



A summary of prescribing recommendations from NICE guidance

This edition includes one antimicrobial prescribing guideline.

Cellulitis and erysipelas: antimicrobial prescribing

NICE NG141: September 2019

This guideline sets out an antimicrobial prescribing strategy for adults, young people, children and babies aged 72 hours and over with cellulitis and erysipelas. It aims to optimise antibiotic use and reduce antibiotic resistance.

There is an accompanying 3-page [visual summary](#) and an interactive [flowchart](#).

Definition

- ◆ Cellulitis and erysipelas are infections of the tissues under the skin (subcutaneous), which usually result from contamination of a break in the skin. Both conditions are characterised by acute localised inflammation and oedema, with lesions more superficial in erysipelas with a well-defined, raised margin.

Treatment and management

- ◆ To ensure that cellulitis and erysipelas are treated appropriately, exclude other causes of skin redness such as:
 - inflammatory reaction to an immunisation or an insect bite**OR**
 - non-infectious cause such as chronic venous insufficiency.
- ◆ Consider taking a swab for microbiological testing from people with cellulitis or erysipelas to guide treatment, but only if the skin is broken **AND**:
 - there is a penetrating injury, **OR**
 - there has been exposure to water-borne organisms, **OR**
 - the infection was acquired outside the UK.
- ◆ Before treating cellulitis or erysipelas, consider drawing around the extent of the infection with a single-use surgical marker pen to monitor progress. Be aware that redness may be less visible on darker skin tones.

Antibiotic treatment

- ◆ Offer an antibiotic for people with cellulitis or erysipelas – for choice of antibiotic, see **Box 1**.
- ◆ When choosing an antibiotic, take account of:
 - the severity of symptoms,
 - the site of infection (for example, near the eyes or nose)
 - the risk of uncommon pathogens (for example, from a penetrating injury, after exposure to water-borne organisms, or an infection acquired outside the UK),
 - previous microbiological results from a swab,
 - the person's meticillin-resistant *Staphylococcus aureus* (MRSA) status if known.
- ◆ Manage any underlying condition that may predispose to cellulitis or erysipelas, for example:
 - diabetes,
 - venous insufficiency,
 - eczema,
 - oedema, which may be an adverse effect of medicines such as calcium channel blockers.

Please go to www.nice.org.uk to check for any recent updates to this guidance.

Box 1**Choice of antibiotic to treat cellulitis and erysipelas**

- ◆ Follow the tables in the NICE three-page [visual summary](#):
 - Table 1 for adults ≥18 years,
 - Table 2 for children and young people from 1 month to 18 years.
- Give oral antibiotics first-line if the person can take oral medicines, and the severity of their condition does not require intravenous antibiotics.
- If intravenous antibiotics are given, review by 48 hours and consider switching to oral antibiotics if possible.
- For children under 1 month, seek specialist advice.

Advice

- ◆ When prescribing antibiotics for cellulitis or erysipelas, give advice about:
 - possible adverse effects of antibiotics,
 - the skin taking some time to return to normal after the course of antibiotics has finished,
 - seeking medical help if symptoms worsen rapidly or significantly at any time, or do not start to improve within 2 to 3 days.

Reassessment

- ◆ Reassess people if symptoms worsen rapidly or significantly at any time, do not start to improve within 2 to 3 days, or they:
 - become systemically very unwell, **OR**
 - have severe pain out of proportion to the infection, **OR**
 - have redness or swelling spreading beyond the initial presentation (taking into account that some initial spreading may occur, and that redness may be less visible on darker skin tones).
- ◆ When reassessing people with cellulitis or erysipelas, take account of:
 - other possible diagnoses, e.g. inflammatory reaction to an immunisation or an insect bite, gout, superficial thrombophlebitis, eczema, allergic dermatitis or deep vein thrombosis,
 - any underlying condition that may predispose to cellulitis or erysipelas, such as oedema, diabetes, venous insufficiency or eczema,
 - any symptoms or signs suggesting a more serious illness or condition, such as lymphangitis, orbital cellulitis, osteomyelitis, septic arthritis, necrotising fasciitis or sepsis
 - any results from microbiological testing,
 - any previous antibiotic use, which may have led to resistant bacteria.
- ◆ Consider taking a swab for microbiological testing if the skin is broken and this has not been done already.
- ◆ If a swab has been sent for microbiological testing:
 - review the choice of antibiotic(s) when results are available**AND**
 - change the antibiotic(s) according to results if symptoms or signs of the infection are not improving, using a narrow-spectrum antibiotic if possible.

Cellulitis and erysipelas.....continued

NICE NG141; 2019

Referral and seeking specialist advice

- ◆ Refer people to hospital if they have any symptoms or signs suggesting a more serious illness or condition, such as orbital cellulitis, osteomyelitis, septic arthritis, necrotising fasciitis or sepsis.
- ◆ Consider referring people with cellulitis or erysipelas to hospital, or seek specialist advice, if they:
 - are severely unwell, **OR**
 - have infection near the eyes or nose (including periorbital cellulitis), **OR**
 - could have uncommon pathogens, for example, after a penetrating injury, exposure to water-borne organisms, or an infection acquired outside the UK, **OR**
 - have spreading infection that is not responding to oral antibiotics, **OR**
 - have lymphangitis, **OR**
 - cannot take oral antibiotics (exploring locally available options for giving intravenous antibiotics at home or in the community, rather than in hospital, where appropriate).

Antibiotics to prevent recurrent cellulitis or erysipelas

- ◆ Do not routinely offer antibiotic prophylaxis to prevent recurrent cellulitis or erysipelas. Give advice about seeking medical help if symptoms of cellulitis or erysipelas develop.
- ◆ For adults who have had treatment in hospital, or under specialist advice, for at least two separate episodes of cellulitis or erysipelas in the previous 12 months, specialists may consider a trial of antibiotic prophylaxis. Involve the person in a shared decision by discussing and taking account of:
 - the severity and frequency of previous symptoms,
 - the risk of developing complications,
 - underlying conditions (such as oedema, diabetes or venous insufficiency) and their management,
 - the risk of resistance with long-term antibiotic use,
 - the person's preference for antibiotic use.
- ◆ When choosing an antibiotic for prophylaxis, take account of any previous microbiological results and previous antibiotic use.
- ◆ For choice of antibiotic, see **Box 2**.

Please go to www.nice.org.uk to check for any recent updates to this guidance.

Box 2

Choice of antibiotic to prevent cellulitis and erysipelas

- ◆ Do not routinely offer antibiotic prophylaxis to prevent recurrent cellulitis or erysipelas.
- ◆ Discuss any trial of antibiotic prophylaxis to ensure shared decision making, and choose, for adults ≥18 years, one of the following oral antibiotics:
 - phenoxymethylpenicillin 250mg twice a day, **OR**
 - erythromycin 250mg twice a day for patients with penicillin allergy.
- ◆ See BNF for appropriate use and dosing in specific population, e.g. hepatic or renal impairment, pregnancy or breastfeeding.
- ◆ Choose antibiotics according to recent microbiological results where possible. Avoid using the same antibiotic for treatment and prophylaxis.
- ◆ Review at least every six months.

Advice

- ◆ When antibiotic prophylaxis is given, give advice about:
 - possible adverse effects of long-term antibiotics,
 - returning for review within 6 months,
 - seeking medical help if symptoms of cellulitis or erysipelas recur.
- ◆ Review antibiotic prophylaxis for recurrent cellulitis or erysipelas at least every 6 months. The review should include:
 - assessing the success of prophylaxis,
 - discussing continuing, stopping or changing prophylaxis (taking into account the person's preferences for antibiotic use and the risk of antimicrobial resistance).
- ◆ Stop or change the prophylactic antibiotic to an alternative if cellulitis or erysipelas recurs (see **Antibiotic treatment** overleaf).

Recommendations – wording used such as 'offer' and 'consider' denote the [strength of the recommendation](#).

Drug recommendations – the guideline assumes that prescribers will use a drug's [Summary of Product Characteristics \(SPC\)](#) to inform treatment decisions.