Guidelines for the management of infection in primary care within Herts and West Essex ICS

NHS Herts and West Essex ICS (HWICS) is committed to being organisations within which diversity, equality and human rights are valued. We will not discriminate either directly or indirectly and will not tolerate harassment or victimisation in relation to gender, marital status (including civil partnerships), gender reassignment, disability, race, age, sexual orientation, religion or belief, trade union membership, status as a fixed term or part-time worker, socio-economic status and pregnancy or maternity.

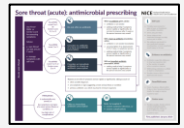
This document was prepared on behalf of NHS Herts and West Essex ICS by the Pharmacy and Medicines Optimisation Team within Herts and West Essex ICS.

This guidance is based on the NICE Summary of antimicrobial prescribing guidance - managing common infections. It has been adapted for local use with input from local experts in Hertfordshire and West Essex (e.g. Microbiologist and Dermatologist) and may differ slightly from national recommendations. Where such changes are made, they will be annotated according to the respective oversight committee i.e. Herts Medicines Management Committee [HMMC], West Essex Medicines Optimisation Programme Board [MOPB], or Area Prescribing Committee (APC). APC is the current prescribing and medicines decision-making committee of the HWE ICS. HMMC and MOPB were the prescribing and medicines decision-making committee of the legacy organisations of the HWE ICS.

Any future amendments will be made in line with governance processes in Herts and West Essex ICS and listed in the document history on the final page.

- For all PHE guidance, follow PHE's principles of treatment.
- See BNF for appropriate use and dosing in specific populations, for example, hepatic impairment, renal impairment, pregnancy and breastfeeding.
- See BNFC for appropriate use and dosing in children.
- Pharmacies will only allow the purchase of an OTC preparation within its **licensed indications**. For details of exemptions, criteria and conditions that can be managed with OTC products visit the Herts and West Essex ICS OTC guidance.
- Download the Smartphone app for this guideline free by visiting the appropriate app store

Key: BNF for children Click to access doses for children  Click to access NICE's printable visual summary

Infection	Key points	Medicine	Doses		Length	Visual summary
			Adult	Child		
Upper respiratory tract infections						
Acute sore throat Public Health England Last updated: Feb 2023	Advise paracetamol, or if preferred and suitable, ibuprofen for pain. Medicated lozenges may help pain in adults. Use FeverPAIN or Centor to assess symptoms: FeverPAIN 0-1 or Centor 0-2: no antibiotic; FeverPAIN 2-3: no or back-up antibiotic; FeverPAIN 4-5 or Centor 3-4: immediate or back-up antibiotic. Systemically very unwell or high risk of complications: immediate antibiotic. *5 days of phenoxymethylpenicillin may be enough for symptomatic cure; but a 10-day course may increase the chance of microbiological cure. For detailed information click the visual summary icon	First choice: phenoxymethylpenicillin	500mg QDS or 1000mg BD		5 to 10 days*	
		Penicillin allergy: clarithromycin OR	250mg to 500mg BD		5 days	
		erythromycin (if macrolide needed in pregnancy; consider benefit/harm)	250mg to 500mg QDS or 500mg to 1000mg BD		5 days	
Influenza Public Health England From NICE update Feb 2019	**Annual vaccination is essential for all those 'at risk' of influenza.** Antivirals are not recommended for healthy adults. Treat 'at risk' patients with 5 days oseltamivir 75 mg BD when influenza is circulating in the community, and ideally within 48 hours of onset (36 hours for zanamivir treatment in children), or in a care home where influenza is likely. **At risk**: pregnant (and up to 2 weeks post-partum); children under 6 months; adults 65 years or older; chronic respiratory disease (including COPD and asthma); significant cardiovascular disease (not hypertension); severe immunosuppression; chronic neurological, renal or liver disease; care and nursing home residents; diabetes mellitus; morbid obesity (BMI>40). See the PHE Influenza guidance for the treatment of patients under 13 years. In					

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	severe immunosuppression, or oseltamivir resistance, use zanamivir 10 mg BD (2 inhalations twice daily by diskhaler for up to 10 days) and seek advice. *Access supporting evidence and rationales on the PHE website.*					
Scarlet fever (GAS) Public Health England **From NICE update April 2023** **UKHSA Jan 2023**	**Prompt treatment** with appropriate antibiotics significantly reduces the risk of complications. Vulnerable individuals (immunocompromised, the comorbid, or those with skin disease) are at increased risk of developing complications. *Where susceptibilities are available, these should be reviewed to ensure the prescribed agent remains active. *Clinicians should check for potential significant interactions with other prescribed medications. *For detailed information click here.*	**First choice (Child or adult)**: phenoxymethylpenicillin (penicillin V)*	500 mg four times daily, or 1000 mg twice daily (increased if necessary up to 1000 mg four times daily)	BNF for children	10 days	
		Second choice (Penicillin allergy): Birth to 6 months: clarithromycin*		BNF for children	10 days	
		Non-pregnant adults and children 6 months to 17 years:				
		Azithromycin*	500 mg once daily	BNF for children	5 days	
		Clarithromycin*	250–500 mg twice daily	BNF for children	10 days	
		Pregnant or postpartum (within 28 days of childbirth) Erythromycin*	250–500 mg every 6 hours		10 days	
Acute otitis media	Regular paracetamol or ibuprofen for pain (right dose for age or weight at the right time and maximum doses for severe pain).	**First choice**: amoxicillin			5–7 days	
		Penicillin allergy: clarithromycin **OR**			5–7 days	

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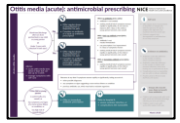
			Adult	Child		
NICE Public Health England From NICE update Mar 2022	The ear drops containing an anaesthetic and an analgesic for otitis media is not recommended (APC Feb 2023). **Otorrhoea or under 2 years with infection in both ears**: no, back-up or immediate antibiotic. **Otherwise:** no or back-up antibiotic. **Systemically very unwell or high risk of complications:** immediate antibiotic. *For detailed information click on the visual summary*	erythromycin (if macrolide needed in pregnancy; consider benefit/harm)			5–7 days	
		Second choice: (worsening symptoms on first choice taken for at least 2 to 3 days) co-amoxiclav			5–7 days	
Acute otitis externa Public Health England From NICE update Nov 2017	**First choice**: analgesia for pain relief, and apply localised heat (such as a warm flannel). **Second choice**: topical acetic acid or topical antibiotic +/- steroid: similar cure at 7 days. **If cellulitis or disease extends outside ear canal**, or systemic signs of infection, start oral flucloxacillin and refer to exclude malignant otitis externa.	**Second choice**: topical acetic acid 2% **OR**	1 spray TDS	BNF for children	7 days	*Not available. Access supporting evidence and rationales on the PHE website*
		topical neomycin sulphate with corticosteroid (consider safety issues if perforated tympanic membrane)	3 drops TDS	BNF for children	7 days (min) to 14 days (max)	
		If cellulitis: flucloxacillin **Penicillin allergy**: clarithromycin [HMMC	250mg (500mg if severe) QDS 500mg BD	BNF for children	7 days	
Sinusitis	Advise paracetamol or ibuprofen for pain. Little evidence that nasal saline or nasal decongestants help, but people may want to try them. **Symptoms for 10 days or less**: no antibiotic.	**First choice**: phenoxymethylpenicillin	500mg QDS		5 days	
		Penicillin allergy: doxycycline (not in under 12s) **OR**	200mg on day 1, then 100mg OD	BNF for children	5 days	
		clarithromycin **OR**	500mg BD		5 days	

Infection	Key points	Medicine	Doses		Length	Visual summary
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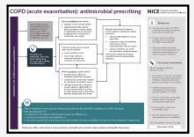
NICE Public Health England From NICE update Oct 2017	**Symptoms with no improvement for more than 10 days**: no antibiotic or back-up antibiotic depending on likelihood of bacterial cause. Consider high-dose nasal corticosteroid (if over 12 years). **Systemically very unwell or high risk of complications**: immediate antibiotic. *For detailed information click on the visual summary.*	erythromycin (preferred if pregnant)	250 to 500mg QDS or 500 to 1000mg BD		5 days	
		Second choice or first choice if systemically very unwell or high risk of complications: co-amoxiclav	500/125mg TDS		5 days	
Lower respiratory tract infections						
Acute exacerbation of COPD NICE Public Health England From NICE update Dec 2018	Many exacerbations are not caused by bacterial infections so will not respond to antibiotics. Consider an antibiotic, but only after taking into account severity of symptoms (particularly sputum colour changes and increases in volume or thickness), need for hospitalisation, previous exacerbations, hospitalisations and risk of complications, previous sputum culture and susceptibility results, and risk of resistance with repeated courses. Some people at risk of exacerbations may have antibiotics to keep at home as part of their exacerbation action plan. Co-trimoxazole should only be used if there are bacteriological evidence of sensitivity and good reason to prefer this combination to a single antibiotic [HMMC].	**First choice:** amoxicillin **OR**	500mg TDS (see BNF for severe infection)	-	5 days	
		doxycycline **OR**	200mg on day 1, then 100mg OD (see BNF for severe infection)	-		
		Clarithromycin	500mg BD	-		
		Second choice: use alternative first choice				
		Alternative choice (if person at higher risk of treatment failure): co-amoxiclav **OR**	500/125mg TDS	-	5 days	
		co-trimoxazole **OR**	960mg BD	-		
		levofloxacin (with specialist advice if co-amoxiclav or co-	500mg OD	-		

Infection	Key points	Medicine	Doses		Length	Visual summary
			Adult	Child		
	For detailed information click on the visual summary. See also the NICE guideline on COPD in over 16s. **IV antibiotics** *(click on visual summary)*	trimoxazole cannot be used; consider safety issues)				
Prophylactic azithromycin in adults with COPD	**Treatment initiation by respiratory specialist ONLY. This will be in line with local prescribing support guide** GP to seek specialist advice in the following situations: • Patient has started/restarted smoking • Patient experiences adverse effects • Patient has a recurrent or non-resolving exacerbation whilst on azithromycin, except where there is a clear reason e.g. acute viral infection • Patient non-adherence with optimal therapy (e.g. inhalers, oral medication) • Patient has not had specialist review at 3 & 9 months after initiation of azithromycin, or at regular intervals not exceeding 12 months thereafter	**Azithromycin**	250mg three times a week (Monday, Wednesday, Friday)	-	See local prescribing support guide	
Acute exacerbation of bronchiectasis (non-cystic fibrosis)	Send a sputum sample for culture and susceptibility testing. Offer an antibiotic. When choosing an antibiotic, take account of severity of symptoms and risk of treatment failure. People who may be at higher risk of	**First choice empirical treatment:** amoxicillin (preferred if pregnant) **OR**	500mg TDS		7 to 14 days	
		doxycycline (not under 12s) **OR**	200mg on day 1, then 100mg OD		7 to 14 days	

Infection	Key points	Medicine	Doses		Length	Visual summary
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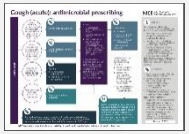
NICE Public Health England From NICE update Dec 2018	treatment failure include people who've had repeated courses of antibiotics, a previous sputum culture with resistant or atypical bacteria, or a higher risk of developing complications. Course length is based on severity of bronchiectasis, exacerbation history, severity of exacerbation symptoms, previous culture and susceptibility results, and response to treatment. Do not routinely offer antibiotic prophylaxis to prevent exacerbations. Seek specialist advice for preventing exacerbations in people with repeated acute exacerbations. This may include a trial of antibiotic prophylaxis after a discussion of the possible benefits and harms, and the need for regular review. *For detailed information click on the visual summary.*	Clarithromycin	500mg BD			
		Alternative choice (if person at higher risk of treatment failure) empirical treatment: co-amoxiclav **OR**	500/125mg TDS		7 to 14 days	
		levofloxacin (adults only: with specialist advice if co-amoxiclav cannot be used; consider safety issues) **OR**	500mg OD or BD			
		ciprofloxacin (children only: with specialist advice if co-amoxiclav cannot be used; consider safety issues)	500mg BD (750mg BD in more severe infections) [HMMC]		14 days	
		IV antibiotics *(click on visual summary)*				
		When current susceptibility data available: choose antibiotics accordingly				
Acute cough NICE	Some people may wish to try honey (in over 1s), the herbal medicine pelargonium (in 12 years and over), cough medicines containing the expectorant guaifenesin ((in 12 years and over) or cough medicines containing cough suppressants, except codeine, ((in 12	**Adults first choice:** doxycycline	200mg on day 1, then 100mg OD	-	5 days	
		Adult alternative first choices: amoxicillin (preferred if pregnant**) OR**	500mg TDS	-		

Infection	Key points	Medicine	Doses		Length	Visual summary
			Adult	Child		
Public Health England From NICE update Feb 2019	years and over). These self-care treatments have limited evidence for the relief of cough symptoms. **Acute cough with upper respiratory tract infection**: no antibiotic. **Acute bronchitis**: no routine antibiotic. **Acute cough and higher risk of complications (at face-to-face examination):** immediate or back-up antibiotic. **Acute cough and systemically very unwell (at face to face examination):** immediate antibiotic. Higher risk of complications includes people with pre-existing comorbidity; young children born prematurely; people over 65 with 2 or more of, or over 80 with 1 or more of: hospitalisation in previous year, type 1 or 2 diabetes, history of congestive heart failure, current use of oral corticosteroids. Do not offer a mucolytic, an oral or inhaled bronchodilator, or an oral or inhaled corticosteroid unless otherwise indicated. *For detailed information click on the visual summary. See also the NICE guideline on pneumonia for prescribing antibiotics in adults with acute bronchitis who have had a C-reactive protein (CRP) test (CRP<20mg/l: no routine antibiotic, CRP 20 to 100mg/l:*	clarithromycin **OR**	250mg to 500mg BD	-		
		erythromycin (preferred if pregnant)	250mg to 500mg QDS or 500mg to 1000mg BD	-		
		Children first choice: amoxicillin	-		5 days	
		Children alternative first choices: clarithromycin **OR**	-			
		erythromycin **OR**	-			
		doxycycline (not in under 12s)	-			

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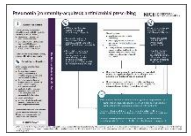
	back-up antibiotic, CRP>100mg/l: immediate antibiotic).					
Community - acquired pneumonia NICE Public Health England From NICE Sept 2019	Assess severity in adults based on clinical judgement guided by mortality risk score (CRB65 or CURB65). See the NICE guideline on pneumonia for full details: **low severity** – CRB65 0 or CURB65 0 or 1 **moderate severity** – CRB65 1 or 2 or CURB65 2 **high severity** – CRB65 3 or 4 or CURB65 3 to 5. 1 point for each parameter: **confusion**, (**urea** >7 mmol/l), **respiratory rate** ≥30/min, low systolic (<90 mm Hg) or diastolic (≤60 mm Hg) **blood pressure**, **age** ≥65. Assess severity in children based on clinical judgement. Offer an antibiotic. Start treatment as soon as possible after diagnosis, within 4 hours (within 1 hour if sepsis suspected and person meets any high risk criteria – see the NICE guideline on sepsis). When choosing an antibiotic, take account of severity, risk of complications, local antimicrobial resistance and surveillance	**First choice (low severity in adults or non-severe in children):** amoxicillin	500mg TDS (higher doses can be used, see BNF)	-	5 days*	
		Alternative first choice (low severity in adults or non-severe in children): doxycycline (not in under 12s) **OR**	200mg on day 1, then 100mg OD			
		clarithromycin **OR**	500mg BD			
		erythromycin (in pregnancy)	500mg QDS			
		First choice (moderate severity in adults): amoxicillin **AND (if atypical pathogens suspected)**	500mg TDS (higher doses can be used, see BNF)	-	5 days*	
		clarithromycin **OR**	500mg BD	-		
		erythromycin (in pregnancy)	500mg QDS	-		
		Alternative first choice (moderate severity in adults): doxycycline **OR**	200mg on day 1, then 100mg OD	-		
		Clarithromycin	500mg BD	-		
		First choice (high severity in adults or severe in children):	500/125mg TDS	-	5 days*	

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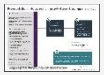
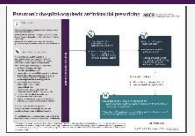
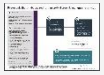
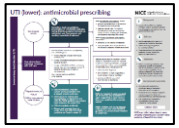
			Adult	Child		
	data, recent antibiotic use and microbiological results. * Stop antibiotics after 5 days unless microbiological results suggest a longer course is needed or the person is not clinically stable. *For detailed information click on the visual summary. See also the NICE guideline on pneumonia.*	co-amoxiclav **AND (if atypical pathogens suspected)**				
		clarithromycin **OR**	500mg BD			
		erythromycin (in pregnancy)	500mg QDS			
		Alternative first choice (high severity in adults): levofloxacin (consider safety issues)	500mg BD			
		IV antibiotics *(click on visual summary)*				
Hospital acquired pneumonia NICE Public Health England From NICE update Sep 2019	If symptoms or signs of pneumonia start within 48 hours of hospital admission, see community acquired pneumonia. Offer an antibiotic. Start treatment as soon as possible after diagnosis, within 4 hours (within 1 hour if sepsis suspected and person meets any high risk criteria – *see the NICE guideline on sepsis).* When choosing an antibiotic, take account of severity of symptoms or signs, number of days in hospital before onset of symptoms, risk of developing complications, local hospital and ward-based antimicrobial resistance data, recent antibiotic use and microbiological results, recent contact with a	**First choice (non-severe and not higher risk of resistance):** co-amoxiclav	500/125mg TDS		5 days then review	
		Adult alternative first choice (non-severe and not higher risk of resistance): Choice based on specialist microbiological advice and local resistance data **Options include:** doxycycline	200mg on day 1, then 100mg OD	-	5 days then review	
		cefalexin (caution in penicillin allergy)	500mg BD or TDS (can increase to 1g to 1.5g TDS or QDS)	-		

Infection	Key points	Medicine	Doses		Length	Visual summary
			Adult	Child		
	health or social care setting before current admission, and risk of adverse effects with broad spectrum antibiotics. No validated severity assessment tools are available. Assess severity of symptoms or signs based on clinical judgement. Higher risk of resistance includes relevant comorbidity (such as severe lung disease or immunosuppression), recent use of broad spectrum antibiotics, colonisation with multi-drug resistant bacteria, and recent contact with health and social care settings before current admission. If symptoms or signs of pneumonia start within days 3 to 5 of hospital admission in people not at higher risk of resistance, consider following community acquired pneumonia for choice of antibiotic. *For detailed information click on the visual summary. See also the NICE guideline on pneumonia.*	co-trimoxazole	960mg BD	-		
		levofloxacin (only if switching from IV levofloxacin with specialist advice; consider safety issues)	500mg OD or BD	-		
		Children alternative first choice (non-severe and not higher risk of resistance): clarithromycin Other options may be suitable based on specialist microbiological advice and local resistance data	-		5 days then review	
		For first choice IV antibiotics (severe or higher risk of resistance) and antibiotics to be added if suspected or confirmed MRSA infection see visual summary				
Urinary tract infections						
Lower urinary tract infection	Advise paracetamol or ibuprofen for pain. **Non-pregnant women**: back up antibiotic (to use if no improvement in 48 hours or symptoms worsen at any time) or immediate antibiotic.	**Non-pregnant women first choice**: nitrofurantoin (if eGFR ≥45 ml/minute) **OR**	100mg m/r BD (or if unavailable 50mg QDS)	-	3 days	
		trimethoprim (if low risk of resistance)	200mg BD	-	3 days	

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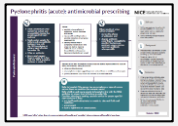
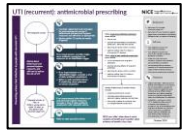
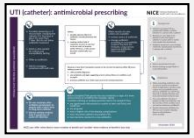
NICE Public Health England From NICE update Oct 2018	**Pregnant women, men, children or young people**: immediate antibiotic. When considering antibiotics, take account of severity of symptoms, risk of complications, previous urine culture and susceptibility results, previous antibiotic use which may have led to resistant bacteria and local antimicrobial resistance data. With Nitrofurantoin - **advise patient on the risk of pulmonary and hepatic fibrosis, and the symptoms to report if they develop during treatment. Reactions can develop acutely or insidiously [HMMC].** If people have symptoms of pyelonephritis (such as fever) or a complicated UTI, see acute pyelonephritis (upper urinary tract infection) for antibiotic choices. *For detailed information click on the visual summary. See also the NICE guideline on urinary tract infection in under 16s: diagnosis and management and the Public Health England urinary tract infection: diagnostic tools for primary care*	**Non-pregnant women second choice**: nitrofurantoin (if eGFR ≥45 ml/minute and not first choice) **OR**	100mg m/r BD (or if unavailable 50mg QDS)	-	3 days	
		pivmecillinam (a penicillin) **OR**	400mg initial dose, then 200mg TDS	-	3 days	
		fosfomycin **HWE APC**: use only if high resistance risk or on microbiology advice	3g single dose sachet	-	single dose	
		Pregnant women first choice: nitrofurantoin (if not used as first choice and avoid at term) – if eGFR ≥45 ml/minute	100mg m/r BD (or if unavailable 50mg QDS)	-	7 days	
		Pregnant women second choice: amoxicillin (only if culture results available and susceptible) **OR**	500mg TDS	-	7 days	
		Cefalexin	500mg BD	-	7 days	
		Treatment of asymptomatic bacteriuria in pregnant women: choose from nitrofurantoin (avoid at term), amoxicillin or cefalexin based on recent culture and susceptibility results				
		Men first choice: trimethoprim **OR**	200mg BD	-	7 days	
		nitrofurantoin (if eGFR ≥45 ml/minute)	100mg m/r BD (or if unavailable 50mg QDS)	-	7 days	

Infection	Key points	Medicine	Doses		Length	Visual summary
			Adult	Child		
		Men second choice: consider alternative diagnoses basing antibiotic choice on recent culture and susceptibility results				
		Children and young people (3 months and over) first choice: trimethoprim (if low risk of resistance) **OR**	-	BNF for children	-	
		nitrofurantoin (if eGFR ≥45 ml/minute)	-			
		Children and young people (3 months and over) second choice: nitrofurantoin (if eGFR ≥45 ml/minute and not used as first choice) **OR**	-			
		amoxicillin (only if culture results available and susceptible) **OR**	-			
		Cefalexin	-			
Acute pyelonephritis (upper urinary tract) NICE	Advise paracetamol (+/- low-dose weak opioid) for pain for people over 12. Offer an antibiotic. When prescribing antibiotics, take account of severity of symptoms, risk of complications, previous urine culture and susceptibility results, previous antibiotic use which may have led to resistant bacteria and local antimicrobial resistance data.	**Non-pregnant women and men first choice**: cefalexin **OR**	500mg BD or TDS (up to 1g to 1.5g TDS or QDS for severe infections)	-	7–10 days	
		co-amoxiclav (only if culture results available and susceptible) **OR**	500/125mg TDS	-	7–10 days	
		trimethoprim (only if culture results available and susceptible) **OR**	200mg BD	-	14 days	

Infection	Key points	Medicine	Doses		Length	Visual summary
			Adult	Child		
Public Health England From NICE update Oct 2018	Avoid antibiotics that don't achieve adequate levels in renal tissue, such as nitrofurantoin *For detailed information click on the visual summary. See also the NICE guideline on urinary tract infection in under 16s: diagnosis and management and the Public Health England urinary tract infection: diagnostic tools for primary care*	ciprofloxacin (consider safety issues)	500mg BD	-	7 days	
		Non-pregnant women and men IV antibiotics *(click on visual summary)*				
		Pregnant women first choice: cefalexin	500mg BD or TDS (up to 1g to 1.5g TDS or QDS for severe infections)	-	7–10 days	
		Pregnant women second choice or IV antibiotics *(click on visual summary)*				
		Children and young people (3 months and over) first choice: cefalexin **OR**	-		-	
		co-amoxiclav (only if culture results available and susceptible)	-		-	
		Children and young people (3 months and over) IV antibiotics *(click on visual summary)*				
Recurrent urinary tract infection	Recurrent urinary tract infection (UTI) in adults is defined as repeated UTI with a frequency of 2 or more UTIs in the last 6 months or 3 or more UTIs in the last 12. Recurrent UTI is diagnosed in children and young people under 16 years if they have:	**First choice antibiotic prophylaxis**: trimethoprim (avoid during whole pregnancy period) **OR**	200mg single dose when exposed to a trigger or 100mg at night		-	
		nitrofurantoin (avoid at term in pregnancy) - if eGFR ≥45 ml/minute	100mg single dose when exposed to a trigger or 50 to 100mg at night		-	

Infection	Key points	Medicine	Doses		Length	Visual summary
			Adult	Child		
NICE Public Health England From NICE update Oct 2018	• 2 or more episodes of UTI with acute pyelonephritis/upper UTI or • 1 episode of UTI with acute pyelonephritis plus 1 or more episode of UTI with cystitis/lower UTI or • 3 or more episodes of UTI with cystitis/lower UTI. [HMMC] CKS First advise about behavioural and personal hygiene measures, and self-care (with D-mannose or cranberry products) to reduce the risk of UTI. For postmenopausal women, if no improvement, consider vaginal oestrogen (review within 12 months). For non-pregnant women, if no improvement, consider single-dose antibiotic prophylaxis for exposure to a trigger (review within 6 months). For non-pregnant women (if no improvement or no identifiable trigger) or with specialist advice for pregnant women, men, children or young people, consider a trial of daily antibiotic prophylaxis (review within 6 months). With Nitrofurantoin- **advise patient on the risk of pulmonary and hepatic fibrosis, and the symptoms to report if they**	**Second choice antibiotic prophylaxis**: amoxicillin **OR**	500mg single dose when exposed to a trigger or 250mg at night		-	
		Cefalexin	500mg single dose when exposed to a trigger or 125mg at night		-	

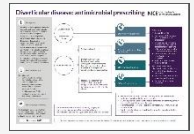
Infection	Key points	Medicine	Doses		Length	Visual summary
			Adult	Child		
	develop during treatment. Reactions can develop acutely or insidiously [HMMC]. *For detailed information click on the visual summary. See also the NICE guideline on urinary tract infection in under 16s: diagnosis and management and the Public Health England urinary tract infection: diagnostic tools for primary care* *For detailed local information see HWEICS Guidelines for Primary Care management of Recurrent Urinary Tract Infections in Adults.*					
Catheter-associated urinary tract infection NICE Public Health England	Antibiotic treatment is not routinely needed for asymptomatic bacteriuria in people with a urinary catheter. Consider removing or, if not possible, changing the catheter if it has been in place for more than 7 days. Give a dose of antibiotic prior to removal. [HMMC] and do not delay antibiotic treatment Advise paracetamol for pain. Advise drinking enough fluids to avoid dehydration. Offer an antibiotic for a symptomatic infection.	**Non-pregnant women and men first choice if no upper UTI symptoms:** nitrofurantoin (if eGFR ≥45 ml/minute) **OR**	100mg m/r BD (or if unavailable 50mg QDS)	-	7 days	
		trimethoprim (if low risk of resistance) **OR**	200mg BD	-		
		amoxicillin (only if culture results available and susceptible)	500mg TDS	-		
		Non-pregnant women and men second choice if no upper UTI symptoms: pivmecillinam (a penicillin)	400mg initial dose, then 200mg TDS	-	7 days	

Infection	Key points	Medicine	Doses		Length	Visual summary
			Adult	Child		
From NICE update Nov 2018	When prescribing antibiotics, take account of severity of symptoms, risk of complications, previous urine culture and susceptibility results, previous antibiotic use which may have led to resistant bacteria and local antimicrobial resistance data. Do not routinely offer antibiotic prophylaxis to people with a short-term or long-term catheter. With Nitrofurantoin- **advise patient on the risk of pulmonary and hepatic fibrosis, and the symptoms to report if they develop during treatment. Reactions can develop acutely or insidiously [HMMC].** *For detailed information click on the visual summary. See also the Public Health England urinary tract infection: diagnostic tools for primary care*	**Non-pregnant women and men first choice if upper UTI symptoms:** cefalexin **OR**	500mg BD or TDS (up to 1g to 1.5g TDS or QDS for severe infections)	-	7–10 days	
		co-amoxiclav (only if culture results available and susceptible) **OR**	500/125mg TDS	-		
		trimethoprim (only if culture results available and susceptible) **OR**	200mg BD	-	14 days	
		ciprofloxacin (consider safety issues)	500mg BD	-	7 days	
		Non-pregnant woman and men IV antibiotics (*click on visual summary*)				
		Pregnant women first choice: cefalexin	500mg BD or TDS (up to 1g to 1.5g TDS or QDS for severe infections)	-	7–10 days	
		Pregnant woman second choice or IV antibiotics (*click on visual summary*)				
		Children and young people (3 months and over) first choice: trimethoprim (if low risk of resistance) **OR**	-		-	
		amoxicillin (only if culture results available and susceptible) **OR**	-			
		cefalexin **OR**	-			
		co-amoxiclav (only if culture results available and susceptible)	-			

Infection	Key points	Medicine	Doses		Length	Visual summary
			Adult	Child		
		Children and young people (3 months and over) IV antibiotics (*click on visual summary*)				
Acute prostatitis NICE Public Health England From NICE update Oct 2018	Advise paracetamol (+/- low-dose weak opioid) for pain, or ibuprofen if preferred and suitable. Offer antibiotic. Review antibiotic treatment after 14 days and either stop antibiotics or continue for a further 14 days if needed (based on assessment of history, symptoms, clinical examination, urine and blood tests). *For detailed information click on the visual summary.*	**First choice** (guided by susceptibilities when available): ciprofloxacin (consider safety issues) OR	500mg BD	-	14 days then review	
		ofloxacin (consider safety issues) **OR**	200mg BD	-		
		If fluoroquinolone not appropriate (seek specialist advice; guided by susceptibilities when available): trimethoprim	200mg BD	-		
		Second choice (after discussion with specialist): levofloxacin (consider safety issues) OR	500mg OD	-	14 days, then review	
		co-trimoxazole	960mg BD	-		
		IV antibiotics *(click on visual summary)*				
Meningitis						
Suspected meningococcal disease Public Health England From NICE update Feb 2019	**Transfer all patients to hospital immediately**. If time before hospital admission, if suspected meningococcal septicaemia or non-blanching rash, give IV benzylpenicillin as soon as possible. Do not give IV antibiotics if there is a definite history of anaphylaxis rash is not a contraindication.	IV or IM benzylpenicillin	Child <1 year: 300 mg Child 1–9 years: 600 mg Adult/child 10+ years: 1.2g		Stat dose; give IM, if vein cannot be accessed	*Not available. Access the supporting evidence and rationales on the PHE website*

Infection	Key points	Medicine	Doses		Length	Visual summary
			Adult	Child		
Prevention of secondary case of meningitis PHE From NICE update Jul 2019	Only prescribe following advice from your local health protection specialist/consultant: ☎ 03003038537 (Option 1) Out of hours: contact on-call doctor: ☎ 01603 481 221 Expert advice is available for managing clusters of meningitis. Please alert the appropriate organisation to any cluster situation. Public Health England, Colindale ☎ 0208 200 4400 *Access the supporting evidence and rationales on the PHE website.*					
Gastrointestinal tract infections						
Oral candidiasis Public Health England From NICE update Oct 2018	**Topical azoles** are more effective than topical nystatin. Oral candidiasis is rare in immunocompetent adults; consider undiagnosed risk factors, including HIV. Use 50 mg fluconazole if extensive/severe candidiasis; if HIV or immunocompromised, use 100 mg fluconazole.	miconazole oral gel	2.5ml of 24mg/ml QDS (hold in mouth after food)	BNF for children	7 days; continue for 7 days after resolved	*Not available. Access supporting evidence and rationales on the PHE website*
		If not tolerated: nystatin suspension	1ml; 100,000units/mL QDS (half in each side)	BNF for children	7 days; continue for 2 days after resolved	
		fluconazole capsules	50mg - 100mg OD	BNF for children	7 to 14 days	
Infectious diarrhoea Public Health England From NICE update Oct 2018	Refer previously healthy children with acute painful or bloody diarrhoea, to exclude E. coli O157 infection. **Antibiotic therapy is not usually indicated unless patient is systemically unwell**. If systemically unwell and campylobacter suspected (such as undercooked meat and abdominal pain), consider clarithromycin 250–500mg BD for 5–7 days, if treated early (within 3 days). If giardia is confirmed or suspected: West Essex: tinidazole 2g single dose (NICE MOPB) Hertfordshire: metronidazole 400 mg three times a day for 5 days, or 2 grams once a day for 3 days [HMMC]. *Access the supporting evidence and rationales on the PHE website.*					
Helicobacter pylori	Always test for *H.pylori* before giving antibiotics. Treat all positives, if known DU, GU or low-grade MALToma. NNT in non-ulcer dyspepsia: 14	**Always use PPI First choice and first relapse and no penicillin allergy** PPI **PLUS** 2 antibiotics	-	BNF for children		

Infection	Key points	Medicine	Doses		Length	Visual summary
			Adult	Child		
Public Health England See PHE quick reference guide for diagnostic advice: PHE *H. pylori* From NICE update Feb 2019	Do not offer eradication for GORD. Do not use clarithromycin, metronidazole or quinolone if used in the past year for any infection. **Penicillin allergy:** Use PPI **PLUS** clarithromycin **PLUS** metronidazole. If previous clarithromycin, use PPI PLUS bismuth salt **PLUS** metronidazole **PLUS** tetracycline hydrochloride. **Relapse and no penicillin allergy**: Use PPI **PLUS** amoxicillin **PLUS** clarithromycin or metronidazole (whichever was not used first choice) **Relapse and previous metronidazole and clarithromycin:** Use PPI **PLUS** amoxicillin **PLUS** either tetracycline **OR** levofloxacin (if tetracycline not tolerated). **Relapse and penicillin allergy (no exposure to quinolone):** Use PPI **PLUS** metronidazole **PLUS** levofloxacin. **Relapse and penicillin allergy (with exposure to quinolone):** use PPI **PLUS** bismuth salt **PLUS** metronidazole **PLUS** tetracycline. **Retest for *H. pylori***: Post DU/GU, or relapse after second choice therapy using UBT or SAT consider referral for endoscopy and culture.	amoxicillin **PLUS**	1000mg BD	BNF for children	7 days MALToma 14 days	*Not available. Access supporting evidence and rationales on the PHE website*
		clarithromycin **OR**	500mg BD	BNF for children		
		Metronidazole	400mg BD	BNF for children		
		Penicillin allergy and previous clarithromycin: PPI **WITH** bismuth subsalicylate **PLUS** 2 antibiotics	-	-		
		bismuth subsalicylate **PLUS**	525mg QDS			
		metronidazole **PLUS**	400mg BD	BNF for children		
		tetracycline	500mg QDS			
		Relapse and previous metronidazole and clarithromycin: PPI **PLUS** 2 antibiotics	-	-		
		amoxicillin **PLUS**	1000mg BD	BNF for children		
		tetracycline **OR**	500mg QDS			
		levofloxacin (if tetracycline cannot be used)	250mg BD			
		Third choice on advice: PPI **WITH**		-	10 days	
		bismuth subsalicylate **PLUS**	525mg QDS	-		
		2 antibiotics as above not		-		

Infection	Key points	Medicine	Doses		Length	Visual summary
			Adult	Child		
		previously used **OR**				
		rifabutin **OR**	150mg BD	-		
		Furazolidone	200mg BD	-		
Acute diverticulitis **NICE** Public Health England From NICE update Nov 2019	**Acute diverticulitis and systemically well:** Consider no antibiotics, offer simple analgesia (for example paracetamol), advise to re-present if symptoms persist or worsen. **Acute diverticulitis and systemically unwell, immunosuppressed or significant comorbidity**: offer an antibiotic. Give oral antibiotics if person not referred to hospital for suspected complicated acute diverticulitis. Give IV antibiotics if admitted to hospital with suspected or confirmed complicated acute diverticulitis (including diverticular abscess). If CT-confirmed uncomplicated acute diverticulitis, review the need for antibiotics. * A longer course may be needed based on clinical assessment.	**First choice (uncomplicated acute diverticulitis):** co-amoxiclav	500/125 TDS	-	5 days*	
		Penicillin allergy or co-amoxiclav unsuitable: cefalexin (caution in penicillin allergy) **AND** metronidazole **OR**	cefalexin: 500mg BD or TDS (up to 1g to 1.5g TDS or QDS for severe infections) metronidazole: 400mg TDS	-		
		trimethoprim **AND** metronidazole **OR**	trimethoprim: 200mg BD metronidazole: 400mg TDS	-		
		ciprofloxacin (only if switching from IV ciprofloxacin with specialist advice; consider safety issues) **AND** metronidazole	ciprofloxacin: 500mg BD metronidazole: 400mg TDS	-		
		For IV antibiotics in complicated acute diverticulitis (including diverticular abscess) see visual summary				

Infection	Key points	Medicine	Doses		Length	Visual summary
			Adult	Child		
***Clostridioides difficile* infection** NICE Public Health England Last updated July 2021	For suspected or confirmed C. difficile infection, see Public Health England's guidance on diagnosis and reporting. **Assess**: whether it is a first or further episode, severity of infection, individual risk factors for complications or recurrence (such as age, frailty or comorbidities). **Existing antibiotics**: review and stop unless essential. If still essential, consider changing to one with a lower risk of C. difficile infection. Review the need to continue: proton pump inhibitors, other medicines with gastrointestinal activity or adverse effects (such as laxatives), medicines that may cause problems if people are dehydrated (such as NSAIDs). Do not offer antimotility medicines such as loperamide. Offer an oral antibiotic to treat suspected or confirmed C. difficile infection. **For adults, consider seeking prompt specialist advice from a microbiologist or infectious diseases specialist before starting treatment.** **For children and young people, treatment should be started by, or after advice from, a microbiologist, paediatric infectious diseases specialist or paediatric gastroenterologist.**	**First-line for first episode of mild, moderate or severe:** vancomycin	125mg QDS	BNF for children	10 days	
		Second-line for first episode of mild, moderate or severe if vancomycin ineffective: fidaxomicin*	200mg BD	BNF for children		
		For further episode within 12 weeks of symptom resolution (relapse): fidaxomicin*	200mg BD	BNF for children		
		For further episode more than 12 weeks after symptom resolution (recurrence): vancomycin **OR**	125mg QDS	BNF for children		
		Fidaxomicin*	200mg BD	BNF for children		
		For alternative antibiotics if first- and second-line antibiotics are ineffective or for life-threatening infection seek specialist advice (see visual summary) *Fidaxomicin should be prescribed after advice from microbiologist (MOPB red list) Fidaxomicin should be used with caution in patients with a known allergy to macrolide antibiotics (azithromycin, clarithromycin, erythromycin)				

Infection	Key points	Medicine	Doses		Length	Visual summary
			Adult	Child		
	If antibiotics have been started for suspected C. difficile infection, and subsequent stool sample tests do not confirm infection, consider stopping these antibiotics. *For detailed information click on the visual summary.*					
Traveller's diarrhoea Public Health England From NICE update Oct 2018	Prophylaxis rarely, if ever, indicated. Consider **standby** antimicrobial only for patients at high risk of severe illness or visiting high-risk areas. When supplied please issue as a **private prescription [HWE APC].**	**Standby (private prescription)** **[HWE APC]**: azithromycin	500mg OD	-	1–3 days	*Not available. Access supporting evidence and rationales on the PHE website*
Threadworm Public Health England From NICE update Nov 2017	**Treat all household contacts at the same time**. **Advise hygiene measures for 2 weeks** (hand hygiene; pants at night; morning shower, including perianal area). Wash sleepwear, bed linen, and dust and vacuum. **Child <6 months**, add perianal wet wiping or washes 3 hourly.	**Child >6 months**: mebendazole	100mg stat	BNF for children	1 dose; repeat in 2 weeks if persistent	*Not available. Access supporting evidence and rationales on the PHE website*
		Child <6 months or pregnant (at least in first trimester): only hygiene measure for 6 weeks	-	-	-	
Genital tract infections						
STI screening Public Health England From NICE update Nov 2017	People with risk factors should be screened for chlamydia, gonorrhoea, HIV and syphilis. Refer individual and partners to GUM. **Risk factors:** <25 years; no condom use; recent/frequent change of partner; symptomatic or infected partner; area of high HIV. *Access the supporting evidence and rationales on the PHE website.*					

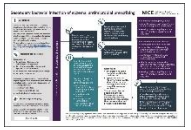
Infection	Key points	Medicine	Doses		Length	Visual summary
			Adult	Child		
Chlamydia trachomatis/ urethritis Public Health England From NICE update July 2019	Opportunistically screen all sexually active patients aged 15 to 24 years for chlamydia annually and on change of sexual partner. If positive, treat index case, refer to GUM and initiate partner notification, testing and treatment. As single dose azithromycin has led to increased resistance in GU infections, doxycycline should be used first choice for chlamydia and urethritis. Advise patient with chlamydia to abstain from sexual intercourse until doxycycline is completed or for 7 days after treatment with azithromycin (14 days after azithromycin started and until symptoms resolved if urethritis). If chlamydia, test for reinfection at 3 to 6 months following treatment if under 25 years; or consider if over 25 years and high risk of re-infection. **Second choice, pregnant, breastfeeding, allergy, or intolerance:** azithromycin is most fective. As lower cure rate in pregnancy, test for cure at least 3 weeks after end of treatment. Consider referring all patients with symptomatic urethritis to GUM as testing	**First choice:** doxycycline	100mg BD	-	7 days	*Not available. Access supporting evidence and rationales on the PHE website*
		Second choice/ pregnant/breastfeeding/ allergy/intolerance: azithromycin	1000mg then 500mg OD		Stat 2 days (total 3 days)	

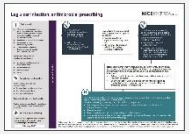
Infection	Key points	Medicine	Doses		Length	Visual summary
			Adult	Child		
	should include *Mycoplasma genitalium* and *Gonorrhoea.* If *M.genitalium* is proven, use doxycycline followed by azithromycin using the same dosing regimen and advise to avoid sex for 14 days after start of treatment and until symptoms have resolved.					
Epididymitis Public Health England Last updated: Nov 2017	Usually due to Gram-negative enteric bacteria in men over 35 years with low risk of STI. If under 35 years or STI risk, refer to GUM.	Doxycycline **OR**	100mg BD	-	10 to 14 days	*Not available. Access supporting evidence and rationales on the PHE website*
		Ofloxacin **OR**	200mg BD		14 days	
		Ciprofloxacin	500mg BD		10 days	
Vaginal candidiasis Public Health England From NICE update Oct 2018	All topical and oral azoles give over 80% cure. **Pregnant**: avoid oral azoles, the 7 day courses are more effective than shorter ones. **Recurrent (>4 episodes per year):** 150mg oral fluconazole every 72 hours for 3 doses induction, followed by 1 dose once a week for 6 months maintenance.	clotrimazole **OR**	500mg pessary	-	Stat	*Not available. Access supporting evidence and rationales on the PHE website*
		clotrimazole **OR**	100mg pessary		6 nights	
		oral fluconazole	150mg		Stat	
		If recurrent: fluconazole (induction/maintenance)	150mg every 72 hours **THEN** 150mg once a week	- -	3 doses 6 months	

Infection	Key points	Medicine	Doses		Length	Visual summary
			Adult	Child		
Bacterial vaginosis Public Health England From NICE update Nov 2017	Oral metronidazole is as effective as topical treatment, and is cheaper. 7 days results in fewer relapses than 2g stat at 4 weeks. **Pregnant/breastfeeding**: avoid 2g dose. Treating partners does not reduce relapse.	oral metronidazole **OR**	400mg BD **OR** 2000mg	-	7 days **OR** Stat	*Not available. Access supporting evidence and rationales on the PHE website*
		metronidazole 0.75% vaginal gel **OR**	5g applicator at night		5 nights	
		clindamycin 2% cream	5g applicator at night		7 nights	
Genital herpes Public Health England From NICE update Nov 2017	**Advise**: saline bathing, analgesia, or topical lidocaine for pain, and discuss transmission. **First episode**: treat within 5 days if new lesions or systemic symptoms, and refer to GUM. **Recurrent**: self-care if mild, or immediate short course antiviral treatment, or suppressive therapy if more than 6 episodes per year.	oral aciclovir **OR**	400mg TDS	-	5 days	*Not available. Access supporting evidence and rationales on the PHE website*
			800mg TDS (if recurrent)		2 days	
		valaciclovir **OR**	500mg BD		5 days	
		Famciclovir	250mg TDS		5 days	
			1000mg BD (if recurrent)		1 day	
Gonorrhoea Public Health England From NICE update Feb 2019	Antibiotic resistance is now very high. Use IM ceftriaxone if susceptibility not known prior to treatment. Use Ciprofloxacin only If susceptibility is known prior to treatment and the isolate is sensitive to ciprofloxacin at all sites of infection. Refer to GUM. Test of cure is essential.	ceftriaxone **OR**	1000mg IM	-	Stat	*Not available. Access supporting evidence and rationales on the PHE website*
		Ciprofloxacin (only if known to be sensitive)	500mg		Stat	

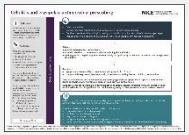
Infection	Key points	Medicine	Doses		Length	Visual summary
			Adult	Child		
Trichomoniasis Public Health England From NICE update Nov 2017	Oral treatment needed as extravaginal infection common. Treat partners, and refer to GUM for other STIs. **Pregnant/breastfeeding**: avoid 2g single dose metronidazole; clotrimazole for symptom relief (not cure) if metronidazole declined.	Metronidazole	400mg BD		5–7 day	*Not available. Access supporting evidence and rationales on the PHE website*
			2g (more adverse effects)		Stat	
		Pregnancy to treat symptoms: clotrimazole	100mg pessary at night	-	6 nights	
Pelvic inflammatory disease (PID) Public Health England From NICE update Feb 2019	**Refer** women and sexual contacts to GUM. **Raised CRP** supports diagnosis, absent pus cells in HVS smear good negative predictive value. **Exclude:** ectopic pregnancy, appendicitis, endometriosis, UTI, irritable bowel, complicated ovarian cyst, functional pain. Moxifloxacin has greater activity against likely pathogens, but always test for gonorrhoea, chlamydia, and *M. genitalium*. If *M. genitalium* tests positive use moxifloxacin.	**First choice therapy:** ceftriaxone **PLUS**	1000mg IM	-	Stat	*Not available. Access supporting evidence and rationales on the PHE website*
		metronidazole **PLUS**	400mg BD		14 days	
		Doxycycline	100mg BD		14 days	
		Second choice therapy: metronidazole **PLUS**	400mg BD		14 days	
		ofloxacin **OR**	400mg BD		14 days	
		moxifloxacin alone (first choice for *M. genitalium* associated PID)	400mg OD		14 days	
Skin and soft tissue infections						
Note: Refer to RCGP Skin Infections online training. For MRSA, discuss therapy with microbiologist.						
Impetigo	**Localised non-bullous impetigo:**	**Topical antiseptic:**				
		Hydrogen peroxide 1%	BD or TDS		5 days*	

Infection	Key points	Medicine	Doses		Length	Visual summary
			Adult	Child		
Public Health England From NICE update Feb 2020	Hydrogen peroxide 1% cream (other topical antiseptics are available but no evidence for impetigo). If hydrogen peroxide unsuitable or ineffective, short-course topical antibiotic. **Widespread non-bullous impetigo:** Short-course topical or oral antibiotic. Take account of person's preferences, practicalities of administration, previous use of topical antibiotics because antimicrobial resistance can develop rapidly with extended or repeated use, and local antimicrobial resistance data. **Bullous impetigo, systemically unwell, or high risk of complications:** Short-course oral antibiotic. Do not offer combination treatment with a topical and oral antibiotic to treat impetigo. *5 days is appropriate for most, can be increased to 7 days based on clinical judgement. *For detailed information click on the visual summary.*	**Topical antibiotic**:				
		First choice: fusidic acid 2%	TDS		5 days*	
		Fusidic acid resistance suspected or confirmed: mupirocin 2%	TDS			
		Oral antibiotic:				
		First choice: flucloxacillin	500mg QDS		5 days*	
		Penicillin allergy or flucloxacillin unsuitable: clarithromycin **OR**	250mg BD			
		erythromycin (in pregnancy)	250 to 500mg QDS			
		If MRSA suspected or confirmed – consult local microbiologist				
Cold sores [HMMC]	**Most resolve after 5 days without treatment**. Topical antivirals applied prodromally can reduce duration by 12 to 18 hours. **If frequent, severe, and predictable triggers**: consider oral prophylaxis West Essex: aciclovir 400mg, twice daily, for 5 to 7 days (NICE and MOPB) Hertfordshire: (based on local guidance) 400 mg, three times a day for severe recurrent cold sores, stopping after 6 -12 months to reassess recurrence frequency – consider restarting after 2 or more recurrences [HMMC].					

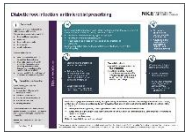
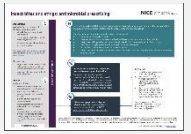
Infection	Key points	Medicine	Doses		Length	Visual summary
			Adult	Child		
PVL-SA Public Health England From NICE update Nov 2017	Panton-Valentine leukocidin (PVL) is a toxin produced by 20.8 to 46% of *S. aureus* from boils/abscesses. PVL strains are rare in healthy people, but severe. **Suppression therapy** should only be started after primary infection has resolved, as ineffective if lesions are still leaking. **Risk factors for PVL**: recurrent skin infections; invasive infections; MSM; if there is more than one case in a home or close community (school children; military personnel; nursing home residents; household contacts). *Access the supporting evidence and rationales on the PHE website.*					
Eczema (bacterial infection) NICE Public Health England From NICE update Mar 2021	Manage underlying eczema and flares with treatments such as emollients and topical corticosteroids, whether antibiotics are given or not. Symptoms and signs of secondary bacterial infection can include: weeping, pustules, crusts, no response to treatment, rapidly worsening eczema, fever and malaise. Not all flares are caused by a bacterial infection, so will not respond to antibiotics. Eczema is often colonised with bacteria but may not be clinically infected. Do not routinely take a skin swab. **Not systemically unwell:** Do not routinely offer either a topical or oral antibiotic. If an antibiotic is offered, when choosing between a topical or oral antibiotic, take account of patient preferences, extent and severity of symptoms or signs, possible adverse effects, and previous use of topical antibiotics because antimicrobial resistance	**If not systemically unwell, do not routinely offer either a topical or oral antibiotic**				
		Topical antibiotic (if a topical is appropriate). For localised infections only:				
		First choice: fusidic acid 2%	TDS		5 to 7 days	
		Oral antibiotic:				
		First choice: flucloxacillin	500mg QDS		5 to 7 days	
		Penicillin allergy or flucloxacillin unsuitable: clarithromycin **OR**	250mg BD (can be increased to 500mg BD for severe infections)			
		erythromycin (in pregnancy)	250mg to 500mg QDS			
		If MRSA suspected or confirmed – consult local microbiologist				

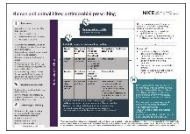
Infection	Key points	Medicine	Doses		Length	Visual summary
			Adult	Child		
	can develop rapidly with extended or repeated use. **Systemically unwell:** Offer an oral antibiotic. If there are symptoms or signs of cellulitis, see cellulitis and erysipelas. *For detailed information click on the visual summary*.					
Leg ulcer infection NICE Public Health England From NICE update Feb 2020	Manage any underlying conditions to promote ulcer healing. Only offer an antibiotic when there are symptoms or signs of infection (such as redness or swelling spreading beyond the ulcer, localised warmth, increased pain or fever). Few leg ulcers are clinically infected but most are colonised by bacteria. When prescribing antibiotics, take account of severity, risk of complications and previous antibiotic use. *For detailed information click on the visual summary.*	**First choice:**				
		Flucloxacillin	500mg to 1g QDS	-	7 days	
		Penicillin allergy or if flucloxacillin unsuitable:				
		doxycycline **OR**	200mg on day 1, then 100mg OD (can be increased to 200mg daily)	-	7 days	
		clarithromycin **OR**	500mg BD			
		erythromycin (in pregnancy)	500mg QDS			
		Second choice:				
		co-amoxiclav **OR**	500/125 TDS	-	7 days	
		co-trimoxazole (in penicillin allergy)	960mg BD			
		For antibiotic choices if severely unwell or MRSA suspected or confirmed, click on the visual summary				

Infection	Key points	Medicine	Doses		Length	Visual summary
			Adult	Child		
Acne vulgaris NICE From NICE update Jun 2021	**First-line treatment options:** offer a course of 1of the options, taking account of severity, preferences, and advantages/disadvantages of each option. Completing the course is important because positive effects can take 6 to 8 weeks. Consider topical benzoyl peroxide monotherapy as an alternative if first-line treatment options are contraindicated, or to avoid topical retinoids or an antibiotic (topical or oral). **Do not use:** monotherapy with a topical antibiotic, monotherapy with an oral antibiotic, or a combination of a topical antibiotic and an oral antibiotic. Review first-line treatment at 12 weeks and: • assess whether the person's acne has improved, and whether they have any side effects • in people whose treatment includes an oral antibiotic, if their acne has completely cleared consider stopping the antibiotic but continuing the topical treatment • in people whose treatment includes an oral antibiotic, if their acne has improved but not completely cleared, consider continuing the oral antibiotic, alongside the topical treatment, for up to 12 more weeks.	**First line:** fixed combination of topical adapalene with topical benzoyl peroxide (for any acne severity, not in under 12s) **OR**	0.1% adapalene/ 2.5% benzoyl peroxide **OR** 0.3% adapalene/2.5% benzoyl peroxide OD (thinly in the evening)	BNF for children	12 weeks	*Not available. See the NICE guideline on acne vulgaris*
		fixed combination of topical tretinoin with topical clindamycin (for any acne severity, not in under 12s) **OR**	0.025% tretinoin/ 1% clindamycin OD (thinly in the evening)	BNF for children		
		fixed combination of topical benzoyl peroxide with topical clindamycin (for mild to moderate acne, not in under 12s) **OR**	3% benzoyl peroxide/1% clindamycin **OR** 5% benzoyl peroxide/1% clindamycin OD (in the evening)	BNF for children		
		fixed combination of topical adapalene with topical benzoyl peroxide **AND** either oral lymecycline or oral doxycycline (for moderate to severe acne, not in under 12s) **OR**	0.1% adapalene/ 2.5% benzoyl peroxide **OR** 0.3% adapalene/2.5% benzoyl peroxide OD (in the evening) **AND either** lymecycline 408mg OD **OR** doxycycline 100mg OD	BNF for children BNF for children		

Infection	Key points	Medicine	Doses		Length	Visual summary
			Adult	Child		
	Only continue a treatment option that includes an antibiotic (topical or oral) for more than 6 months in exceptional circumstances. Review at 3-monthly intervals and stop the antibiotic as soon as possible. [**HWE APC**] *For detailed information see the NICE guideline on acne vulgaris*	topical azelaic acid **AND** either oral lymecycline or oral doxycycline (for moderate to severe acne, not in under 12s)	15% or 20% azelaic acid BD **AND either** lymecycline 408mg OD **OR** doxycycline 100mg OD	BNF for children BNF for children		
		Alternative: topical benzoyl peroxide	5% benzoyl peroxide OD to BD	BNF for children		
Cellulitis and erysipelas NICE Public Health England From NICE update Sept 2019	Exclude other causes of skin redness (inflammatory reactions or non-infectious causes). Consider marking extent of infection with a single-use surgical marker pen. Offer an antibiotic. Take account of severity, site of infection, risk of uncommon pathogens, any microbiological results and MRSA status. Infection around eyes or nose is more concerning because of serious intracranial complications. *A longer course (up to 14 days in total) may be needed but skin takes time to return to normal, and full resolution at 5 to 7 days is not expected.	**First choice:**				
		Flucloxacillin	500mg to 1 g QDS		5 to 7 days*	
		Penicillin allergy or if flucloxacillin unsuitable:				
		clarithromycin **OR**	500mg BD		5 to 7 days*	
		erythromycin (in pregnancy) **OR**	500mg QDS			
		doxycycline (adults only) **OR**	200mg on day 1, then 100mg OD Can be increased to 200mg daily	-		
		co-amoxiclav (children only: not in penicillin allergy)	-			
		If infection near eyes or nose:				
		co-amoxiclav	500/125mg TDS		7 days*	

Infection	Key points	Medicine	Doses		Length	Visual summary
			Adult	Child		
	Do not routinely offer antibiotics to prevent recurrent cellulitis or erysipelas. *For detailed information click on the visual summary.*	**If infection near eyes or nose (penicillin allergy):**				
		clarithromycin **AND**	500mg BD		7 days*	
		metronidazole (only add in children if anaerobes suspected)	400mg TDS			
		For alternative choice antibiotics for severe infection, suspected or confirmed MRSA infection and IV antibiotics click on the visual summary				
Diabetic foot infection NICE Public Health England From NICE update Oct 2019	In diabetes, all foot wounds are likely to be colonised with bacteria. Diabetic foot infection has at least 2 of: local swelling or induration; erythema; local tenderness or pain; local warmth; purulent discharge. Severity is classified as: **Mild:** local infection with 0.5 to less than 2cm erythema **Moderate:** local infection with more than 2cm erythema or involving deeper structures (such as abscess, osteomyelitis, septic arthritis or fasciitis)	**Mild infection: first choice**				
		Flucloxacillin	500mg to 1g QDS	-	7 days*	
		Mild infection (penicillin allergy):				
		clarithromycin **OR**	500mg BD	-	7 days*	
		erythromycin (in pregnancy) **OR**	500mg QDS			
		Doxycycline	200mg on day 1, then 100mg OD Can be increased to 200mg daily			

Infection	Key points	Medicine	Doses		Length	Visual summary
			Adult	Child		
	Severe: local infection with signs of a systemic inflammatory response. Start antibiotic treatment as soon as possible. Take samples for microbiological testing before, or as close as possible to, the start of treatment When choosing an antibiotic, take account of severity, risk of complications, previous microbiological results and antibiotic use, and patient preference. *A longer course (up to a further 7 days) may be needed based on clinical assessment. However, skin does take time to return to normal, and full resolution at 7 days is not expected. Do not offer antibiotics to prevent diabetic foot infection. *For detailed information click on the visual summary.*	**For antibiotic choices for moderate or severe infection, infections where *Pseudomonas aeruginosa* or MRSA is suspected or confirmed, and IV antibiotics click on the visual summary**				
Insect bites and stings NICE Public Health England	Most insect bites or stings will not need antibiotics. Do not offer an antibiotic if there are no symptoms or signs of infection. If there are symptoms or signs of infection, see cellulitis and erysipelas.	-	-	-	-	

Infection	Key points	Medicine	Doses		Length	Visual summary
			Adult	Child		
From NICE update Sep 2020						
Human and animal bites NICE Public Health England From NICE update Nov 2020	Offer an antibiotic for a human or animal bite if there are symptoms or signs of infection, such as increased pain, inflammation, fever, discharge or an unpleasant smell. Take a swab for microbiological testing if there is discharge (purulent or non-purulent) from the wound. Do not offer antibiotic prophylaxis if a human or animal bite has not broken the skin. **Human bite:** Offer antibiotic prophylaxis if the human bite has broken the skin and drawn blood. Consider antibiotic prophylaxis if the human bite has broken the skin but not drawn blood if it is in a high-risk area or person at high risk. **Cat bite:** Offer antibiotic prophylaxis if the cat bite has broken the skin and drawn blood. Consider antibiotic prophylaxis if the cat bite has broken the skin but not drawn blood if the wound could be deep. **Dog or other traditional pet bite (excluding cat bite):** Do not offer antibiotic prophylaxis if the bite has broken the skin but not drawn blood.	**First choice:**				
		co-amoxiclav	250/125mg or 500/125mg TDS	BNF for children	3 days for prophylaxis 5 days for treatment*	
		Penicillin allergy or co-amoxiclav unsuitable:				
		metronidazole **AND**	400mg TDS			
		doxycycline	200mg on day 1, then 100mg or 200mg daily	BNF for children	3 days for prophylaxis 5 days for treatment*	
		For MRSA, discuss therapy with microbiologist.[HMMC]				
		seek specialist advice in pregnancy				
		IV antibiotics *(click on visual summary)*				

Infection	Key points	Medicine	Doses		Length	Visual summary
			Adult	Child		
	Offer antibiotic prophylaxis if the bite has broken the skin and drawn blood if it has caused considerable, deep tissue damage or is visibly contaminated (for example, with dirt or a tooth). Consider antibiotic prophylaxis if the bite has broken the skin and drawn blood if it is in a high risk area or person at high risk. *course length can be increased to 7 days (with review) based on clinical assessment of the wound					
Scabies Public Health England From NICE update Oct 2018	**First choice permethrin**: Treat whole body from ear/chin downwards, and under nails. **If using permethrin** and patient is under 2 years, elderly or immunosuppressed, or **if treating with malathion**: also treat face and scalp. **Home/sexual contacts**: treat within 24 hours.	Permethrin	5% cream	BNF for children	2 applications, 1 week apart	*Not available. Access supporting evidence and rationales on the PHE website*
		Permethrin allergy: malathion	0.5% aqueous liquid	BNF for children		
Mastitis Public Health England From NICE update Nov 2017	*S. aureus* is the most common infecting pathogen. Suspect if woman has: a painful breast; fever and/or general malaise; a tender, red breast. **Breastfeeding**: oral antibiotics are appropriate, where indicated. Women should continue feeding, including from the affected breast.	Flucloxacillin	500mg QDS	-	10–14 days	*Not available. Access supporting evidence and rationales on the PHE website*
		Penicillin allergy: erythromycin **OR**	250–500mg QDS			
		Clarithromycin	500mg BD			
Dermatophyte infection: skin	Most cases: Use terbinafine as fungicidal, treatment time shorter and more effective	topical terbinafine **OR**	1% OD to BD	BNF for children	1–4 weeks	*Not available. Access supporting*

Infection	Key points	Medicine	Doses		Length	Visual summary
			Adult	Child		
Public Health England From NICE update Feb 2019	than with fungistatic imidazoles or undecenoates. If candida possible, use imidazole. **If intractable, or scalp:** send skin scrapings and if infection confirmed: use oral terbinafine or itraconazole. **Scalp:** oral therapy, and discuss with specialist.	topical imidazole	1% OD to BD	BNF for children	4–6 weeks	*evidence and rationales on the PHE website*
		Alternative in athlete's foot: topical undecenoates (such as Mycota®)	OD to BD	BNF for children		
Dermatophyte infection: nail Public Health England From NICE update Oct 2018	**Take nail clippings**; start therapy only if infection is confirmed. Oral terbinafine is more effective than oral azole. Liver reactions 0.1 to 1% with oral antifungals. If candida or non-dermatophyte infection is confirmed, use oral itraconazole. Topical nail lacquer is not as effective. Advise patients on self-care management strategies **Advise that antifungal treatment is not needed if:** • The person is not troubled by the appearance of the nail(s), and/or • Infection is asymptomatic. **Advise on the option of antifungal treatment only if**: • Walking is uncomfortable.	**First line**: Terbinafine	250mg OD	BNF for children	Fingers: 6 weeks Toes: 12 weeks	*Not available. Access supporting evidence and rationales on the PHE website*
		Second line: Itraconazole	200mg BD	BNF for children	1 week a month Fingers: 2 courses Toes: 3 courses	
		Stop treatment when continual, new, healthy, proximal nail growth.				

Infection	Key points	Medicine	Doses		Length	Visual summary
			Adult	Child		
	• There is significant psychological distress due to the cosmetic appearance of the nail(s). • There are co-morbid conditions which increase the risk of complications. • Nail infection is a potential source of associated fungal skin infection **To prevent recurrence**: apply weekly 1% topical antifungal cream to entire toe area. **Children**: seek specialist advice. *For detailed information see the CKS topic on fungal nail infections*					
Varicella zoster/ chickenpox **Herpes zoster/ shingles** Public Health England From NICE update Oct 2018	**Pregnant/immunocompromised/ neonate**: seek urgent specialist advice. **Chickenpox**: consider aciclovir if: onset of rash <24 hours, and 1 of the following: >14 years of age; severe pain; dense/oral rash; taking steroids; smoker. Give paracetamol for pain relief. **Shingles**: treat if >50 years (PHN rare if <50 years) and within 72 hours of rash, or if 1 of the following: active ophthalmic; Ramsey Hunt; eczema; non-truncal involvement; moderate or severe pain; moderate or severe rash. Shingles treatment if not within 72 hours: consider starting antiviral drug up to 1 week	**First choice for chicken pox and shingles**: acyclovir	800mg 5 times daily	BNF for children	7 days	*Not available. Access supporting evidence and rationales on the PHE website*
		Second choice for shingles if poor compliance: *not for children:* famciclovir **OR**	250–500mg TDS or 750mg BD	-		
		Valaciclovir	1g TDS	BNF for children		

Infection	Key points	Medicine	Doses		Length	Visual summary
			Adult	Child		
	after rash onset, if high risk of severe shingles or continued vesicle formation; older age; immunocompromised; or severe pain.					
Tick bites (Lyme disease) Public Health England From NICE update Feb 2020	**Treatment**: Treat erythema migrans **empirically**; serology is often negative early in infection. For other suspected Lyme disease such as neuroborreliosis (CN palsy, radiculopathy) seek advice.	**Treatment**: doxycycline	100mg BD	BNF for children	21 days	*Not available. Access supporting evidence and rationales on the PHE website*
		First alternative: Amoxicillin	1,000mg TDS	BNF for children		
Eye infections						
Conjunctivitis Public Health England From NICE update July 2019	**First choice**: bath/clean eyelids with cotton wool dipped in sterile saline or boiled (cooled) water, to remove crusting. **Treat only if severe**, as most cases are viral or self-limiting. **Bacterial conjunctivitis**: usually unilateral and also self-limiting. It is characterised by red eye with mucopurulent, not watery discharge. 65% and 74% resolve on placebo by days 5 and 7. **Third choice**: fusidic acid as it has less Gram-negative activity.	**Second choice**: Chloramphenicol 0.5% eye drop **OR** 1% ointment	Eye drops: 2 hourly for 2 days, then reduce frequency to 3 to 4 times daily. Eye ointment: 3 to 4 times daily or once daily at night if using antibiotic eye drops during the day	BNF for children	48 hours after resolution	*Not available. Access supporting evidence and rationales on the PHE website*
		Third choice: fusidic acid 1% gel	BD	BNF for children		

Infection	Key points	Medicine	Doses		Length	Visual summary
			Adult	Child		
Blepharitis Public Health England From NICE update Nov 2017	**First choice**: lid hygiene for symptom control, including: warm compresses; lid massage and scrubs; gentle washing; avoiding cosmetics. **Second choice**: topical antibiotics if hygiene measures are ineffective after 2 weeks. **Signs of meibomian gland dysfunction**, or acne rosacea: consider oral antibiotics.	**Second choice**: topical chloramphenicol	1% ointment BD	BNF for children	6-week trial	*Not available. Access supporting evidence and rationales on the PHE website*
		Third choice: oral oxytetracycline **OR**	500mg BD 250mg BD	BNF for children	4 weeks (initial) 8 weeks (maint.)	
		oral doxycycline	100mg OD 50mg OD	BNF for children	4 weeks (initial) 8 weeks (maint.)	
Suspected dental infections in primary care (outside dental settings)						
Derived from the Scottish Dental Clinical Effectiveness Programme (SDCEP) 2013 Guidelines. This guidance is not designed to be a definitive guide to oral conditions, as GPs should not 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 (in England), who will be able to provide details of how to access emergency dental care.						
Note: Antibiotics do not cure toothache. First choice treatment is with paracetamol and/or ibuprofen; codeine is not effective for toothache.						
Mucosal ulceration and inflammation (simple gingivitis) Public Health England From NICE update Nov 2017	Temporary pain and swelling relief can be attained with saline mouthwash (½ tsp salt in warm water). Use antiseptic mouthwash if more severe, and if 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.	Chlorhexidine 0.12 to 0.2% (do not use within 30 minutes of toothpaste) **OR**	1 minute BD with 10 ml	BNF for children BNF for children	Always spit out after use. Use until lesions resolve or less pain allows for oral hygiene	*Not available. Access supporting evidence and rationales on the PHE website*
		hydrogen peroxide 6%	2 to 3 minutes BD/TDS with 15ml in ½ glass warm water	BNF for children		

Infection	Key points	Medicine	Doses		Length	Visual summary
			Adult	Child		
Acute necrotising ulcerative gingivitis Public Health England From NICE update Nov 2017	Refer to dentist for scaling and hygiene advice. Antiseptic mouthwash if pain limits oral hygiene. Commence metronidazole if systemic signs and symptoms.	Chlorhexidine 0.12 to 0.2% (do not use within 30 minutes of toothpaste) **OR**	1 minute BD with 10ml	BNF for children	Until pain allows for oral hygiene	*Not available. Access supporting evidence and rationales on the PHE website*
		hydrogen peroxide 6%	2 to 3 minutes BD/TDS with 15ml in ½ glass warm water	BNF for children		
		Metronidazole	400mg TDS	BNF for children	3 days	
Pericoronitis Public Health England From NICE update Nov 2017	Refer to dentist for irrigation and debridement. If persistent swelling or systemic symptoms, use metronidazole or amoxicillin. Use antiseptic mouthwash if pain and trismus limit oral hygiene.	metronidazole **OR**	400mg TDS	BNF for children	3 days	*Not available. Access supporting evidence and rationales on the PHE website*
		Amoxicillin	500mg TDS	BNF for children	3 days	
		chlorhexidine 0.2% (do not use within 30 minutes of toothpaste) **OR**	1 minute BD with 10ml	BNF for children	Until less pain allows for oral hygiene	
		hydrogen peroxide 6%	2 to 3 minutes BD/TDS with 15ml in ½ glass warm water	BNF for children		
Dental abscess Public Health England From NICE update Oct 2018	Regular analgesia should be the first option until a dentist can be seen for urgent drainage, as repeated courses of antibiotics for abscesses are not appropriate. Repeated antibiotics alone, without drainage, are ineffective in preventing the spread of infection. Antibiotics are only recommended if there are signs of severe infection, systemic symptoms, or a high risk of complications. Patients with severe odontogenic infections (cellulitis, plus signs of sepsis; difficulty in swallowing; impending airway obstruction) should be referred urgently for hospital admission to protect airway, for surgical drainage and for 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 there is no response to first choice drugs.					

Infection	Key points	Medicine	Doses		Length	Visual summary
			Adult	Child		
	If pus is present, refer for drainage, tooth extraction, or root canal. Send pus for investigation. If spreading infection (lymph node involvement or systemic signs, that is, fever or malaise) ADD metronidazole. Use clarithromycin in true penicillin allergy and, if severe, refer to hospital.	amoxicillin **OR**	500mg to 1000mg TDS	BNF for children	Up to 5 days; review at 3 days	*Not available. Access supporting evidence and rationales on the PHE website*
		phenoxymethylpenicillin	500mg to 1000mg QDS	BNF for children		
		Metronidazole	400mg TDS	BNF for children		
		Penicillin allergy: clarithromycin	500mg BD	BNF for children		

Abbreviations

HMMC: Herts Medicines Management Committee
MOPB: West Essex Medicines Optimisation Programme Board
PHE: Public Health England
BD, twice a day;
eGFR, estimated glomerular filtration rate;
IM, intramuscular;
IV, intravenous;
Maint, maintenance;
MALToma, mucosa-associated lymphoid tissue lymphoma;
m/r, modified release;
MRSA, methicillin-resistant *Staphylococcus aureus*;
MSM, men who have sex with men;
OD, once daily;
OTC, over the counter;
QDS, 4 times a day;
stat, given immediately;
TDS, 3 times a day.

DOCUMENT HISTORY

Date	Version no.	Reason for amendment	Consultation process and approval (give dates for HMMC MOPB or APC approval)	Page/section	Change made	National or local guideline
May 2021	2	Update of NICE antimicrobial prescribing guidelines	HMMC 13th May 2021 MOPB 29th April 2021	7, 23 and 27	• Community acquired pneumonia updated (NG 191 April 21 means guidance reverts to NG138) • Insect bites included (NICE sep2020) • Eczema sections updated in line with NICE guidelines. (March 21) • Human and animal bites section updated in line with NICE and advice to consult local microbiologist in MRSA positive patient added (HMMC)	National and local
Oct 2021	3	Update of NICE antimicrobial prescribing guidelines	MOPB 28th Oct 2021 HMMC 11th Nov 2021	18 and 25	• *Clostridioides Difficile* infection: updated in line with NICE antimicrobial guidelines and C.Diff antimicrobial guidelines NG199 (July 2021) Additional information included: Use fidaxomicin with caution in patients with macrolide allergy. Prescribe fidaxomicin after advice from specialist (is referred to in NICE) MOPB red list • Acne: updated in line with NICE guidelines and NG198 (acne vulgaris management) Information related to review and continuation of treatment for acne has been expanded with wording taken from NICE guideline [NG198]	National and local
Dec 2022	4	Update of NICE antimicrobial prescribing guidelines	Virtual approval Alan Pond and Rachel Joyce 15th Dec 2022	2 and 3	• Update in line with NHSE/UKHSA interim guidance on Group A Streptococcus for children.	National
Feb 2023	5	Update of NICE antimicrobial prescribing guidelines	APC 2nd Feb 2023	3, 5, 27 and 32	• The recommendation for use of eardrops containing an anaesthetic and an analgesic	National and local

					for the treatment of otitis media added as per APC decision. • Azithromycin for COPD prophylaxis. Section added to link with local guidance • Age changed for fixed combination of topical adapalene with topical benzoyl peroxide (Epiduo) from under 9 to under 12 in line with SPC • Dermatophyte nail infection guidance added to clarify when antifungal treatment is / is not indicated. This is based on CKS guidance (link added)	
Feb 2023	6	Update of NICE antimicrobial prescribing guidelines	Virtual approval Alan Pond and Rachel Joyce **27th Feb 2023**	2	• Update in line with NICE guidance NG84 as NHSE interim guidance on group A Streptococcus has been withdrawn (Dec 22)	National
Jul 2023	7	- Update to Scarlet fever section of the guideline - Development of ICS Guidelines for Primary Care management of Recurrent Urinary Tract Infections in Adults	APC 27th Jul 2023	3, 4, 5, 14	• Scarlet fever section updated in line with the UK Health Security Agency (UKHSA) guideline (updated January 2023) • Added link for ICS guidelines which will be hosted elsewhere on the ICS website	National and local

Version	Version 7.0 Updated guideline for management of infection in primary care, update includes: • Harmonisation of Hertfordshire Medicines Management Committee (HMMC) and West Essex Medicines Optimisation Programme Board (WEMOPB) decisions • Rebadging with HWE APC and removal of HMMC and MOPB where decisions are same • Review date removed and replaced with standard statement. • Scarlet fever section updated in line with UKHSA guideline • Link added to the recurrent urinary tract infection in adults guideline • Version control box added
Developed by	Pharmacy and Medicines Optimisation team, Herts and West Essex ICB

Date ratified	Version 7.0 - Area Prescribing committee July 2023
Review date	This recommendation is based upon the evidence available at the time of publication. This recommendation will be reviewed upon request in the light of new evidence becoming available.