

# CELLULITIS V2.1

## Comments from the Expert Advisory Group

- If patient afebrile and otherwise healthy, flucloxacillin may be used as single drug treatment.
- Before treating cellulitis, consider drawing around the extent of the infection with a single-use surgical marker pen to monitor progress. Redness may be less visible on darker skin tones.
- Breaks in skin may become a portal of entry for organisms and risk factors should be managed. In lower extremity cellulitis, carefully examine the interdigital web spaces. Management of fissuring, scaling, maceration or leg ulcers may reduce colonization with pathogens hence reducing incidence of recurrent infection.
- Identify and manage co-morbidities that may cause the cellulitis to spread rapidly, delay healing or lead to recurrence i.e. oedema, eczema, diabetes mellitus (consider HbA1c if not previously performed), obesity, tinea infection, poor circulation, immunosuppression or venous insufficiency. Compression stockings may be helpful for patients with varicose eczema and lipodermatosclerosis who do not have peripheral arterial disease.
- Breaches in the skin in patients with lymphoedema put them at higher risk of developing cellulitis. Refer patients with lymphoedema to secondary care. Public health nurse referral may be appropriate in some patients.
- Refer patients with venous insufficiency and recurrent cellulitis to secondary care i.e. a vascular clinic.
- For skin infections related to animal or human bites, [refer to antibiotic prescribing guidelines for bites](#).
- For facial cellulitis, co-amoxiclav is a first choice option.
- Bilateral cellulitis is uncommon. Common differential diagnosis of bilateral lower leg cellulitis include:
  - Contact dermatitis
  - Chronic venous insufficiency
  - [Lipodermatosclerosis](#)
- Advise patient to seek medical help if symptoms worsen rapidly or significantly or do not appear to improve after 2-3 days of treatment.
- Refer to hospital if there are symptoms or signs of a more serious illness or condition suspected, such as orbital cellulitis, osteomyelitis, septic arthritis, necrotising fasciitis or sepsis.
- Serious or deteriorating cellulitis is an emergency and will need referral for IV antibiotics.
- Suspected infection in the foot of a diabetic patient with vascular compromise is considered a clinical emergency as there is a risk of osteomyelitis. This patient should have a same day urgent referral to secondary care for assessment and treatment.
- The diagnosis of cellulitis is clinical so the decision to treat is based on clinical criteria. Microbiological testing is useful in certain circumstances (listed below) to guide antibiotic choice.
- Consider a swab for microbiological testing, only if open wound / discharge or if atypical infection suspected (e.g. waterborne organisms).
- Seek advice from microbiology if MRSA suspected or detected.
- Risk factors for MRSA skin and soft tissue infection:
  - Previous MRSA infection or colonisation
  - Frequent admissions to healthcare facilities
  - Recent inpatient/resident at hospital or care facility with known or likely high MRSA prevalence

## CELLULITIS V2.1

- Panton-Valentine Leukocidin (PVL) is a toxin produced by 2% of *Staphylococcus aureus* and is associated with persistent recurrent pustules and carbuncles or cellulitis. Send swabs for culture in these clinical scenarios as well as nasal swab for *Staphylococcus aureus* carriage. On rare occasions it causes more severe invasive infections, even in otherwise fit people. Risk factors include nursing homes, contact sports, sharing equipment, poor hygiene and eczema.
- See [HPSC guidance on Group A Streptococcus](#)

### Recurrent Cellulitis

- Recurrent cellulitis can be defined as more than two episodes of cellulitis at the same site within one year.
- As colonisation is likely in leg ulcers don't swab unless atypical organisms suspected.
- In patients with recurrent episodes of cellulitis, risk factors should be addressed (as above), and the focus should be on prevention wherever possible.
- Do not routinely offer antibiotic prophylaxis to prevent recurrent cellulitis. Out rule secondary causes and consider secondary care guidance if ongoing concern.
- Patients on antibiotic prophylaxis should be reviewed every 6 months to:
  - Assess the success of prophylaxis and stop if ineffective
  - Discuss continuing or stopping prophylaxis if appropriate
  - Consider stopping if no episodes of cellulitis within the previous 12 months.

### Treatment

ANTIBIOTIC TREATMENT FOR CELLULITIS (Page 1 of 2)				
Drug	Childrens Dose	Adult Dose	Duration	Notes
<b>1st choice option</b>				
Flucloxacillin	<a href="#">See flucloxacillin dosing table for children</a>	500mg - 1g every 6 hours	5-7 Days*	**See footnote Avoid in penicillin allergy. To optimise absorption, take on an empty stomach (either 1 hour before food or 2 hours after food)
<b>2nd choice option</b>				
Cefalexin	<a href="#">See cefalexin dosing table for children</a>	500mg every 6 - 12 hours	5-7 days*	Cephalosporins should not be used in severe penicillin allergy
<b>In severe penicillin allergy</b>				
Clarithromycin	<a href="#">See clarithromycin dosing table for children</a>	500mg every 12 hours	5-7 days*	Macrolides should be used with caution in pregnancy. Clarithromycin suitable only in 2nd and 3rd trimester in pregnancy.
<b>Treatment table continued on the next page</b>				

## CELLULITIS V2.1

<b>ANTIBIOTIC TREATMENT FOR CELLULITIS (Page 2 of 2)</b>				
<b>In pregnancy, for penicillin allergy</b>				
Clindamycin		300mg every 6 hours	5-7 days*	Caution: risk of <i>C. difficile</i>
<b>Infection near the eyes or nose, 1st choice option</b> (consider seeking secondary care advice)				
Co-amoxiclav	<a href="#">See co-amoxiclav dosing table for children</a>	625mg every 8 hours	7 days*	Avoid in penicillin allergy
<b>Infection near the eyes or nose, 2<sup>nd</sup> choice option</b> (consider seeking secondary care advice)				
Cefalexin	<a href="#">See cefalexin dosing table for children</a>	500mg every 6 - 12 hours	7 days*	Cephalosporins should not be used in severe penicillin allergy
<b>PLUS</b> Metronidazole	<a href="#">See metronidazole dosing table for children</a>	400mg every 8 hours		
<b>Infection near the eyes or nose and severe penicillin allergy or co-amoxiclav unsuitable</b> (consider seeking specialist advice)				
Clarithromycin	<a href="#">See clarithromycin dosing table for children</a>	500mg every 12 hours	7 days*	Macrolides should be used with caution in pregnancy. Clarithromycin suitable only in 2nd and 3rd trimester in pregnancy.
<b>PLUS</b> Metronidazole	<a href="#">See metronidazole dosing table for children</a>	400mg every 8 hours		
<b>In pregnancy, infection near the eyes or nose and severe penicillin allergy or co-amoxiclav unsuitable</b> (consider seeking specialist advice)				
Clindamycin		300mg every 6 hours	5-7 days*	Caution: risk of <i>C. difficile</i>

\*Full resolution after at this time is not expected as skin takes time to return to normal. Course can be extended (up to 14 days in total) if necessary, based on clinical assessment.

\*\*flucloxacillin has poor oral bioavailability and in people with cellulitis who could have impaired circulation (such as people with diabetes or venous insufficiency), a higher (off label) dose of up to 1 g four times a day may be needed to adequately treat the infection

# CELLULITIS V2.1

## Advice for patient

Advise the patient of:

- Possible adverse effects of antibiotics
- Skin will take time to return to normal after finishing the antibiotics
- Take paracetamol (or ibuprofen, if appropriate) for pain and fever.
- Drink adequate fluids.
- Seek immediate medical advice if antibiotics are not tolerated, the cellulitis becomes worse (there may be an increase in the redness in the first 24–48 hours of treatment), or if systemic symptoms develop or worsen.
- Elevate the leg for comfort and to relieve oedema (where applicable).
- Avoid the use of compression garments during acute cellulitis
- Use of emollients to prevent dry skin and cracking

## Patient Information

[HSE A to Z Cellulitis](#)