

March 2022

(April 2025 – Updates have been made to 'Lower UTI in adults' 'Threadworm' and 'Acute rhinosinusitis' section to align with NICE guidelines. Please refer to the 'Updates' section at the end of the document for further details.) This document has been prepared by the All Wales Antimicrobial Pharmacist Group (AWAPG) and the All Wales Antimicrobial Guidance Group (AWAGG), with support from the All Wales Prescribing Advisory Group (AWPAG) and the All Wales Therapeutics and Toxicology Centre (AWTTC), and has subsequently been endorsed by the All Wales Medicines Strategy Group (AWMSG).

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All Wales Antimicrobial Pharmacist Group, All Wales Antimicrobial Guidance Group and All Wales Medicines Strategy Group. Primary Care Antimicrobial Guidelines. March 2022 (Updated April 2025).

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Resources to help manage antibiotic prescribing

Background

Using the correct antibiotics only when needed, with the correct dose intervals and for the correct duration, is vital to help tackle growing resistance.

Studies show that patients are less likely to ask their GP for antibiotics if they are advised what to expect during the course of an illness and are given a self-care plan. To aid in this, a patient specific leaflet for adults has been developed for use in primary care. It contains information relating to how long common illnesses normally last, self-care and when patients should contact their GP/NHS Direct (see 'Antibiotic information leaflet for adults' in the resources section below).

Resources



Royal College of General Practitioners' (RCGP) 'Treat



Antibiotics Responsibly, Guidance, Education and Tools' TARGET Antibiotics toolkit for clinicians. Includes:

- A primary care self-assessment tool which aims to provide strategies that may help to
- optimise antibiotic prescribing.
 Patient/parent resources. <u>Leaflets</u> to share with patients (rcgp.org.uk)

Patient information leaflets and guidance on medicines in pregnancy produced by UK Teratology Information Service (UKTIS) Bumps (best use of medicines in pregnancy) (medicinesinpregnancy.org).



When Should I Worry? Booklet. This provides information for parents about the management of respiratory tract infections (coughs, colds, sore throats and ear aches) in children, and has been designed to be used in primary care consultations

All Wales Medicines Strategy Group (AWMSG) <u>Clinical</u> <u>Effectiveness</u> <u>Prescribing</u> <u>Programme (CEPP)</u> <u>National Audit: Focus</u> on prescribing



Aims

- To provide a simple, effective, economical and empirical approach to the treatment of common infections.
- To minimise the emergence of bacterial resistance in the community.
- To update guidance in real-time, as required.

Principles of treatment

- This guidance is based on the best available evidence, but professional judgement should be used and patients should be involved in the decision.
- The guideline is intended for local implementation and adaptation.
- It is important to initiate antibiotics as soon as possible in severe infection.
- A dose and duration of treatment for adults is usually suggested, but may need modification for age, weight and renal function. For further information on drug dosing in renal impairment see the <u>British National Formulary (BNF)</u>. Children's doses are provided for certain indications. Further information can be found in the <u>BNF for Children (BNFc)</u>. In severe or recurrent cases, consider a larger dose or longer course. Please refer to the BNF for further dosing and interaction information (e.g. interaction between macrolides and statins) if needed and please check for allergy. Particular consideration should be given to interactions when prescribing for patients on anti-rejection drugs e.g. tacrolimus.
- Consider lower threshold for antibiotics in immunocompromised patients or those with multiple morbidities; consider culture and seek advice.
- Suspect neutropenic sepsis if patients having cancer treatment become unexpectedly or seriously unwell. Refer patients with suspected neutropenic sepsis immediately for assessment at their appropriate local hospital.
- Prescribe an antibiotic only when there is likely to be a clear clinical benefit.
- Consider a no, or delayed, antibiotic strategy for acute self-limiting upper respiratory tract infections.
- Where possible, limit prescribing for virtual consultations to exceptional cases and clear-cut diagnoses. N.B Face-to-face assessment before prescribing antibiotics remains best practice.
- Use simple generic antibiotics if possible. Avoid broad spectrum antibiotics (e.g. coamoxiclav, quinolones, clindamycin and cephalosporins) when narrow spectrum antibiotics remain effective, as they increase the risk of *Clostridioides difficile* infection, MRSA and resistant urinary tract infections (UTIs). There are a range of National Prescribing Indicators that examine primary care use of these high-risk broad-spectrum agents. These empirical guidelines aim to use the safer, narrow spectrum antibiotics (e.g. tetracyclines) whenever possible. Visit the <u>AWTTC</u> website for further information on these indicators and <u>Server for Prescribing</u> Information Reporting and Analysis (SPIRA) for the most recent prescribing data.
- Avoid widespread use of topical antibiotics (especially those agents also available as systemic preparations, e.g. fusidic acid).
- In <u>pregnancy</u>, take specimens to inform treatment; where possible avoid <u>aminoglycosides</u> unless benefit outweighs risks. <u>Quinolones</u> should be avoided in pregnancy; however, a single dose of ciprofloxacin¹ may be used for the prevention of a secondary case of meningococcal meningitis (Patient Information Leaflet [PIL] <u>English</u> – <u>Welsh</u>). <u>Tetracyclines</u> should not be given to pregnant women.
- Fluoroquinolone antibiotics must now only be prescribed when other commonly recommended antibiotics are inappropriate. Consider updated (January 2024)

¹ Consider updated (January 2024) prescribing restrictions and safety issues – see <u>MHRA</u> advice.

prescribing restrictions and safety issues – see <u>MHRA</u> advice. See previous <u>MHRA</u> 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, cardiac and nervous systems. Warnings include stopping treatment at first signs of serious adverse reaction (such as tendonitis), prescribing with special caution in people over 60 years and avoiding co-administration with a corticosteroid (December 2020).

- When a patient re-presents with symptoms that are persisting or worsening, seek local microbiology advice for further management, treatment and culture recommendations
- Where special circumstances exist, microbiological advice can be obtained from your local microbiology team.

Infection	Formulary choice	Adult dose (unless otherwise specified)	Duration of treatment			
Dosages in Childre	Dosages in Children: Details of drug dosage and administration can be found in the BNFc					
Upper Respiratory	Tract Infections					
Treatment of influenza (adults) Annual vaccination is essential for all those at increased risk of complications from influenza. Treatment of influenza (adults) When influenza is not circulating in the community, treat 'at risk'* patients within 48 hours of onset of symptoms. Even when influenza is not circulating in the community, treat 'at risk'* people in long-term residential and nursing homes during localised outbreaks, if there is a high level of certainty that the causative agent is influenza and within 4 hours of onset of symptoms. PHE Influenza, UKTIS *At risk: pregnant (including up to two weeks post-partum); 65 years or over; chronic respiratory disease (including COPD and asthma); severe immunosuppression; diabetes mellitus; chronic cardiac, neurological, renal or liver diseas Haemoglobinopathies; Asplenia or dysfunction of the spleen; severe obesity (BMI ≥ 40).						
	Oseltamivir 75 mg BD for 5 days (For implication for use in pregnancy, please cl (2 inhalations by diskhaler) BD and seek	munosuppressed patients, use 10 days) ick <u>here</u> . If there is resistance to oseltamivir, us advice.	se 5 days zanamivir 10 mg			
Prophylaxis of influenza	See NICE Influenza prophylaxis guidance	(TA158). Patients under 13 years, see PHE Inf	fluenza.			

Infection	Formulary choice	Adult dose (unless otherwise specified)	Duration of treatment		
	Prompt treatment with appropriate antibiotics significantly reduces the risk of complications. Optimise analgesia and give safety netting advice. Notify the local health protection team promptly if a diagnosis of scarlet fever is suspected.				
	Adults: Phenoxymethylpenicillin	500 mg QDS or 1 g BD	10 days		
	Children: Phenoxymethylpenicillin	see <u>BNFc</u> for dosing			
Scarlet fever	If penicillin allergy: Adults:				
	Azithromycin	500 mg OD	5 days		
(Group A	OR				
PHF	Clarithromycin	250–500 mg BD	10 days		
CKS	Children – birth to 6 months: Clarithromycin	see <u>BNFc</u> for dosing	10 days		
	Children – 6 months and over: Azithromycin	see <u>BNFc</u> for dosing	5 days		
	OR				
	Clarithromycin	see <u>BNFc</u> for dosing	10 days		
	Pregnant or postpartum (within 28 days of childbirth): Erythromycin	250–500 mg QDS or 500 mg – 1g BD	10 days		

Infection	Formulary choice	Adult dose (unless otherwise specified)	Duration of treatment
	 Sore throat test and treat service may be available for certain health boards, please refer to local participating community pharmacy. Avoid antibiotics as 90% resolve in 7 days without, and pain only reduced by 16 hours. Antibiotics to prevent quinsy – numbers needed to treat (NNT) > 4,000 Antibiotics to prevent otitis media – NNT 200 Advise paracetamol, or ibuprofen (if suitable). Medicated lozenges may help pain in adults. Assess and manage children < 5 years old who present with fever as outlined in NICE guideline (NG143) Fever in under 5s: 			
	FeverPAIN criteria (score 1 point each)		Centor criteria (score 1 point ea	ch)
	Fever (during previous 24 hours)		Tonsillar exudate	
	Purulence (pus on tonsils)		Tender anterior cervical lymphad	enopathy or lymphadenitis
	Attend rapidly (<3 days after onset of symptoms)		History of fever (over 38°C)	
	Severely Inflamed tonsils		Absence of cough	
	No cough or coryza (inflammation of mucus membranes	in the nose)		
Acute sore throat NICE CKS (2024)	FeverPAIN 0–1 or Centor 0–2:			
	No antibiotic			
<u>NICE NG84</u> (2023) NICE DG38 (2021)	FeverPAIN 2–3:	When no antibiotic is prescribed, please consider using the <u>'TARGET</u> <u>Treating your Infection'</u> leaflet (RCGP), available in multiple languages		
NICE DG38 (2021) ESCMID (2012)	No antibiotic (Back-up delayed antibiotic prescription can be issued if appropriate – please see prescribing options below)			
	FeverPAIN 4–5 or Centor 3–4 : Consider back-up/delayed prescription (to be used if symptoms don't improve within 3-5 days) or immediate prescription for antibiotics			
	<i>First line:</i> Phenoxymethylpenicillin	500 mg QDS or 1 g BD (See <u>BNFc</u> for dosing in children)		5 days. If patient is immunocompromised, confirmed Group A <i>Streptococcus</i> infection
	<i>Penicillin allergy:</i> Clarithromycin	250–500 mg I (See <u>BNFc</u> fo	3D r dosing in children)	5 days
	<i>Penicillin allergy and pregnant:</i> Erythromycin	250–500 mg (QDS or 500 mg – 1g BD	5 days

Infection	Formulary choice	Adult dose (unless otherwise specified)	Duration of treatment		
	Otitis media can be caused by viruses and bacteria.	It is difficult to distinguish and both are often pr	esent at the same time.		
	Optimise analgesia: Paracetamol or ibuprofen sho the right time; and maximum doses for severe pain.	ould be used regularly for pain at the right dose Consider eardrops containing an anaesthetic a	e (for age or weight) and at and an analgesic for pain.		
	 For children and young people who may be less likely to benefit from antibiotics, consider NO antibiotic taking account of: Otitis media is mostly self- limiting. Most get better within 3 days without antibiotics, but it can last for up to 1 week. Antibiotics make little difference to symptoms. Antibiotics make little difference to the rates of common complications like recurrence of infection, hearing loss (which is usually temporary) and perforated eardrum. Mastoiditis is rare with or without antibiotics. Antibiotics to prevent mastoiditis NNT > 4000. 				
	For children more likely to benefit from antibiotics (i.e. < 2 years with infection in both ears OR children of a otorrhoea), consider no antibiotic prescription, back-up delayed antibiotics, or immediate antibiotics.				
Acute otitis media (in children) <u>NICE NG91</u> (2022)	 For children who are systemically very unwell, hav serious complications because of pre-existing com Significant heart, lung, renal, liver or neuromu Immunosuppression Cystic fibrosis Young children who were born prematurely. 	e symptoms or signs of a more serious illnes orbidity, offer immediate antibiotics . Pre-exis iscular disease	ss, or are at high risk of ating comorbidity include:		
	 Safety netting: No antibiotic – Seek medical help if symptom child becomes systemically very unwell. Back-up delayed antibiotic – Advise to use 	ns worsen rapidly or significantly, do not start to improve within 3 da	o improve after 3 days, or ys, or if they worsen		
	rapidly or significantly at any time. Seek medi systemically very unwell.	cal help if symptoms worsen rapidly or significa	antly, or child becomes		
	very unwell.	symptoms worsen rapidly of significantly, of ch	ind Decomes systemically		
		See	ction continued overleaf.		

Infection	Formulary choice		Adult dose (unless otherwise specified)	Duration of treatment
	If NO immediate antibiotic required, offer analgesia for pain relief and consider the use of eardrops below:			
	Phenazone 40mg/g with lidocaine 10mg/g			
	 Use only if all apply: Immediate oral antibiotic is not given No eardrum perforation No otorrhoea 		Apply 4 drops two or three times a day	Up to 7 days
Acute otitis media	Consider using the 'W multiple languages.	<u>hen Should I Worry?</u> ' booklet o	or a ' <u>TARGET Treating your Infection</u> ' leaflet (R	CGP), available in
(in children) (continued)	If an antibiotic requi	red:		
NICE NG91 (2022)		Amoxicillin	See <u>BNFc</u>	5–7 days
(2022)	First line	<i>Penicillin allergy</i> : Clarithromycin	See <u>BNFc</u>	5–7 days
	Second line (If symptoms	Co-amoxiclav	See <u>BNFc</u>	5–7 days
	line option taken for at least 2–3 days)	Pencillin allergy: Consult local microbiologist		
	First line: Use aural t Cure rates similar at 7 If cellulitis or disease antibiotics for cellulitis otitis externa.	oilet (if available) and manage days for topical acetic acid or e extending outside ear cana (flucloxacillin 500 mg QDS or	pain with analgesia and apply localised heat (s antibiotic +/- steroid. al, or systemic signs of infection or condition no clarithromycin 500 mg BD for 7 days) and refer	such as a warm flannel). t improving, start oral to exclude malignant
Acute otitis externa <u>NICE CKS</u> (2018)	Acetic acid 2% (A proprietary preparation containing acetic acid 2% is on sale to the public)		1 spray TDS	7 days
	Alternative: Neomycin sulphate* w	vith corticosteroid	3 drops TDS	7 days minimum, up to 14 days maximum.
	*See <u>Medicines and Healthcare products Regulatory Agency (MHRA)</u> warning concerning topical aminoglycosides and increased risk of deafness in patients with mitochondrial mutations.			

Infection	Formulary choice	Adult dose (unless otherwise specified)	Duration of treatment		
	Avoid antibiotics as 80% resolve in 14 days without, and they only offer marginal benefit after 7 days.				
	Use adequate analgesia.				
Acute rhinosinusitis NICE CKS (2024) NICE NG79 (2017)	 Bacterial cause may be more likely if several of the Symptoms for more than 10 days Discoloured or purulent nasal discharge Severe localised unilateral pain (particularly pain ove Fever Marked deterioration after an initial milder phase 	e following are present: er teeth and jaw)			
	Symptoms for 10 days or less: No antibiotic Symptoms with no improvement for > 10 days: No antibiotic.				
	Consider prescribing a high-dose nasal corticosteroid for 14 days for adults and children aged 12 years and over (off-label use see <u>NICE</u> guidance).	When an antibiotic is not prescribed, please consider using the ' <u>TARGET Treating your Infection</u> ' leaflet (RCGP), available in multiple languages.			
	(Back-up antibiotic prescription can be issued if appropriate – please see prescribing options below.) Consider back-up prescription (to be used if symptoms don't improve within 7 days or if they worsen rapidly or significantly at any time) or immediate antibiotic when purulent nasal discharge.				
	First line if symptoms for > 10 days and back-up or immediate antibiotics are indicated:				
	Phenoxymethylpenicillin	500 mg QDS	5 days		
	Penicillin allergy: Doxycycline (if > 12 years old)	200 mg stat then 100 mg OD			
	OR				
	Clarithromycin (children < 12 years old)	500 mg BD (See <u>BNFc)</u>	5 days		
	OR	250, 500 mg ODS			
	Erythromych (preferred if pregnant)	200-000 mg QD5	ection continued overleaf		

Infection	Formulary choice	Adult dose (unless otherwise specified)	Duration of treatment	
	Tetracyclines should not be given to children under 12 years old as deposition of tetracyclines in growing bone and teeth (by binding to calcium) causes staining and occasionally dental hypoplasia.			
Acute rhinosinusitis (continued) <u>NICE CKS</u> (2024) <u>NICE NG79</u> (2017)	Systemically very unwell, symptoms and signs of a more serious illness or condition, or high risk of complications: Immediate antibiotic (please see prescribing options below).	 s Refer to hospital if: Severe systemic infection Intraorbital or periorbital complications Intracranial complication 		
	First line if systemically very unwell, symptoms and signs of a more serious illness or condition, or high risk of complications OR Second line (worsening symptoms on first choice taken for at least 2 to 3 days):			
	Co-amoxiclav	625 mg TDS	5 days	

Infection	Formulary choice	Adult dose (unless otherwise specified)	Duration of treatment
Dosages in Children:	Details of drug dosage and administration can be found	in the <u>BNFc</u>	
Lower Respiratory Tra Note: Low doses of per	act Infections nicillins are more likely to select out resistance. Do not use o	quinolones first-line due to poor <i>P</i>	neumococcal activity.
	 Antibiotics are of little benefit if there is no co-morbidit First line: self-care and safety netting advice. Second line: Consider a back-up delayed antibiotic resolution can take 3 weeks. Offer immediate antibiotics for people with an acute coug face-to-face clinical examination) Consider immediate or back-up antibiotics for patients clinical examination). Higher risk of complications if they have a pre-existing comorbidity, such as significant heat immunosuppression or cystic fibrosis are young children who were born prematurely are young children who were born prematurely 	ty. prescription with safety netting adv gh who are identified as systemica at higher risk of complications (ic t irt, lung, renal, liver or neuromuscu	vice and advise that symptom Ily very unwell (ideally at a leally at a face-to-face Ilar disease,
Acute cough, bronchitis <u>NICE CKS</u> (2023) <u>NICE NG120</u> (2022)	 are 2 of years with Two of more of the following chief hospitalisation in previous year type 1 or type 2 diabetes history of congestive heart failure current use of oral corticosteroids. 	a, or 2 ou years with One of more	or the following chieria.
	 If available, consider C-reactive protein (CRP) if antibiot No antibiotics if CRP < 20 mg/L and symptoms for a Delayed antibiotics if 20–100 mg/L Immediate antibiotics if > 100 mg/L. 	ic is being considered: > 24 hours	
	No antibioticWhen an antibiotic is not prescribed, please consider using the ' <u>TARGET Treating your Infection</u> ' leaflet (RCGP), available in multiple languages.		
	Amoxicillin	500 mg TDS	5 days
	<i>Penicillin allergy:</i> Doxycycline	200 mg stat then 100 mg OD	5 days

Infection	Formulary ch	oice	Adult dose (unless otherwise specified)	Duration of treatment	
	 Assessment Send sputum for culture in cases of recurrent or severe exacerbation Consider chest radiograph in cases of severe exacerbation, or the patient is presenting with chest signs, or they fail to improve. 				
Acute infective exacerbation of chronic	 Antibiotics are not required for a Consider the need for an antibio Severity of symptoms (part thickness beyond normal Risk of complications Previous sputum culture ar Risk of antimicrobial resista different class). If CRP testing available (see the second seco	exacerbation without incr otic taking into account: ticularly increased breathl nd susceptibility results ance and current antibioti ee table below)	reased sputum purulence lessness; sputum colour changes c prophylaxis (treatment should be	and increased volume or	
obstructive pulmonary disease (COPD)	CR CR	RP < 20	nsider antibiotics escribe antibiotics		
NICE NG114 (2018)	Doxycycline		200 mg stat then 100 mg OD	5 days in total	
<u>RHIG</u> (2020)	If doxycycline unsuitable:				
	Clarithromycin		500 mg BD	5 days	
	OR			5 uays	
	Amoxicillin		500 mg TDS		
	If patient exposed to antibiotics in higher risk of treatment failure:	the past 3 months or at			
	Co-trimoxazole		960 mg BD	5 days	
	OR				
	Co-amoxiclav	Co-amoxiclav			

Infection	Formulary cho	ice	Adult dose (unless otherwise specified)	Duration of treatment	
Community- acquired pneumonia in	 Use CRB65 score to help guide mortality risk, place of care and antibiotics. Each feature scores 1: Confusion (Abbreviated Mental Test score < 8 – Age, time, address for recall at end of test, year, place, identification of 2 persons, DOB, year of World War 1, present monarch, count backwards 20–1) Respiratory rate ≥ 30/min BP systolic < 90 mmHg or diastolic ≤ 60 mmHg Age ≥ 65 years old Score 0: suitable for home treatment; Score 1 – 2: consider hospital assessment or admission; Score 3-4: urgent hospital admission. Clinically assess need for dual therapy to cover atypical infections if high CRB65 score. However, Mycoplasma infection is rare in over 65s. Give safety net advice and likely duration of different symptoms, such as cough 6 weeks. If recent influenza infection, consider need for anti-staphylococcal cover e.g. doxycycline monotherapy or addition of flucloxacillin to standard treatment. If failure of first-line agents, patients should be reassessed for on-going signs of infections before further treatment is prescribed. British HIV Association recommend testing for HIV in adult patients presenting with community acquired pneumonia. 				
in the community	First line	Amoxicillin	500 mg TDS	5 days	
NICE NG138 (2019)		Doxycycline	200 mg stat then 100 mg OD	Ston antibiotic treatment	
<u>BTS</u> (2009)	Second line (failure first line treatment/penicillin allergy/atypical	OR		after 5 days unless microbiological results	
	pathogen suspected)	Clarithromycin	500 mg BD		
	Third line (previous treatment failure)	Co-trimoxazole	960 mg BD	length is needed or the person is not clinically stable	
	CRB65 score = 1 and at home:				
	First line	Amoxicillin PLUS	500 mg TDS	5 days.	
		Clarithromycin	500 mg BD	Stop antibiotic treatment after	
	Second line (penicillin allergy or if underlying lung disease)	Doxycycline	200 mg stat then 100 mg OD	results suggest a longer course length is needed or	
	Third line (underlying lung disease and failed second line treatment)	Co-trimoxazole	960 mg BD	the person is not clinically stable.	

Infection	F	ormulary choice	Adult dose (unless otherwise specified)	Duration of treatment	
	All children with a cle cannot reliably be dis	ar clinical diagnosis of pneumonia sho tinguished from each other.	ould receive antibiotics, as bacteria	I and viral pneumonia	
Community-	Children aged < 2 years presenting with mild symptoms of lower respiratory tract infection do not usually have pneumonia and do NOT need to be treated with antibiotics, but should be reviewed if symptoms persist. A history of conjugate <i>Pneumococcal</i> vaccination gives greater confidence in this decision.				
pneumonia in children –	First line:	Amoxicillin	See <u>BNFc</u>	5 days	
Treatment in the community	Penicillin allergy:	Clarithromycin	See <u>BNFc</u>	5 days	
BTS (2011) NICE CKS (2022) NICE NG138 (2019)	Post- influenza:	Co-amoxiclav	See <u>BNFc</u>	5 days Stop antibiotic treatment after 5 days unless microbiological results suggest a longer course length is needed or the person is not clinically stable.	

Infection	Formulary choice	Dose	Reconstitution	Duration of treatment			
Dosages in Childre	Dosages in Children: Details of drug dosage and administration can be found in the BNFc						
Meningitis Clinically suspected <u>NICE (NG143) Feve</u>	meningitis is a notifiab er in under 5s: assessm	le disease – Please contact the Health <u>nent and initial management (2019)</u>	Protection Team.				
	Transfer all patients benzylpenicillin or IV	to hospital immediately. If time before cefotaxime, unless definite history of an	e admission, and non-blanching rash, give int aphylaxis; rash is not a contraindication.	ravenous (IV)			
		Age: ≥ 10 years: 1200 mg	IM – Reconstitute with Water for Injection (WFI) – 1.6–2 ml for each 600 mg vial				
	Intramuscular (IM) or IV benzylpenicillin	1–9 years: 600 mg	IV – Reconstitute with WFI or NaCl 0.9% – 4 ml for each 600 mg vial. Further diluted				
Suspected meningococcal		< 1 year: 300 mg	to a final volume of 10 ml WFI or NaCl 0.9%. Administer slowly over 5 minutes.	Stat dose			
disease PHE (2019)	OR			(give IM if vein			
	IM or IV cefotaxime	Age: Adult: 2 g Child 16-17 years: 2 g for 1 dose	IM – Reconstitute with WFI – 2 ml for each 500 mg vial, 4 ml for each 1 g vial. Doses over 1 g should be divided between more than one site	cannot be found)			
		Child 1 month -15 years: 50 mg/kg (max. per dose 2 g) for 1 dose	IV – Reconstitute with WFI – 2 ml for each 500 mg vial, 4 ml for each 1 g vial.				
		Neonate: 50 mg/kg for 1 dose.	Administer over at least 3 minutes.				
	Prevention	n of secondary cases of meningitis. Onl	y prescribe following advice from Public Heal	h doctor.			
	Refer all people with suspected sepsis outside acute hospital settings for emergency medical care by the most appropriate means of transport (usually 999 ambulance). Administer antibiotics to patients with high risk criteria in pre-hospital settings locations where transfer time is more than 1 hour.						
Out of Hoopital		Age:	IM – Reconstitute with WFI – 2 ml for each				
Sonsis		Adult: 2 g	500 mg vial, 4 ml for each 1 g vial. Doses	Stat doca			
<u>NICE NG51</u> (2017)	IM or IV cefotaxime	Child 16-17 years: 2 g for 1 dose	over 1 g should be divided between more than one site.	(give IM if vein			
		50 mg/kg (max. per dose 2 g) for 1 dose	IV – Reconstitute with WFI – 2 ml for each 500 mg vial 4 ml for each 1 g vial	found)			
		Neonate: 50 mg/kg for 1 dose.	Administer over at least 3 minutes.				

Infection	Formulary Choice	Adult Dose (unless otherwise specified)	Duration of Treatment			
Dosages in Children	n: Details of drug dosage and administration can be found	l in the <u>BNFc</u>				
Urinary Tract Infection Ensure appropriate d reactions. See Summ	Urinary Tract Infection (UTI) Ensure appropriate dosing—adjusted for age, body weight, renal and hepatic function—and consider potential drug interactions and adverse drug reactions. See Summary of Product Characteristics (SPC) or BNF for further details.					
	Advise paracetamol or ibuprofen for pain.					
	Do not treat asymptomatic bacteriuria except in pregnan relevant specialist team (e.g. urology, renal transplant teams increased morbidity.	cy , or in exceptional circumstances after con etc.); it is common in adults ≥ 65 years but is	sultation with a not associated with			
	Do not dipstick in patients \geq 65 years of age to make a di symptoms. If a dipstick is performed in a patient \geq 65 years o no value and does not suggest the presence of a UTI.	agnosis of UTI. Diagnosis should be made o ld, a negative result may exclude a UTI, but a	on assessment of a positive result has			
Lower UTI in adults	Catheter in situ: antibiotics will not eradicate asymptomatic bacteriuria; only treat if systemically unwell or pyelonephritis likely. Do not use prophylactic antibiotics for catheter changes unless history of catheter-change-associated UTI or trauma (<u>NICE [CG139] Healthcare-associated infections: prevention and control in primary and community care</u>). Where implemented, ensure all patients with an indwelling catheter have a catheter passport completed.					
<u>EAU</u> (2020) <u>EAU</u> (2024) <u>SIGN 160</u> (2020) NICE CG139 (2017)	Men : If symptoms mild / non-specific, use negative dipstick to exclude UTI . If infection is indicated, consider prostatitis and send pre-treatment mid-stream sample of urine (MSU). Nitrofurantoin is not recommended for men with suspected prostate involvement because it is unlikely to reach therapeutic levels in the prostate.					
NICE QS90 (2023) NICE CKS women	N.B <u>Nitrofurantoin</u> , pivmecillinam and fosfomycin are not app <u>Guidance</u> on Nitrofurantoin risks of pulmonary and hepatic ac	ropriate for the treatment of upper UTI/pyelor dverse drug reactions.	nephritis. <u>MHRA</u>			
(2024) <u>NICE CKS men</u> (2024)	Non-pregnant women : In women aged <65 years with susp symptoms on clinical assessment consider a 3 day course of up antibiotic (to use if no improvement in 48 hours or symptom	ected uncomplicated lower UTI and diagnose Ibuprofen (if suitable) as first-line treatment a ms worsen at any time) or immediate antibiot	ed with mild and/or offer a back- tic.			
	Pregnant women and children: offer an immediate antibioti	С.				
	Treat according to sensitivities on recent MSU results if a agents is increasing, particularly in the elderly (\geq 65 years). If and sensitivity (MC&S).	available, otherwise treat empirically. Res high risk of resistance, send urine for mi	stance to many croscopy, culture			
	Risk factors for resistance: Care home resident, recurrent UTI, hospitalization for > 7 days in the last 6 months, unresolving urinary symptoms, recent travel to areas of high antimicrobial resistance (outside northern Europe & Australasia), previous resistant UTI.					
	Complicated infection : all males, females with renal impairring immunosuppression.	nent, abnormal urinary tract, poorly controlled	diabetes or			

Infection	Formulary Choice		Adult Dose (unless otherwise specified)	Duration of Treatment	
Patient < 65 years and <u>no</u>	Nitrofurantoin (if estimated Glomerular Filtration Rate [eGFR] ≥ 45 ml/minute) MHRA Guidance on Nitrofurantoin risks.		100 mg m/r BD	Uncomplicated - 3 days	
risk factors for resistance	OR			days	
	Trimethoprim		200 mg BD	-	
		Nitrofurantoin (if eGFR ≥ 45 ml/minute) <u>MHRA Guidance</u> on Nitrofurantoin risks.	100 mg m/r BD	Uncomplicated -	
	First line:	OR		Complicated - 7	
		Trimethoprim (only if recent MSU shows sensitivities)	200 mg BD	days	
		Pivmecillinam. (Warning: β-lactam, do not use if allergic to penicillin).	400 mg TDS (N.B. High dose recommended due to increased risk of resistance)	Uncomplicated - 3 days	
Patient ≥ 65 vears or risk		OR		days	
years or risk factors for resistance	Second line:	Fosfomycin	3 g sachet	Women: 3 g PO stat (plus additional 3 g dose 3 days later if complicated UTI) Men: 3 g PO stat plus 3 g dose 3 days later (Prescribing in men and complicated UTIs are both off-label)	

Infection	Formulary Choice	Adult Dose (unless otherwise specified)	Duration of Treatment		
	If admission not needed, send MSU for MC&S and start antibiotics. <u>Re-assess</u> the person if symptoms worsen at any time, or do not start to improve within 48 hours of taking the antibiotic. Refer pregnant women with pyelonephritis to secondary care for IV antibiotics . Treat according to sensitivities on recent MSU results if available, otherwise treat empirically.				
_	First Line:				
Acute	Cefalexin	1 g TDS	7–10 days		
pyelonephritis	OR				
NICE CKS (2023)	Trimethoprim (if susceptible)	200 mg BD	14 days		
	OR				
	Co-amoxiclav (if susceptible)	625 mg TDS	7–10 days		
	Second Line:				
	Ciprofloxacin (Consider updated (January 2024) prescribing restrictions and safety issues – see <u>MHRA</u> advice. PIL <u>English</u> – <u>Welsh</u>)	500 mg BD	7 days		
	Referring or seeking specialist advice for people with acute pyelonephritis if they are pregnant is recommended.				
Acute pyelonephritis in pregnancy <u>NICE CKS</u> (2021)	If admission not needed or patient reluctant for admission, send MSU for culture and sensitivities and start antibiotics. If no response within 24 hours, admit. Advise patient to seek medical help if symptoms worsen at any time or do not start to improve within 48 hours of taking the antibiotic, or become systemically very unwell.				
	Cefalexin	1 g TDS	7–10 days		

Infection	Formulary Choice	Adult Dose (unless otherwise specified)	Duration of Treatment			
	Antibiotics will not eradicate asymptomatic bacteriuria; only treat if systemically unwell or pyelonephritis likely. Do not use prophylactic antibiotics for catheter changes unless history of catheter-change-associated UTI or trauma (<u>NICE [CG139]</u> <u>Healthcare-associated infections: prevention and control in primary and community care</u>). Where implemented ensure all patients with an indwelling catheter have a catheter passport completed.					
	If signs and symptoms of pyelonephritis (upper UTI), tre	eat as per pyelonephritis.				
	Ensure catheter is correctly positioned, drains correctly and is not blocked. Consider removing or changing the catheter if it has been in place for more than 7 days. Do not perform urine dipsticks. Most people with a urinary catheter will have bacteria present in the bladder/urine without an infection.					
	Treat according to sensitivities on recent MSU results if available, otherwise treat empirically. Resistance to many agents is increasing, particularly in the elderly (≥ 65 years old).					
Catheter-	Non-pregnant women and men, no upper UTI symptoms, first line:					
NICE NG113 (2018)	Nitrofurantoin (if eGFR ≥ 45 ml/minute) MHRA Guidance on Nitrofurantoin risks.	100 mg m/r BD	7 days			
	OR					
	Trimethoprim	200 mg BD	7 days			
	OR					
	Amoxicillin (if susceptible)	500 mg TDS	7 days			
	Non-pregnant women and men, no upper UTI symptoms, second line:					
	Pivmecillinam (Warning: β-lactam, do not use if allergic to penicillin).	400 mg TDS (N.B. High dose recommended due to increased risk of resistance)	7 days			
	Pregnant women, no upper UTI symptoms:					
	Cefalexin	500 mg BD or TDS (up to 1 g TDS for severe infections).	7–10 days			

Infection	F	ormulary Choice	Adult Dose (unless otherwise specified)	Duration of Treatment	
	Send MSU for culture and start antibiotics. Short-term use of <u>nitrofurantoin in pregnancy</u> is unlikely to cause problems to the foetus. Avoid at term and close to, or during, labour or delivery due to risk of neonatal haemolysis. This includes patients with threatened pre-term labour. Treatment of asymptomatic bacteriuria in pregnant women: base choice on recent urine MC&S results. If group B				
Lower UTI in pregnancy <u>NICE CKS</u> (2021)	Streptococcal bacteriuria is identified, ensure antenatal services are made aware as intrapartum antibiotic prophylaxis will be required in addition to treatment at the time of diagnosis.				
	First line:	Nitrofurantoin (if eGFR ≥ 45 ml/minute. Avoid at term – may produce neonatal haemolysis) (<u>patient information on use in</u> <u>pregnancy</u>) <u>MHRA Guidance</u> on Nitrofurantoin risks.	100 mg m/r BD		
		OR		7 days	
	Amoxicillin (if susceptible MC&S results) (<u>patient information on use in</u> <u>pregnancy</u>)	500 mg TDS			
	Second line:	Cefalexin (patient information on use in pregnancy)	500 mg BD		

Infection		Formulary Choice	Adult Dose (unless otherwise specified)	Duration of Treatment
Acute	Send MSU fo A 4-week cou Fluoroquinolo fluoroquinolo fluoroquinolor musculoskele (such as tend (December 20	y recommended antibiotics are ssues – see <u>MHRA</u> advice. ictions and precautions for using reversible side effects affecting at first signs of serious adverse reaction iding co-administration with a corticosteroid		
Acute prostatitis <u>NICE CKS</u> (2024) <u>NICE NG110</u> (2018)	First line:	Co-trimoxazole (if no previous history of Trimethoprim resistance)	960 mg BD	
	0	Ciprofloxacin (Consider updated (January 2024) prescribing restrictions and safety issues – see <u>MHRA</u> advice. PIL <u>English</u> – <u>Welsh</u>).	500 mg BD	14 days, then review
	Second line:	OR Ofloxacin (Consider updated (January 2024)		
		prescribing restrictions and safety issues – see <u>MHRA</u> advice. PIL <u>English</u> – <u>Welsh</u>).	200 mg BD	

Infection	Formulary Choice	Adult Dose (unless otherwise specified)	Duration of Treatment
Recurrent UTI AWMSG (2022) EAU (2021) SIGN (2020) NICE (2018)	 N.B. Children with recurrent UTIs should be referred. Non-antibiotic strategies, self-care measures and be before initiating antimicrobial prophylaxis. Any urological should be treated optimally. Advise patients with recurrent UTI about behavioral and reduce the risk of UTI: Ensure adequate hydration to promote more frequedrinks and avoid fizzy drinks Encourage urge-initiated voiding and post-coital v Avoid delay of habitual and post-coital urination Avoid constipation Avoid douching and occlusive underwear. Wipe from front to back after defaecation Consider alternative to spermicide-containing con There is conflicting evidence for methenamine hippurate guidelines for further details: Management of Recurrent Symptomatic Urinary Tract In If an antibiotic strategy is required: Check urinary cultures for any recent resistance to Consider stat dose if a trigger has been identified, prophylaxis. If 3–6 months prophylaxis is chosen, treatment w for nitrofurantoin; blood dyscrasias and hyperkalar above. MHRA Guidance on Nitrofurantoin risks. 	to a paediatric or urology s havioural techniques are all l risk factor must be identified personal hygiene measures a uent urination of pale coloured roiding. htraceptives. a, D-mannose and cranberry junt <i>afection in Adult Women</i> o inform choice of prophylaction or short courses (rescue anti- rill require monitoring. In par- emia for trimethoprim. This action	specialist for advice. I effective and should be attempted first and treated. Significant residual urine and self-care treatments that may help to d urine. Encourage water, decaffeinated uice for preventing recurrent UTIs. See full c antibiotic. biotics) as an alternative to regular daily rticular: pulmonary toxicity and hepatotoxicity lvice is included in the full guideline provided Section continued overleaf

Infection		Formulary Choice	Adult Dose (unless otherwise specified)	Duration of Treatment	
	If a trigger is	identified:			
	First line:	Nitrofurantoin (if eGFR ≥ 45 ml/minute) <u>MHRA Guidance</u> on Nitrofurantoin risks. OR	100 mg stat	Single dose when exposed to a trigger	
		Irimethoprim	200 mg stat		
	Second line:	Cefalexin	500 mg stat		
	If rescue anti results) – N.B	 biotic course required (treat as 'lower U⁻ this should be issued as an acute prescri 	TI for patients with risk factors ption:	s for resistance' and consider recent MC&S	
Recurrent UTI (continued) AWMSG (2022) EAU (2021) SIGN (2020) NICE (2018)	First line:	Nitrofurantoin (if eGFR ≥ 45 ml/minute) <u>MHRA Guidance</u> on Nitrofurantoin risks. OR	100 mg m/r BD	Uncomplicated: 3 days Complicated: 7 days	
		Trimethoprim can be used if a recent MSU shows sensitivity	200 mg BD		
		Pivmecillinam (Warning: β-lactam, do not use if allergic to penicillin)	400 mg TDS (N.B: high dose recommended due to increased risk of resistance)		
	Second lines	OR			
	Second line.	Fosfomycin	3 g sachet	Women: 3 g PO stat (plus additional 3 g dose 3 days later if complicated UTI) Men: 3 g PO stat plus 3 g dose 3 days later (Prescribing in men and complicated UTIs are both off-label)	
	If regular pro	phylaxis is required:			
	First line:	Nitrofurantoin (if eGFR ≥ 45 ml/minute) <u>MHRA Guidance</u> on Nitrofurantoin risks	50–100 mg nocte	Review after 3 months. Maximum duration 6 months.	
		OR		No evidence of additional benefit when	
		Trimethoprim	100 mg nocte	continued beyond 6 months.	
	Second line:	Cefalexin	125 mg nocte		

Infection	Formulary Choice		Adult Dose (unless otherwise specified)	Duration of Treatment	
	Send pre-trea Child < 3 mo Child ≥ 3 mo Imaging: only	tment MSU for all children with suspected nths: refer urgently for assessment. nths: use positive nitrite to guide antibiotic refer if child < 6 months, or recurrent or at	UTI. use. ypical UTI.		
		Trimethoprim			
		OR			
Lower UTI in children <u>PHE</u> (2021) <u>NICE CKS</u> (2019) <u>NICE CG54</u> (2018)	First line:	Nitrofurantoin (if eGFR ≥ 45 ml/minute) (Note high cost of liquid formulation - £452.09 per bottle, at the time of writing. Tablets should not be crushed.) <u>MHRA Guidance</u> on Nitrofurantoin risks	See <u>BNFc</u>	3 days	
	Second line:	Cefalexin (consider if trimethoprim not appropriate and liquid preparation required)			
		OR Amoxicillin (If susceptible MC&S results)			
Upper UTI in children	Refer all cases to a paediatrician for further investigation Send pre-treatment MSU for all children with suspected Child < 3 months: refer urgently for assessment. Child \geq 3 months: use positive nitrite to guide antibiotion Imaging: only refer if child < 6 months, recurrent or atvo		n. UTI. use. cal UTI.		
(2018)	Co-amoxiclav	(if susceptible)			
	OR		See BNFc	7 - 10 days	
	Cefalexin				

Infection	Formulary choice	Adult dose (unless otherwise	Duration of treatment			
Dosages in Child	ren: Details of drug dosage and administration ca	n be found in the <u>BNFc</u>				
Gastro-intestinal ⁻	astro-intestinal Tract Infections					
	Oral candidiasis is uncommon in people other than infants, denture wearers and the elderly. In otherwise healthy people, candidiasis may be the first presentation of an undiagnosed risk factor. Exclude risk factors such as HIV infection, cancer, diabetes, anaemia or haematinic deficiencies. If the person has diabetes, review diabetic control and manage accordingly, particularly if there are recurrent episodes of oral candidal infection.					
	If the person is using an inhaled corticosteroid, provid mouth rinsing, spacer devices). If the person wears d recurrence.	If the person is using an inhaled corticosteroid, provide advice on the prevention of oral candidal infection (e.g. good technique, mouth rinsing, spacer devices). If the person wears dentures, advise about hygiene measures to aid healing and prevent recurrence.				
Oral candidiasis	Antifungal agents absorbed from the gastrointestinal tract (e.g. fluconazole) prevent oral candidiasis in patients receiving treatment for cancer.					
(immuno- competent	For advice on treating oral thrush in immunosuppressed and HIV patients, please see NICE CKS. Please check interactions before prescribing these medications.					
adults) <u>NICE CKS (</u> 2024)	Miconazole 24mg/ml oral gel BEWARE INTERACTIONS: although an oral gel, absorption can occur, leading to potential significant increases in INR in patients receiving warfarin.	2.5 ml QDS (hold in mouth after food)	Minimum of 7 days treatment and continue treatment for 7 days after symptoms resolve.			
	If miconazole unsuitable or no response after 7 days of miconazole:					
	Nystatin (100 000units/ml) suspension	1 ml QDS (hold in mouth after food)	Minimum of 7 days treatment and continue treatment for 2 days after symptoms resolve.			
	For severe or extensive candidiasis:					
	Fluconazole	50 mg OD	7 days. Extend to 14 days if infection has not completely resolved.			
Oral candidiasis (immuno-	Miconazole 24 mg/ml oral gel (off label if < 4 months) BEWARE INTERACTIONS: although an oral gel, absorption can occur, leading to potential significant increases in INR in patients receiving warfarin.	See <u>BNFc</u>	Minimum of 7 days treatment and continue treatment for 7 days after symptoms resolve.			
children)	If miconazole unsuitable or no response after 7 da	ays of miconazole:				
NICE CKS (2024)	Nystatin (100,000 units/ml) suspension (off-label in neonates)	See <u>BNFc</u>	Minimum of 7 days treatment and continue treatment for 2 days after symptoms resolve.			

Infection	Formulary choice	Adult dose (unless otherwise	Duration of treatment		
Infectious diarrhoea <u>NICE CKS</u> (2024)	Refer previously healthy children with acute painful or bloody diarrhoea to exclude <i>E. coli</i> 0157 infection. Antibiotics are contraindicated in <i>E. coli</i> 0157 infection as this may result in haemolytic uraemic syndrome (HUS).				
	Antibiotic therapy not indicated unless systemically unwell. If systemically unwell and <i>Campylobacter</i> suspected (e.g. ingestion of undercooked meat and abdominal pain) consider clarithromycin 250–500 mg BD for 5–7 days if treated early (within 3 days). If giardia is confirmed or suspected, consider metronidazole 2 g OD for 3 days or 400 mg TDS for 5 days (see <u>BNFc</u> for children's dosing).				
	Prophylaxis is rarely, if ever, indicated. Standby a	ntibiotics are <u>not recomm</u>	ended.		
Travellers' diarrhoea <u>NICE CKS</u> (2023)	Only consider standby antibiotics for remote areas or people at high-risk of severe illness with travellers' diarrhoea. If standby treatment appropriate give: azithromycin 500 mg OD for 1–3 days (private prescription), contact the <u>National Travel</u> Health Network and Centre for further advice. Empirical antibiotics are not generally indicated. Specific treatment should be directed by the results of stool sampling.				
	Treat all household contacts at the same time PLUS advise hygiene measures for 2 weeks (hand hygiene, wear pants at night, morning shower including peri-anal area) PLUS wash sleepwear and bed linen, dust and vacuum on day one.				
	First line > 6 months old:				
	Mebendazole (off label if < 2 years old)	100 mg	1 dose; repeat in 2 weeks if persistent.		
Threedurer	First line < 6 months old, breastfeeding [*] or in pregnant women (especially during first 12 weeks of pregnancy):				
Threadworm <u>NICE CKS (</u> 2023)	6 weeks hygiene only and add perianal wet wiping or washes 3-hourly. If no improvement following hygiene measures, recontact health professional and seek further advice.				
	* UK Drugs in Lactation Advisory Service advice:				
	• Mebendazole is considered to be compatible with breastfeeding due to negligible transfer into breast milk and poor oral bioavailability.				
	 No side effects have been reported in breastfed infa As a presention, the infant could be monitored for sh 	nts of mebendazole-treated	I mothers.		
	other specific infant monitoring is necessary.				

Infection	Formulary choice	Adult dose (unless otherwise specified)	Duration of treatment
	People with mild, uncomplicated diverticulitis can be	managed at home with paracetamol, clear fluids and	antibiotics.
	For people who are systemically well following clinica person to re-present if symptoms persist or worsen.	I assessment, consider a no antibiotic prescribing str	ategy and advise the
	Cefalexin PLUS	500 mg TDS (up to 1.5g TDS for severe infections)	
Acute	Metronidazole	400 mg TDS	
diverticulitis	OR		
<u>NICE</u> (2019)	Co-amoxiclav (Please note increasing resistance rates. Advise patient to re-present if symptoms persist or worsen).	625 mg TDS	5 days
	OR		
	Co-trimoxazole PLUS	960 mg BD	
	Metronidazole	400 mg TDS	
	Urgent referral to secondary care is recommended for all cases of cholecystitis to assess the need for cholecystectomy.		
	Please note high mortality rate (up to 10%) associated with Acute Cholecystitis.		
	If for any reason you are unable to comply with this advice, recommendation for antibiotic treatment for mild cases is outlined below.		
Dillow	Biliary colic with no associated infection does not require antibiotics.		
infection	Cefalexin PLUS	500 mg TDS (up to 1.5g TDS for severe infections)	
(cholecystitis)	Metronidazole	400 mg TDS	
NICE CKS (2021)	OR		
	Co-amoxiclav (Please note increasing resistance		
	rates. Advise patient to re-present if symptoms persist or worsen).	625 mg TDS	5–7 days
	OR		
	Co-trimoxazole PLUS	960 mg BD	
	Metronidazole	400 mg TDS	

Infection	A	ntibiotic and PPI choices and adult doses (Refer to <u>BNFc</u> for paediatric doses)	Duration of treatment
	 Always tes Eradicatio For non-ul Do not offe Do not use DU/GU rel NUD relap Always us PPI option 	st for <i>H. pylori</i> before giving antibiotics. In is beneficial in known duodenal ulcer (DU), gastric ulcer (GU) or low grade MALToma. cer dyspepsia (NUD), the NNT is 14 for symptom relief. er eradication for gastro-oesophageal reflux disease. e clarithromycin or metronidazole if used in the past year for any infection. apse: retest for <i>H. pylori</i> using breath or stool test OR consider endoscopy for culture and sensitive se: Do not retest, offer proton pump inhibitor (PPI) or H ₂ -receptor antagonist. Se ONE proton pump inhibitor (PPI) PLUS TWO antibiotics. Ins include: Omeprazole 20 mg BD or Lansoprazole 30 mg BD.	ities.
	PPI:	Antibiotic:	
Eradication of <i>Helicobacter</i> <i>pylori</i> <u>NICE CG184</u> (2019)	PPI: Omeprazole 20 mg BD OR Lansoprazole 30 mg BD	First line: Amoxicillin 1 g BD AND Clarithromycin 500 mg BD OR Metronidazole 400 mg BD First line (penicillin allergy): Clarithromycin 500 mg BD AND Metronidazole 400 mg BD Second line: Amoxicillin 1 g BD AND Clarithromycin 500 mg BD OR Metronidazole 400 mg BD Second line: Amoxicillin 1 g BD AND Clarithromycin 500 mg BD OR Metronidazole 400 mg BD (which ever was not used first line) If penicillin allergy AND previous clarithromycin use (in addition to PPI): Bismuth subsalicylate 525 mg QDS (NB: Long-term supply issue with Bismuth subsalicylate) AND Metronidazole 400 mg BD AND Metronidazole 500 mg QDS	First line: 7 days MALToma: 14 days
		Relapse and previous metronidazole and clarithromycin:	_
		Amoxicillin 1 g BD AND Tetracycline 500 mg QDS OR if tetracycline cannot be used, levofloxacin* 250 mg BD *(Consider updated (January 2024) prescribing restrictions and safety issues – see <u>MHRA</u> advice. PIL <u>English</u> – <u>Welsh</u>).	
		Third line (with advice from specialist):	
		Bismuth subsalicylate 525 mg QDS (NB: Long-term supply issue with Bismuth subsalicylate) AND TWO antibiotics not yet tried OR rifabutin 150 mg BD OR furazolidone 200 mg BD	10 days

Infection	Recom	nendations		
	 In adults, treat with oral antibiotics as in table below, and co Patients should only be treated if symptomatic. In children under 18 years of age, discuss with Microbiology Review current medicines with the aim of de-escalating or sigut motility agents, opiates and laxatives. Advise patient to manage fluid loss with regular fluids, preverwater, and seek medical help if symptoms worsen rapidly or solutions. If severe symptoms or signs* discuss case with Microbiology 	nsider seeking advice from Microbiology or Infectious Diseases. , Paediatric Infectious Diseases or Gastroenterology. topping all unnecessary antibiotics, gastric acid suppressing agents, ent the spread of infection by regular handwashing with soap and significantly at any time. Consider the use of oral electrolyte y and consider hospital referral.		
	* Admit if: Temperature > 38.5°C; white cell count > 15, serum colitis	creatinine > 50% above baseline, or signs/symptoms of severe		
Clostridioides difficile infection (CDI) <u>DH&SC & PHE</u> (2019) <u>NICE NG199</u> (2021)	Interpreting <i>C. difficile</i> tests Currently there are three laboratory tests for <i>C. difficile</i> in use across Wales; glutamate dehydrogenase (GDH), toxin pro Ficile Section (CDI) <u>ASC & PHE</u> 19) <u>CE NG199</u> Interpreting <i>C. difficile</i> tests Currently there are three laboratory tests for <i>C. difficile</i> in use across Wales; glutamate dehydrogenase (GDH), toxin pro PCR. Please refer to your local health board laboratory guidance for information on testing and diagnosis of <i>C. difficile</i> infection. PCR. Please refer to your local health board laboratory guidance for information on testing and diagnosis of <i>C. difficile</i> infection. Routine clearance samples should not be sent. Samples from previously positive patients will not routinely be retested within 28 days samples may still be positive due to colonisation with <i>C. difficile</i> , which does not require treatment if the patient is well and asymptor Repeat samples are only necessary if the patient is clinically unwell or symptomatic, and the clinical information should be fille request forms in these cases.			
	Treatment in adults 18 years and over	Antibiotic, dosage and course length		
	First-line antibiotic for a mild or moderate CDI	Vancomycin 125 mg orally four times a day for 10 days		
	Severe CDI	Discuss with microbiology and consider hospital referral		
	Second-line antibiotic for a first episode of mild or moderate CDI if vancomycin is ineffective	Fidaxomicin 200 mg orally twice a day for 10 days		
	Antibiotics for CDI if first and second line antibiotics are ineffective	Seek specialist advice		
	Antibiotic for a further episode of CDI <i>within</i> 12 weeks of symptom resolution (relapse)	Fidaxomicin 200 mg orally twice a day for 10 days		
	Antibiotic for a further episode of CDI after 12 weeks of	Vancomycin 125mg orally four times a day for 10 days		
	symptom resolution (recurrence)	or Fidaxomicin 200mg orally twice a day for 10 days		

Infection	Formulary choice	Adult dose (unless otherwise specified)	Duration of treatment
Dosages in Child	Iren: Details of drug dosage and administration ca	n be found in the <u>BNFc</u>	
Antibiotic Proph	ylaxis in Asplenia		
Antibiotic prophylaxis in asplenia	Individuals with an absent or dysfunctional spleen are encapsulated bacteria. These patients should be fully pneumococcal infection is recommended to minimise For full details refer to Department of Health, <u>The Gre</u> Long-term prophylaxis should be offered to the follow • Age <16 years • Age >50 years • Inadequate response to Pneumococcal vaccine • Previous invasive Pneumococcal disease • Underlying haematological malignancy particular Patients not at high risk should be counselled regardi continue or discontinue prophylaxis. After splenectorr and prophylaxis should cover this period at least.	e at increased risk of severe infection, particularly the vaccinated, according to national schedule. Addition risk of overwhelming infection as well as an annual i <u>een Book</u> . ing high-risk groups: ly in the context of ongoing immunosuppression. ng the risks and benefits of lifelong antibiotics, and n by for trauma, the risk is greatest in the immediate po	se caused by nal vaccination against nfluenza vaccination. hay choose to st-operative period
	Phenoxymethylpenicillin	250 mg BD	Lifelong
	Penicillin allergy: Erythromycin	500 mg BD	Lifelong

Infection	Formulary choice	Adult dose (unless otherwise specified)	Duration of treatment
Dosages in Children: De	etails of drug dosage and administration can be f	ound in the <u>BNFc</u>	
Genital Tract Infections Contact UK Teratology Sexually Transmitted Infect Refer individual and pa Risk factors: < 25 years, no	Information Service (<u>UKTIS)</u> for information on f tion (STI) screening – People with risk factors should rtners to Sexual Health service. condom use, recent (< 12 month) / frequent cha	ioetal risks if patient is pregnant. I be screened for chlamydia, gonorrhoea, <u>HI</u> ange of partner, symptomatic partner.	<u>V</u> , syphilis.
	Opportunistically screen all aged 15 - 25 years. Tre	at partners and refer to Sexual Health service.	
	Doxycycline	100 mg BD	7 days
	OR		
chlamvdia	Azithromycin	1 g STAT followed by 500 mg OD for 2 days	3 days
trachomatis/urethritis	Pregnant or breastfeeding:		
BASHH (2018)	Azithromycin	1 g STAT following by 500 mg OD for 2 days	3 days
<u>NICE CKS</u> (2021)	OR		
	Erythromycin	500 mg QDS	7 days
	OR		
	Amoxicillin	500 mg TDS	7 days
	Patients should abstain from sexual intercourse until 14 days after start of treatment and symptoms have resolved. Treat partners and refer to Sexual Health service.		
	First line:		
Non-specific / non-	Doxycycline	100 mg BD	7 days
gonococcal urethritis – first	Second line:		
episode	Azithromycin	1 g STAT then 500mg OD for 2 days	3 days
<u>BASHH</u> (2018) <u>NICE CKS</u> (2024)	Third line:		
	Levofloxacin (Consider updated (January 2024) prescribing restrictions and safety issues – see <u>MHRA</u> advice. PIL <u>English</u> – <u>Welsh</u>).	500 mg OD	7 days

Infection	Formulary choice	Adult dose (unless otherwise specified)	Duration of treatment	
	Usually due to Gram-negative enteric bacteria in men over 35 years old with low risk of STI. If under 35 years old or STI risk, refer to Genitourinary Medicine (GUM) for additional IM ceftriaxone treatment. Use of an oral cephalosporin instead of IM preparations is not recommended due to increasing resistance.			
Epididymo-orchitis	If over 35 years with low risk STI:			
<u>NICE CKS</u> (2024)	Co-trimoxazole	960 mg BD		
	OR		10 days	
	Co-amoxiclav	625 mg TDS		
	Oral metronidazole is as effective as topical treatmet Less relapse with 7 days' treatment than 2 g stat at Treating partners does not reduce relapse.	Oral metronidazole is as effective as topical treatment and is cheaper. Less relapse with 7 days' treatment than 2 g stat at 4 weeks. Treating partners does not reduce relapse.		
	Oral metronidazole	400 mg BD or	7 days	
	OR	2 9	Sidi	
		E a sur l'acteur d'attaine d		
Bacterial vaginosis	Metronidazole 0.75% vaginal gel	5 g applicatoriul at night	5 nights	
<u>BASHH</u> (2012)	OR			
<u>NICE CKS</u> (2018)	Clindamycin 2% cream	5 g applicatorful at night	7 nights	
	Pregnant or breastfeeding:			
	Oral metronidazole	400 mg BD	7 days	
	OR			
	Metronidazole 0.75% vaginal gel	5 g applicatorful at night	5 nights	
	OR			
	Clindamycin 2% cream	5 g applicatorful at night	7 nights	

Infection	Formulary choice	Adult dose (unless otherwise specified)	Duration of treatment	
	All topical and oral azoles give 80% cure. Pregnancy and breastfeeding : Avoid oral azoles and use intravaginal treatment for 7 days. When inserting the pessary, the use of the applicator should be avoided due to the risk of mechanical trauma. Recurrent: At least four episodes per 12 months with two episodes confirmed by microscopy or culture when symptomatic (at least one must be culture). First line:			
	Fluconazole	150 mg orally	stat	
	Second line (if oral imidazole contraindicated):			
	Clotrimazole	500 mg pessary <i>or</i> 10% cream 5 g intravaginally	stat	
	Alternative regimens:			
Vaginal candidiasis BASHH (2019) NICE CKS (2022)	Clotrimazole	100 mg pessary at night <i>or</i> 200 mg pessary at night	6 nights 3 nights	
	Pregnant:			
	Clotrimazole	500 mg pessary intravaginally	7 days	
	OR			
	Miconazole 2% cream (discontinued) ²	5 g intravaginally nocte	7 days	
	Recurrent:			
	Fluconazole (induction/maintenance)	150 mg every 72 hours THEN	3 doses	
		150 mg once a week	6 months	

² Discontinued July 2023, supplies may still be in circulation.

Infection	Formulary choice	Adult dose (unless otherwise specified)	Duration of treatment	
	Treat partners and refer to Sexual Health service. Pregnancy or breastfeeding : Avoid 2 g single dose metronidazole. Consider clotrimazole for symptom relief (not cure) if metronidazole declined. When inserting the pessary the use of the applicator should be avoided due to the risk of mechanical trauma			
Trichomoniasis BASHH (2014)	Metronidazole	400 mg BD or 2 g	5–7 days stat	
<u>NICE CKS</u> (2021)	Pregnant or breastfeeding:			
	Metronidazole	400 mg BD	5–7 days	
	OR			
	Clotrimazole (see note above)	100 mg pessary at night	6 nights	
	Always culture for gonorrhoea and chlamydia and test for <i>Mycoplasma genitalium</i> . 28% of gonorrhoea isolates are now resistant to quinolones, therefore if gonorrhoea likely (partner has it, severe symptoms, sex abroad) use ceftriaxone regimen or refer to Sexual Health service. Use of an oral cephalosporin instead of IM preparations is not recommended due to increasing resistance.			
	First Line:			
	Ceftriaxone	1 g IM	stat	
Pelvic inflammatory	PLUS			
	Metronidazole	400 mg BD	14 days	
NICE CKS (2024)	PLUS			
	Doxycycline	100 mg BD	14 days	
	Second Line:			
	Metronidazole	400 mg BD	14 days	
	PLUS			
	Otioxacin (Consider updated (January 2024) prescribing restrictions and safety issues – see <u>MHRA</u> advice. PIL <u>English</u> – <u>Welsh</u>).	400 mg BD	14 days	

Infection	Formulary choice	Adult dose (unless otherwise specified)	Duration of treatment
Genital herpes BASHH (2014)	 Advise saline bathing, analgesia, or topical anaesthetic agents; e.g. 5% lidocaine ointment may be beneficial for pain, although may rarely cause sensitisation. Take dry swab for confirmation of diagnosis by PCR and refer to Sexual Health service. If pregnant, refer to Sexual Health service. First episode: treat within 5 days of the start of the episode, while new lesions are still forming, or if systemic symptoms and refer to GUM. Recurrent episodes: usually self-limiting and generally cause mild symptoms. Consider referral to GUM. Treat with self-care, immediate short course antiviral treatment, or suppressive therapy if more than 6 episodes per year. 		
<u>NICE CKS</u> (2017)	Aciclovir	400mg TDS or If recurrent: 800mg TDS	5 days 2 days

Infection	Formulary choice	Adult dose (unless otherwise specified)	Duration of treatment		
Dosages in Children:	Details of drug dosage and administration can be	found in the BNFc			
Skin Infections	Skin Infections				
	 For extensive, severe, or bullous impetigo, use oral antibiotics. Do not offer combination treatment with a topical and oral antibiotic to treat impetigo. Reserve topical antibiotics for very localised lesions to reduce the risk of resistance. Reserve topical mupirocin for localised MRSA-positive lesions. Treatment duration can be increased to 7 days based on clinical judgement, depending on the severity and number of lesions Advise patient on good hygiene measures to prevent spread of impetigo – see <u>NICE CKS</u> for details. 				
	First line:				
	Hydrogen peroxide 1% cream	Apply BD –TDS	5 days		
<u>NICE OKS</u> (2020) <u>NICE NG153</u> (2020)	Flucloxacillin	500 mg QDS	5 days		
	Penicillin allergy:				
	Clarithromycin	250–500 mg BD	5 days		
	Localised lesions:				
	Fusidic acid 2% cream	TDS	5 days		
	Localised MRSA-positive lesions:				
	Mupirocin 2% ointment	TDS	5 days		

Infection	Formulary choice	Adult dose (unless otherwise specified)	Duration of treatment		
	 Avoid trigger factors wherever possible. A diary may be helpful to identify stimuli and triggers that may exacerbate rosacea. Use effective sun protection and avoid use of sunbeds. High-factor sunscreen with protection against ultraviolet A and B (for example Uvistat® or Sunsense®) can be prescribed (these are classified as 'borderline substances' and the prescription must be endorsed by the Advisory Committee on Borderline Substances. Ultraviolet protection sunglasses may be helpful for people with features of ocular rosacea. Regular use of non-oily emollients if the skin is dry. The use of gentle soap-free over-the-counter cleansers. The possible use of yellow- or green-tinted cosmetics to help camouflage skin erythema. For persistent erythema, consider prescribing topical brimonidine 0.5% gel once-daily on an 'as needed' basis, for temporary relief of symptoms. Brimonidine may reduce erythema within 30 minutes, reaching peak action at 3–6 hours, after which the effect diminishes and erythema returns to baseline. Arrange to review the person following first-line treatment(s), to assess the clinical response, need for maintenance therapy, alternative treatment, or referral. Becurrent symptoms: For infrequent recurrences a course of treatment can be repeated as below. 				
<u>NICE CKS</u> (2021)	Mild-to-moderate papules and/or pustules:				
	First line:		Review at 8 – 12 weeks.		
	Topical ivermectin (N.B not appropriate in pregnancy/breastfeeding)	OD	If there is clinical improvement, continue maintenance treatment with topical preparations as needed, ideally until the skin is clear. Courses may be repeated		
	Alternatives (i.e. for pregnant/breastfeeding women):		as necessary. If there is little or no clinical improvement consider		
	Metronidazole 0.75% gel or cream	BD	prescribing a combination of topical preparation together with oral antibiotics (as below).		
	OR				
	Azelaic acid 15%	BD	Note: do not use combination topical and oral antibiotic therapy as dual therapy		
			Section continued overleaf		

Infection	Formulary choice	Adult dose (unless otherwise specified)	Duration of treatment	
	Moderate-to severe papules and/or pustules: Prescribe a combination of topical (as above) plus oral antibiotics			
	First line:			
	Oxytetracycline	500 mg BD		
Rosacea (continued)	If compliance is an issue:		Review therapy from 8 weeks onwards, maximum duration 16 weeks.	
	Doxycycline (Unlicensed use])	100 mg OD	Therapy should then be stepped down to topical monotherapy. If there is little or no improvement, consider arranging dermatology referral, depending on clinical judgement. Consider dermatology referral if relapsing symptoms occur once oral antibiotic therapy is stopped	
<u>NICE CKS</u> (2021)	OR			
	Doxycycline m/r (Licensed – N.B: significantly more expensive at time of writing [September 2021])	40 mg OD		
	If tetracycline contraindicated (e.g. in pregnancy):			
	Erythromycin [Unlicensed]	500 mg BD		

Infection	Formulary choice	Adult dose (unless otherwise specified)	Duration of treatment
Acne vulgaris NICE CKS (2021) NICE NG198 (2021)	 Minocycline is not recommended. Do not use monotherapy with a topical antibiotic, monotherapy with an oral antibiotic or a combination of a topical antibiotic and an oral antibiotic. Some people may not require treatment with topical or oral antibiotics, please refer to <u>NICE NG198</u> guidelines for all treatment recommendations. When choosing a first line treatment option take into account the severity of the acne, the person's preferences, and discuss the advantages and disadvantages of the various treatment options. When discussing treatment choices with a person with childbearing potential, cover that topical retinoids and oral tetracyclines are contraindicated during pregnancy and when planning a pregnancy and that they will need to use effective contraception, or choose an alternative treatment to these options. Discuss the importance of completing the course of treatment as positive effects can take 6 to 8 weeks to become noticeable. Consider referring people to a consultant dermatologist-led team if their acne of any severity, or acne-related scarring, is causing or contributing to persistent psychological distress or a mental health disorder. If a person receiving treatment for acne wishes to use hormonal contraception, consider using the combined oral contraceptive pill in preference to the progestogen-only pill. For people with polycystic ovary syndrome and acne, treat their acne using a first-line treatment options below. If the chosen first-line treatment is not effective, consider adding ethinylestradiol with cyproterone acetate (co-cyprindiol) or an alternative combined oral contraceptive pill to their treatment. Only continue a treatment option that includes an antibiotic (topical or oral) for more than 6 months in exceptional ex		
	Any acne severity:		
	Fixed combination of topical tretinoin (0.025%) with topical clindamycin (1%)	Apply once daily in the evening	12 weeks then review. If acne fails to respond adequately consider alternative topical treatment choice.
	Mild to moderate acne:		
	Fixed combination of topical benzoyl peroxide (3% or 5%) with topical clindamycin (1%)	Apply once daily in the evening	12 weeks then review. If acne fails to respond adequately consider alternative topical treatment choice. If acne fails to respond adequately to 2 different 12 week courses of treatment options, consider referral to dermatology.
			Section continued overleaf.

Infection	Formulary choice	Adult dose (unless otherwise specified)	Duration of treatment	
	Moderate to severe acne:			
	Fixed combination of topical adapalene (0.1% or 0.3%) with topical benzoyl peroxide (2.5%)	Apply once daily in the evening	12 weeks then review. If the acne has	
Acne vulgaris	OR		completely cleared, consider stopping the	
(continued) <u>NICE CKS</u> (2021)	Azelaic acid (15% or 20%) PLUS	Apply twice daily	antibiotic but continuing the topical treatment. If their acne has improved but not completely	
NICE NG198	Doxycycline	100 mg OD	cleared, consider continuing the oral antibiotic,	
(2021)	OR		alongside the topical treatment, for up to 12	
	Lymecycline	408 mg OD	more weeks. If ache fails to respond adequately	
	OR		consider referrar to dermatology.	
	Erythromycin (If tetracycline contraindication)	500 mg BD		
Eczema <u>NICE NG190</u> (2021)	 For secondary bacterial infection of eczema in people who are not systemically unwell: Do not routinely offer either a topical or oral antibiotic. If no visible signs of infection, use of antibiotics (alone or with steroids) encourages resistance and does not improve healing. If visible signs of infection: consider the extent and severity of symptoms or signs (a topical antibiotic may be more appropriate if the infection is localised and not severe; an oral antibiotic may be more appropriate if the infection consider previous use of topical antibiotics because antimicrobial resistance can develop rapidly with extended or repeated use. Patients should continue treatments such as emollients and topical corticosteroids. Make patients aware that it can take time for secondary bacterial infection of eczema to resolve, and full resolution is not expected until after the antibiotic course is completed 			
NICE CKS (2021)	First-choice topical if a topical an	tibiotic is appropriate:		
	Fusidic acid 2%	Apply TDS	5–7 days	
	First-choice oral if an oral antibio	otic is appropriate:		
	Flucloxacillin	500 mg QDS	5–7 days	
	Penicillin allergy:			
	Clarithromycin	250 mg–500 mg BD	5-7 days	
	Penicillin allergy and pregnant:	250 mm 500 mm 0D0		
			5-1 days	
	IT MIRSA suspected or confirmed:	Contact microbiology consultant		

Infection	Formulary choice	Adult dose (unless otherwise specified)	Duration of treatment	
Panton- Valentine Leukocidin (PVL)	 Panton-Valentine Leukocidin (PVL) is a toxin produced by 2% of <i>Staphylococcus aureus</i> strains. It can rarely cause severe invasive infections in healthy people. Send swabs if recurrent boils/abscesses. At risk: close contact in communities or sport; poor hygiene – for details see <u>British Association of Dermatologists patient information leaflet</u>. To prevent transmission of PVL: change towels every day and do not share them; change bed sheets frequently; keep house very clean especially sink and bath; do not visit gym or swimming pool until infections have healed; cover infected areas with dressings; wash hands frequently with liquid soap. Once primary infection has resolved, PVL eradication can be achieved in line with local MRSA decolonisation guidelines. Discuss with Consultant Microbiologist to ensure adequate treatment and eradication. 			
	 If patient afebrile and healthy other than cellulitis, use oral flucloxacillin alone. If river or sea water exposure, discuss with Consultant Microbiologist. If febrile and ill, admit for IV treatment. Erysipelas: often facial and unilateral. Use flucloxacillin for non-facial erysipelas. Infection around the eyes or the nose (the triangle from the bridge of the nose to the corners of the mouth, or immediately around the eyes including periorbital cellulitis) is of more concern because of risk of a serious intracranial complication. For active MRSA infection: use antibiotic sensitivities to guide treatment; if severe infection or no response to monotherapy after 24–48 hours, seek advice from Consultant Microbiologist on combination therapy. 			
Cellulitis and Erysipelas <u>NICE CKS</u> (2021)	Flucloxacillin	500 mg–1 g QDS Use higher doses in obesity (BMI > 30 kg/m ²) or severe infections.	5–7 days – If slow response continue for a further 7 days.	
<u>NICE NG141</u> (2019)	Penicillin allergy			
	Clarithromycin	500 mg BD		
	OR		5–7 days If slow response continue for a further 7 days.	
	Doxycycline	200 mg stat, then 100 mg OD		
	OR			
	Erythromycin (if pregnant)	500 mg QDS		
			Section continued overleaf.	

Infection	Formulary choice	Adult dose (unless otherwise specified)	Duration of treatment		
	MRSA known or suspected (chec	MRSA known or suspected (check recent cultures and adapt therapy as needed):			
	Doxycycline	200 mg stat, then 100 mg BD	E. Z dovo		
	OR		If slow response continue for a further 7 days.		
Cellulitis and Ervsinelas	Co-trimoxazole	960 mg BD			
(continued)	Facial (inside the triangle treat as below – if outside of the triangle treat as above):				
NICE CKS (2021)	Co-amoxiclav	625 mg TDS			
(2019)	OR (if penicillin allergic)				
	Clarithromycin	500 mg BD	7 days		
	PLUS				
	Metronidazole	400 mg TDS			

Infection	Formulary choice	Adult dose (unless otherwise specified)	Duration of treatment	
Cellulitis in patients with lymphoedema	All patients with lymphoedema/chronic oedema and cellulitis should be referred to the Lymphoedema Service. Please refer to <u>Cellulitis Pathway for People with Lymphoedema or Chronic Oedema in NHS (Note: this is currently only available for staff within NHS Wales)</u> for further information. Be aware that skin can take some time to return to what is normal for the patient Consider steroid emollient if signs of inflammation after antimicrobial treatment Consider cellulitis prophylaxis in patients with > 2 episodes of cellulitis in the past 12 months affecting limbs only.			
<u>Lymphoedema</u> Wales (2022) –	Flucloxacillin	500 mg–1 g QDS	7–14 days.	
Note: currently only	Penicillin allergy:			
within NHS Wales	Clarithromycin	500 mg BD	7–14 days	
	No improvement in cellulitis after initial course of antibiotics (wound or previous MRSA consider swab):			
	Clindamycin	300–450 mg QDS	7–14 days	
Prophylaxis for recurrent cellulitis in lymphoedema <u>Lymphoedema</u> <u>Wales (2022) –</u> <u>Note: currently only</u> accessible to staff	 All patients with lymphoedema/chronic oedema and cellulitis should be referred to the Lymphoedema Service. Criteria for Lymphoedema prophylaxis: At least 2 episodes of cellulitis in the past 12 months affecting limbs only Patient has been referred to local Lymphoedema Service All obvious causes for recurring cellulitis have been addressed first e.g. wounds, chronic skin conditions etc. MRSA eradicated (dependent on swab results) Patient is counselled in prophylaxis and consents to treatment. 			
	First line:			
	Phenoxymethylpenicillin	250 mg BD (if BMI > 33 increase to 500 mg BD)	Review at 3 months for progress. Discontinue at 6 months if no further cellulitis episodes.	
within NHS Wales	Penicillin Allergic:			
	Clarithromycin	250 mg OD	Review at 3 months for progress. Discontinue at 6 months if no further cellulitis episodes.	

Infection	Formulary choice	Adult dose (unless otherwise specified)	Duration of treatment	
Leg ulcer	 Leg ulcers are always colonised. Antibiotics do not improve healing unless <u>active infection</u> is present. There is no evidence to support regular application of topical antimicrobials or antiseptics. There is insufficient evidence of proven benefit from <u>silver dressings or iodine preparations</u> in patients with leg ulcers. Do not prescribe routinely. Do not take a sample for microbiological testing at initial presentation. If the infection is worsening or not improving as expected, consider microbiological testing. A superficial swab is not sufficient. Physically clean the ulcer with sterile saline to remove debris from the wound bed. The best specimens for culture are curettage or tissue biopsy from the base of the ulcer after cleaning and debridement. Review antibiotics after culture results. For active MRSA infection: use antibiotic sensitivities to guide treatment; if severe infection or no response to monotherapy after 24–48 hours, seek advice from Consultant Microbiologist on combination therapy. Duration of antibiotics: 7 days, but if insufficient improvement, but some improvement noted, duration can be increased to 14 days maximum. If no improvement noted try an alternative agent. 			
NICE NG152	Active infection:			
(2020)	Flucloxacillin	500 mg – 1 g QDS Use higher doses in obesity (BMI >30 kg/m ²) or severe infections.	7 days, note advice above	
	Penicillin allergy:			
	Clarithromycin	500 mg BD	7 days, note advice above	
	MRSA known or suspected:			
	Doxycycline	200 mg stat, then 100 mg BD		
	OR		7 days, note advice above	
	Co-trimoxazole	960 mg BD		

Infection	Recommendations
Insect bites and stings	 A rapid-onset inflammatory skin response after an insect bite/sting-redness, itchiness, or pain and swelling-is more likely to be an inflammatory or allergic reaction rather than an infection. Skin redness and itching after bites and stings are common and can last up to 10 days. Do not offer antibiotics if there are no symptoms or signs of infection. Secondary bacterial infection is rare and most insect bites/stings will not need antimicrobial treatment. If there are signs and symptoms of acute localised infection with a well-defined, raised margin, see All Wales primary care guidance on cellulitis and ervsipelas for recommended antibiotic choice. Consider whether the bite may be a tick bite and check whether erythema migrans is present in line with All Wales primary care guidance on management of Lyme disease. Refer people to hospital if they have symptoms or signs suggesting a more serious illness or condition, such as a systemic allergic reaction (see NICE Clinical Guideline 134 <u>Anaphylaxis: assessment and referral after emergency treatment</u>). Consider referral or seeking specialist advice for people if: they are systemically unwell they are severely immunocompromised, and have symptoms or signs of an infection they have had a previous systemic allergic reaction to the same type of bite or sting the bite or sting is in the mouth or throat, or around the eyes it has been caused by an unusual or exotic insect they have fever or persisting lesions associated with a bite or sting that occurred while travelling outside the UK.

Infection	For	mulary choice	Adult dose (unless otherwise specified)	Duration of treatment		
Bites (human/cat /dog) <u>NICE CKS</u> (2020) <u>NICE NG184</u> (2020)	 Increased risk of wound becoming infected due to: Nature of the bite (deep, contaminated wounds; puncture or crush wounds; significant tissue destruction) Site of injury (e.g. hands, feet, face or genitals; areas of poor perfusion or lymphatic return; or near a prosthetic joint or implant) Wound penetrating bone, joints, tendons, or vascular structures Delayed presentation (> 8 hours) Associated medical conditions (e.g. diabetes mellitus, asplenia, immunocompromised status, chronic liver disease, prosthetic heart valve or joint) Patient age (neonates, infants and elderly patients are at higher risk of infection). Do not offer antibiotic prophylaxis to people with a human/cat/dog bite that has not broken the skin. Human: Thorough irrigation is important. Assess risk of tetanus, HIV and Hepatitis B and C. Cast / Dog: Thorough irrigation is important. Assess risk of tetanus and rabies. Antibiotic prophylaxis is advised in the following circumstances: all cat bites; dog bite to hand / foot / face / joint / tendon / ligament; puncture wound; suspected fracture; wounds requiring surgical debridement; wounds that have undergone primary closure; immunocompromised / diabetic / asplenic / cirrhotic / prosthetic heart valve / prosthetic joint / patient at risk of serious wound infection. Bat: Urgent treatment required. All patients should be referred to A&E and Public Health Wales Health protection team or the duty virologist (University Hospital of Wales) contacted. Please see PHE guidance (for advice on Rabies) and refer to patients to PHE PIL When to offer antibiotic: 					
	Type of bite	Bite has not broken the skin	Bite has broken the skin but not drawn blood	Bite has broken the skin and drawn blood		
	Human bite	Do not offer antibiotics.	Consider antibiotics if it is in a high-risk area* or the person is high risk**.	if Offer antibiotics.		
	Cat bite	Do not offer antibiotics.	Consider antibiotics if the wound could be deep.	Offer antibiotics.		
	Dog or other traditional pet bitesDo not offer antibiotics.Do not offer antibiotics.Offer antibiotics if it has caused considerable, deep tissue damage or is visibly contaminated. Consider antibiotics if it is in a high-risk area* or person at high risk**.					
	* High-risk area ** High-risk Pers	= hands, feet, face, genitals, skin on = those at risk of serious woun	overlying cartilaginous structures or an area of po d infection (e.g immunosuppression, asplenia, de	or circulation. compensated liver disease, diabetes).		
	Section continued overleaf					

Infection	Formulary choice	Adult dose (unless otherwise specified)	Duration of treatment	
	Prophylaxis or treatment:			
Pitos	Co-amoxiclav 625 mg TDS		3 days (prophylaxis).	
(human/cat/ dog)	Penicillin allergy:	5 davs (treatment).		
	Metronidazole	400 mg TDS		
NICE CKS	PLUS		Course length can be increased to 7 days (with	
NICE NG184	Doxycycline (cat/dog/human)	200 mg stat	wound, for example, if there is significant tissue	
(2020)	(N.B. Not suitable for children < 12 years)	followed by 100 mg OD–BD	destruction or it has penetrated bone, joint,	
	If child < 12 years		tendon or vascular structures.	
	Co-trimoxazole	Dose as per <u>BNFc</u>		
Scabies <u>NICE CKS</u> (2017)	 Treat an nome and sexual contacts (within the past month) within 24 hours. Treat whole body from ear/chin downwards, pay special attention to the areas between the fingers and toes and une If under 2 years old, elderly, immunosuppressed or using malation also treat face/scalp. If under 2 months old, seek specialist advice. The treatment should be applied to cool dry skin (not after a hot bath) and allowed to dry before the person dresses clothes. Permethrin should be washed off after 8 to 12 hours, and malathion after 24 hours. Body areas that are washed with permethrin application or 24 hours of malathion application should be treated again. Mittens can be used to prevent infants putting treated hands in their mouths. A second application is required one week after the first. Itching may continue for up to two weeks after successful treatment of scabies, however, if itching persists for longe 2–4 weeks after the last treatment application, advise the person to seek follow-up. Note: pregnancy and breastfeeding are not contraindications to the use of permethrin or malathion. Permethrin is not suitable in patients with an allergy to chrysanthemum. 			
		5% cream	2 applications, 1 week apart	
	Permethrin (One 30 g pack should be sufficient. Some adults may need to use an additional tube for full body coverage but should not use more than 2 tubes (60 g in total) at each application.)			
	If allergic:			
	Malathion	0.5% aqueous liquid	2 applications, 1 week apart	

Infection	Formulary choice	Adult dose (unless otherwise specified)	Duration of treatment		
Tick bites	 Refer to <u>NICE CKS</u> or <u>PHE advice</u> for prevention of tick bites. Prophylactic antibiotic treatment following a tick bite is not recommended. Give safety net advice about erythema migrans and other possible symptoms that may occur within 1 month of tick removal. 				
disease)	First line treatment:				
<u>NICE CKS</u> (2019)	Doxycycline (not for use in children < 12 years)	100 mg BD	21 days		
NICE NG95	Alternative options:				
(2018)	Amoxicillin	1 g TDS	21 days		
<u>RCGP</u> (2021)	OR				
	Azithromycin	500 mg OD	17 days		
	 Staphylococcus aureus is the most common infecting pathogen. Suspect if woman has a painful breast, fever/general malaise, a tender/red breast. Breastfeeding: oral antibiotics are appropriate where indicated; women should continue feeding, including from the affected breast. In lactational mastitis, prescribe an oral antibiotic if the woman has a nipple fissure that is infected, symptoms have not improved (or are worsening) after 12–24 hours despite effective milk removal. 				
	Lactational mastitis:				
	Flucloxacillin	500mg QDS			
	Penicillin allergy:				
Mastitis	Erythromycin	250–500 mg QDS			
NICE CKS	OR				
(2021)	Clarithromycin	500 mg BD			
	Non-lactational mastitis:				
	Co-amoxiclav	625 mg TDS	10–14 davs		
	Penicillin allergy:				
	Erythromycin PLUS	250–500 mg QDS			
	Metronidazole	400 mg TDS			
	OR	_			
	Clarithromycin PLUS	500 mg BD			
	Metronidazole	400 mg TDS			

Infection	Formulary choice	Adult dose (unless otherwise specified)	Duration of treatment		
	 For advice on self-care management strateg Terbinafine is fungicidal, so treatment time is If Candida possible, use imidazole. If intractable: send skin scrapings. If infection is confirmed, use oral terbinafi antifungal treatment, to reduce the risk of tra Scalp: Ketoconazole 2% shampoo twice we be used daily for one week. If unsuccessful, 	gies including hygiene measures and clothing, refer to s shorter than with fungistatic imidazoles. ne/itraconazole. Consider co-prescribing a topical an ansmission to other people. ekly for 2–4 weeks or an imidazole cream (in children refer to a specialist.	o <u>NICE CKS</u> . tifungal agent during initial oral n less than 5 years of age) to		
Dermatophyte	Topical terbinafine 1%	BD	1–2 weeks		
infection – skin	OR				
NICE CKS – Body and groin	Topical imidazole	BD	For 1–2 weeks after healing (i.e. 4–6 weeks)		
(2018)	Athlete's foot only				
Foot (2018)	Topical undecanoate (Mycota®)	BD	For 1–2 weeks after healing (i.e. 4–6 weeks)		
Scalp (2018)	 Self-care advice: Wear well-fitting, non-occlusive footwear that keeps the feet cool and dry. Consider replacing old footwear which could be contaminated with fungal spores. Maintain good foot hygiene by wearing a different pair of shoes every 2–3 days. Wear cotton, absorbent socks. Avoid scratching affected skin, as this may spread infection to other sites. After washing the feet, dry thoroughly, especially between the toes. Do not share towels, and wash them frequently, to reduce the risk of transmission. Wear protective footwear when using communal bathing places, locker rooms, and gymnasiums, to reduce the risk of transmission. 				
 Cold sores NICE CKS (2016) Cold sores resolve after 5 days without treatment. Topical antivirals applied prodromally reduce duration by 12–18hrs. If frequent, severe and predictable triggers or patient is immunocompromised: consider oral aciclovir 400 m Do not routinely prescribe oral antivirals for healthy people. 		ovir 400 mg BD for 5–7 days.			

Infection	Formulary choice	Adult dose (unless otherwise specified)	Duration of treatment	
Varicella zoster (Chicken pox) <u>NICE CKS</u> (2022) <u>UKHSA</u> (2022)	 For symptomatic relief, self-care advice and Pregnant/immunocompromised/neonate: se Pregnant women who present within 24 ho If 20 weeks +0 gestation or beyond: If less than 20 weeks gestation: see N.B. Use of aciclovir in pregnancy is n patient. For further details, refer to Roy Pregnant women - post-exposure prophy chickenpox or shingles (further details refer First line PEP (all susceptible pregnstarting at day 7 post-exposure. Can big the patient is unable to take oral a toxicity: consider varicella zoster imm Although aciclovir and valaciclovir at the treatment of chickenpox is not the licence when it is in the terms of the licence when it is in the terms of age; severe pain; dense/ 	transmission reduction measures, refer to <u>NICE CKS</u> bek urgent specialist advice . PO aciclovir 800 mg five times a day for 7 days & second terms and the risks and benefits of its use should a college of Obstetrics and Gynaecology guidelines. A specialist advice & consider use of aciclovir. The terms of the risks and benefits of its use should a college of Obstetrics and Gynaecology guidelines. A specialist advice & consider use of aciclovir. The terms of the terms of terms of the terms of the terms of terms o	 Example 2 Exam	
	 Dress appropriately to avoid overheating or shivering. Wear smooth, cotton fabrics. Keen pails short to minimize demage from corretabing. 			
	 Take paracetamol if pain or fever are causin Topical calamine lotion to alleviate itch 	ng distress.		
	 Consider chlorphenamine for treating itch as unless considered essential by a physician. 	ssociated with chickenpox for people 1 year of age or	older. Avoid use in pregnancy	

Infection	Formulary choice	Adult dose (unless otherwise specified)	Duration of treatment
Herpes zoster (Shingles) <u>NICE CKS</u> (2021)	 Prescribe an oral antiviral treatment within 72 hd Immunocompromised (only if the level of im unwell, and the person can be closely follow Non-truncal involvement (such as shingles a Moderate or severe pain. Moderate or severe rash. Consider treating within 72 hours of rash onset f (post-herpetic neuralgia is rare in people < 50 ye truncal involvement; moderate or severe pain; m If it is not possible to initiate treatment within 72 especially if the person is at higher risk of severe immunocompromised, or in severe pain). For immunocompetent children with shingles, ar British HIV Association recommend testing for H Self-care advice: Wash hands often. Wear loose-fitting clothes to reduce irritation Cover lesions that are not under clothes wh Avoid use of topical creams and adhesive d Keep the rash clean and dry to reduce the r increase in temperature, as this may indicat 	 burs of rash onset for people with any of the following munocompromise is not severe, the rash is localized, yed-up). affecting the neck, limbs, or perineum). For all people > 50 years old to reduce the incidence of ears old), or if 1 of the following: active ophthalmic; Randerate or severe rash. hours, consider starting antiviral treatment up to one e shingles or complications (for example continued ventiviral treatment is not usually recommended. IIV in adult patients presenting with Herpes zoster information. i.e the rash is still weeping. ressings, as they can cause irritation and delay rash lisk of bacterial superinfection. They should seek med e bacterial infection. , see prescribing options below. 	criteria: the person is not systemically of post-herpetic neuralgia amsay Hunt; eczema; non- week after rash onset, esicle formation, older age, ection. healing. lical advice if there is an
			Section continued overleat.

Infection	Formulary choice		Adult dose (unless otherwise specified)	Duration of treatment		
	Immunocompetent adults					
	First line:	Aciclovir	800 mg five times a day			
	Second line: (if compliance an issue – N.B: these agents are significantly more expensive at time of writing [Sep 2021])	Famciclovir	500 mg TDS	7 days		
		OR				
Herpes zoster (Shingles)		Valaciclovir	1 g TDS			
(continued)	Immunocompromised adults (if they are not systemically unwell and the rash is localised)					
(2021)	First line:	Aciclovir	800 mg five times a day	7 days. Continue for 2 days after the lesions have crusted.		
	Second line: (if compliance an issue – N.B: these agents are significantly more expensive at the time of writing [Nov 2021])	Famciclovir	500 mg TDS	10 days. Continue for 2 days after the lesions have crusted.		
		OR				
		Valaciclovir	1 g TDS	7 days. Continue for 2 days after the lesions have crusted.		

Infection	Formulary	y choice	Adult dose (unless otherwise specified)	Durati	on of treatment
Dermatophyte infection – nail <u>NICE CKS</u> (2018)	 For advice or Antifungal tree has no co-mo Take nail clip collecting all Start therapy False-negative infected. Terbinafine is Liver reaction If <i>Candida</i> or For children, To prevent res If dermatophyte of Up to 50% in Up to 50% in Up to two affe Early, mild di Superficial with Topical treatment Amorolfine 5% na filing. Duration of 	n self-care mana eatment is not re- orbid conditions opings: Material the material from y only if infecti ve rates are high s more effective ns are rare with non-dermatoph seek specialist ecurrence: apply or Candida nail i volvement of the ected nails. stal or lateral or hite onychomyc nt: ail lacquer (this of treatment: 6 mo	agement strategies e.g. suitable equired if appearance of nail doe that may increase the risk of co should be obtained by scraping m the distal part of the nail bed. on is confirmed by laboratory n. Repeat the test if the result is than azoles. oral antifungals. nyte infection confirmed, use ora advice. weekly 1% topical antifungal cr nfection is confirmed, advise on e distal nail plate without nail many chomycosis. osis.	footwear and hygiene measu is not trouble the patient, infec- mplications. nail material from the distal un negative, and there is high cli l itraconazole. Topical nail lac ream to entire toe area. the option of topical antifunga atrix involvement.	res, see <u>NICE CKS</u> . ction is asymptomatic, and patient inderside of the nail and then nical suspicion that the nail is cquer is not as effective. al treatment in adults if there is: to the affected nail(s) after gentle nail
	If self-care meas	sures alone and	d/or topical treatment is not s	uccessful or appropriate:	
	First line:	Terbinafine	250 mg OD	Finger nail(s): 6 weeks	Toe nail(s): 3 months
				Pulsed course: 7 days then repeat after 21 days	
	Second line:	Itraconazole	200 mg BD	Pinger nail(s):2 pulsed courses as above	At least 3 pulsed courses as above

Infection	Formulary choice	Adult dose (unless otherwise specified)	Duration of treatment			
Dosages in Childre	Dosages in Children: Details of drug dosage and administration can be found in the <u>BNFc</u>					
Eye Infections						
	 Only treat if severe, as most cases are v Bacterial conjunctivitis is usually unilater watery, discharge. 65% resolve on placebo by day five. Fusidic acid is a narrow spectrum agent treatment. Consider screening for <i>Chlamydia</i> in nece Chloramphenicol eye drops can be safel is indicated. See <u>MHRA</u> advice. 	riral or self-limiting. al and <u>also</u> self-limiting; it is characterised by which has poor Gram-negative activity. Send pnatal conjunctivitis. ly administered to children aged 0 to 2 years	red eye with mucopurulent, not d a swab for MC&S before starting where antibiotic eye drop treatment			
	If severe:					
Conjunctivitis <u>NICE CKS</u> (2022)	Chloramphenicol 0.5% drop	Apply 1 drop 2 hourly for 2 days, then 4 times daily.	Continue treatment until 48 hours			
	OR		after symptom resolution; re-assess			
	Chloramphenicol 1% ointment	Apply 4 times daily for 2 days, then twice daily.	days of starting treatment			
	If there is no response to chloramphenicol send a swab for MC&S					
	Second line (Send a swab for MC&S before prescribing fusidic acid):					
	Fusidic acid 1% gel	BD	Continue treatment until 48 hours after symptom resolution; re-assess if symptoms not resolved within 7 days of starting treatment			
Ophthalmia neonatorum	Medical emergency: seek advice from spe	ecialist in neonatal infection.				

Infection	Formulary choice	Adult dose (unless otherwise specified)	Duration of treatment		
	Blepharitis is a chronic, intermittent condition which requires ongoing maintenance treatment – a cure is generally not possible.				
	First line:				
Blepharitis NICE CKS – Blepharitis (2019)	 Symptoms can usually be controlled with sel The eyelid can be cleansed by wetting a warm water) and gently wiping along the Eyelids should be cleaned twice daily init In addition, a warm compress (a clean c once or twice daily — compresses shout) Eyelid hygiene should be continued events 	f-care measures such as eyelid hygiene and cloth or cotton bud with cleanser (for examp e lid margins to clear any lid debris. itially, then once daily as symptoms improve. loth warmed with hot water) should be applie ld not be too hot as this may burn the skin. n when symptoms are well controlled to minir	warm compresses. le, baby shampoo diluted 1:10 with d to closed eyelids for 5–10 minutes mise number and severity of relapses.		
NICE CKS – Rosacea (2021)	Second line (If hygiene measures are ineffective after 2 weeks):				
	Chloramphenicol 1% ointment	BD	7 days then review and repeat if necessary. If not resolving, discuss with optometrist.		
	Signs of Meibomian gland dysfunction or acne rosacea:				
	Seek optometrist advice and consider starting oral antibiotics.				
	Doxycycline	40 mg m/r OD for 8–12 weeks.			
Ophthalmic shingles	If there is concern about ophthalmic shingles please refer to shingles guidance in the 'Skin infections' section and seek advice from an optometrist or ophthalmologist.				

Infection	Formulary choice	Adult dose (unless otherwise specified)	Duration of treatment			
Dosages in Children	n: Details of drug dosage and administration	n can be found in the <u>BNFc</u>				
Dental Infections Derived from the Sco updates (June 2017 a acute oral conditions presenting to non-den service.	Dental Infections Derived from the Scottish Dental Clinical Effectiveness Programme (SDCEP) <u>Drug Prescribing for Dentistry Guidelines (2016)</u> , and subsequent updates (June 2017 and June 2021). This guidance is not designed to be a definitive guide to oral conditions; it is for GPs for the management of acute oral conditions pending the person being seen by a dentist or dental specialist. GPs should not routinely be involved in dental treatment. 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.					
Note: Antibiotics do n	ot cure toothache. First line treatment is with para	acetamol and/or ibuprofen. Codeine is not effe	ctive for toothache.			
	 Temporary pain and swelling relief can be attained with saline mouthwash. Use antiseptic mouthwash: If more severe and pain limits oral hygiene (to treat or prevent secondary infection). The primary cause for mucosal ulceration or inflammation (aphthous ulcers, oral lichen planus, herpes simplex infection, oral cancer) needs to be evaluated and treated. 					
Mucosal ulceration and	Simple saline mouthwash	Half a teaspoon of salt dissolved in a glass of warm water.	Always spit out after use. Use until lesions resolve or less pain allows oral hygiene.			
inflammation (simple gingivitis)	Antiseptic mouthwash (if more severe and pain limits oral hygiene:					
<u>SDCEP</u> (2021)	Chlorhexidine mouthwash 0.2% (Do not use within 30 minutes of toothpaste).	Rinse mouth for 1 minute BD with 10 ml (may be diluted with 5–10 ml water).	Always spit out after use. Use until lesions resolve or less pain allows oral hygiene.			
	OR					
	Hydrogen peroxide mouthwash 6%	Rinse mouth for 2 minutes TDS with 15 ml diluted in half a glass of warm water.	Always spit out after use. Use until lesions resolve or less pain allows oral hygiene.			

Infection	Formulary choice		Adult dose (unless otherwise specified)	Duration of treatment	
	 Refer to dentist for scaling and oral hygiene advice. In most cases, treatment with local measures will be sufficient. Prescribe hydrogen peroxide 6% or chlorhexidine 0.2% mouthwash. Recommend optimal analgesia. Commence antibiotics if systemic signs and symptoms. Use in combination with antiseptic mouthwash. 				
	Antiseptic mo	uthwash:			
Acute necrotising ulcerative	Chlorhexidine mouthwash 0.2% (Do not use within 30 minutes of toothpaste).		Rinse mouth for 1 minute BD with 10 ml (may be diluted with 5–10 ml water).	Always spit out after use. Use until lesions resolve or less pain allows oral hygiene.	
SDCEP (2021)	OR				
	Hydrogen peroxide mouthwash 6%		Rinse mouth for 2 minutes TDS with 15 ml diluted in half a glass of warm water.	Always spit out after use. Use until lesions resolve or less pain allows oral hygiene.	
	If antibiotics indicated:				
	First line:	Metronidazole	400 mg TDS	3 days	
	Second line:	Amoxicillin	500 mg TDS	3 days	
Pericoronitis (inflammation around partially erupted teeth) <u>SDCEP</u> (2021)	 Refer to de In most cas Recomment Antibiotics at temperature 	ntist for irrigation and debrideme ses treatment with local measure ad optimal analgesia. are only recommended as an ac e), severe generalised swelling,	ent. es will be sufficient. djunct to local measures where there is evid cellulitis or severe localised swelling and tri	ence of systemic spread (elevated smus.	
	Antiseptic mouthwash:				
	Chlorhexidine mouthwash 0.2% (Do not use within 30 minutes of toothpaste).		Rinse mouth for 1 minute BD with 10 ml (may be diluted with 5–10 ml water).	Always spit out after use. Use until less pain allows oral hygiene.	
	If antibiotics in	ndicated:			
	First line:	Metronidazole	400 mg TDS	3 days	
	Second line:	Amoxicillin	500 mg TDS	3 days	

Infection	Formulary choice	Adult dose (unless otherwise specified)	Duration of treatment		
Dental abscess	 Regular analgesia should be first option until a dentist can be seen for urgent drainage, as repeated courses of antibiotics for abscess are not appropriate. Repeated antibiotics alone, without drainage, are ineffective in preventing spread of infection. Antibiotics are recommended if there are signs of severe infection, systemic symptoms or high risk of complications. Severe odontogenic infections (defined as: cellulitis plus signs of sepsis; difficulty in swallowing; impending airway obstruction; or Ludwig's angina), should be referred urgently for hospital admission to protect airway, achieve surgical drainage and IV antibiotics. The empirical use of cephalosporins, co-amoxiclav, clarithromycin, and clindamycin do not offer any advantage for most dental patients and should only be used if no response to first-line drugs when referral is the preferred option. If pus is present, this should be drained by a dentist by incision, tooth extraction or via root canal and a sample sent to microbiology. True penicillin allergy: use clarithromycin and if severe infection, refer to hospital. If spreading infection (lymph node involvement, or systemic signs i.e. fever or malaise); ADD metronidazole 				
<u>SDCEP</u> (2021)	1) Amoxicillin 500 mg – 1 g TDS Up to 9		Up to 5 days. Review at 3 days.		
	OR				
	Phenoxymethylpenicillin 500 mg – 1 g QDS Up to 5 days.		Up to 5 days. Review at 3 days.		
	Penicillin allergy:				
	Clarithromycin 500 mg BD Up to 5 days. F				
	Severe infection (see notes above):				
	ADD Metronidazole	400 mg TDS	5 days		
	OR (if allergy to metronidazole)				
	Clindamycin monotherapy	300 mg QDS	5 days		

Glossary

AWMSG	All Wales Medicines Strategy Group
BASHH	British Association for Sexual Health and HIV
BD	Twice-daily
BNF	British National Formulary
BNFc	British National Formulary for children
BP	Blood pressure
BTS	British Thoracic Society
BMI	Body Mass Index
CEPP	Clinical Effectiveness Prescribing Programme
CKS	Clinical Knowledge Summaries
COPD	Chronic obstructive pulmonary disease
CRP	C-Reactive Protein
DH&SC	Department of Health and Social Care (UK Government)
EAU	European Association of Urology
ESCMID	European Society for Clinical Microbiology and Infectious Diseases
eGFR	Estimated glomerular filtration rate
GOLD	Global Initiative for Chronic Obstructive Lung Disease
GUM	Genito-urinary medicine
IM	Intramuscular
IV	Intravenous
MC&S	Microscopy, culture and sensitivities
MHRA	Medicines and Healthcare products Regulatory Agency
M/R	Modified-release
MRSA	Methicillin-resistant Staphylococcus aureus
MSU MCE	National Institute for Legith and Care Eventlence
	National Institute for Health and Care Excellence
	Number Needed to Treat
	Once-dally Depter Veleptine Leukeeidin
	Panton-valentine Leukocidin
	By mouth (per os) Bublic Health England
	Public Health England
	Public Hoalth Wales
	Four times daily
RCCD	Royal College of General Practitioners
RHIG	Respiratory Health Implementation Group
SIGN	Scottish Intercollegiate Guidelines Network
SPC	Summary of Product Characteristics
SPIRA	Server for Prescribing Information Reporting and Analysis
TDS	Three times daily
TARGET	Treat Antibiotics Responsibly, Guidance, Education and Tools
UKTIS	United Kingdom Teratology Information Service
UKHSA	United Kingdom Health Security Agency
UTI	Urinary tract infection
WFI	Water for injection

Updates

Date of update publication	Details of update	
March 2022	Original guidelines document published.	
June 2022	 Updated the following sections: Acute otitis media (in children) Varicella zoster (Chicken pox) 	
September 2022	 Updated link to Lymphoedema Wales guidance in the following sections: Cellulitis in patients with lymphoedema Prophylaxis for recurrent cellulitis in lymphoedema. 	
December 2022	 Updated the following sections: Blepharitis Community-acquired pneumonia in children - Treatment in the community Vaginal candidiasis in pregnancy 	
February 2023	Updated the 'Lower UTI in children' section to note that nitrofurantoin tablets should not be crushed.	
April 2023	Updated layout of 'Acute rhinosinusitis' section and included additional guidance from NICE NG79.	
May 2023	Updated paediatric doses for Cefotaxime in 'Suspected meningococcal disease' to reflect BNFc changes.	
July 2023	Updated to add extra treatment options to Scarlet fever section for treatment in cases of penicillin allergy, as per updated NICE CKS. Miconazole vaginal cream treatment footnote added due to discontinuation of preparation.	
September 2023	Updated paediatric doses for Cefotaxime in 'Out of hospital sepsis' to reflect BNFc changes.	
January 2024	Updated quinolone statements in light of MHRA advice to 'Consider updated (January 2024) prescribing restrictions and safety issues – see <u>MHRA</u> advice'.	
March 2024	 Updated the following sections following the MHRA warning on quinolone use (January 2024): Principles of treatment (page 5) – meningitis prophylaxis Acute pyelonephritis (upper UTI) Acute prostatitis Eradication of <i>Helicobacter pylori</i> Non-specific / non-gonococcal urethritis – first episode Epididymo-orchitis Pelvic inflammatory disease Further updates also made to the following sections Conjunctivitis (amended duration of treatment to align 	

Date of update publication	Details of update
	 Threadworms (added clarity around the use of mebendazole in pregnancy and breastfeeding) MHRA reminder of the risk of pulmonary and hepatic adverse drug reactions added where nitrofurantoin is mentioned as a treatment option.
August 2024	 Acute cough, bronchitis updated to align with NICE guidance. Ophthalmic shingles, updated to include optometrist and ophthalmology following feedback from Optometry Wales. Acute sore throat updated to align with NICE guidance. Travellers' diarrhoea updated to reflect changes to NICE CKS. Infectious diarrhoea updated as tinidazole no longer available in the LIK
January 2025	 Oral Candidiasis section has been updated to correct inconsistencies in the guidance and to reflect the latest NICE Clinical Knowledge Summary.
April 2025	 Lower UTI in adults section has been updated to align with recently published guidance from NICE and SIGN on the use of ibuprofen for mild symptoms. Threadworm section has been updated to reflect hygiene measures are not always practical for women who are breastfeeding and therefore medical options have been added. Acute rhinosinusitis section have been update to align with NICE guidance.