

This guidance is evidence based but its application must be modified by professional judgement.

PRINCIPLES OF TREATMENT

1. Prescribe an antibiotic only when there is likely to be a clear clinical benefit. Limit telephone prescribing to exceptional cases.
2. Antimicrobial resistance is increasing. Confirm true allergy (i.e. rash, swelling of lips, tongue or face, anaphylaxis, etc) to recommended antibiotic before prescribing an alternative to ensure appropriate antibiotics are not excluded from the options.
3. Consider a no, or delayed/back up, antibiotic strategy for acute self-limiting upper respiratory tract infections and mild UTI symptoms.
4. It is important to initiate antibiotics as soon as possible in severe infection. Infection is defined as: The deposition and multiplication of bacteria in tissue, with an associated host reaction (Ayton. 1986).
5. Use simple generic antibiotics first whenever possible. Avoid broad spectrum antibiotics (e.g. co-amoxiclav, quinolones and cephalosporins) as they increase risk of *Clostridium difficile*, MRSA and resistant UTIs.
6. The use of new and more expensive antibiotics (e.g. quinolones and cephalosporins) is inappropriate when standard and less expensive antibiotics remain effective. Erythromycin syrup is a more cost effective option for children.
7. Modify suggested adult doses/duration for age, weight and renal function. Consider a larger dose or longer course in severe or recurrent cases. Doses are for guidance only, are oral and for adults unless otherwise stated. Children's doses are provided when appropriate and can be accessed through the ☺ symbol. Refer to the BNF for further dosing and interaction information (e.g. interaction between macrolides and statins) if needed and please check for hypersensitivity.
8. Lower threshold for antibiotics in immunocompromised or those with multiple morbidities; consider culture and seek advice.
9. Avoid widespread use of topical antibiotics (especially those agents also available as systemic preparations e.g. fusidic acid).
10. In pregnancy take specimens to inform treatment; where possible AVOID tetracyclines, aminoglycosides, quinolones, high dose metronidazole (2g) unless benefits outweigh risks. Short term use of nitrofurantoin (at term, theoretical risk of neonatal haemolysis) is unlikely to cause problems to the foetus. Trimethoprim is also unlikely to cause problems unless poor dietary folate intake or taking another folate antagonist such as an antiepileptic.
11. AVOID doxycycline and other tetracyclines in children under 12 years due to teeth mottling.
12. Where there are two clinically appropriate options Scriptswitch® may suggest an alternative based on cost.
13. This guidance should not be used in isolation; it should be supported with patient information about back-up/delayed antibiotics, infection severity and usual duration, clinical staff education, and audits. Materials are available from <http://www.rcgp.org.uk/TARGETantibiotics/>
14. Where a best guess therapy has failed or special circumstances exist, microbiological advice can be obtained from St Helier Hospital on Tel: 020 8296 2468 or St George's Hospital on Tel: 020 8725 1970.

ILLNESS	DRUG OPTION	DOSE	DURATION	COMMENTS
UPPER RESPIRATORY TRACT INFECTIONS - Consider delayed antibiotic prescriptions.^{A*} Don't prescribe antibiotics for viral sore throat, simple coughs & colds.				
Influenza	See separate guidelines			
Acute Pharyngitis/ Sore throat/ Tonsillitis NB: Mainly viral	No antibiotic			
	1. Penicillin V	500mg QDS/1G BD ☺ (QDS when severe)	10 days	<ul style="list-style-type: none"> • Avoid antibiotics, 90% of sore throats are viral, most patients do not benefit from antibiotics. • Consider delayed antibiotic strategy; explain soreness will take about 7 days to resolve. • Patients with 3 of 4 centor criteria (i.e. history of fever, purulent tonsils, cervical adenopathy, absence of cough) or history of otitis media may benefit more from antibiotics.^{A*} • Antibiotics only shorten duration of symptoms by 16 hours.^{A*} • Need to treat 200 adults to prevent one case of otitis media.^{A*} • In RCT in <18yrs 10 days penicillin had lower relapse vs 7days.^{B*}
	If penicillin allergic: 2. Erythromycin or Clarithromycin	500mg BD/250mg QDS ☺ (QDS less side-effects) 250-500mg BD ☺	5 days	
Acute Otitis Media (child doses) NB: Mainly viral ^{A*}	1. Amoxicillin	Neonate 7-28 days: ☺ 30mg/kg (max. 125mg) TDS 1 mo-1 yr: 125mg TDS 1-5 yrs: 250mg TDS 5-18 yrs: 500mg TDS	5 days	
	If penicillin allergic: 2. Erythromycin or Clarithromycin	1 mo-2 yrs: 125mg QDS ☺ 2-8 yrs: 250mg QDS 8-18 yrs: 250-500mg QDS 1 mo-12 yrs: see Children's BNF ☺ 12-18yrs: 250mg BD	5 days	<ul style="list-style-type: none"> • Optimise analgesia with paracetamol or NSAID and target antibiotics.^{B*} • Avoid antibiotics as 60% resolve without antibiotics in 24 hours.^{A*} • Antibiotics only reduce pain at 2 days and does not prevent deafness or subsequent attacks.^{A*} • Consider 2 or 3 day delayed or immediate antibiotics if patient is <2 yrs with bilateral infection or all ages with otorrhoea^{1A*} • Severe infections: Some antibiotic doses can be doubled in severe infections. Refer to the Children's BNF for doses.
Acute Otitis Externa	No systemic antibiotic			
	1. Acetic acid 2% (over 12 yrs only)	1 spray TDS	7 days	<ul style="list-style-type: none"> • See BNF for topical management. • Cure rates similar at 7 days for topical acetic acid or antibiotic +/- corticosteroid.^{A*} • If cellulitis or disease extending outside ear canal, start oral antibiotics and refer.^{A*} • If systemic infection with Pseudomonas aeruginosa suspected, phone Microbiologist for advice.
	2. Neomycin sulphate or framycetin with corticosteroid ^{A*,D}	3 drops TDS	7 days min to 14 days max	
With spreading cellulitis/ patient unwell	1. Flucloxacillin	500mg QDS	7 days	
	If penicillin allergic: 2. Erythromycin or Clarithromycin	500mg BD/QDS 250mg BD	7 days	

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Approved by: NHS Sutton CCG and NHS Merton CCG
Medicines Management Committee

ILLNESS	DRUG OPTION	DOSE	DURATION	COMMENTS
Acute sinusitis NB: Mainly viral	No antibiotic			<ul style="list-style-type: none"> • Avoid antibiotics as 80% resolve in 14 days without; they only offer marginal benefit after 7 days NNT15.^{A+} • Use adequate analgesia.^{B+} • Consider 7 day delayed or immediate antibiotic when purulent nasal discharge NNT 8.^{A+} • For persistent symptoms/failure to respond - use co-amoxiclav.^{B+}
	1. Amoxicillin ^{A+}	500mg TDS 1G if severe ☺	All 7 days	
	<i>If penicillin allergic:</i>			
	2. Erythromycin or Clarithromycin	250mg QDS ☺ 250mg BD ☺		
	3. Doxycycline	200mg STAT then 100mg OD		
For persistent symptoms:		625mg TDS ☺	4. Co-amoxiclav	

LOWER RESPIRATORY TRACT INFECTIONS

Note: Low doses of penicillins are more likely to select out resistance, we recommend 500mg of amoxicillin. Do not use quinolones (ciprofloxacin and ofloxacin) 1st line due to poor pneumococcal activity.^{B+} Reserve all quinolones (including levofloxacin) for proven resistant organisms.

Acute bronchitis / acute cough	No antibiotic			<ul style="list-style-type: none"> • Antibiotics have marginal benefits in otherwise healthy adults.^{A+} • Patient leaflets can reduce antibiotic use.^{B+} • Consider 7d delayed antibiotic with advice.^A • Symptom resolution can take 3 weeks. • Consider immediate antibiotics if > 80yr and ONE of: hospitalisation in past year, oral steroids, diabetic, congestive heart failure OR > 65yrs with 2 of above.
	1. Amoxicillin	500mg TDS ☺	All 5 days	
	2. Oxytetracycline or Doxycycline (if renal impairment)	250-500mg QDS 200mg STAT then 100mg OD		
Acute exacerbation of COPD	1. No antibiotic		All 5 days	<ul style="list-style-type: none"> • Antibiotics not indicated in absence of purulent/mucopurulent sputum. • 30% viral, 30-50% bacterial, rest undetermined. • Use antibiotics if increased dyspnoea and increased purulent sputum and/or increased sputum volume.^{B+}
	2. Amoxicillin	500mg TDS		
	3. Oxytetracycline or Doxycycline (if renal impairment)	250-500mg QDS 200mg STAT then 100mg OD		
	<i>If penicillin allergic and tetracycline contraindicated:</i>			
	4. Erythromycin or Clarithromycin	250-500mg QDS 500mg BD		
	If treatment failure; send sputum sample first:			
Community acquired pneumonia	1. Amoxicillin	500mg-1g TDS ☺	All up to 10 days	<ul style="list-style-type: none"> • Assess CRB-65 or CRP^{A-} to decide whether to refer/admit to hospital (see BTS guidance). • Each CRB65 parameter scores 1: <ul style="list-style-type: none"> ○ Confusion (AMT<8); ○ Respiratory rate >30/min; ○ BP systolic <90 or diastolic ≤ 60; Age >65; ➢ Score 0: suitable for home treatment; ➢ Score 1-2: hospital assessment or admission ➢ Score 3-4: urgent hospital admission • In severely ill give parenteral benzylpenicillin before admission^C and seek risk factors for Legionella and Staph. aureus infection.^D • If no response in 48 hours consider admission or add erythromycin first line or a tetracycline^C to cover Mycoplasma infection (rare in > 65s).
	<i>If penicillin allergic:</i>			
	2. Erythromycin or Clarithromycin	500mg QDS ☺ 500mg BD ☺		
	2. Oxytetracycline or Doxycycline (if renal impairment)	250-500mg QDS 200mg STAT then 100mg OD		

URINARY TRACT INFECTIONS

As *E. coli* bacteraemia in the community is increasing ALWAYS safety net and consider risks for resistance.^C
People >65 years: do not treat asymptomatic bacteriuria; it is common but not associated with increased morbidity.^{B+}

Uncomplicated UTI (i.e. no fever or flank pain) in men & women	1. Trimethoprim ^{B+} or Nitrofurantoin ^{A-}	200mg BD 50-100mg QDS	Women all ages: 3 days ^{A+} Men: 7 days ^C	<ul style="list-style-type: none"> • Treat women with severe symptoms.^C • Women with mild symptoms - use urine dipstick to exclude UTI: -ve nitrite, blood/leucocytes has a 76% negative. +ve nitrite and blood/leucocytes has 92% +ve predictive value.^A • Men: send pre-treatment MSU^C OR if symptoms mild/non-specific, use -ve nitrite and leucocytes to exclude UTI.^C • Less relapse with trimethoprim than cephalosporins or pivmecillinam.^{A-} • Second line: Perform culture in all treatment failures. • Amoxicillin resistance is common; only use if susceptible.^{B+} • Community multi-resistant Extended-spectrum Beta-lactamase <i>E. coli</i> are increasing: consider nitrofurantoin (or fosfomycin 3g stat in women^{A,B} plus 2nd 3g dose in men 3 days later), on advice of microbiologist.
	2. Depends on sensitivity of MSU			

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UTI in pregnancy	Send MSU then start: 1. Nitrofurantoin or Trimethoprim	50-100 mg QDS 200mg BD	All 7 days	<ul style="list-style-type: none"> Review treatment on results of MSU. Short-term use of nitrofurantoin in pregnancy is unlikely to cause problems to the foetus.^{B+} Avoid nitrofurantoin at term. Avoid trimethoprim in 1st trimester and if low folate status³ or on folate antagonist (e.g. antiepileptic or proguanil).
Recurrent UTI in women ≥3/yr	1. Nitrofurantoin or Trimethoprim	50mg-100mg 100mg	STAT post coital OR OD at night, review at 6 months	<ul style="list-style-type: none"> To reduce recurrence first advise simple measures including hydration, cranberry products.^{A+} Then standby^{B+} or post-coital antibiotics^{B+} Nightly prophylaxis reduces UTIs but adverse effects and long term compliance poor.^{A+} As low compliance consider standby antibiotic.
Acute pyelonephritis	Send for MSU then start: 1. Co-amoxiclav	625mg TDS	7 days	<ul style="list-style-type: none"> If admission not needed, send MSU for culture & susceptibility and start antibiotics.^C If no response within 24 hours, admit.^C If ESBL risk and with microbiology advice consider IV antibiotic via outpatients (OPAT). Patients > 65 yrs at increased risk of C. difficile associated diarrhoea with ciprofloxacin.
	If penicillin allergic: 2. Ciprofloxacin ^{A-}	500mg BD	7 days ^{A-}	
	3. According to MSU. If lab report shows sensitive: Trimethoprim	200mg BD	14 days ^A	
UTI in patients with indwelling urinary catheters	<ul style="list-style-type: none"> Catheter in situ: antibiotics will not eradicate asymptomatic bacteriuria; only treat if systemically unwell or pyelonephritis likely (follow pyelonephritis above pending culture results). If asymptomatic - No antibiotic/action required. If symptomatic - Send CSU then change catheter. 			<ul style="list-style-type: none"> Antibiotics will not eradicate bacteriuria. Treat based on sensitivities. May require hospital admission. Do not use prophylactic antibiotics for catheter changes unless history of catheter-change-associated UTI or trauma.
Lower UTI in children	Send MSU then start: 1. Trimethoprim	1 mo-12 yrs: 4mg/kg (max. 200mg) BD ☺	3 days	<ul style="list-style-type: none"> Urgently refer children <3 months for assessment.^C If >3 months, use positive nitrite to guide. Start antibiotics and send pre-treatment MSU for all. Imaging: only refer if child < 6 months, recurrent or atypical UTI.^C Severe infections: Some antibiotic doses can be doubled in severe infections. Refer to the Children's BNF for doses.
	or Nitrofurantoin	3 mo-12 yrs: 750mcg/kg QDS 12-18 yrs: 50mg QDS ☺		
	or Cefalexin	1 mo-12 yrs: 12.5mg/kg BD 12-18 yrs: 500mg BD - TDS ☺		
	2. Only if susceptible: Amoxicillin	1-12 mo: 125mg TDS ☺ 1-5 yrs: 250mg TDS 5-18 yrs: 500mg TDS	3 days	
Upper UTI in children	Send MSU then start: 1. Co-amoxiclav	1-6yrs: 125/31mg 5mL TDS ☺ 6-12yrs: 250/62mg 5mL TDS 12-18yrs: 250/125mg one tablet TDS	7-10 days	<ul style="list-style-type: none"> Double dose if severe.

MENINGITIS / SEPTICAEMIA

To prevent spread of meningococcal disease only prescribe following advice from SWL Health Protection Team 9am – 5pm (and out of hours)
Tel: 0344 326 2052.

Suspected meningococcal disease	Benzylpenicillin IV (IM if vein cannot be found) <i>not if history of penicillin anaphylaxis</i>	<1yr: 300mg 1-9yrs: 600mg Adults/child ≥10yrs: 1200mg	STAT dose prior to admission	<ul style="list-style-type: none"> Transfer patient to hospital immediately. Administer benzylpenicillin. Withhold benzylpenicillin only in children and young people with a clear history of anaphylaxis after a previous penicillin dose. A history of rash following penicillin is not a contraindication. Meningitis is a notifiable disease.
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GASTRO-INTESTINAL TRACT INFECTIONS

Eradication of <i>Helicobacter pylori</i>	1. Licensed PPI ^{A+} (e.g. lansoprazole) PLUS Clarithromycin and Amoxicillin or Clarithromycin and Metronidazole	30mg BD 500mg BD and 1g BD 250mg BD 400mg BD	All for 7 days ^A	<ul style="list-style-type: none"> See BNF and PHE quick reference guide for alternative combinations. Triple treatment attains >85% eradication.^{A+} Avoid clarithromycin, metronidazole or quinolone if used in the past year for any infection.^C Treatment failure – consider endoscopy for culture & susceptibility.^C Treat for 14 days in relapse or maldoma If penicillin allergy and previous use of clarithromycin and metronidazole – please liaise with microbiologist for further advice.
Traveller's diarrhoea	Limit prophylactic antibiotic prescribing for use abroad to patients in whom infective diarrhoea could be dangerous or if traveling to remote areas (only use private prescription for this purpose). Seek specialist advice from a microbiologist or a Travel Health Specialist/Nathnac if required. Useful website: http://www.nathnac.org/index.htm ; refer to BNF for further sites.			

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Gastroenteritis (food poisoning)	Antibiotic not usually indicated as it only reduces diarrhoea by 1-2 days^{B+} and can cause antibiotic resistance. Fluid replacement essential. Check travel, food and antibiotic history (<i>C. difficile</i> is increasing). Only initiate treatment on advice from Microbiologist, if the patient is systemically unwell or if Typhoid/Paratyphoid suspected. Send stool samples from suspected cases of food poisoning and post antibiotic use. Notify and seek advice on exclusion from SWL Health Protection Team 9am – 5pm, Tel:0344 326 2052. Food poisoning is notifiable.			
<i>Clostridium difficile</i> infections	Stop all antibiotics and PPIs if possible, stop laxatives and avoid anti-motility agents. This alone may be sufficient. If antibiotics need to be continued or if the patient is still symptomatic, start specific CDAD (<i>Clostridium difficile</i> associated diarrhoea) treatment. <ul style="list-style-type: none"> 1st episode - Metronidazole 400 mg TDS for 10 -14 days, orally, NG tube or PEG. 2nd episode - Vancomycin 125 mg QDS (capsules / injection orally) for 10-14 days, orally/NG tube/PEG. Refer to hospital if severe (any of): systemic toxicity (fever >38.5°C, low BP, etc), symptoms/signs of acute colitis (diarrhoea may stop), WBC >15, rising creatinine.			
Threadworms	Patients >6 months: Mebendazole (<2 years off label)	100mg	STAT	<ul style="list-style-type: none"> Treat household contacts. Mebendazole first choice for adults and children >6 months (NOTE: not licensed for children <2 years). Environmental hygiene measures — undertake on the first day of treatment: <ol style="list-style-type: none"> Wash sleepwear, bed linen, towels, cuddly toys at normal temperatures and rinse well. Thoroughly vacuum and dust, paying particular attention to the bedrooms, including vacuuming mattresses. Thoroughly clean the bathroom by 'damp-dusting' surfaces, washing the cloth frequently in hot water. Strict personal hygiene measures — for 2 weeks if combined with drug treatment or for 6 weeks if used alone: <ol style="list-style-type: none"> Wear close-fitting underpants or knickers at night. Change them every morning. Cotton gloves may help prevent night-time scratching. Wash them daily. Bath or shower immediately on rising each morning, washing around the anus to remove any eggs laid by the worms during the night.
	Children <6 months: Hygiene measures			
GENITAL TRACT INFECTIONS - Refer patients with risk factors for STIs (<25y, no condom use, recent (<12mth) or frequent change of sexual partner, previous STI, symptomatic partner, area of high HIV) to GUM clinic or general practices with level 2/3 expertise in GUM.				
Bacterial vaginosis	1. Metronidazole ^{A+}	400mg BD	7 days	<ul style="list-style-type: none"> A 7 day course of oral metronidazole is slightly more effective than 2 g STAT.^{A+} Avoid metronidazole 2g STAT dose in pregnancy and breast feeding. Topical treatment gives similar cure rates^{A+} but is more expensive.
	2. Metronidazole 0.75% vag gel ^{A+}	5g applicatorful at night	5 days	
	3. Clindamycin 2% cream ^{A+}	5g applicatorful at night	7 days	
Vaginal candidiasis	1. Clotrimazole 10%	5g vaginal cream	All STAT doses	<ul style="list-style-type: none"> All topical and oral azoles give 75% cure.^{A-} In pregnancy avoid oral azole^B and use intravaginal treatment; clotrimazole 100mg pessary for 6 nights or miconazole 2% cream 5g BD for 7 days.^{A+, B-}
	2. Clotrimazole pessary	500mg pessary		
	3. Fluconazole	150mg orally		
Chlamydia trachomatis	1. Azithromycin ^{A+}	1g 1hr before or 2hrs after food	STAT	<ul style="list-style-type: none"> Opportunistically screen all aged 15-25yrs. Treat partners and refer to GUM service.^{B+} In pregnancy/breastfeeding: azithromycin is the most effective option but is 'off label'.
	2. Doxycycline ^{A+}	100mg BD	7 days	
Suspected epididymitis in men over 35 years with low risk of STI ^{15C}	1. Ofloxacin	200mg BD	14 days	<ul style="list-style-type: none"> Due to lower cure in pregnancy, test for cure 6 weeks after treatment.^C For suspected epididymitis in men with high risk, refer to GUM. Refer contacts to GUM clinic.
	2. Doxycycline	100mg BD	14 days	
Trichomoniasis	1. Metronidazole ^{A-}	400mg BD or 2g STAT	7 days	<ul style="list-style-type: none"> Refer to GUM. Treat partners simultaneously. Avoid metronidazole 2g stat in pregnancy/ breastfeeding. Topical clotrimazole gives symptomatic relief only.
	2. Clotrimazole	100mg pessary	6 nights	
Acute Pelvic Inflammatory Disease (PID)	1. Ceftriaxone ^{3,5C} (IM) AND Metronidazole AND Doxycycline ^{1,2 B+}	500mg STAT 400mg BD 100mg BD	14 days	<ul style="list-style-type: none"> Refer patient and contacts to GUM clinic. Test for <i>N. gonorrhoea</i> and chlamydia. If gonorrhoea likely (partner has it, severe symptoms or sex abroad) use ceftriaxone regimen or refer to GUM.
	2. Metronidazole AND Ofloxacin ^{1,2}	400mg BD 400mg BD	14 days	
Acute prostatitis	1. Ciprofloxacin	500mg BD	28 days	<ul style="list-style-type: none"> Send MSU for culture and start antibiotics. 4 weeks may prevent chronic infection. Quinolones are more effective but have risk of <i>C. difficile</i> associated diarrhoea in over 65yrs.
	2. Trimethoprim	200mg BD	28 days	
SKIN / SOFT TISSUE INFECTIONS – Send swabs for culture if persistent recurrent pustules and carbuncles or cellulitis to exclude Panton-Valentine Leukocidin (PVL; toxin produced by <i>Staph. aureas</i>). Risk factors include: nursing homes, contact sports, sharing equipment, poor hygiene and eczema.				
Impetigo	1. Flucloxacillin or Erythromycin or Clarythromycin	500mg QDS ☺ 500mg QDS ☺ 250mg BD ☺	7 days 7 days 7 days	<ul style="list-style-type: none"> Resistance to topical antibiotics is increasing. Reserve for very localised lesions.^{C or D} Reserve mupirocin for MRSA only.
Eczema	No antibiotics - do not improve healing unless visible signs of infection. If infected use treatment as in impetigo.			

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Cellulitis	1. Flucloxacillin	500mg QDS ☺	All 7-14 days	<ul style="list-style-type: none"> If patient afebrile and healthy other than cellulitis, use flucloxacillin alone. If febrile and ill, admit for IV treatment.
	<i>If penicillin allergic:</i> 2. Erythromycin or Clarythromycin	500mg QDS ☺ 250mg-500mg BD ☺		
Facial cellulitis	1. Co-amoxiclav ^C	625mg TDS ☺	7-14 days	
Leg ulcers	No antibiotics. Bacteria will always be present. Antibiotics do not improve healing. ^{A*} Culture swabs and antibiotics are only indicated if there is evidence of clinical cellulitis; increased pain; purulent exudate; enlarging ulcer or pyrexia. If antibiotic indicated, treat as for cellulitis. Seek specialist opinion if severe.			
Infected diabetic leg ulcers	1. Co-amoxiclav	625mg TDS	7 days, then review	<ul style="list-style-type: none"> Refer for specialist opinion if severe infection.
Animal and human bite prophylaxis & treatment	1. Co-amoxiclav ^B	375-625mg TDS ☺	All 7 days and review at 24 & 48 hrs	<ul style="list-style-type: none"> Surgical toilet most important. Assess tetanus, rabies (animal), HIV/hepatitis B & C risk (human). For advice on whether post exposure prophylaxis is required contact SWL HPT on 0344 326 2052. Human bite: Antibiotic prophylaxis advised. Animal bite: Antibiotic prophylaxis advised for – puncture wound; bite involving hand, foot, face, joint, tendon, ligament; diabetics, elderly, immunocompromised, asplenic, cirrhotic, presence of prosthetic valve or prosthetic joint. Doxycycline is not licensed in children <12 years. If child is genuine penicillin allergic, seek Microbiology advice. Refer to A & E if significant bite (e.g. puncture/ needs closing/debris) or if tetanus prone injury.
	<i>If penicillin allergic:</i> metronidazole AND doxycycline (<i>cat/dog/human</i>)	400mg TDS ☺ 100mg BD ^C		
	or metronidazole AND clarithromycin (<i>or erythromycin</i>) (<i>human bite</i>)	200-400mg TDS 250-500mg BD ^C ☺ 250-500mg QDS ^C ☺		
Bacterial conjunctivitis	No antibiotic		Continue for 48 hours after resolution	<ul style="list-style-type: none"> Most bacterial infections are self-limiting (65% resolve on placebo by day 5).^{A*} They are usually unilateral with yellow-white mucopurulent discharge.
	1. Chloramphenicol 0.5% eye drops AND 1% eye ointment	2 hourly reducing to QDS Apply ON		
Dermatophyte infection of the nail	1. Take nail clippings and await results (do not yet treat)			<ul style="list-style-type: none"> Start therapy only if infection is confirmed by laboratory. For children seek advice from Dermatology or Paediatrics. Terbinafine is not licensed for use in children. Idiosyncratic liver reactions occur rarely with terbinafine.
	2. Amorolfine 5% nail lacquer (for superficial) ^B	Fingers: 1-2x weekly Toes: 1-2x weekly	6 months 9-12 months	
	OR Terbinafine ^A	Fingers: 250mg OD Toes: 250mg OD	6-12 wks 3-6 months	
	3. Itraconazole	Fingers: 200mg BD Toes: 200mg BD	7 days for 2 months 7 days for 3 months	<ul style="list-style-type: none"> Use itraconazole for infections with yeasts and non-dermatophyte moulds only.
Dermatophyte infection of the skin (ringworm)	1. Terbinafine cream 1% ^{A*}	OD-BD	1 week ^{A*}	<ul style="list-style-type: none"> Take skin scrapings for culture if not localised. Terbinafine treatment time is shorter than azole.^{A*} If intractable consider oral itraconazole. Discuss scalp infections with Paediatric or Dermatology specialist, oral therapy indicated.
	2. Topical undecenoic acid or 1% azole ^{A*} (e.g. 1% clotrimazole or econazole cream)	See instructions for individual products		
MRSA	Eradication – follow instructions from hospital. Treatment – seek specialist advice from Microbiologist.			
Cold sores	Cold sores resolve after 7-10 days without treatment. Topical antivirals applied prodromally reduce duration by 12-24hrs. ^B			
Herpes zoster (shingles) & Varicella zoster (chicken pox)	1. Aciclovir	<i>Over 12yrs and adults:</i> 800mg 5x/day ☺	7 days	<ol style="list-style-type: none"> Seek advice if pregnant/immunocompromised. Chicken pox: If started <24h of rash & >14yrs or severe pain or dense oral rash or 2^o household case or steroids or smoker consider aciclovir. Shingles: Treat if >50yrs^A and within 72 hours of rash^B or if active ophthalmic or Ramsay Hunt or eczema.
	2. Valaciclovir (2 nd line for shingles <i>only if compliance is a problem as 3 times cost of aciclovir</i>)	<i>Over 12yrs and adults:</i> 1g TDS	7 days	
PARASITIC INFECTIONS				
Headlice	1. Wet combing AND/OR Malathion/ Permethrin	Every 3-4 days for 2 weeks 2 applications 1 week apart		<ol style="list-style-type: none"> See BNF for preparations. Wet combing should be done until no lice are seen on 3 consecutive occasions. Swap malathion for permethrin or vice versa if no effect. Follow guidelines from SWL Health Protection Team, Tel:0344 326 2052.
	2. Dimethicone (Hedrin [®]) (does not kill eggs)	2 applications 1 week apart		
Scabies	1. Permethrin ^{A*}	5% cream (See BNF for preparations)	Use 2 applications 1 week apart	<ol style="list-style-type: none"> Contact SWL Health Protection Team, Tel:0344 326 2052 for outbreak advice. Treat whole body including scalp, face, neck ears, under nails. Treat all home and sexual contacts within 24 hours.
	2. Malathion (<i>can be used in pregnancy</i>)	0.5% aqueous liquid (See BNF for preparations)		

A* = Good systematic review of studies
B* = One or more prospective studies
C = Formal combination of expert opinion

A = One or more rigorous studies; not combined
B = One or more retrospective studies
D = Informal opinion; other info

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Medicines Management Committee

ILLNESS	DRUG	DOSE	DURATION	COMMENTS
DENTAL INFECTIONS – derived from the Scottish Dental Clinical Effectiveness Programme 2011 <u>SDCEP Guidelines</u>				
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 being seen by a dentist or dental specialist. GPs should not routinely be involved in dental treatment and, if possible, advice should be sought from the patient's dentist, who should have an answer-phone message with details of how to access treatment out-of-hours, or the NHS 111 Service.				
Mucosal ulceration and inflammation (simple gingivitis)	1. Simple saline mouthwash ^C	½ tsp salt dissolved in glass warm water	Always spit out after use. Use until lesions resolve or less pain allows oral hygiene.	<ul style="list-style-type: none"> Temporary pain and swelling relief can be attained with saline mouthwash.^C Use antiseptic mouthwash if more severe & pain limits oral hygiene to treat or prevent secondary infection.^C The primary cause for mucosal ulceration or inflammation (aphthous ulcers, oral lichen planus, herpes simplex infection, oral cancer) needs to be evaluated and treated.
	2. Chlorhexidine 0.12-0.2% ^{A*} (Do not use within 30 mins of toothpaste)	Rinse mouth for 1 minute BD with 5 ml diluted with 5-10 ml water.		
	3. Hydrogen peroxide 6% ^A (spit out after use)	Rinse mouth for 2 mins TDS with 15ml diluted in ½ glass warm water.		
Acute necrotising ulcerative gingivitis ^C	1. Metronidazole ^C	400 mg TDS	3 days	<ul style="list-style-type: none"> Commence metronidazole and refer to dentist for scaling and oral hygiene advice^C Use in combination with antiseptic mouthwash if pain limits oral hygiene.
	2. Chlorhexidine or hydrogen peroxide	See above dosing in mucosal ulceration	Until oral hygiene possible	
Pericoronitis ^B	Amoxicillin	500mg ⁶ TDS	3 days	<ul style="list-style-type: none"> Refer to dentist for irrigation & debridement.^C If persistent swelling or systemic symptoms use metronidazole.^A Use antiseptic mouthwash if pain and trismus limit oral hygiene.
	Metronidazole ^C	400 mg TDS	3 days	
	Chlorhexidine or hydrogen peroxide	see above dosing in mucosal ulceration	Until oral hygiene possible	
Dental abscess ^B	<ul style="list-style-type: none"> 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, Ludwig's angina. Refer urgently for admission to protect airway, achieve surgical drainage and IV antibiotics. The empirical use of cephalosporins,⁹ 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.^C 			
	1. Amoxicillin or Penicillin V	500 mg TDS 500 mg – 1g QDS	Up to 5 days review at 3d	<ul style="list-style-type: none"> If pus drain by incision, tooth extraction or via root canal.^B Send pus for microbiology. True penicillin allergy: use clarithromycin or clindamycin if severe. If spreading infection (lymph node involvement, or systemic signs i.e. fever or malaise) ADD metronidazole.^C
	If penicillin allergic: 2. Erythromycin or Clarithromycin	250-500mg QDS 500 mg BD	Up to 5 days review at 3d	
	3. Severe infection and allergy: Metronidazole If severe: Clindamycin	400 mg TDS 300mg QDS	5 days 5 days	

SOURCE DOCUMENTS

This guidance is based on:

- Management of Infection Guidance for Primary Care", Public Health England (latest review October 2014) (https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/377509/PHE_Primary_Care_guidance_14_11_14.pdf);
- BNF (March 2015, online)
- BNF for Children (March 2015, online)
- ESTH Guidelines for the Use of Antimicrobial Drugs 19th Edition, Version 1 July 2014
- SIGN guidance (www.sign.ac.uk)
- Clinical Knowledge Summaries (<http://cks.nice.org.uk/#?char=A>)
- Advice from Microbiologists (St. Helier and St. Georges) and SWL Health Protection Team (SWL HPT)

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