

NHS Fife Paediatric Antibiotic Guidance for the Treatment of Community Managed Infections

- See BNF for interactions, as well as appropriate use and dosing in specific populations.
- Clostridium difficile is associated with the use of all antibiotics but most strongly with cephalosporins, co-amoxiclav, clindamycin and quinolones. Avoid these agents if possible unless they are specifically recommended.
- **Fluoroquinolone warning:** these antibiotics (usually ciprofloxacin) have been reported to cause serious side effects involving tendons, muscles, joints, and the nerves, and mental health effects which may include, but are not necessarily limited to, anxiety, panic attacks, and memory impairment – in a small proportion of patients, these side effects caused long-lasting or permanent disability. Please review the [MHRA Safety Advice](#). Do not prescribe ciprofloxacin for uncomplicated cystitis, or for minor or self-limiting infections, if no clear alternative refer to the relevant secondary care department.
- Use antibiotics only when there is evidence of bacterial infection.
- Empirical treatment targets the most likely pathogens; review treatment once any culture and sensitivity results are known, or if the patient fails to respond.
- Use a narrow spectrum agent where possible, and prescribe the shortest appropriate duration of treatment.
- If antibiotics have been started inappropriately, stop – don't complete a course just because it has been started, if there is a clear alternative diagnosis.
- Further information is available for some conditions via the NICE website. NB: for antibiotic choice, strength and duration please adhere to those detailed in the guidance.

Key:  Click to access doses for children

Jump to section on:

Upper RTI

Lower RTI

UTI








Meningitis








GI




Skin







Eye







Dental











Infection	Key points	Medicine	Dose	Length	Additional Comments
▼ Upper respiratory tract infections					
Acute sore throat	Advise paracetamol, or if preferred and suitable, ibuprofen for pain. If over 3 years old use FeverPAIN * to assess symptoms: FeverPAIN 0-1 : no antibiotic; FeverPAIN 2-3 : no or back-up antibiotic; FeverPAIN 4-5 : immediate or back-up antibiotic. [* Fever in last 24 hours; Purulence ; Attend rapidly under three days; severely Inflamed tonsils ; No cough or coryza .] Systemically very unwell or high risk of complications: immediate antibiotic. The vast majority of respiratory tract illness is self-limiting and it is recommended that the term "infection" is avoided. Cephalosporins are not appropriate as they do not penetrate lung tissue.	First choice: Phenoxyethylpenicillin 		5-10* days	*10 day course of penicillin or clarithromycin is needed only if Streptococcus pyogenes (Grp A Strep) is confirmed or strongly suspected; otherwise 5 days is sufficient
		Penicillin allergy: Clarithromycin OR 		5 -10* days	
		Erythromycin 		5 days	
Scarlet fever (GAS)	Prompt treatment with appropriate antibiotics significantly reduces the risk of complications. Vulnerable individuals (immunocompromised, those with comorbidities, or those with skin disease) are at increased risk of developing complications.	Phenoxyethylpenicillin 		10 days	
		Penicillin allergy: Clarithromycin 		10 days	
Acute otitis media	Regular paracetamol or ibuprofen for pain (right dose for age or weight at the right time and maximum doses for severe pain). Under 2 years with infection in both ears: delayed antibiotic Otorrhoea : antibiotic Systemically very unwell or high risk of complications: immediate antibiotic.	If oral antibiotic required first choice: Amoxicillin 		5 days	
		Penicillin allergy: Clarithromycin 		5 days	








Infection	Key points	Medicine	Dose	Length	Additional Comments
Acute otitis externa	<p>First line: analgesia for pain relief, and apply localised heat (such as a warm flannel).</p> <p>Second line: if no perforation, topical acetic acid or topical antibiotic +/- steroid: similar cure rate at 7 days.</p> <p>If cellulitis, or disease extends outside ear canal, or systemic signs of infection, start oral flucloxacillin and refer to exclude malignant otitis externa.</p> <p>These products should not be used in patients where a perforated tympanic membrane has been diagnosed or is suspected or where a tympanostomy tube (grommet) is in situ</p> <p>If no response after 7 days, consider referral to ENT.</p> <p>Remove hearing aids for duration of treatment if feasible (if not, ensure daily cleaning).</p>	<p>Second line: topical Acetic acid 2% (Earcalm - unsuitable for children <12 years) OR</p>		7 days (max)	Topical acetic acid (2%) may also be used for chronic otitis externa with itch.
		Otomize Ear Spray (unsuitable for children <2 years)		7 days (max)	
		Cellulitis: Flucloxacillin		7 days	
		Penicillin allergy: Clarithromycin		7 days	
Sinusitis	<p>Advise paracetamol or ibuprofen for pain. Little evidence that nasal saline or nasal decongestants help, but people may want to try them.</p> <p>Symptoms for 10 days or less: no antibiotic.</p> <p>Symptoms with no improvement for more than 10 days: no antibiotic or back-up antibiotic depending on likelihood of bacterial cause – suggested by purulent nasal discharge; severe unilateral pain; fever; marked deterioration after initial mild phase.</p> <p>Consider high-dose nasal corticosteroid (> 12 years).</p> <p>Systemically very unwell or high risk of complications: immediate antibiotic.</p>	<p>First choice: phenoxymethylpenicillin</p>		5 days	
		Penicillin allergy: clarithromycin		5 days	
		If clinical failure: co-amoxiclav		5 days	



▼ Lower respiratory tract infections					
Bronchiolitis	Antibiotics of little benefit if no comorbidity - characterized by coryza followed by cough and tachypnoea or recession and wheeze or crackles. Affects children < 2 years of age. Consider referral if apnoea; RR > 70; Grunting / nasal flaring / marked recession; Saturation < 94% or cyanosis; Poor feeding < 50% usual volume; Lethargy; Child appears toxic – this is less likely to be bronchiolitis; Temp > 38°C in babies < 3months and >39°C in babies > 3 months. Consider the need for ambulance transfer when O2 saturations < 92% / apnoea.	https://cks.nice.org.uk/cough-acute-with-chest-signs-in-children#!scenario:1			
Community-acquired pneumonia	Give safety net advice and likely duration of different symptoms, such as cough up to 6 weeks. <i>For suspected influenza, see HPS Guidance below</i> HPS Website - Influenza	First choice: Amoxicillin OR		5 days (review at 3 days); 7 days if poor response - or if amoxicillin switch to clarithromycin	Use the upper end of the dosing range for amoxicillin: this is required to adequately treat pneumococcal infection
Penicillin allergy / failure to respond: Clarithromycin					
With or following influenza: Co-amoxiclav PLUS					
Amoxicillin Penicillin allergy/failure to respond: Clarithromycin			5days		

▼ Urinary tract infections					
Lower urinary tract infection	<p>Advise paracetamol or ibuprofen for pain. If < 6months, or pyrexial and unwell, refer to hospital.</p> <p>Dipstick under 3 years gives invalid result therefore need urine culture for children 6 months – 3 years.</p> <p>>3 years dipstick, urine for culture and await sensitivities (see Nice Guidance Summary)</p> <p>When considering antibiotics, take account of severity of symptoms, risk of complications, previous urine culture and susceptibility results, previous antibiotic use which may have led to resistant bacteria and local antimicrobial resistance data.</p> <p>*Do NOT prescribe Nitrofurantoin to children with known renal impairment</p>	<p>First choice (6 months - 3 years):</p> <p>Trimethoprim</p>		3 days	
		<p>Failure to respond:</p> <p>As per sensitivities</p>			
Acute pyelonephritis (upper urinary tract)	<p>Refer all children < 16 years old, systemically unwell, or requiring analgesia stronger than paracetamol.</p> <p>Offer an antibiotic.</p> <p>When prescribing antibiotics, take account of severity of symptoms, risk of complications, previous urine culture and susceptibility results, previous antibiotic use which may have led to resistant bacteria and local antimicrobial resistance data.</p>	<p>Young people 16 and over first choice:</p> <p>Co-amoxiclav OR</p>		7-10 days	
		<p>Cotrimoxazole</p>		7-10 days	
Balinitis	For suspected or confirmed bacterial balanitis	<p>First Choice:</p> <p>Flucloxacillin <i>or</i></p>		7 days	
		<p>Penicillin Sensitive:</p> <p>Clarithromycin</p>		7 days	
	For suspected or confirmed candidal balanitis	<p>Clotrimazole 1% Cream (until symptoms settle)</p>		For up to 14 days	
▼ Meningitis					
Suspected meningococcal disease	<p>Transfer all patients to hospital immediately.</p> <p>If time before hospital admission, and non-blanching rash, give IV or IM benzylpenicillin, or IV or IM cefotaxime. Do not give benzylpenicillin if there is a definite history of anaphylaxis; rash is not a contraindication.</p> <p>Prescribe secondary prevention for contacts only following advice from your local health protection specialist/consultant.</p>	<p>IV or IM Benzylpenicillin OR</p>	<p>Child <1 year: 300mg</p> <p>Child 1–9 years: 600mg</p> <p>Child 10+ years: 1.2g</p>	<p>Stat dose; give IM, if vein cannot be accessed</p>	
		<p>IV or IM Cefotaxime</p>	<p>Child <12 years: 50mg/kg</p> <p>Child 12+ years: 1g</p>		

▼ Gastrointestinal tract infections					
Oral candidiasis	Topical azoles are more effective than topical nystatin.	Miconazole oral gel		7 days; continue for 7 days after resolved	
		If not tolerated: Nystatin suspension		7 days; continue for 2 days after resolved	
		Fluconazole capsules		7 to 14 days	
Infectious diarrhoea	Refer previously healthy children with acute painful or bloody diarrhoea, to exclude <i>E. coli</i> O157 infection. Antibiotic therapy is not usually indicated unless patient is systemically unwell.				
<i>Helicobacter pylori</i> eradication	See ERF Gastrointestinal Chapter for eradication regimes.				
<i>Clostridium difficile</i>	Discuss with GI Team on diagnosis. Review need for currently prescribed antibiotics, laxatives and antimotility agents - discontinue use where possible. If severe (T>38.5, WCC>15, creatinine rising acutely or > 1.5x baseline, or signs/symptoms of severe colitis such as blood / mucus in stool or abdominal distension, acute abdomen or evidence of dehydration) : refer to hospital. Treat immunocompromised patients as severe cases.	First episode (non severe): Metronidazole		10 days If no better at day 5, change to vancomycin as below for another 10 days	
		Severe, recurrent or in metronidazole intolerance / pregnancy / breastfeeding: oral Vancomycin		10 days	
Threadworm	Treat all household contacts at the same time. Advise hygiene measures for 2 weeks (hand hygiene; pants at night; morning shower, including perianal area). Wash sleepwear, bed linen, and dust and vacuum. Child <6 months: only hygiene measures for 6 weeks, add perianal wet wiping or washes 3 hourly.	Child >6 months: Mebendazole		1 dose; repeat in 2 weeks if persistent	

▼ Skin and soft tissue infections					
Impetigo	Topical antiseptic (Crystacide) should be used for localised lesions only. Reserve topical antibiotics for very localised lesions to reduce risk of bacteria becoming resistant. Only use mupirocin if caused by MRSA. Extensive, severe, or bullous: oral antibiotics.	Crystacide (Hydrogen Peroxide cream 1% w/w) OR		5 days	
		topical Fusidic acid			
		If MRSA: topical Mupirocin		5 days	
		More severe: oral Flucloxacillin		7 days	
		Penicillin allergy: oral Clarithromycin		7 days	
Cellulitis and erysipelas	Afebrile and healthy other than cellulitis: use oral flucloxacillin alone. If river or sea water exposure: seek advice from Microbiology. Febrile and systemically unwell: admit for possible IV treatment, Erysipelas: often facial and unilateral. Use flucloxacillin for non-facial erysipelas. Orbital or preseptal cellulitis should be urgently assessed in hospital.	Flucloxacillin		7 days	
		Penicillin allergy: Clarithromycin			
		Known MRSA: prescribe according to sensitivities or discuss with Microbiology if unclear		If slow response, continue for a further 7 days	
		Facial (non-dental): Co-amoxiclav			
Bites	Human: thorough irrigation is important. Antibiotic prophylaxis is advised. Assess risk of tetanus, rabies, HIV, and hepatitis B and C. Cat: always give prophylaxis. Dog: give prophylaxis if: puncture wound; bite to hand, foot, face, joint, tendon, or ligament; immunocompromised, cirrhotic, asplenic, or presence of prosthetic valve/joint. Penicillin allergy: Review all at 24 and 48 hours, as not all pathogens are covered.	Prophylaxis/treatment all: Co-amoxiclav		7 days	
		Penicillin allergy (human): Metronidazole AND Clarithromycin		7 days Review at 24 and 48h	
		Penicillin allergy (animal): Metronidazole AND		7 days Review at	

		Cotrimoxazole (< 12 years old) OR Doxycycline (> 12 years old)	 	24 and 48h	
Scabies	First choice permethrin: Treat whole body from ear/chin downwards, and under nails. If using permethrin and patient is under 2 years or immunosuppressed, or if treating with malathion: also treat face and scalp. Home/sexual contacts: treat within 24 hours.	Permethrin		2 applications 1 week apart	
		Permethrin allergy: Malathion			
Dermatophyte infection: skin	Most cases: use terbinafine as fungicidal, treatment time shorter than with fungistatic imidazoles. If candida possible, use clotrimazole 1% cream. If intractable, or scalp: send skin scrapings, and if infection confirmed: use oral terbinafine or itraconazole (see BNF). Scalp: oral therapy, and discuss with specialist.	topical Terbinafine OR		1–4 weeks	
		topical Clotrimazole 1% OR		Continue for 1-2 weeks after healing (usually 4-6 weeks).	
		topical Miconazole 2%			
		Severe athlete's foot: topical 1% Terbinafine		7 days	
Dermatophyte infection: nail	Children: seek specialist advice				
Varicella zoster/ chickenpox Herpes zoster/ shingles	Pregnant/immunocompromised/ neonate: seek urgent specialist advice. Chickenpox: consider aciclovir if: onset of rash <24 hours, and 1 of the following: >14 years of age; severe pain; dense/oral rash; taking steroids; Give paracetamol for pain relief. DO NOT prescribe NSAIDs. Shingles: most cases require treatment. Shingles treatment if not within 72 hours: consider starting antiviral drug up to 1 week after rash onset, if high risk of severe shingles or continued vesicle formation; immunocompromised; or severe pain. Refer all cases of ophthalmic shingles to Ophthalmology.	First line for chickenpox and shingles: aciclovir		7 days	In immune compromised patients, continue treatment for at least 48 hrs after crusting of lesions

Lyme disease	Diagnosis and management of Lyme disease				
▼ Eye infections					
Conjunctivitis	<p>First line: bath/clean eyelids with cotton wool dipped in sterile saline or boiled (cooled) water, to remove crusting. Treat only if severe, as most cases are viral or self-limiting.</p> <p>Bacterial conjunctivitis: usually unilateral and also self-limiting. It is characterised by red eye with mucopurulent, not watery discharge. 65% and 74% resolve on placebo by days 5 and 7. Third line: fusidic acid as it has less gram-negative activity.</p> <p>Management of Neonatal Conjunctivitis</p>	<p>Second line: Chloramphenicol 0.5% eye drop OR 1% ointment</p>		48 hours after resolution	
Blepharitis	<p>First line: lid hygiene for symptom control, including: warm compresses; lid massage and scrubs; gentle washing; avoiding cosmetics.</p> <p>Second line: topical antibiotics if hygiene measures are ineffective after 2 weeks.</p>	<p>Second line: topical Chloramphenicol</p>		6-week trial	
▼ Dental Infections					
<p>Link to Scottish Dental Clinical Effectiveness Programme - SDCEP. Patients presenting to non-dental primary care services with dental problems should be directed to their regular dentist, or if this is not possible, to the NHS 111 service who will be able to provide details of how to access emergency dental care.</p>					