# TREATMENT OF SKIN AND SOFT TISSUE INFECTIIONS IN ADULTS
## AMBULATORY GUIDELINES

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<th>Clinical Setting</th>
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| Minor Skin Infections  
- Impetigo  
- Secondarily infected skin lesions such as eczema, ulcers, or lacerations | Mupirocin 2% topical ointment BID | 5 days | Close clinical follow-up is recommended, especially in patients not receiving antibiotic therapy |
| Abscesses, Furuncles, and Carbuncles  
**Abscesses** - collections of pus within the dermis and deeper skin tissues  
**Furuncle** - infection of the hair follicle in which purulent material extends through the dermis into the subcutaneous tissue, where a small abscess forms  
**Carbuncle** - coalescence of several furuncles into a single inflammatory mass | **INCISION AND DRAINAGE (I&D) IS RECOMMENDED AS PRIMARY MANAGEMENT. ANTIBIOTICS* ARE (AT A MINIMUM) INDICATED IF PATIENT MEETS ONE OF THE FOLLOWING CRITERIA:**  
- Severe, extensive, rapidly progressive cellulitis  
- Abscess >2 cm  
- Signs or symptoms of systemic illness  
- Elderly, immunosuppressed, active neoplasm or diabetes mellitus  
- Circumstances where abscess is difficult to drain  
- Associated septic phlebitis  
- Inadequate response to I&D alone  
**Preferred:**  
**TMP-SMX**: 1-2 DS tabs PO BID  
**Alternative:**  
**Doxycycline** 200 mg PO x1 dose, then 100 mg PO BID  
**Therapy may need to be extended based on severity of infection and response to treatment** | 5 days | Empiric therapy should target MRSA until susceptibilities are known, and then therapy may be tailored. For patients with culture positive for MSSA, preferred oral therapy is cephalexin, or TMP-SMX or doxycycline if patient has severe beta-lactam allergy |
|  
* Although ~70% of abscesses may resolve with I&D alone, an additional 10% are more likely to resolve with the addition of antibiotics. Clinical context should be taken into account when deciding if antibiotics are appropriate.  
** Adjust dose based on renal function. Higher TMP-SMX doses of 2 DS tabs BID are recommended for extensive and moderate disease and for patients >70 kg. |
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* Staphylococcus aureus resistance rates are lowest for TMP-SMX (4%) and doxycycline (7%), compared to clindamycin (38%).  
* Empiric therapy should target MRSA until susceptibilities are known, and then therapy may be tailored. For patients with culture positive for MSSA, preferred oral therapy is cephalexin, or TMP-SMX or doxycycline if patient has severe beta-lactam allergy  
* Pregnancy: doxycycline contraindicated throughout pregnancy; TMP-SMX should be avoided in the first 8 weeks. |
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<td><strong>Non-Purulent Cellulitis</strong></td>
<td>Prefered: Cephalexin** 1 g PO TID&lt;br&gt;Alternative for low/medium-risk allergy to cephalaxin: Amoxicillin-clavulanate** 875 mg PO BID&lt;br&gt;Alternative for high-risk allergy/contraindication to beta-lactams (regardless of risk for MRSA): Clindamycin 450 mg PO TID</td>
<td>5 days</td>
<td>- Therapy may need to be extended based on severity of infection and response to treatment&lt;br&gt;- Close clinical follow-up is recommended&lt;br&gt;- Adjust dose based on renal function. Higher TMP-SMX doses of 2 DS tabs BID are recommended for extensive and moderate disease and for patients &gt;70 kg.</td>
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<td>(Absence of purulent drainage or exudate, ulceration, and no associated abscess)&lt;br&gt;Empiric therapy for β-hemolytic streptococcus is recommended. If there is a concern for necrotizing fasciitis, admit patient to hospital</td>
<td></td>
<td></td>
<td><strong>Patients at risk for MRSA:</strong>&lt;br&gt;- Previous cellulitis worse on &gt;48 hours of β-lactam therapy&lt;br&gt;- Known MRSA colonization&lt;br&gt;- Prior history of MRSA infection&lt;br&gt;- Recent intravenous drug use&lt;br&gt;<strong>If risk factors for MRSA:</strong> Add TMP-SMX** 1-2 DS BID to cephalaxin or amoxicillin-clavulanate</td>
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<td><strong>Purulent Cellulitis</strong></td>
<td>Preferred: TMP-SMX** 1-2 DS tabs PO BID&lt;br&gt;Alternative: Doxycycline 200 mg x1, then 100 mg PO BID</td>
<td>5 days</td>
<td>- Therapy may need to be extended based on severity of infection and response to treatment&lt;br&gt;- Consider inpatient admission for patients with fever, rapidly progressive cellulitis, or signs of systemic illness&lt;br&gt;- Consider culture and susceptibility of purulence&lt;br&gt;- Staphylococcus aureus resistance rates are lowest for TMP-SMX (4%) and doxycycline (7%), compared to clindamycin (38%).&lt;br&gt;- Empiric therapy should target MRSA until susceptibilities are known, and then therapy should be tailored. For patients with culture positive for MSSA, preferred oral therapy is cephalaxin, or TMP-SMX or doxycycline if patient has severe beta-lactam allergy&lt;br&gt;- Pregnancy: doxycycline contraindicated throughout pregnancy; TMP-SMX should be avoided in the first 8 weeks.&lt;br&gt;- **Adjust dose based on renal function. Higher TMP-SMX doses of 2 DS tabs BID are recommended for extensive and moderate disease and for patients &gt;70 kg.</td>
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The recommendations in this guide are meant to serve as treatment guidelines for use at Michigan Medicine facilities. If you are an individual experiencing a medical emergency, call 911 immediately. These guidelines should not replace a provider’s professional medical advice based on clinical judgment, or be used in lieu of an Infectious Diseases consultation when necessary. As a result of ongoing research, practice guidelines may from time to time change. The authors of these guidelines have made all attempts to ensure the accuracy based on current information, however, due to ongoing research, users of these guidelines are strongly encouraged to confirm the information contained within them through an independent source.

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