

Cellulitis

Cellulitis is an acute infection of the skin involving the dermis and subcutaneous tissues. It usually presents as a diffuse, spreading area of skin erythema, commonly involving the lower limbs. Cellulitis is a very common presentation to general practice. GP registrars need to have a systematic approach to assessment and management of this condition.

<p>TEACHING AND LEARNING AREAS</p> 	<ul style="list-style-type: none"> • Risk factors for cellulitis • Clinical features and red flag symptoms and signs of cellulitis • Differential diagnosis of cellulitis, including necrotising fasciitis • Approach to assessment and clinical management • Indications for ED referral • Assessment and management of recurrent cellulitis 				
<p>PRE-SESSION ACTIVITIES</p> 	<ul style="list-style-type: none"> • Read the 2016 Australian Prescriber article Bacterial skin and soft tissue infections 				
<p>TEACHING TIPS AND TRAPS</p> 	<ul style="list-style-type: none"> • <i>S. pyogenes</i> is the most common cause of cellulitis. <i>S. aureus</i> is less frequent and is often associated with trauma, ulceration or abscess • Bilateral lower limb cellulitis is exceedingly rare • Acute lipodermatosclerosis, is an important differential of cellulitis • Orbital cellulitis is a serious infection, presenting with impairment of vision and extraocular eye movements • In contrast to cellulitis, erysipelas has a clear line of demarcation between infected and noninfected tissue and classically involves the face • Beware of cellulitis arising from marine injuries or animal bites • Consider necrotising fasciitis when pain is out of proportion to clinical signs • Redness commonly worsens for up to 48 hours after effective therapy is started, but systemic features should improve • It is essential to rest and elevate the limb • IV antibiotics are indicated with features of systemic infection (see eTG) and should be considered in systemically well patients with risk factors e.g. diabetes 				
<p>RESOURCES</p> 	<table border="1"> <tbody> <tr> <td data-bbox="336 1762 432 1861">Read</td> <td data-bbox="432 1762 1489 1861"> <ul style="list-style-type: none"> • Therapeutic guidelines chapter on Cellulitis and erysipelas • RCH guidelines on orbital cellulitis </td> </tr> <tr> <td data-bbox="336 1861 432 1957">Watch</td> <td data-bbox="432 1861 1489 1957"> <ul style="list-style-type: none"> • YouTube video Bacterial skin infection </td> </tr> </tbody> </table>	Read	<ul style="list-style-type: none"> • Therapeutic guidelines chapter on Cellulitis and erysipelas • RCH guidelines on orbital cellulitis 	Watch	<ul style="list-style-type: none"> • YouTube video Bacterial skin infection
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<p>FOLLOW UP/EXTENSION ACTIVITIES</p> 	<ul style="list-style-type: none"> • Undertake the clinical reasoning challenge and discuss with supervisor 				

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Clinical Reasoning Challenge

Jimmy Conti, aged 76, presents to you with a hot, painful, red right leg for the past 36 hours. He has never had anything like this before. Jimmy has no features that would make him high risk. Your examination reveals redness and swelling of the lower leg to mid-calf, but no signs of sepsis. You make a provisional diagnosis of cellulitis.

QUESTION 1. You suspect cellulitis. What are the key features on history to stratify his risk of more serious disease or complications? List as many as appropriate.

QUESTION 2. What investigations would you request at this stage to confirm your diagnosis? List as many as appropriate.

QUESTION 3. What are the key aspects of management of Jimmy at this stage? List as many as appropriate.

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ANSWERS

QUESTION 1

You suspect cellulitis. What are the key features on history to stratify his risk of more serious disease or complications? List as many as appropriate.

- Severe pain
- Fever
- Rapid progression
- History of chronic disease e.g. diabetes
- Immunosuppression
- Heavy alcohol use
- Animal bite or marine exposure
- Obesity

QUESTION 2

What investigations would you request at this stage to confirm your diagnosis? List as many as appropriate.

- The diagnosis of cellulitis is primarily based on clinical features and uncomplicated cellulitis, as in this case, usually does not require investigations.

QUESTION 3

What are the key aspects of management of Jimmy at this stage? List as many as appropriate.

- Appropriate antibiotic management – see therapeutic guidelines
- Rest and elevation of the limb
- Follow up and safety netting
- Advice that the redness commonly gets worse for 48 hrs before starting to resolve