

OPTIONS FOR EMPIRIC OUTPATIENT ANTIMICROBIAL TREATMENT OF SSTIs WHEN MRSA IS A CONSIDERATION*

Drug name	Considerations	Precautions**
Clindamycin	<ul style="list-style-type: none"> FDA-approved to treat serious infections due to <i>S. aureus</i> D-zone test should be performed to identify inducible clindamycin resistance in erythromycin-resistant isolates 	<ul style="list-style-type: none"> <i>Clostridium difficile</i> infection, while uncommon, may occur more frequently in association with clindamycin compared to other agents
Tetracyclines <ul style="list-style-type: none"> Doxycycline Minocycline 	<ul style="list-style-type: none"> Doxycycline is FDA-approved to treat <i>S. aureus</i> skin infections 	<ul style="list-style-type: none"> Not recommended during pregnancy Not recommended for children under the age of 8 Activity against group A streptococcus, a common cause of cellulitis, unknown
Trimethoprim-Sulfamethoxazole	<ul style="list-style-type: none"> Not FDA-approved to treat any staphylococcal infection 	<ul style="list-style-type: none"> May not provide coverage for group A streptococcus, a common cause of cellulitis Not recommended for women in the third trimester of pregnancy Not recommended for infants less than 2 months
Rifampin	<ul style="list-style-type: none"> Use only in combination with other agents 	<ul style="list-style-type: none"> Drug-drug interactions are common.
Linezolid	<ul style="list-style-type: none"> Consultation with an infectious disease specialist is suggested FDA-approved to treat complicated skin infections, including those caused by MRSA 	<ul style="list-style-type: none"> Has been associated with myelosuppression, neuropathy and lactic acidosis during prolonged therapy
<ul style="list-style-type: none"> 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 for treatment of MRSA SSTIs because resistance is common or may develop rapidly. 		

Role of decolonization

Regimens intended to eliminate MRSA colonization should not be used in patients with active infections. 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.

MRSA IS TYPICALLY SPREAD BY:

- > Having direct contact with another person's infection
- > Sharing personal items, such as towels or razors, that have touched infected skin
- > Touching surfaces or items, such as used bandages, contaminated with MRSA



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INFORMATION ABOUT MRSA SKIN INFECTIONS.



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<https://wwwn.cdc.gov/phil/>



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WHEN A PATIENT HAS A SKIN INFECTION, IT MAY VERY LIKELY BE MRSA.

Recent data suggest that MRSA in the community is increasing. The spectrum of disease caused by MRSA appears to be similar to that of *Staphylococcus aureus* in the community. Skin and soft tissue infections (SSTIs), specifically furuncles (abscessed hair follicles or “boils”), carbuncles (coalesced masses of furuncles), and abscesses, are the most frequently reported clinical manifestations. The role of MRSA in cellulitis without abscess or purulent drainage is less clear since cultures are rarely obtained.

The Centers for Disease Control and Prevention (CDC) encourages you to consider MRSA in the differential diagnosis of SSTIs compatible with *S. aureus* infections, especially those that are purulent (fluctuant or palpable fluid-filled cavity, yellow or white center, central point or “head,” draining pus, or possible to aspirate pus with needle or syringe). A patient’s presenting complaint of “spider bite” should raise suspicion of an *S. aureus* infection.

Incision and drainage constitutes the primary therapy for these purulent skin infections. Empiric antimicrobial coverage for MRSA may

be warranted in addition to incision and drainage based on clinical assessment (e.g., presence of systemic symptoms, severe local symptoms, immune suppression, extremes of patient age, infections in a difficult to drain area, or lack of response to incision and drainage alone). For severe infections, consider consulting with an infectious disease specialist. Obtaining specimens for culture and susceptibility testing is useful to guide therapy, particularly for those who fail to respond adequately to initial management.

MRSA skin infections can develop into more serious infections. It is important to discuss a follow-up plan with your patients in case they develop systemic symptoms or worsening local symptoms, or if symptoms do not improve within 48 hours.

What is MRSA?

Methicillin-resistant *Staphylococcus aureus* (MRSA) is an antimicrobial-resistant type of *S. aureus* that is resistant to currently available beta-lactam antibiotics including penicillins (e.g., penicillin, amoxicillin), “anti-staphylococcal” penicillins (e.g., methicillin, oxacillin), and cephalosporins (e.g., cephalexin).

Educate Patients to Prevent Spread

Patient education is a critical component of MRSA case management. Healthcare professionals should educate patients, caretakers and, when possible, household members on methods to avoid MRSA transmission to close contacts.

Additional materials for healthcare professionals and patients are available at www.cdc.gov/MRSA or by calling 1-800-CDC-INFO.

OUTPATIENT¹ MANAGEMENT OF SKIN AND SOFT TISSUE INFECTIONS

Patient presents with signs/symptoms of skin infection:

- Redness
- Swelling
- Warmth
- Pain/tenderness
- Complaint of “spider bite”

YES

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

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

YES

NO

1. Drain the lesion
2. Send wound drainage for culture and susceptibility testing
3. Advise patient on wound care and hygiene
4. Discuss follow-up plan with patient

Possible cellulitis without abscess:

- Provide antimicrobial therapy with coverage for *Streptococcus* spp. and/or other suspected pathogens
- Maintain close follow-up
- Consider adding coverage for MRSA (if not provided initially), if patient does not respond

If systemic symptoms, severe local symptoms, immunosuppression, or failure to respond to I&D, consider antimicrobial therapy with coverage for MRSA in addition to I&D

(See reverse for options)

ABBREVIATIONS

I&D: incision and drainage
MRSA: methicillin-resistant *Staphylococcus aureus*
SSTI: skin and soft tissue infection

¹ For severe infections requiring inpatient management, consider consulting an infectious disease specialist.

* 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 inpatients.

**Consult product labeling for a complete list of potential adverse effects associated with each agent.