

Quick Reference Sheet for Guideline:

Antimicrobial Paediatric Guidelines EDT 016

Antimicrobial Guidelines North West Paediatric Summary

(control click on headings below to go to section in guideline)

Once organism identified change antibiotic to the narrowest spectrum appropriate for site of infection. Where both an intravenous and oral preparation exist, give orally unless IV specified or patient unable to take orally.

1. Sepsis	Antibiotic	Penicillin allergy
<3 month	cefoTAXime or cefTRIAXone + amoxicillin IV +/- aciclovir (see text)	If history of anaphylaxis to penicillin or cephalosporin ciprofloxacin IV + vancomycin
>3 month	cefoTAXime or cefTRIAXone +/- clindamycin/gentamicin (see text)	
1.2 Suspected central line associated bloodstream infection		
Empiric	glycopeptide (e.g. teicoplanin) and cefTRIAXone +/- gentamicin if history of pseudomonas	glycopeptide (e.g. teicoplanin) and gentamicin
Coagulase negative staphylococcus	glycopeptide (e.g. teicoplanin)	
Staphylococcus aureus	flucloxacillin	glycopeptide (e.g. teicoplanin)
MRSA	glycopeptide (e.g. teicoplanin)	
Enterococcus	amoxicillin (if sensitive) glycopeptide (e.g. teicoplanin) if amoxicillin resistant	glycopeptide (e.g. teicoplanin)
Candida spp	liposomal amphotericin	
RMCH and <i>Candida krusei/ glabrata/ lusitaneae</i>	echinocandin e.g. capsosungin	
1.3 Haematology / Oncology and other immunocompromised sepsis		
Neutropenic sepsis 1 st line	piperacillin with tazobactam RMCH piperacillin with tazobactam and amikacin	
Neutropenic sepsis 2 nd line (already on piperacillin/tazobactam)	meropenem RMCH add amikacin	
Or non-anaphylactic allergy to penicillin		
Non-neutropenic oncology	piperacillin with tazobactam	
Non-neutropenic oncology 2 nd line	meropenem	
Or on methotrexate		

2 Respiratory tract infections

2.1 Community acquired Pneumonia	Mild/Moderate	Severe	Penicillin allergy
	amoxicillin PO 5 days	co-amoxiclav (7 days) + macrolide (e.g. azithromycin) 3 days	macrolide (e.g. azithromycin) if severe add ciprofloxacin
2.2 Aspiration pneumonia	co-amoxiclav 7 days		ciprofloxacin + clindamycin
2.3 Hospital acquired pneumonia and complex cases			
Previous antibiotics	Antibiotic	Penicillin allergy	Duration
none	co-amoxiclav	ciprofloxacin	7 days
recent	piperacillin/ tazobactam switch to co-amoxiclav when afebrile	ciprofloxacin + clindamycin	7 days
2.4 Empyema	Oral continuation	Penicillin allergy	Duration
ceFUroxime IV + clindamycin IV/PO	co-amoxiclav	ciprofloxacin + clindamycin	IV until chest drains removed and child is afebrile; minimum 2 weeks, 4 weeks if loculated

3 ENT Infections NICE: No antibiotic for acute otitis media

Penicillin allergy

3.1 Severe otitis media Acute	amoxicillin < 2yrs: 7-10 days >2 yrs: 5 days	macrolide (e.g. azithromycin 3 days) If PO administration difficult cefTRIAxone 1-3 days
Chronic	co-amoxiclav (10 days)	macrolide (e.g. azithromycin 3 days)
3.2 Otitis externa Uncomplicated	acetic acid 2% 10 days	
Extensive	flucloxacillin (7 days) co-amoxiclav if unable to take tablets	macrolide (e.g. azithromycin 3 days)
Malignant otitis externa	ceftazidime + ciprofloxacin ear drops (7 days)	
3.3 Tonsillitis No antibiotic for: mild to moderately severe GAS tonsillitis		
Severe tonsillitis	penicillin V (10 days) amoxicillin (5 days) if unable to take tablets	macrolide (e.g. azithromycin 3 days)
Peri-tonsillar / retro-pharyngeal abscess	co-amoxiclav (7 days)	
3.4 Epiglottitis	cefotaxime or ceftriaxone then co-amoxiclav oral step down (total 5 days)	ciprofloxacin IV + clindamycin IV
3.5 Acute lymphadenitis	co-amoxiclav (7 days)	clindamycin
3.6 Acute mastoiditis	ceftriaxone + clindamycin (2 wks) co-amoxiclav once improving	clindamycin
3.7 Sinusitis Acute	penicillin V (5 days) amoxicillin (if unable to take tablets)	macrolide (e.g. azithromycin 3 days)
Chronic	co-amoxiclav (10 days)	clindamycin
3.8 Dental infection	co-amoxiclav (4 days)	macrolide (e.g. azithromycin) and metronidazole

4 Ophthalmology infections

4.1 Conjunctivitis Acute bacterial	No antimicrobial treatment required
Purulent conjunctivitis	azithromycin eye drops or chloramphenicol eye ointment 3 days
Herpes simplex	<1 month old: aciclovir IV >1 month old: aciclovir topical 3% eye ointment or aciclovir oral 7-14 days Refer to ophthalmologist
Ophthalmia neonatorum	ceftriaxone single dose + azithromycin eye drops or chloramphenicol eye ointment for 3 days
Chlamydia	erythromycin PO 14 days

4.2 Peri-orbital cellulitis Pre-septal: mild	co-amoxiclav PO or clindamycin 5 days	clindamycin
Pre-septal: severe	co-amoxiclav IV or ceFUroxime for 24-48h then co-amoxiclav PO 7 days	clindamycin + ciprofloxacin
Orbital cellulitis	cefTRIAxone and metronidazole 14 days minimum	
Orbital cellulitis immunocompromised not responding to antibiotics	Add liposomal amphotericin	

5 Central Nervous system infections

5.1 Meningitis <3 month		cefoTAXime or cefTRIAxone (high dose) and amoxicillin IV (min 10 days) +/- aciclovir (see text)	If history of anaphylaxis to penicillin or cephalosporin ciprofloxacin IV + vancomycin	
>3 month		cefTRIAxone IV (min 10 days)		
Age	Organism	Antibiotic	Pen/ceph anaphylaxis	Duration
<3 months	<i>Group B streptococcus</i>	cefoTAXime or cefTRIAxone	vancomycin	Minimum 14 days
	<i>Listeria monocytogenes</i>	amoxicillin IV + gentamicin	vancomycin + gentamicin	amoxicillin 21 days, gentamicin 7 days
	<i>Gram negative bacilli</i>	cefoTAXime or cefTRIAxone	ciprofloxacin	Minimum 21 days
>3 months	<i>Haemophilus influenzae type B</i>	cefTRIAxone	ciprofloxacin	Total 10 days
	<i>Streptococcus pneumoniae</i>	cefTRIAxone	vancomycin	Total 14 days
All	<i>Neisseria meningitidis</i>	cefTRIAxone	ciprofloxacin	Total 7 days
All	<i>Mycobacterium tuberculosis</i>	Discuss with Paediatric TB specialist		
All	Fungal meningitis	Discuss with Infection specialist		
5.2 Encephalitis		aciclovir IV 21 days		

5.3 Neurosurgical infections

Ventricular shunt infection	cefoTAXime or cefTRIAXone and vancomycin 10 days	If history of anaphylaxis to penicillin or cephalosporin ciprofloxacin IV + vancomycin
Penetrating craniocerebral injury (inc depressed skull fracture)	ceFURoxime and metronidazole 5 days if no meningitis	
Brain Abscess / subdural empyema	cefTRIAXone and metronidazole 6 weeks	
Post operative meningitis	meropenem and vancomycin 2-3 weeks	

6 Intra-abdominal infections

Indication (all ages)	1 st line Antibiotic	Penicillin allergy
Peritonitis & abscess (including appendicitis)	cefoTAXime / cefTRIAXone + metronidazole or co-amoxiclav IV if not septic PO step down 7 days (longer if non-drainable abscess)	ciprofloxacin IV and metronidazole and gentamicin
Pelvic inflammatory disease	cefTRIAXone (for 24 hrs after clinical improvement) + doxycycline (>12 yrs old) and metronidazole PO 14 days	gentamicin + clindamycin IV to PO + doxycycline 24hrs after improvement 14 days
Sexual assault	cefTRIAXone (single dose) + macrolide (e.g. azithromycin) PO (single dose) + metronidazole PO (single dose)	macrolide (e.g. azithromycin) PO (single dose) + metronidazole PO (single dose)
Necrotising enterocolitis	amoxicillin + cefoTAXime + cefTRIAXone + metronidazole (5 days)	
Campylobacter	only if immunocompromised / severe infection macrolide (e.g. azithromycin) 5 days	
Clostridium difficile	metronidazole 10-14 days (not for asymptomatic carriage)	
Salmonella (non-typhoidal)	Only if chronic GI tract disease, haemoglobinopathy, malignancies or immunocompromised macrolide (e.g. azithromycin) 5 days if <3 months old: amoxicillin 5 days if septicaemic: cefTRIAXone 5 days	
Shigella	macrolide (e.g. azithromycin) 5 days cefTRIAXone 5 days (if severe)	

7 Urinary Tract Infections Send urine specimen before starting antibiotics

Age	Cystitis/ lower UTI	Acute pyelonephritis/ upper UTI
<3 months	As per sepsis guideline for antibiotic choice AND duration	
>3 months	nitrofurantoin (tablets only) or co-amoxiclav or cefalexin (RMCH) for 3 days	If outpatient: co-amoxiclav or cefalexin (RMCH) If septic: gentamicin stat dose then cefTRIAxone then ciprofloxacin (if no organism identified) If hospital acquired: temocillin 7-10 days total

8 Bone and joint infections**8.1 Osteomyelitis and septic arthritis**

Age	Antibiotic (use high doses)	PO switch in simple disease when organism unknown (use high doses)
<3 months	cefoTAXime	After 14-21 days if: 1. Afebrile AND pain free minimum 24 hrs AND 2. CRP <20 OR decreased by $\geq 2/3$ highest value co-amoxiclav or cefalexin
≥ 3 months- ≤ 5 years	ceFURoxime IV	After 72 hours if: 1. Afebrile AND pain free minimum 24 hrs AND 2. CRP <20 OR decreased by $\geq 2/3$ highest value 3 months-5 yrs: co-amoxiclav or cefalexin
≥ 6 years	flucloxacillin IV or clindamycin IV	6-8 yrs: flucloxacillin (co-amoxiclav only if flucloxacillin not tolerated) 8-19 yrs: flucloxacillin or clindamycin

9 Skin and soft tissue infection

9.1 Cellulitis	1 st line antibiotic	Penicillin allergy	MRSA
Mild	flucloxacillin (capsules only) or cefalexin (suspension)	clindamycin (capsules) macrolide (e.g. azithromycin) (suspension)	clindamycin
Severe/ systemically unwell	flucloxacillin IV (severe sepsis add clindamycin)	clindamycin IV or PO (capsules)	glycopeptide (e.g. teicoplanin)
9.2 Necrotising fasciitis	piperacillin / tazobactam or ceftriaxone + clindamycin IV RMCH: meropenem + clindamycin IV	glycopeptide (e.g. teicoplanin) + clindamycin IV + ciprofloxacin IV	
9.3 Bites Prophylaxis	co-amoxiclav PO (7 days)	ciprofloxacin + clindamycin	
Infected bites	co-amoxiclav if severely infected		



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Antimicrobial Paediatric Guidelines (EDT016) Version 4

What is this document for?	Antimicrobial guidelines for paediatrics
Who needs to know?	Paediatrics, Microbiology, Virology at PAT
Related PAHNT documents:	Antibiotic policy for adults EDT007
Related Legislation/Obligations:	Where there are different recommendations the following order of prioritisation is followed: NICE > NPSA > SIGN > RCPCH > National specialist society > BNFC > Cochrane > Meta-analysis > systematic review > RCT > other peer review research > review > local practice

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Developed with:	North West Paediatric Allergy, Immunology and Infection Group (Operational Delivery Network for Infectious Disease in North West) Approved by PAT Antimicrobial Committee, PAT
Ratified by:	PADAT, Antimicrobial Committee, W&C Division
Date Ratified:	20/2/18
Replaces:	EDT016 V4
How is this different from the previous document?	Network guideline based on national guidance replaces local guideline 16/04/18 – Hyperlinks added
Updates	Preface 3.1.6 Refer to BNFC for monitoring Section 3.6 table reformatted to make clearer 4.1 azithromycin or chloramphenicol replace neomycin 5.1 dexamethasone >3 months old (NICE)
What dissemination & training arrangements have been made?	This policy/guideline will be available via the Document Management System (also called the Policies & Documents page of the Trust intranet.
Review arrangements:	Review will be undertaken by the author or a delegated person every three years or earlier should a change in legislation best practice or other circumstance dictate.
Safety Arrangements:	Compliance and effectiveness of this policy will be via accident, incident and complaints monitoring, in addition to compliance audits. Staff experiencing difficulties with implementing this policy/guideline should contact their line manager.

Priority Level:

1

Impact Level:

Single-Specialty

Keywords:

Antimicrobial, antibiotic, paediatric

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1. What is this guideline for?

- 1.1 This guideline has been compiled as a tool for all staff concerned with the management of general paediatric patients, especially those who present as emergencies.

2. Why do I need to know?

- 2.1 The rationale for developing this tool is to ensuring that practice is evidenced based, there is a range of different antibiotics used across the network area, and errors are made when staff move between organisation.

3. What is the guideline?

3.1 Introduction

3.1.1 Prescribing regimens:

The administration of certain drugs, especially those given intravenously, requires great care if hazardous errors are to be avoided. These guidelines do not include all guidance on the indications, contraindications, dosage and administration for all drugs. Please refer to the British National Formulary for Children (BNFc) <https://www.medicinescomplete.com/about/publications.htm> or available as an app <https://www.nice.org.uk/About/What-we-do/Evidence-Services/British-National-Formulary> and/or consult a pharmacist.

3.1.2 Antibiotics:

Recommendations are based on national guidance reflecting a balance between common antibiotic sensitivities and the narrowest appropriate spectrum to avoid resistance. Where both an intravenous and oral preparation exist, give orally unless IV specified or patient unable to take orally.

3.1.3 National guidelines:

Where there are different recommendations the following order of prioritisation is followed:

NICE > NPSA > SIGN > RCPCH > National specialist society > BNFC > Cochrane > Meta-analysis > systematic review > RCT > other peer review research > review > local practice

3.1.4 Evidence base:

These have been written with reference to published medical literature and amended after extensive consultation. Wherever possible, the recommendations made are evidence based. Where no clear evidence has been identified from published literature the advice given represents a consensus of the expert authors and their peers and is based on their practical experience.

3.1.5 Feedback:

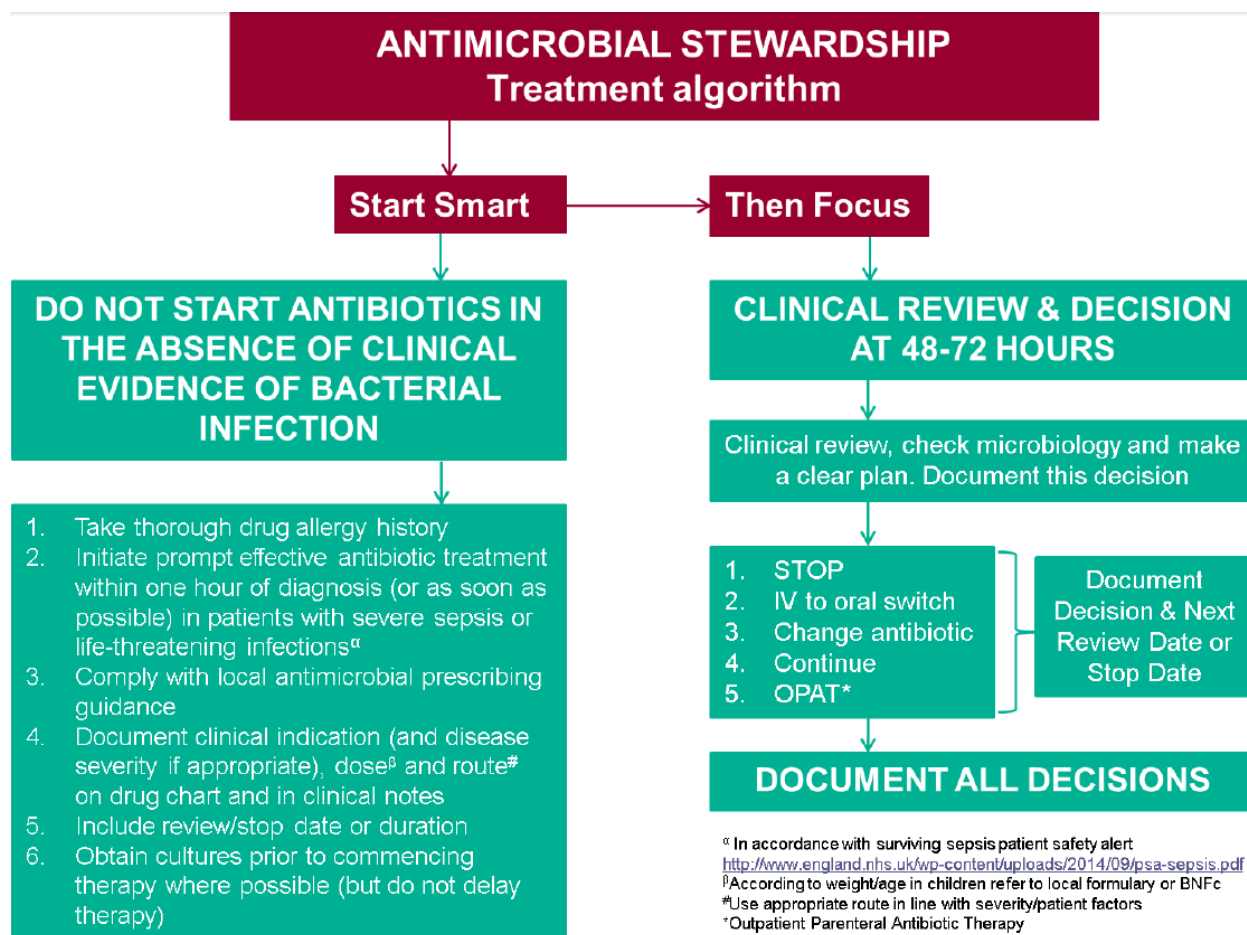
Evaluating the evidence-base of these guidelines involves continuous review of both new and existing literature. The editors encourage you to challenge the evidence provided in this document. If you know of evidence that contradicts, or additional evidence in support of the advice given in these guidelines please contact us. The accuracy of the detailed advice given has been subject to exhaustive checks. However, if any errors or omissions become apparent contact us so these can be amended in the next review, or, if necessary, be brought to the urgent attention of users. Constructive comments or suggestions would also be welcome. This document is shared with trusts for their use, the network would appreciate feedback on how this document has been used/ amended for local use.

3.1.6 Therapeutic drug monitoring

- Gentamicin
- Vancomycin
- Tobramycin
- Amikacin

Please be aware that these drugs require therapeutic monitoring. Refer to your BNFC for guidance regarding timing of blood tests and acceptable ranges.

3.1.7 Antimicrobial Stewardship



3.1.8 General antimicrobial prescribing advice

- Do not start antimicrobials in the absence of clinical evidence of bacterial infection, and document the indication for the antimicrobial on the prescription.
- Initiate prompt treatment with effective antimicrobials for sepsis and severe or life-threatening infections as soon as possible and always within one hour of presentation.
- Use antimicrobials with an adequate spectrum of cover for the likely pathogens for less severe infections.
- If the child is <1 month and the local guidelines do not give specific recommendations for this age group, treat as per Sepsis of Unknown Origin
- Always use the optimal dosing regimen for the clinical indication and the patient's individual parameters.
- Consider the risk of resistant pathogens (e.g. MRSA or ESBL-producing organisms) and offer alternative treatment regimens accordingly, or seek advice from Infectious Diseases / Microbiology.

- Confirm allergy status and offer alternative treatment choices for patients intolerant of recommended antimicrobial agents. Patients with a history of anaphylaxis, urticaria or rash immediately after penicillin administration should not receive a penicillin, cephalosporin or other β -lactam antibiotic. If an alternative has not been suggested in this document, please discuss alternative antibiotic treatment with Infectious Diseases / Microbiology.
- Ensure that the appropriate specimens are taken for culture and sensitivity testing prior to commencing antibiotic treatment without causing delay to starting treatment in patients with severe sepsis or life-threatening infections.
- Consider intravenous (IV) administration only to patients who are severely ill, unable to tolerate oral treatment, or where oral therapy would not provide adequate coverage or tissue penetration (e.g. CNS infection).
- Consider switching IV antibiotics to the oral route of administration promptly according to local IV-to-oral switch policy
- Document the next review date or stop date on the prescription.
- It is essential to review antimicrobial prescriptions after 48-72 hours, and after a clinical review and checking microbiology results, a clear plan should be documented in the case notes, which should be: 1) Stop 2) IV to oral Switch 3) Change antibiotic 4) Continue and review again in 72 hours or 5) Out-patient Parenteral Antibiotic Therapy (OPAT).

3.1.9 Adherence and palatability

The choice of oral antibiotic should account for factors potentially affecting adherence such as dosing frequency and palatability/taste of formulation. Palatable oral drugs in a sensible regimen (up to 3 times per day) should be used where possible, and middle of the night dosing of oral antibiotics should be avoided whenever possible, especially following discharge.

Oral liquids which should be avoided due to poor palatability include:

- Flucloxacillin oral liquid: consider using oral cefalexin liquid if patient cannot take flucloxacillin capsules
- Clindamycin oral liquid: consider using an alternative (may need to discuss suitable alternatives with Pharmacy or Infectious Diseases/ Microbiology)

3.1.10 Disclaimer

These views represent the views of the North West Paediatric Allergy and Infection Network and were produced after careful consideration of available evidence in conjunction with multi-professional expertise and experience. It is intended that Trusts within the network will adopt this guideline and educational resource after review through their own clinical governance structure.

If as an organisation you adopt all or part of this document please let us know. We will automatically let you know of any changes, otherwise it will be your responsibility to check and confirm when any changes are made.

The guidance does not override the individual responsibility of healthcare professionals to make decisions appropriate to the circumstances of the individual patient.

Document Originator: NWPAIIG . Name Title Organisation NWPAIIG. We would like to thank the wide range of professionals from across the network who have read and commented on drafts of this document

3.2 Specific antimicrobial information section

1. Sepsis

1.1 Sepsis of unknown origin

Age	Antibiotic	Penicillin allergy
<3 month	cefoTAXime or cefTRIAXone* + amoxicillin IV +/- aciclovir (see text)	If history of anaphylaxis to penicillin or cephalosporin ciprofloxacin IV + vancomycin
>3 month	ceftriaxone +/- clindamycin/gentamicin (see text)	

***CefoTAXime**: contraindications to cefTRIAXone

- Concomitant treatment with intravenous calcium (including total parenteral nutrition containing calcium) in premature and full-term neonates
- full-term neonates with jaundice, hypoalbuminaemia, acidosis, unconjugated hyperbilirubinaemia, or impaired bilirubin binding
- premature neonates less than 41 weeks corrected gestational age

Gentamicin: add if -

- Severe sepsis requiring inotropes/critical care
- Suspected or confirmed urinary tract infections
- Likely resistant organisms (such as pseudomonas)

Toxic Shock: add clindamycin

Neonatal Units follow Neonatal Guidelines, usually benzylpenicillin and gentamicin

Immunosuppression: use febrile neutropenia guidance

Amoxicillin: Stop once Listeria infection is excluded (very rare >1 month)

Duration:

- minimum 5 days
- up to 14 days children >1 month
- 21 days in Gram negative meningitis or if site of infection difficult to treat

Cultures:

- Obtain appropriate cultures before starting antibiotic treatment as soon as possible, and always within 1 hour of presentation.
- Check previous microbiology results to determine if recent antibiotic-resistant organisms have been identified and contact the Infectious Diseases / Microbiology if:
 - patient has a previous history of carriage or infection with antibiotic-resistant organisms (e.g. Extended Spectrum Beta-Lactamase (ESBL) expressing organisms)
 - prolonged/multiple antibiotic use in the previous 3 months
 - patient has been overseas in the previous 3 months
- Once causative organism is known (usually within 24 hours) antibiotic choice and duration should be amended if necessary.
- Consider stopping antibiotics if there is no growth from cultures after 36 hours.

Organisms:

- <3 months: Group B streptococcus, Escherichia coli
(rarely Listeria monocytogenes, Haemophilus influenzae, Streptococcus pneumoniae, Klebsiella spp., Salmonella spp., Staphylococcus aureus, Enterococcus spp).
- >3 months: Meningococcus, pneumococcus, Staphylococcus aureus,
(rarely Haemophilus influenzae, Klebsiella spp., Salmonella spp., Enterococcus spp).

NICE Sepsis Recognition, Diagnosis, Management July 2016 <https://www.nice.org.uk/guidance/NG51>
RCPCH Manual of Childhood Infections 4th edition p340
Local guidance on resistance data

1.2 Suspected central line associated bloodstream infection

1.	2. Antibiotic	3. Penicillin allergy
Empiric	glycopeptide (e.g. teicoplanin) and cefTRIAxone [*] +/- gentamicin if history of pseudomonas	glycopeptide (e.g. teicoplanin) and gentamicin
Coagulase negative staphylococcus	glycopeptide (e.g. teicoplanin)	
Staphylococcus aureus	flucloxacillin IV	glycopeptide (e.g. teicoplanin)
MRSA	glycopeptide (e.g. teicoplanin)	
Enterococcus	amoxicillin (if sensitive) glycopeptide (e.g. teicoplanin) if amoxicillin resistant	glycopeptide (e.g. teicoplanin)
Candida spp RMCH and Candida krusei/glabrata/lusitaneae	liposomal amphotericin echinocandin e.g. caspofungin	

Cultures: take repeat blood cultures from CVC when the laboratory calls to say there is a positive blood culture. **Two positive blood cultures with the same organism are highly suggestive of CVC infection.** Repeat blood cultures (both CVC and peripheral) if fever persists and the child is not improving clinically

Prompt removal of all non-tunnelled venous catheters associated with confirmed blood stream infection is recommended. Remove line if *Staphylococcus aureus* or Candida CVC infection, or if persistently positive blood cultures, despite treatment.

Line lock: improves the chance of saving the Central Venous Catheter (CVC). Line locks are not useful in CVCs which have been inserted <14 days previously. Antibiotic line-lock should be locked into the catheter lumen for as long as possible (up to 24 hours), during periods when the catheter is not being used. The antibiotic lock should be aspirated before the line is used for other infusions. The amount instilled should be equivalent to the priming volumes printed on the catheter or clamp, but as a guide, the volume of antibiotic line locks prescribed should be no more than 1ml for children under 2 years, and 2 ml for children 2 years and above. Suitable antibiotics for line locks; vancomycin (for Gram positive infections), aminoglycosides (for Gram negative infections) – discuss sensitivities with microbiology. RMCH: alcohol locks can be used if no organism identified (see local protocol).

Organisms: coagulase negative staphylococci, *Staphylococcus aureus*, enterococci, coliforms, candida

Duration:

if line removed:

- coagulase negative staphylococci: stop antibiotics once line removed

if line stays in situ:

- coagulase negative staphylococci 7 days
- staphylococcus aureus, gram negatives 14 days

RCPCH Manual of Childhood Infections 4th edition p97

Clinical Practice Guidelines for Diagnosis and Management of Intravascular Catheter-Related Infection: 2009 Update by the Infectious Diseases Society of America Clin Infect Dis 2009 Jul 1; 49(1):1-45

1.3 Haematology / Oncology and other immunocompromised sepsis

	Antibiotic
Neutropenic sepsis 1 st line	piperacillin with tazobactam RMCH piperacillin with tazobactam and amikacin
Neutropenic sepsis 2 nd line (already on piperacillin/tazobactam) Or non-anaphylactic allergy to penicillin	meropenem RMCH add amikacin
Non-neutropenic oncology	piperacillin with tazobactam
Non-neutropenic oncology 2 nd line Or on methotrexate	meropenem

Organisms: *Staphylococcus aureus*, Streptococci, coliforms, *Pseudomonas aeruginosa*
See patient's previous organisms cultured and empiric treatment should cover recent isolates

NICE. *Neutropenic sepsis: prevention and management in people with cancer. Clinical guideline [CG151]* Published date: September 2012 <https://www.nice.org.uk/guidance/cg151>
Department of Health expert advisory group Antimicrobial Prescribing, Resistance & Healthcare---
Associated Infections Chair
Public Health England English Surveillance Programme for Antimicrobial Use And Resistance
Oversight group Chair 2017
Local resistance English surveillance programme for antimicrobial utilisation and resistance
(ESPAUR) report 2017 <https://www.gov.uk/government/publications/english-surveillance-programme-antimicrobial-utilisation-and-resistance-espaur-report>

2 Respiratory tract infections

No antibiotic prescribing for:

acute sore throat / acute pharyngitis / acute tonsillitis
common cold
acute rhinosinusitis
acute cough/acute bronchitis

Offer patients:

- reassurance that antibiotics are not needed immediately because they will make little difference to symptoms and may have side effects, for example, diarrhoea, vomiting and rash
- a clinical review if the respiratory tract infection (RTI) worsens or becomes prolonged

Offer all patients: advice about the usual natural history of the illness and average total illness length:

- acute sore throat / acute pharyngitis / acute tonsillitis: 1 week
- common cold: 1.5 weeks
- acute rhinosinusitis: 2.5 weeks
- acute cough/acute bronchitis: 3 weeks

NICE. *Respiratory tract infections (self-limiting): prescribing antibiotics. [CG69]* 2008
<https://www.nice.org.uk/guidance/cg69>

2.1 Community acquired pneumonia

Age	Mild/Moderate	Severe	Penicillin allergy
all	amoxicillin PO 5 days	co-amoxiclav (7 days) + macrolide (e.g. azithromycin 3 days)	macrolide (e.g. azithromycin) if severe add ciprofloxacin

Only give IV if unable to take antibiotics orally for severe pneumonia

Organisms: Respiratory viruses

Bacteria: *Streptococcus pneumoniae*, *Haemophilus influenzae*, *Mycoplasma pneumoniae*

British Thoracic Society guidelines for the management of community acquired pneumonia in children: update 2011 http://thorax.bmj.com/content/66/Suppl_2/ii1.full

2.2 Aspiration pneumonia

Antibiotic	Penicillin allergy	Duration
co-amoxiclav	ciprofloxacin + clindamycin	7 days

Organisms: *Staphylococcus aureus*, Streptococci, coliforms, anaerobes

RCPCH Manual of Childhood Infections 4th edition p409

2.3 Hospital acquired pneumonia and complex cases

Treat pneumonia onset <4 days of admission as per community acquired pneumonia guideline

Previous antibiotics	Antibiotic	Penicillin allergy	Duration
none	co-amoxiclav	ciprofloxacin	7 days
recent	piperacillin/ tazobactam switch to co-amoxiclav when afebrile	ciprofloxacin + clindamycin	7 days

Organisms: *Staphylococcus aureus*, coliforms (occasionally *Pseudomonas aeruginosa*)

British Society for Antimicrobial Chemotherapy. Guidelines for the management of hospital-acquired pneumonia in the UK. Journal of Antimicrobial Chemotherapy (2008) 62, 5–34

http://thorax.bmj.com/content/66/Suppl_2/ii1.full

2.4 Empyema

Antibiotic	Oral continuation	Penicillin allergy	Duration
ceFUroxime IV + clindamycin IV/PO	co-amoxiclav	ciprofloxacin + clindamycin	IV until chest drains removed and child is afebrile; minimum 2 weeks, 4 weeks if loculated

Organisms: *Streptococcus pneumoniae*, *Staphylococcus aureus*, Group A Streptococcus

BTS guidelines for management of pleural infection in children. Thorax 2005;60 (Suppl I):i1–i21

<https://www.brit-thoracic.org.uk/publication-library/bts-guidelines/>

2.5 Influenza

Suspected influenza: fever, coryza, generalised symptoms (headache, malaise, myalgia, arthralgia) when high prevalence of influenza

Complicated: requiring hospital admission

No severe immunosuppression	
Uncomplicated	No treatment (or oseltamivir if risk of complications)
Complicated	oseltamivir (1 st line) zanamivir (2 nd line)

Severe immunosuppression	Low risk oseltamivir resistance (e.g. A(H3N2), B)	High risk oseltamivir resistance (e.g. A(H1N1))
Uncomplicated	oseltamivir	zanamivir inhaler Or oseltamivir (if unable to use inhaler)
Complicated	oseltamivir (1 st line) zanamivir (2 nd line)	zanamivir inhaler/nebuliser/IV

Duration: uncomplicated 5 days; prophylaxis and complicated 10 days

PHE guidance on use of antiviral agents for the treatment and prophylaxis of influenza v7.0

<https://www.gov.uk/government/publications/influenza-treatment-and-prophylaxis-using-anti-viral-agents>

3. ENT Infections

No antibiotic prescribing for:

- acute otitis media
- acute sore throat / acute pharyngitis / acute tonsillitis
- common cold
- acute rhinosinusitis
- acute cough/acute bronchitis

Offer patients:

- reassurance that antibiotics are not needed immediately because they will make little difference to symptoms and may have side effects, for example, diarrhoea, vomiting and rash
- a clinical review if the respiratory tract infection (RTI) worsens or becomes prolonged

Offer all patients: advice about the usual natural history of the illness and average total illness length:

- acute otitis media: 4 days
- acute sore throat / acute pharyngitis / acute tonsillitis: 1 week
- common cold: 1 ½ weeks
- acute rhinosinusitis: 2 ½ weeks
- acute cough/acute bronchitis: 3 weeks

NICE. Respiratory tract infections (self-limiting): prescribing antibiotics. [CG69] 2008

<https://www.nice.org.uk/guidance/cg69>

3.1 Otitis media

No or delayed antibiotic prescribing followed by clinical review 48-72 hours later with re-evaluation

Consider immediate antibiotic prescribing in children:

- <2 yrs with bilateral acute otitis media (AOM)
- Marked otorrhoea with AOM (not caused by external otitis)
- Who are systemically unwell
- Symptoms/signs of serious illness and/or complications (mastoiditis/ abscess/ intracranial complications)
- High risk of pre-existing illness (e.g. significant heart, lung, renal, liver or neuromuscular disease, immunosuppression, cystic fibrosis, prematurely born infants and toddlers)

	Antibiotic	Penicillin allergy/ notes
Severe acute otitis media	amoxicillin < 2yrs- 7-10 days >2 yrs- 5 days	macrolide (e.g. azithromycin 3 days) If PO administration difficult cefTRIAxone* 1-3 days
Chronic otitis media	co-amoxiclav 10 days	macrolide (e.g. azithromycin 3 days)

Organisms: Respiratory viruses

Bacteria: Streptococcus pneumoniae, Haemophilus influenzae, Moraxella catarrhalis, Group A Streptococcus

NICE. Respiratory tract infections (self-limiting): prescribing antibiotics. [CG69] 2008

<https://www.nice.org.uk/guidance/cg69>

RCPCH Manual of Childhood Infections 4th edition p371

3.2 Otitis externa

For diffuse, uncomplicated AOE prescribe ear drops (e.g. acetic acid 2% 10 days). Do not prescribe systemic antimicrobials as initial therapy unless there is extension outside the ear canal or the presence of specific host factors that would indicate a need for systemic therapy

	Antibiotic	Penicillin allergy
Uncomplicated	acetic acid 2% 10 days	
Extensive	flucloxacillin (7 days) co-amoxiclav if unable to take tablets	macrolide (e.g. azithromycin 3 days)
Malignant otitis externa	ceftazidime + ciprofloxacin ear drops 7 days	

Organisms: Staphylococcus aureus, Group A streptococcus

Malignant: Pseudomonas

Clinical practice guideline: acute otitis externa. Otolaryngol Head Neck Surg 2014;150: 161–8 (1

Suppl):S1–24 <https://www.ncbi.nlm.nih.gov/pubmed/24491310>

3.3 Tonsillitis

No antibiotics/ delayed antibiotic prescribing unless NICE criteria met as above (ENT Infections)

Consider antibiotics if three or more of Centor criteria met

Centor criteria:

- Fever
- Tonsillar exudate
- Tender cervical lymphadenopathy or lymphadenitis
- Absence of acute cough

Avoid amoxicillin if Epstein-Barr virus suspected (adolescent, headache, lymphadenopathy, hepatosplenomegaly, hepatitis)

	Antibiotic	Penicillin allergy
Severe tonsillitis	penicillin V (10 days) amoxicillin (5 days) if unable to take tablets	macrolide (e.g. azithromycin 3 days)
Peri-tonsillar / retro-pharyngeal abscess	co-amoxiclav (7 days)	

Organisms: Respiratory viruses, Epstein-Barr virus

Bacteria: Group A streptococcus

NICE. Respiratory tract infections (self-limiting): prescribing antibiotics. [CG69] 2008

<https://www.nice.org.uk/guidance/cg69>

RCPCH Manual of Childhood Infections 4th edition p372 & 624

3.4 Epiglottitis

Age	Antibiotic	Penicillin allergy
All	ceftazidime or ceftriaxone then co-amoxiclav oral step down (total 5 days)	ciprofloxacin IV + clindamycin IV

Organisms: Haemophilus influenzae type B (rare: notify Public Health for contact prophylaxis), Streptococcus pneumoniae, Staphylococcus aureus, Group A streptococcus

RCPCH Manual of Childhood Infections 4th edition p556

3.5 Acute lymphadenitis

No antibiotics: well child with few systemic symptoms

Avoid amoxicillin (in co-amoxiclav) if EBV suspected (adolescent, pharyngitis, headache, hepatosplenomegaly, hepatitis)

Age	1 st line antibiotic	2 nd line/ penicillin allergy	Duration
>1 month	co-amoxiclav	clindamycin	7 days minimum

Organisms: Respiratory viruses, Epstein Barr Virus

Bacteria: Group A streptococcus, Staphylococcus aureus, TB (refer to TB specialist)

RCPCH Manual of Childhood Infections 4th edition p135-146 & 624

3.6 Acute mastoiditis

	Antibiotic	Penicillin allergy	Duration
Initial IV	cefTRIAxone + clindamycin	clindamycin	2 weeks
Oral switch	co-amoxiclav once improving		

Organisms: Streptococcus pneumoniae, Group A streptococcus, Staphylococcus aureus (Pseudomonas aeruginosa rarely)

Algorithmic management of paediatric acute mastoiditis [Int J Pediatr Otorhinolaryngol.](#) 2012 Jun;76(6):791-6

Clinical strategies for the management of acute mastoiditis in the pediatric population. [Clin Pediatr \(Phila\).](#) 2010 Feb;49(2):110-5

3.7 Sinusitis (acute and chronic)

No antibiotics unless:

- Systemically very unwell
- Symptoms or signs suggestive of serious illness and/or complications
- High risk of serious complications due to pre-existing illness (e.g. significant heart, lung, renal, liver or neuromuscular disease, immunosuppression, cystic fibrosis and prematurely born infants)

	1 st line Antibiotic	Penicillin allergy	Duration
Acute	penicillin V amoxicillin (if unable to take tablets)	macrolide (e.g. azithromycin 3 days)	5 days
Chronic	co-amoxiclav	clindamycin	10 days

Organisms: Respiratory viruses

Bacteria: Streptococcus pneumoniae, Haemophilus influenzae, Moraxella catarrhalis

NICE Sinusitis (acute): antimicrobial prescribing Oct 2017 <http://nice.org.uk/guidance/ng79>
RCPCH Manual of Childhood Infections 4th Edition, p408

3.8 Dental infection

Age	Antibiotic	Penicillin allergy	Duration
All	co-amoxiclav	macrolide (e.g. azithromycin) and metronidazole	5 days

Organisms: Group A streptococcus, Viridans streptococci, anaerobes

4. Ophthalmology infections

4.1 Conjunctivitis

Indication	Antibiotic	Penicillin allergy
Acute bacterial	No antimicrobial treatment required	
Purulent conjunctivitis	azithromycin eye drops or chloramphenicol eye ointment for 3 days	
Herpes simplex	<1 month old: aciclovir IV >1 month old: aciclovir topical 3% eye ointment or aciclovir oral 7-14 days Refer to ophthalmologist	
Ophthalmia neonatorum	ceftriaxone single dose + azithromycin eye drops or chloramphenicol eye ointment 3 days	
Chlamydia	erythromycin PO 14 days	

RCPCH Manual of Childhood Infections 4th Edition p501

Ophthalmia neonatorum <https://www.college-optometrists.org/guidance/clinical-management-guidelines/ophthalmia-neonatorum.html>

4.2 Pre-septal (peri-orbital) and orbital cellulitis

Indication	Antibiotic	Penicillin allergy
Pre-septal: mild	co-amoxiclav or clindamycin 5 days	clindamycin
Pre-septal: severe	co-amoxiclav IV or ceFURoxime for 24-48h then co-amoxiclav PO 7 days	clindamycin + ciprofloxacin
Orbital cellulitis	cefTRIAxone and metronidazole 14 days minimum	
Orbital cellulitis immunocompromised not responding to antibiotics	Add liposomal amphotericin	

Organisms: Sinus origin: Streptococcus pneumoniae, Haemophilus influenzae

Skin origin: Staphylococcus aureus, haemolytic streptococci,

Abscess: Anaerobic streptococci (including Streptococcus milleri)

RCPCH Manual of Childhood Infections 4th Edition p156-159

5. Central Nervous system infections

5.1 Meningitis

i. Empirical therapy for suspected or confirmed bacterial meningitis

Age	Antibiotic	Penicillin allergy
<3 month	cefoTAXime or cefTRIAXone* (high dose) and amoxicillin IV +/- aciclovir (see below)	If history of anaphylaxis to penicillin or cephalosporin ciprofloxacin IV + vancomycin
>3 month	cefTRIAXone IV	

Lumbar puncture unless contraindicated. Start antimicrobial therapy <1 hour of presentation

CefoTAXime if <41 wks, acidotic, jaundiced or hypoalbuminaemic

Stop **amoxicillin** if Listeria not grown after 48 hrs, Listeria rare >1 month old

Add **vancomycin** if recent travel outside UK or recent prolonged antibiotic exposure within past 3 months

Add **aciclovir** IV <2 weeks old and rash, deranged LFTs or clotting; focal neurological symptoms or encephalopathy

Give **dexamethasone** 0.15 mg/kg to a maximum dose of 10 mg, four times daily for 4 days for children >3 month old if ≤12 hr from first antibiotics and LP shows:

- Frankly purulent CSF
- CSF WBC count >1000/μl
- Raised CSF WBC + protein >1 g/L
- Bacteria on Gram stain

Notify suspected bacterial meningitis: inform local Public Health England team by phone within 24 hours to co-ordinate chemoprophylaxis with ciprofloxacin single dose

ii. Continuing empiric treatment for culture negative bacterial meningitis

Age	Antibiotic	Pen/ceph anaphylaxis	Duration
All	cefTRIAXone*	ciprofloxacin IV	Minimum 10 days

iii. Organism-specific guidance

Please note: If clinical course complicated, discuss with Infection Specialist

Age	Organism	Antibiotic	Pen/ceph anaphylaxis	Duration
<3 months	<i>Group B streptococcus</i>	cefoTAXime or cefTRIAXone*	vancomycin	Minimum 14 days
	<i>Listeria monocytogenes</i>	amoxicillin IV + gentamicin	vancomycin + gentamicin	amoxicillin 21 days, gentamicin 7 days
	<i>Gram negative bacilli</i>	cefoTAXime or cefTRIAXone*	ciprofloxacin	Minimum 21 days
>3 months	<i>Haemophilus influenzae type B</i>	cefTRIAXone*	ciprofloxacin	Total 10 days
	<i>Streptococcus pneumoniae</i>	cefTRIAXone*	vancomycin	Total 14 days
All	<i>Neisseria meningitidis</i> (confirmed OR unconfirmed but clinically suspected)	cefTRIAXone*	ciprofloxacin	Total 7 days
All	<i>Mycobacterium tuberculosis</i>	Discuss with paediatric TB specialist		
All	Fungal meningitis	Discuss with Paediatric Infectious Diseases		

NICE guidelines: Management of bacterial meningitis and meningococcal septicaemia in Secondary care <https://www.nice.org.uk/guidance/CG102/chapter/1-Guidance> (last updated February 2015)
RCPCH Manual of Childhood Infections 4th Edition p49

Empirical antibiotic cover for *Listeria monocytogenes* infection beyond the neonatal period: a time for change? Arch Dis Child May 2015 Vol 100 No 5

<http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.842.9708&rep=rep1&type=pdf>

5.2 Encephalitis

Presentation	Treatment	Duration
Fever and encephalopathy	Aciclovir IV	21 days

Meningoencephalitis: see Meningitis above and give aciclovir IV too

Aciclovir dose: whole course must be IV. Adjust dose for renal failure, Encephalitis dose (See BNFC: neonate -3 months: 20 mg/kg; 3 months-12 years: 500mg/m²; >12 years: 10 mg/kg)

Management of suspected viral encephalitis in children - Association of British Neurologists and British Paediatric Allergy, Immunology and Infection Group National Guidelines *Journal of Infection* (2012) 64, 449-477

5.3 Neurosurgical infections

Presentation	Antibiotic (IV)	Penicillin allergy
Ventricular shunt infection	cefoTAXime or cefTRIAXone [*] and vancomycin 10 days	If history of anaphylaxis to penicillin or cephalosporin ciprofloxacin IV + vancomycin
Penetrating craniocerebral injury (inc depressed skull fracture)	ceFURoxime and metronidazole 5 days if no meningitis	
Brain Abscess / subdural empyema	cefTRIAXone [*] and metronidazole 6 weeks	
Post operative meningitis	meropenem and vancomycin 2-3 weeks	

Organisms:

- External ventricular drain infection: coagulase negative streptococci
- Ventricular shunt infections: coagulase negative streptococci, *Staphylococcus aureus*, diphtheroids, streptococci, coliforms
- Injuries: *Staphylococcus aureus*
- Abscess: anaerobic streptococci (including *Streptococcus milleri*), *Staphylococcus aureus*, streptococci, coliforms, *Pseudomonas aeruginosa* (flucloxacillin can be discontinued if no *Staph aureus* isolated)

RCPCH Manual of Childhood Infections 4th Edition p 408

5. Intra-abdominal infections

Indication (all ages)	1 st line Antibiotic	Penicillin allergy
Peritonitis & abscess (including appendicitis)	cefoTAXime / cefTRIAXone [*] + metronidazole or co-amoxiclav IV if not septic PO step down 7 days (longer if non-drainable abscess)	ciprofloxacin IV and metronidazole and gentamicin
Pelvic inflammatory disease	cefTRIAXone [*] (for 24 hrs after clinical improvement) + doxycycline and metronidazole PO 14 days	gentamicin + clindamycin IV to PO + doxycycline 24hrs after improvement 14 days
Sexual assault	cefTRIAXone [*] (single dose) + macrolide (e.g. azithromycin) PO (single dose) + metronidazole PO (single dose)	macrolide (e.g. azithromycin) PO (single dose) + metronidazole PO (single dose)
Necrotising enterocolitis	cefoTAXime / cefTRIAXone [*] + metronidazole (5 days)	
Campylobacter	only if immunocompromised severe infection macrolide (e.g. azithromycin) 5 days	
Clostridium difficile	metronidazole 10-14 days (not for asymptomatic carriage)	
Salmonella (non-typhoidal)	macrolide (e.g. azithromycin) 5 days (only if chronic GI tract disease, haemoglobinopathy, malignancies or immunocompromised) ampicillin 5 days (if <3 months old) cefTRIAXone [*] 5 days (if septicaemic)	
Shigella	macrolide (e.g. azithromycin) 5 days cefTRIAXone [*] 5 days (if severe)	

Organisms:

Peritonitis: coliforms, enterococci, anaerobic streptococci (including *Streptococcus milleri*),

Pelvic Inflammatory Disease: *Gonococcus*, *Chlamydia trachomatis*, streptococci, coliforms, anaerobes

RCPCH Manual of Childhood Infections 4th Edition p409, 452, 495, 808, 820

British Association for Sexual Health and HIV. UK National Guideline for the Management of Pelvic Inflammatory Disease 2018 <https://www.bashhguidelines.org/media/1170/pid-2018.pdf>

British Association for Sexual Health and HIV. UK National Guidelines on the Management of Adult and Adolescent Complainants of Sexual Assault 2011
<https://www.bashhguidelines.org/media/1079/4450.pdf>

Diagnosis and Management of Complicated Intra-abdominal Infection in Adults and Children: Guidelines by the Surgical Infection Society and the Infectious Diseases Society of America Clinical Infectious Diseases 2010; 50:133–64 https://www.idsociety.org/uploadedFiles/IDSA/Guidelines-Patient_Care/PDF_Library/Intra-abdominal%20Infectin.pdf

7. Urinary Tract Infections

This applies to empiric treatment for infants and children not already known to have significant pre-existing uropathies - look up previous organisms and sensitivities OR contact microbiology for advice regarding treatment for these patients. For patients on prophylactic antibiotics- always use different antibiotic

Send urine specimen for culture before starting antibiotics

Age	Cystitis/ lower UTI	Acute pyelonephritis/ upper UTI
<3 months	As per sepsis guideline for antibiotic choice AND duration	
>3 months	nitrofurantoin (tablets only) or co-amoxiclav or cefalexin (RMCH) for 3 days	If outpatient: co-amoxiclav or cefalexin (RMCH) If septic: gentamicin stat dose then cefTRIAxone then ciprofloxacin PO (if no organism identified) If hospital acquired: temocillin 7-10 days total

Organisms: *E. coli*, *Proteus*, *Klebsiella*, *Enterococci*, *Pseudomonas*, *Staphylococcus aureus*

Urinary tract infection in under 16s: diagnosis and management. Clinical guideline [CG54] Published date: August 2007 updated 2017 <https://www.nice.org.uk/guidance/CG54/chapter/1-Guidance>
Local resistance data

8. Bone and joint infections

8.1 Osteomyelitis and septic arthritis

Unifocal disease indicates “simple” disease at a single site.

Complex disease includes: multifocal, significant bone destruction, resistant or unusual pathogen, immunosuppression, sepsis or shock (see Sepsis guidance).

Age	Antibiotic (use high doses)	PO switch in simple disease when organism unknown (use high doses)
<3 months	cefoTAXime	After 14-21 days if: Afebrile AND pain free minimum 24 hrs AND CRP <20 OR decreased by ≥2/3 highest value co-amoxiclav or cefalexin
≥3 months- ≤5 years	ceFUroxime IV	After 72 hours if: Afebrile AND pain free minimum 24 hrs AND CRP <20 OR decreased by ≥2/3 highest value 3 months-5 yrs: co-amoxiclav or cefalexin
≥ 6years	flucloxacillin IV or clindamycin IV	6-8 yrs: flucloxacillin (co-amoxiclav only if flucloxacillin not tolerated) 8-19 yrs: flucloxacillin or clindamycin

Penicillin allergy: clindamycin

Organisms:

- <3 months: *Staphylococcus aureus*, Group B streptococcus
- months – 5 years: *Kingella kingae*, *Staph. aureus*, beta-haemolytic streptococci, *Streptococcus pneumoniae*, meningococcus, (rarely *Haemophilus influenzae* type B)
- >5 years: *Staphylococcus aureus*, beta-haemolytic streptococci (groups A, C, G)

Duration: usually 3-4 weeks in septic arthritis, 4-6 weeks in osteomyelitis

Complex disease IV to oral switch after 14 days; may require >6 weeks of treatment. Consult orthopaedic team.

RCPCH Manual of Childhood Infections 4th Edition p65

9. Skin and soft tissue infection

9.1 Cellulitis

Severity (all ages)	1 st line antibiotic	Penicillin allergy	MRSA
Mild	flucloxacillin (capsules only) or cefalexin (suspension)	clindamycin (capsules) or macrolide (e.g. azithromycin) (suspension)	clindamycin
Severe/ systemically unwell	flucloxacillin IV (in severe sepsis add gentamicin)	clindamycin (capsules) or clarithromycin IV	glycopeptide (e.g. teicoplanin)

Toxic shock: see Sepsis and discuss IVIG with local approval team

Duration: according to response (IV to oral switch when responding, minimum 5 days total)

Organisms: Staphylococcus aureus, beta-haemolytic streptococci (groups A, C, G)

Scarlet fever: penicillin V 10 days, or amoxicillin 5 days if unable to take tablets

RCPCH Manual of Childhood Infections 4th Edition p302

9.2 Necrotising fasciitis

Age	1 st line Antibiotic	Penicillin allergy
All	piperacillin / tazobactam or cefTRIAXone + clindamycin IV RMCH: meropenem + clindamycin + gentamicin	glycopeptide (e.g. teicoplanin) + clindamycin IV + ciprofloxacin IV

Surgical debridement essential

Local authorisation required for IVIG

Organisms: Staphylococcus aureus, Group A streptococcus and other beta-haemolytic streptococci, coliforms, anaerobes

RCPCH Manual of Childhood Infections 4th Edition p303-304

9.3 Human/animal bites

Indication	Antibiotic	Penicillin allergy	Duration
Prophylaxis	co-amoxiclav PO	Penicillin allergy: ciprofloxacin and clindamycin	7 days
Infected bites	co-amoxiclav if severely infected		

Tetanus: ask about immunisation status and administer vaccine if not received within past 10 years

Organisms: Pasteurella multocida (animal bites), Staphylococcus aureus, streptococci, anaerobes

RCPCH Manual of Childhood Infections 4th Edition p305

4. What do I need to do?

These guidelines have been compiled within a partnership and are published on the trusts document management system for use by all those staff within the pennine Acute Trust that they are relevant to - see title page.

All comments in relation to this document must be made direct to paddy.mcmaster@pat.nhs.uk

5. How will we know if the policy is being used effectively?

5.1 State below how you will check this

- **Key standard:** Global Antimicrobial Resistance, Prescribing and Efficacy in Neonates and Children
- **Method(s):** annual audit
- **Team responsible for monitoring:** Paediatric Infectious Diseases
- **Frequency of monitoring:** annual
- **Process for reviewing results and ensuring improvements in performance:** through Antimicrobial Committee

6. Abbreviations and Definitions of terms used

NA- abbreviations have been avoided.

7. References and Bibliography

7.1 Supporting References

References have been displayed throughout the document

7.2 Acknowledgements

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8. Appendices

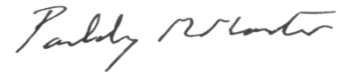
Appendix 1 – Equality Impact Assessment

Appendix 1 – Equality Impact Assessment

Equality Impact Assessment for Antimicrobial Guidelines EDT016 V4

To be completed by the Lead Author (or a delegated staff member)

To be completed by the relevant Equality Champion following satisfactory completion & discussion of answers above with author

For each of the Protected Characteristics & equality & diversity streams listed answer the questions below using Y to indicate yes and N to indicate no:	Age	Disability	Ethnicity / Race	Gender	Gender Reassignment	Marriage & Civil Partnership	Pregnancy & Maternity	Religion/belief	Sexual orientation	Human Rights	Carers	Please explain your justification
1. Does the practice covered have the potential to affect individuals or communities differently or disproportionately, either positively or negatively (including discrimination)?	Y	N	N	N	N	N	N	N	N	N	N	Paediatric guideline different to adult guidelines
2. Is there potential for, or evidence that, the proposed practice will promote equality of opportunity for all and promote good relations with different groups?	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	North West Regional guideline
3. Is there public concern (including media, academic, voluntary or sector specific interest) in the document about actual, perceived or potential discrimination about a particular community?	N	N	N	N	N	N	N	N	N	N	N	
Your Name: Paddy McMaster	Your Designation: Consultant Paediatric Infectious Diseases							Signed*: 		Date: 2/11/17		
Equality Champion: Lesley Sanderson	Directorate: Women and Children's Division							Signed*: <i>LSanderson</i>		Date: 20/02/2018		