

# [Which antibiotics to use (for medical students)](https://assignbuster.com/which-antibiotics-to-use-for-medical-students/)

GastroenteritisNI. (Frequently self-limiting, may not be bacterial)Campylobacter enteritisNI unless immunocompromised or severe infection -
Clarithro-, azithro-, OR erythro- mycin.
ALT: ciprofloxacin. ONWHICH ANTIBIOTICS TO USE (FOR MEDICAL STUDENTS) SPECIFICALLY FOR YOUFOR ONLY$13. 90/PAGEOrder NowSalmonella (non-typhoid)NI unless immunocompromised or severe infection -
Ciprofloxacin OR
cefotaxime. ShigellosisOnly treat if more than mild -
Ciprofloxacin OR
azithromycin
ALT (if sens): Amoxicillin OR trimethoprimTyphoid feverMulti-resistant (test sensitivity)
Cefotaxime or ceftriaxone
ALT: Azithromycin OR ciprofloxacin (if sens)Clostridium difficileOral metronidazole (10-14 days) OR
(for 3rd or severe infection) oral vancomycin (10-14 days)
IF (not responding or very severe) add IV metronidazoleBiliary-tract infectionCiprofloxacin OR
gentamicin OR
a cephalosporinPeritonitisA cephalosprin + metronidazole OR
gentamicin + metronidazole OR
gentamicin + clindamycin OR
piperacillin with tazobactam (tazocin) aloneEndocarditis: initial 'blind' therapy(Flucloxacillin OR benzylpenicillin if less severe) + Gentamicin
ALT (if resistant, or prostheses present): vancomycin + rifampicin + gentamicinEndocarditis caused by staphylococciFlucloxacillin (4-6 weeks)
Add rifampicin for at least 2 weeks if prosthetic valve endocarditis.
ALT: vancomycin + rifampicinNative-valve endocarditis caused by fully sensitive streptococci
(eg. viridans streptococci)Benzylpenicillin (4 weeks)
ALT: vancomycin (4 weeks)
If large/abscess/infected emboli = benzylpenicillin + gentamicin (2 weeks)Native-valve endocarditis caused by less-sensitive streptococci. Benzylpenicillin (4-6 wks) + gentamicin (2 wks)
ALT: 'vancomycin or teicoplanin (4-6 wks)' + gentamicin (2 wks)Prosthetic valve endocarditis caused by streptococci. Benzylpenicillin (6 wks) + gentamicin (2 wks)
ALT: 'vancomycin or teicoplanin (6 wks)' + gentamicin (2 wks)Endocarditis caused by enterococci
(eg. Enterococcus faecalis)(Amoxicillin or ampicillin) + gentamicin (4-6 wks)
ALT: (vancomycin or teicoplanin) + gentamicin
IF (gent-resistant): change gent to streptomycinEndocarditis caused by hameophilus, actinobacillus, cardiobacterium, eikenella, or kingella
('HACEK' organisms)(Amoxicillin or ampicillin '4-6 wks') + low-dose gentamicin (2 wks)
IF (amoxi-resistant): change amoxi to ceftriaxoneHaemophilus influenzae epiglottitisCefotaxime OR
ceftriaxone
ALT: chloramphenicolChronic bronchitis: acute exacerbations(Amoxicillin or ampicillin) '5 days' OR
a tetracycline '5 days'
ALT: (clarithro-, erythro-, or azithro- mycin) '5 days'Community-acquired pneumonia
(low-severity)Amoxicillin or ampicillin (7 days, 14-21 for staph)
IF (atypical), add (clarithro-, erythro-, or azithro- mycin)
ALT: doxycline OR (clarithro-, erythro-, or azithro- mycin)Community-acquired pneumonia
(moderate-severity)(Amoxicillin or ampicillin) + (clarithro-, erythro-, or azithro- mycin) '7 days, 14-21 for staph' OR
doxycycline alone
IF (MRSA), add (vancomycin or teicoplanin)Community-acquired pneumonia
(high severity)Benzylpenicillin + (clarithro-, erythro-, or azithro- mycin) '7-10 days, 14-21 for staph' OR
Benzylpenicillin + doxycycline
ALT: (cefuroxime or cefotaxime or ceftriaxone) + (clarithro-, erythro-, or azithro- mycin).
IF (life-threat, gram-neg, or nursing home): Co-amoxiclav + (clarithro-, erythro-, or azithro- mycin)
IF (MRSA), add (vancomycin or teicoplanin)Pneumonia caused by atypical pathogens
(eg. legionella, chlamydial, mycoplasma)(Clarithro-, erythro-, or azithro- mycin) '14 days'
ALT: a quinolone (for legionella), or doxycyline (for chlamydial/mycoplasma)Pneumonia caused by legionella(Clarithro-, erythro-, or azithro- mycin) '7-10 days'
ALT: a quinolone (eg. ciprofloxacin)
IF (high severity), add (Clarithro-, erythro-, or azithro- mycin) OR rifampicin for first few daysPneumonia caused by chlamydial or mycoplasma(Clarithro-, erythro-, or azithro- mycin) '14 days'
ALT: doxycyclineHospital-acquired pneumonia
(early-onset, within 5 days after admission)Co-amoxiclav (7 days) OR
cefuroxime (7 days)
IF (life-threat, recent abx, or resistant) treat as late-onsetHospital-acquired pneumonia
(late-onset, after 5 days post-admission)An antipseudomonal penicillin (eg. tazocin) '7 days' OR
broad-spectrum cephalosporin (eg. ceftazidime) OR
another antipseudomonal beta-lactam OR
a quinolone (eg. ciprofloxacin)
IF (MRSA): add vancomycin
IF (pseudomonas aeruginosa): consider adding aminoglycoside (eg. amikacin, gentamicin)Meningitis
(initial empirical therapy)Transfer to hospital urgently.
Benzylpenicillin 1. 2g (IM/IV) immediately
ALT: cefotaxime or chloramphenicolMeningitis (unknown cause)
(in hospital, in 3 month old to 50 year old.)(Cefotaxime or ceftriaxone) 'at least 10 days'
IF (recent abx, travel outside UK): consider adding vancomycin.
Consider adjunctive dexamethasone. Meningitis (unknown cause)
(in hospital, in adults over 50yo.)(Cefotaxime or ceftriaxone) + (amoxicillin or ampicillin) 'at least 10 days'
IF (recent abx, travel outside UK): consider adding vancomycin.
Consider adjunctive dexamethasone. Meningitis (caused by meningococci)
(in hospital)Benzylpenicillin (7 days) OR
(cefotaxime or ceftriaxone)
ALT: chlorampenhicolMeningitis (caused by pneumococci)
(in hospital)(Cefotaxime or ceftriaxone) '14 days'
IF (penicillin sens): use benzylpencillin instead.
IF (penicillin/cephalosporin resistant): add vancomycin +/- rifampicin.
Consider adjunctive dexamethasone. Meningitis (caused by Haemophilus influenzae)
(in hospital)(Cefotaxime or ceftriaxone) '10 days'
ALT: chloramphenicol
Consider adjunctive dexamethasone. Meningitis (caused by Listeria)
(in hospital)(Amoxicillin or ampicillin '21 days') + gentamicin (7 days)
ALT: co-trimoxazole '21 days'Pyelonephritis (acute)A broad-spectrum cephalosporin '10-14 days' OR
a quinolone (eg. ciprofloxacin) '10-14 days'Prostatitis (acute)(Ciprofloxacin or ofloxacin) '28 days'
ALT: trimethoprim '28 days'Urinary tract infection (lower)Trimethoprim (7 days) OR
nitrofurantoin (7 days)
ALT: (amoxicillin or ampicillin) OR
oral cephalosporin (eg. cefachlor)
Can treat for just 3 days in uncomplicated female UTIsBacterial vaginosisOral metronidazole (5-7 days)
ALT: topical metronidazole (5 days) OR topical clindamycin (7 days)Genital chlamydial infection
(uncomplicated)Contact tracing recommended.
Azithromycin (single dose) OR
doxycyline (7 days)
ALT: erythromycin (14 days)Non-gonococcal urethritisContact tracing recommended.
Azithromycin (single dose) OR
doxycyline (7 days)
ALT: erythromycin (14 days)Non-specific genital infectionContact tracing recommended.
Azithromycin (single dose) OR
doxycyline (7 days)
ALT: erythromycin (14 days)Gonorrhoea
(uncomplicated)Contact tracing recommended. Consider chlamydia co-infection.
Azithromycin + IM ceftriaxone (single dose each)
ALT (oral): Cefixime + azithromycin (single dose each)
ALT (if quinolone sens) ciprofloxacin + azithromycinPelvic inflammatory diseaseContact tracing recommended.
Doxycyline + metronidazole (14 days) + IM ceftriaxone (single dose) OR
ofloxacin + metronidazole (14 days)Early syphillis
(infection less than 2 years)Contact tracing recommended.
Benzathine benzylpenicillin (single dose)
ALT: doxycyline (14 days) OR
erythromycin (14 days)Late latent syphillis
(asymptomatic infection of more than 2 years)Contact tracing recommende.
Benzathine benzylpenicillin (once weekly for 2 weeks)
ALT: doxycyline (28 days)Asymptomatic contacts of patients with infectious syphillis. Doxycycline (14 days)Septicaemia
(community-acquired)A broad-spectrum anti-pseudomonal penicillin (eg. tazocin or ticarcillin with clavulanic acid) OR
a broad-spectrum cephalosporin (eg. cefuroxime).
IF (MRSA): add vancomycin or teicoplanin.
IF (anerobic): cefuroxime + metronidazole
IF (resistant): meropenem. Septicaemia
(hospital-acquired)A broad-spectrum antipseudomonal beta-lactam antibacterial (e. g. piperacillin with tazobactam, ticarcillin with clavulanic acid, ceftazidime, imipenem with cilastatin, or meropenem).
IF (MRSA): add vancomycin or teicoplanin.
IF (anerobic): cefuroxime + metronidazoleSepticaemia
(related to vascular catheter)Consider removing vascular catheter.
(Vancomycin or teicoplanin)
IF (gram-neg): add broad-spectrum antipseudomonal beta-lactam (eg. tazocin). Meningococcal septicaemiaGive immediate dose.
Benzylpenicillin OR
(cefotaxime or ceftriaxone)
ALT: chloramphenicolOsteomyelitisSeek specialist advice if chronic or prostheses.
Flucloxacillin (6 wks) +/- (fusidic acid or rifampicin '2 wks')
ALT: change fluclox to clindamycin
IF (MRSA): change fluclox to (vancomycin or teicoplanin)Septic arthritisSeek specialist advice if prostheses present.
Flucloxacillin (4-6 wks)
ALT: clindamycin (4-6 wks)
IF (MRSA): (vancomycin or teicoplanin)
IF (gonococcal or gram-neg) (cefotaxime or ceftriaxone)Purulent conjunctivitisChloramphenicol eye dropsPericoronitis
(gum inflammation around erupting tooth)NI unless systemic features or persistent.
Metronidazole (3 days)
ALT: amoxicillihn (3 days)GingivitisNI unless systemic features or persistent.
Metronidazole (3 days)
ALT: amoxicillin (3 days)Throat infections
(bacterial suspected)Consider bacterial if history of valvular heart disease, systemic upset, increased risk (eg. immunosuppressed).
Phenoxymethylpenicillin (10 days)
ALT: (Clarithro-, erythro-, or azithro- mycin) '10 days'Sinusitis
(bacterial suspected)Consider bacterial if persistent and purulent discharge > 7 days, severe, or high risk.
(Amoxicillin or ampicillin) '7 days' OR
doxycycline (7 days) OR
(Clarithro-, erythro-, or azithro- mycin) '7 days'
IF (no improvement in 48 hrs): oral co-amoxiclav.
IF (severe) initial IV co-amoxiclav OR cefuroximeOtitis externaFlucloxacillin
ALT: (Clarithro-, erythro-, or azithro- mycin)
IF (pseudomonas): ciprofloxacin OR aminoglycoside (eg. gentamicin)Otitis mediaMost caused by viruses, or self-limited. Treat if not improved after 72 hrs or deterioration.
(Amoxicillin or ampicillin) '5 days'
ALT: (Clarithro-, erythro-, or azithro- mycin) '5 days'
IF (no improvement > 48 hrs): co-amoxiclavImpetigo
(small areas of skin infected)Seek microbiology advice before using topical treatment in hospital.
Topical fusidic acid (7 days)
IF (MRSA): topical mupirocin (7 days)Impetigo
(widespread infection)Oral flucloxacillin (7 days)
ALT: oral (Clarithro-, erythro-, or azithro- mycin)
IF (streptococci): add phenoxymethylpenicillinErysipelas
(streptococcus infection of superficial skin, with well-defined edge)Phenoxymethylpenicillin (7 days) OR
benzylpenicillin
ALT: clindamycin OR
(Clarithro-, erythro-, or azithro- mycin)
IF (severe): high-dose flucloxacillinCellulitis
(localized or diffuse inflammation of connective tissue with severe inflammation of dermal and subcutaneous layers of the skin)Flucloxacillin (high-dose)
ALT: clindamycin OR
(Clarithro-, erythro-, or azithro- mycin) OR
(vancomycin or teicoplanin)
IF (gram-neg): broad-spectrum antibacterialsAnimal and human bitesConsider tetanus vaccination/immunoglobulin +/- rabies prophylaxis. Assess risk of blood-borne viruses.
Co-amoxiclav
ALT: doxycycline + metronidazoleMastitis during breastfeedingTreat if severe, or persistent > 12-24 hrs, or infected.
Flucloxacillin (10-14 days)
ALT: erythromycin (10-14 days)
Continue breastfeeding throughout.