Diverticular disease: antimicrobial prescribing

NICE National Institute for Health and Care Excellence

Background

- Diverticulosis is a digestive condition in which small pouches (diverticula) protrude from the walls of the large intestine, without symptoms
- About 10–15% of people with diverticulosis develop symptoms
- Diverticular disease is the presence of diverticula with mild abdominal pain or tenderness
- Acute diverticulitis is inflammation or infection of diverticula. Symptoms include constant abdominal pain, usually severe and on the lower left side, fever and bowel symptoms
- Complications of acute diverticulitis include perforation, abscess, sepsis, haemorrhage, fistula and obstruction

Diet and lifestyle

Give advice on:

- eating a healthy, balanced diet including whole grains, fruit and vegetables
- increasing fibre intake for people with constipation and a low-fibre diet
- drinking adequate fluids
- the benefits of exercise, weight loss and stopping smoking

Microbiological testing

If a diverticular abscess greater than 3 cm is drained, send pus samples to the microbiology laboratory and tailor antibiotic therapy to the results.

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Diverticulosis or diverticular disease → Do not offer antibiotics

Acute diverticulitis

- Systemically well → Consider not prescribing antibiotics
- Systemically unwell or immunosuppressed or with significant comorbidities but does not meet the criteria for referral for suspected complicated acute diverticulitis → Offer oral antibiotics
- Hospital management of suspected or confirmed complicated acute diverticulitis, including suspected diverticular abscess → Offer IV antibiotics

Advise on:

- diet and lifestyle
- the course of the disease and the likelihood of progression
- symptoms and symptom management (for example, paracetamol for pain and bulk-forming laxatives for constipation or diarrhoea)
- symptoms that indicate complications or progression
- when and how to seek medical advice

For people with acute diverticulitis, also advise on:

- possible investigations and treatments
- the risks of treatments and how invasive these are
- the role of surgery and outcomes

- Review within 48 hours or after scanning if sooner, and consider switching to oral antibiotics when possible
- If uncomplicated acute diverticulitis is confirmed by scanning, review the need for antibiotics and discharge
- If diverticular abscess is not confirmed by scanning, review the need for antibiotics
- For diverticular abscesses less than 3 cm, switch to oral antibiotics where possible

For other treatment options, including surgery and emergency management for complicated acute diverticulitis, see the NICE guideline on diverticular disease

This is a summary of the recommendations on antibiotic prescribing from NICE's guideline on diverticular disease. See the original guidance at www.nice.org.uk/guidance/NG147

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Choice of antibiotic for adults aged 18 years and over with suspected or confirmed acute diverticulitis

Antibiotic[1]	Dosage and course length[2]
First-choice oral antibiotic for suspected or confirmed uncomplicated acute diverticulitis	
Co-amoxiclav	500/125 mg three times a day for 5 days
Alternative first-choice oral antibiotics if penicillin allergy or co-amoxiclav unsuitable	
Cefalexin (caution in penicillin allergy) ***with*** metronidazole	**Cefalexin:** 500 mg twice or three times a day (up to 1 to 1.5 g three or four times a day for severe infection) for 5 days **Metronidazole:** 400 mg three times a day for 5 days
Trimethoprim ***with*** metronidazole	**Trimethoprim:** 200 mg twice a day for 5 days **Metronidazole:** 400 mg three times a day for 5 days
Ciprofloxacin (only if switching from IV ciprofloxacin with specialist advice; consider safety issues[3]) ***with*** metronidazole	**Ciprofloxacin:** 500 mg twice a day for 5 days **Metronidazole:** 400 mg three times a day for 5 days
First-choice intravenous antibiotics[4] for suspected or confirmed complicated acute diverticulitis	
Co-amoxiclav	1.2 g three times a day
Cefuroxime ***with*** metronidazole	**Cefuroxime:** 750 mg three or four times a day (increased to 1.5 g three or four times a day if severe infection) **Metronidazole:** 500 mg three times a day
Amoxicillin ***with*** gentamicin ***and*** metronidazole	**Amoxicillin:** 500 mg three times a day (increased to 1 g four times a day if severe infection) **Gentamicin:** Initially 5 to 7 mg/kg once a day, subsequent doses adjusted according to serum gentamicin concentration[5] **Metronidazole:** 500 mg three times a day
Ciprofloxacin[6] (consider safety issues[3]) ***with*** metronidazole	**Ciprofloxacin:** 400 mg twice or three times a day **Metronidazole:** 500 mg three times a day
Alternative intravenous antibiotics	
Consult local microbiologist	

[1]See BNF for appropriate use and dosing in specific populations, for example, hepatic impairment, renal impairment, pregnancy and breastfeeding and administering intravenous (or, where appropriate, intramuscular) antibiotics.
[2]A longer course may be needed based on clinical assessment. Continue antibiotics for up to 14 days in people with CT-confirmed diverticular abscess.
[3]See MHRA advice for restrictions and precautions for using fluoroquinolones due to very rare reports of disabling and potentially long-lasting or irreversible side effects affecting musculoskeletal and nervous systems. Warnings include: stopping treatment at first signs of a serious adverse reaction (such as tendonitis), prescribing with special caution for people over 60 years and avoiding coadministration with a corticosteroid (March 2019).
[4]Review intravenous antibiotics within 48 hours or after scanning if sooner and consider stepping down to oral antibiotics where possible.
[5]Therapeutic drug monitoring and assessment of renal function is required (BNF, August 2019).
[6]Only in people with allergy to penicillins and cephalosporins.