sup>§</sup> outpatient antimicrobial treatment of SSTIs when CA-MRSA is a consideration.**

**Adopted in April 2008 by the SC DHEC Bureau of Disease Control – [www.scdhec.gov](http://www.scdhec.gov)**

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## Options for empiric § outpatient antimicrobial treatment of SSTIs when CA-MRSA is a consideration \*

DRUG NAME	ADULTS	PEDS	CONSIDERATIONS	PRECAUTIONS **
<b>Trimethoprim Sulfamethoxazole</b> (TMP-SMX)	YES	YES, 2 mos and older	<ul style="list-style-type: none"> <li>■ TMP-SMX is clinically effective for treatment of staphylococcal SSTIs, but is not FDA-approved for this indication.</li> <li>■ TMP-SMX therapy is generally inexpensive.</li> </ul>	<ul style="list-style-type: none"> <li>■ TMP-SMX is not recommended for infants less than 2 months of age, nor for women in the third trimester of pregnancy.</li> <li>■ TMP-SMX is not recommended if streptococcal infection is part of the differential diagnosis, because it may not provide coverage for group A streptococcus, a common cause of cellulitis.</li> </ul>
<b>Tetracyclines</b> <ul style="list-style-type: none"> <li>■ Doxycycline</li> <li>■ Minocycline</li> </ul>	YES	YES 8 yrs and older	<ul style="list-style-type: none"> <li>■ Doxycycline is FDA-approved to treat <i>S. aureus</i> skin infections.</li> </ul>	<ul style="list-style-type: none"> <li>■ Tetracyclines are not recommended during pregnancy, nor for treatment of children under the age of 8.</li> <li>■ The activity of tetracyclines against streptococcal infection is unknown.</li> </ul>
<b>Clindamycin</b>	YES	YES	<ul style="list-style-type: none"> <li>■ Clindamycin is FDA-approved to treat serious infections due to <i>S. aureus</i>.</li> <li>■ D-zone test should be performed to identify inducible clindamycin resistance in erythromycin-resistant isolates.</li> </ul>	<ul style="list-style-type: none"> <li>■ <i>Clostridium difficile</i>-associated disease, while uncommon, may occur more frequently in association with clindamycin compared to other agents.</li> </ul>
<b>Linezolid</b>	YES	YES	<ul style="list-style-type: none"> <li>■ Consultation with an infectious disease specialist is recommended.</li> <li>■ Linezolid is FDA-approved to treat complicated skin infections, including those caused by MRSA.</li> </ul>	<ul style="list-style-type: none"> <li>■ Linezolid has been associated with myelosuppression, neuropathy and lactic acidosis during prolonged therapy.</li> </ul>

- MRSA is resistant to all currently available beta-lactam agents (penicillins and cephalosporins).
- Fluoroquinolones (e.g., ciprofloxacin, levofloxacin) and macrolides (erythromycin clarithromycin, azithromycin) are not optimal treatment of MRSA SSTIs because resistance is common or may develop rapidly.
- Rifampin is a consideration only as an adjunct to other agents for more severe/involved presentations. Empiric therapy with clindamycin or TMP-SMX generally should not include rifampin. Providers should consider an infectious disease consult prior to any use of combination therapies.

\* Data from controlled clinical trials are needed to establish the comparative efficacy of these agents in treating MRSA SSTIs. Patients with signs and symptoms of severe illness should be treated as in-patients.

\*\* Consult product labeling for potential adverse effects and contraindications associated with each agent. Always assess for drug allergies.

### ROLE OF DECOLONIZATION

- **Regimens intended to eliminate MRSA colonization should only be used in patients after active infections have resolved.**
- Decolonization regimens may have a role in preventing recurrent infections, but more data are needed to establish their efficacy and to identify optimal regimens for use in community settings.
- *After treating active infections and reinforcing hygiene and appropriate wound care*, consider consultation with an infectious disease specialist regarding use of decolonization when there are recurrent infections in an individual patient or members of a household.