

Management of Infections in Primary Care

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BRITISH SOCIETY FOR
ANTIMICROBIAL
CHEMOTHERAPY



British Infection Association



Royal College of
General Practitioners



Royal College of Nursing

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Principles of Treatment

1. This guidance is based on the best available evidence, but use professional judgement and involve patients in management decisions.
2. It is important to initiate antibiotics as soon as possible in severe infection.
3. Where an empirical therapy has failed or special circumstances exist, microbiological advice can be obtained from **Dr Ivan Muscat (tel. 01534 442618, or mobile phone via HSSD Switchboard)**.
4. Prescribe an antibiotic only when there is likely to be a clear clinical benefit, giving alternative, non-antibiotic self-care advice where appropriate.
5. Consider a '**No-prescription**' or '**Back-up/Deferred**' antibiotic strategy for acute self-limiting upper respiratory tract infections, and mild UTI symptoms.
6. In severe infection or immunocompromised patients, it is important to initiate antibiotics as soon as possible, particularly if **sepsis** is suspected. If patient is not at moderate to high risk for sepsis, give information about symptom monitoring, and how to access medical care if they are concerned.
7. Limit prescribing over the telephone to **exceptional** cases.
8. Use simple generic antibiotics where possible. Avoid broad spectrum antibiotics (e.g. co-amoxiclav, quinolones and cephalosporins) when narrow spectrum antibiotics remain effective, as they increase the risk of *Clostridium difficile*, MRSA and resistance.
9. Always check for antibiotic allergies. A dose and duration of treatment for adults is usually suggested, but may need modification for age, weight, renal function, or if immunocompromised. In severe or recurrent cases consider a larger dose or longer course.
10. Child doses should be used when appropriate (☺).
11. Refer to **BNF** or **BNF for Children** for further dosing and interaction information (e.g. interaction between macrolides and statins) if needed.
12. Have a lower threshold for antibiotics in immunocompromised or in those with multiple morbidities; consider culture/specimens and seek advice.
13. Avoid widespread use of topical antibiotics especially in those agents also available systemically (e.g. fusidic acid), in most cases topical use should be limited.
14. In **pregnancy**, take specimens to inform treatment. Where possible, avoid **tetracyclines**, **aminoglycosides**, **quinolones**, **azithromycin** (except in chlamydial infection), **clarithromycin**, and high dose **metronidazole** (2g stat), unless the benefits outweigh the risks. **Penicillins**, **cephalosporins**, and **erythromycin** are safe in pregnancy. Short-term use of **nitrofurantoin** is not expected to cause foetal problems (theoretical risk of neonatal haemolysis in the last months of pregnancy). **Trimethoprim** is also unlikely to cause problems unless poor dietary folate intake, or taking another folate antagonist (e.g. antiepileptic), but the BNF notes manufacturers' advice to avoid in 1st trimester.
15. This guidance should not be used in isolation, it should be supported with patient information about safety netting, back-up/deferred antibiotics, self-care, infection severity and usual duration, clinical staff education, and audits. Materials are available on the **RCGP TARGET** website.
16. Adapted from UK standards, for the period of 2017-19 Jersey is targeting at least a:
 - 10% reduction in the number of *E.coli* blood stream infections across the whole health economy
 - 10% reduction in Trimethoprim:Nitrofurantoin prescribing ratio for UTI (primary care)
 - Reduction in antibiotic items/STAR-PU (% TBC by Jersey Social Security Department)
 - Reduction in % Cephalosporins/Quinolones/Co-amoxiclav prescribed (% TBC)

This should help drive a reduction of inappropriate prescribing of antimicrobial items in primary care

Penicillin Allergy Traffic Light System

Penicillins are potentially lifesaving antibiotics. Patients should not be labelled as 'penicillin allergic' without thorough review. Document the perceived allergy/reaction.

Always check the nature of allergy details and document clearly on EMIS before prescribing or administering any medicines.

Key facts

Allergic reactions to penicillin containing antibiotics occur in 1-10% of exposed individuals.

Anaphylaxis occurs in 0.1% of penicillin based antibiotic courses. Patients who have anaphylaxis to one penicillin will be at risk from all.

Patients with either a history of immediate **type I reactions** (usually 1-4 hours from exposure, but may take up to 72 hrs), e.g. anaphylaxis, angioedema, urticaria, diffuse erythema, bronchospasm or collapse should **not** receive a **Red** drug. Neither should patients with severe skin reactions (e.g. Steven Johnson Syndrome). **Amber** drugs are contraindicated unless there is no alternative (seek senior clinician advice).

Patients with delayed **Non-type I reactions** (over 72 hours from exposure), e.g. mild skin reactions including maculopapular and morbilliform rashes, low platelets/red blood cells, drug fever (serum sickness) or tissue injury (immune complex) should **not** receive a **Red** drug unless there is no alternative. **Amber** drugs may be used where the benefit outweighs risk.

Green drugs are considered safe to be given to patients with a history of any type of reaction to penicillin's.

Gastro-intestinal upset (i.e. diarrhoea, vomiting and/or nausea) caused by penicillin is **not an allergy** - it's a side effect.

Important

- Always prescribe using generic names. Penicillin containing antibiotics are not always apparent from their brand names e.g. prescribe as **Co-Amoxiclav** (instead of Augmentin®).
- These guidelines contain other treatment options for patients allergic to penicillin.

CONTRAINDICATED

Amoxicillin
Benzathine penicillin
Benzylpenicillin (Penicillin G)
Co-Amoxiclav (**Augmentin**®)
Flucloxacillin
Phenoxymethylpenicillin (Penicillin V)
Piperacillin/Tazobactam (**Tazocin**®)
Pivmecillinam
Procaine penicillin
Ticarcillin/Clavulanic Acid (**Timentin**®)

CAUTION

<u>Cephalosporins</u>	<u>Carbapenems</u>
CefaCLOR	Ertapenem
CefaLEXin	Meropenem
CefIXIme	
CefoTAXime	<u>Monobactams</u>
CefOXITin	Aztreonam
CefTAZIDime	
CefTRIAxone	
CefUROXime	

SAFE

Amikacin	Methenamine Hippurate
Azithromycin	Metronidazole
Chloramphenicol	Minocycline
Ciprofloxacin	Moxifloxacin
Clarithromycin	Nitrofurantoin
Clindamycin	Ofloxacin
Colistimethate	Oxytetracycline
Co-Trimoxazole	Pentamidine
Daptomycin	Rifampicin
Doxycycline	Sodium Fusidate
Erythromycin	Teicoplanin
Fidaxomicin	Tetracycline
Fosfomicin	Tigecycline
Gentamicin	Tobramycin
Levofloxacin	Trimethoprim
Linezolid	Vancomycin

Antibiotic Risk Rating for Clostridium Difficile

HIGH risk

CefaCLOR	CefTRIAxone	Co-Amoxiclav
CefaLEXin	CefUROXime	Levofloxacin
CefoTAXime	Ciprofloxacin	Ofloxacin
CefTAZIDime	Clindamycin	

INTERMEDIATE risk

Amoxicillin	Ertapenem	Piperacillin/Tazobactam
Azithromycin	Erythromycin	
Clarithromycin	Meropenem	

LOW risk (not no risk)

Benzympenicillin	Gentamicin	Sodium Fusidate
Chloramphenicol	Metronidazole	Teicoplanin
Co-Trimoxazole	Nitrofurantoin	Tetracyclines
Doxycycline	Phenoxymethylpenicillin	Trimethoprim
Flucloxacillin	Rifampicin	Vancomycin

Protected Antibiotics

Contact the microbiologist for advice if these guidelines recommend the following antimicrobials:

- Fidaxomicin
- Fosfomycin
- Levofloxacin
- Linezolid

If appropriate the microbiologist will provide a hospital out-patient prescription for the patient.

The following antimicrobials should **never** be used as monotherapy because this will cause the rapid emergence of resistance:

- Rifampicin
- Sodium Fusidate (orally)

Patient Information

See page 13 for an information leaflet on 'Treating your infection', which can be provided to patients when undertaking an antibiotic prescribing episode.

Rapid Response Team (RRT)

Consider referring any patient to the RRT for clinical assessment with view to treatment outside of JGH. This could be for oral or IV antibiotics, or ongoing monitoring.

Where Outpatient Parenteral Antibiotic Therapy is to be used, refer to the RRT clinical guidelines. Types of infection managed by the RRT include:

- blood (e.g. sepsis, after acute hospital care when patient is stable)
- bone and joint
- genito-urinary
- respiratory tract
- skin and soft tissue

Antibiotic colour code (for full information see page 3):
In Penicillin Allergy antibiotic: **Contra-indicated (Red)** **Cautioned (Amber)** **Safe (Green)**

Summary Tables: Infections in Primary Care

ILLNESS	GOOD PRACTICE POINTS	TREATMENT ADVICE Child doses ☺ (see page 12)	TREATMENT DURATION
UPPER RESPIRATORY TRACT INFECTIONS			
Influenza treatment PHE Influenza For prophylaxis see NICE Influenza	<p>Annual vaccination is essential for all those at risk of influenza. For otherwise healthy adults antivirals are not recommended. Treat 'at risk' patients when influenza is circulating in the community and ideally within 48 hours of onset (or 36 hours for Zanamivir treatment in children) do not wait for lab report, or in a care home where influenza is likely.</p> <p>At risk: pregnant (including up to two weeks post-partum), children under six months, adults 65 years or older, chronic respiratory disease (including COPD and asthma), significant cardiovascular disease (not hypertension), severe immunosuppression, diabetes mellitus, chronic neurological, renal or liver disease, morbid obesity (BMI ≥ 40).</p> <p>Treatment: Use Oseltamivir 75mg BD for 5 days. If resistance to Oseltamivir or severe immunosuppression, use Zanamivir 10mg BD (2 inhalations by diskhaler) for up to 10 days and seek advice. Prophylaxis: Refer to BNF for information (based on NICE guidance). See PHE Influenza guidance for treatment of patients under 13 years of age.</p>		
Acute sore throat NICE Acute sore throat NICE RTIs Fever-PAIN	<p>Avoid antibiotics as 82% of cases resolve in 7 days without, and pain only reduced by 16 hours.</p> <p>Use Fever-PAIN score: Fever in last 24 hours, Purulence, Attends within 3 days of onset, severely Inflamed tonsils, No cough or coryza.</p> <p>Score 0-1: 13-18% streptococci, NO antibiotic; Score 2-3: 34-40% streptococci, 3 day back-up antibiotic; Score 4-5: 62-65% streptococci, use immediate antibiotic (if severe) or 48 hour back-up antibiotic.</p> <p>Advise Paracetamol, self-care and safety net.</p> <p>Complications are rare: Antibiotics to prevent Quinsy NNT > 4000. Antibiotics to prevent Otitis media NNT 200. 10 days of Penicillin has lower relapse than 5 days <18 year olds.</p>	<p>NICE Acute sore throat visual guide</p> <p>Fever pain 0-1: Self-care</p> <p>Fever pain 2-3: Deferred prescription of Phenoxymethylpenicillin ☺ 500mg QDS OR 1g BD (if mild) 500mg QDS (if severe)</p> <p>Penicillin Allergy: Clarithromycin 250mg BD (if mild) 500mg BD (if severe) ☺</p> <p>Penicillin Allergy in pregnancy: Erythromycin 250-500mg QDS ☺</p>	<p>5-10 days</p> <p>5 days</p> <p>5 days</p>
Scarlet Fever (GAS) PHE Scarlet fever	<p>Prompt treatment with appropriate antibiotics significantly reduces the risk of complications.</p> <p>Observe immunocompromised individuals (diabetes; women in the puerperal period; chickenpox) as they are at increased risk of developing invasive infection.</p>	<p>First line (mild): analgesia Phenoxymethylpenicillin 500mg QDS ☺</p> <p>Penicillin allergy: Clarithromycin 250-500mg BD ☺</p>	<p>10 days</p> <p>5 days</p>
Acute Otitis Media (child doses) NICE Otitis Media NICE RTIs	<p>Optimise analgesia and target antibiotics.</p> <p>AOM resolves in 60% in 24 hours without antibiotics, which only reduce pain at 2 days (NNT 15) and does not prevent deafness.</p> <p>Consider 2 or 3 day deferred, or immediate antibiotics for pain relief if:</p> <ul style="list-style-type: none"> • <2 years AND bilateral AOM • Under 18 years with otorrhoea <p>Offer immediate antibiotics if the child or young person:</p> <ul style="list-style-type: none"> • Is systemically very unwell, OR • Has signs and symptoms of a more serious illness, OR • Has a high risk of complications <p>Antibiotics to prevent Mastoiditis NNT 5000 (children).</p> <p>If symptoms are worsening on first choice antibiotic (taken for at least 2-3 days) use Co-Amoxiclav ☺, or contact Microbiologist for advice in penicillin allergy.</p>	<p>NICE Otitis Media visual guide</p> <p>Amoxicillin Neonate 7-28 days: 30mg/kg TDS 1 month-1 year: 125mg TDS 1-4 years: 250mg TDS 5-17 years: 500mg TDS</p> <p>Penicillin Allergy: Erythromycin 1 month-1 year: 125mg QDS 2-7 years: 250mg QDS 8-17 years: 250-500mg QDS</p> <p>OR Clarithromycin 1 month-11 years: 7.5mg/kg-250mg BD (weight dosing) 12-17 years: 250mg-500mg BD</p>	<p>5-7 days</p> <p>5-7 days</p> <p>5-7 days</p>
Acute Otitis Externa CKS Otitis externa	<p>First line: analgesia for pain relief, and apply localised heat (e.g. a warm flannel).</p> <p>Second line: Cure rates similar at 7 days for topical acetic acid or antibiotic +/- steroid.</p> <p>If cellulitis or disease extends outside ear canal, or systemic signs of infection, start oral Flucloxacillin and urgently refer to the ENT team to exclude malignant otitis externa.</p>	<p>First line: Analgesia, and apply localised heat</p> <p>Second line: Acetic acid 2% 1 spray TDS ☺ (e.g. Ear Calm® available from pharmacies) OR Neomycin sulphate with corticosteroid TDS (e.g. Betnesol-N drops, Otomize Spray) ☺</p> <p>If cellulitis: Flucloxacillin ☺ 250mg QDS or 500mg QDS (if severe)</p>	<p>7 days</p> <p>7-14 days</p> <p>7 days</p>
Acute Sinusitis NICE Sinusitis (acute) NICE RTIs	<p>Symptoms <10 days: do not offer antibiotics as most resolve in 14 days without, and antibiotics only offer marginal benefit after 7 days (NNT15).</p> <p>Symptoms >10 days: no antibiotic, or back-up antibiotic if several of: purulent nasal discharge; severe localised unilateral pain; fever; marked deterioration after initial milder phase.</p> <p>Systemically very unwell, or more serious signs and symptoms: immediate antibiotic. Suspected complications: e.g. sepsis, intraorbital or intracranial, refer to secondary care.</p> <p>Self-care: paracetamol/ibuprofen for pain/fever. Consider high-dose nasal steroid if >12 years. Nasal decongestants or saline may help some.</p>	<p>NICE Sinusitis (acute) visual guide</p> <p>No antibiotics: self-care</p> <p>First line for deferred antibiotics: Phenoxymethylpenicillin 500mg QDS ☺</p> <p>Penicillin Allergy: Doxycycline 200mg stat then 100mg OD OR Clarithromycin 250-500mg BD ☺</p> <p>Very unwell or worsening: Co-Amoxiclav 625mg TDS ☺</p> <p>Mometasone 200micrograms BD (nasal)</p>	<p>5 days</p> <p>14 days</p>

ILLNESS	GOOD PRACTICE POINTS	TREATMENT ADVICE Child doses ☺ (see page 12)	TREATMENT DURATION
LOWER RESPIRATORY TRACT INFECTIONS			
<i>Low doses of penicillin's are more likely to select for resistance. Do not use Quinolones (Ciprofloxacin, Ofloxacin) first line as there is poor pneumococcal activity. Reserve all Quinolones for proven resistant organisms.</i>			
Acute cough & bronchitis NICE RTIs	Antibiotics have little benefit if no co-morbidity. Second line: Consider 7 day deferred antibiotic , safety net and advise symptoms can last 3 weeks. Consider immediate antibiotics if > 80 years of age AND one of: hospitalisation in past year, taking oral steroids, insulin-dependent diabetic, congestive heart failure; serious neurological disorder/stroke OR > 65 years with 2 of the above. Consider using CRP if antibiotic is being considered: <ul style="list-style-type: none"> • no antibiotics if CRP < 20mg/L and symptoms for >24 hours • deferred antibiotics if CRP = 20-100mg/L • immediate antibiotics if CRP > 100mg/L 	First line: Self-care and safety netting advice Second line: Amoxicillin 500mg TDS ☺ Penicillin Allergy: Doxycycline 200mg stat then 100mg OD	5 days
Acute exacerbation of COPD NICE COPD GOLD COPD	Treat with antibiotics if purulent sputum and increased shortness of breath, and/or increased sputum volume. Risk factors for antibiotic resistance: co-morbidity, severe COPD (MRC>3), frequent exacerbations, antibiotics in last 3 months.	Amoxicillin 500mg TDS ☺ OR Doxycycline 200mg stat then 100mg OD OR Clarithromycin 500mg BD ☺ If at risk of resistance: Co-Amoxiclav 625mg TDS ☺	5 days
Community acquired pneumonia-treatment in community NICE Pneumonia	Use CRB65 score to guide mortality risk, place of care & antibiotics Each CRB65 parameter scores one: Confusion (AMT < 8); Respiratory rate (> 30 breaths/min); BP systolic (< 90mmHg) or diastolic (≤ 60mmHg); Age > 65 years. Score 3-4: Urgent hospital admission; Score 1-2: Intermediate risk, consider hospital assessment; Score 0: Low risk, consider home based care. Always give safety-net advice and likely duration of symptoms (e.g. cough 6 weeks). Mycoplasma infection is rare in > 65 year olds.	CRB65 = 0: Amoxicillin 500mg TDS ☺ OR Doxycycline 200mg stat then 100mg OD OR Clarithromycin 500mg BD ☺ CRB65 = 1-2 & at HOME: Assess clinical need to cover for atypicals: Doxycycline 200mg stat then 100mg OD, OR Amoxicillin 500mg TDS ☺, AND Clarithromycin 500mg BD ☺	Use 5 days. Review at day 3 & extend to 7-10 days if poor response 7-10 days
EYE INFECTIONS			
Conjunctivitis AAO Conjunctivitis	First line: bath/clean eyelids with cotton wool dipped in sterile saline or boiled (cooled) water, to remove crusting. Treat only if severe , as most cases are viral or self-limiting. Bacterial conjunctivitis: is 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 respectively. Third line: Fusidic acid as it has less gram-negative activity.	First line: Self-care Second line: Chloramphenicol 0.5% drop and 1% ointment Apply QDS ☺ Third line: Fusidic acid 1% gel Apply BD ☺	All for 48 hours after resolution
Blepharitis CKS Blepharitis	First line: eye lid hygiene for symptom control including: warm compresses, lid massage and scrubs, gentle washing, avoiding cosmetics. Second line: topical antibiotics if hygiene measures are ineffective after 2 weeks. Signs of Meibomian gland dysfunction, or acne rosacea: consider oral antibiotics.	First line: Self-care Second line: Chloramphenicol 1% ointment Apply BD ☺ Third line: OR Doxycycline 100mg OD, then 50mg OD ☺	6 week trial 4 weeks (initial) 8 weeks (maint)
MENINGITIS (NICE Fever Guidelines)			
Suspected Meningococcal Disease NICE Meningitis	Transfer all patients to hospital immediately. If time before hospital admission and non-blanching rash, give IV Ceftriaxone . Do not give IV antibiotics if there is a definite history of anaphylaxis (rash is not a contraindication). Prevention of secondary cases of meningitis should be discussed with the microbiologist	Ceftriaxone IV or deep IM injection 1 month - 12 years: 100mg/kg 12 years or more: 2g	Stat Prior to urgent transfer to hospital Give IM if vein cannot be accessed

ILLNESS	GOOD PRACTICE POINTS	TREATMENT ADVICE Child doses ☺ (see page 12)	TREATMENT DURATION
URINARY TRACT INFECTIONS			
As antimicrobial resistance and <i>Escherichia coli</i> bacteraemia is increasing in the community, use Nitrofurantoin first line. ALWAYS give safety net and self-care advice, and consider risks for resistance. Refer to PHE UTI guidance for diagnosis information.			
<p>UTI in adults (lower)</p> <p>PHE UTI Diagnosis</p> <p>TARGET UTI</p> <p>RCGP UTI</p> <p>SIGN UTI</p> <p>NHS Scotland UTI</p>	<p>UTI symptoms:</p> <ul style="list-style-type: none"> Dysuria Frequency Suprapubic tenderness Urgency Polyuria Haematuria <p>Women (<65 years): Treat if severe or ≥ 3 UTI symptoms.</p> <p>Mild or ≤ 2 symptoms AND: a) Urine NOT cloudy 97% negative predictive value of no UTI, do not treat unless other risk factors for infection. b) Cloudy urine, use dipstick to guide treatment. Nitrite plus blood or leucocytes has 92% positive predictive value of UTI. If nitrite, leucocytes, blood all negative then 76% NPV. Consider a back-up/deferred antibiotic option.</p> <p>Men (<65 years): Consider prostatitis and send pre-treatment MSU OR if symptoms mild/non-specific, use negative dipstick to exclude UTI.</p> <p>>65 years (men/women): Treat if fever ≥ 38°C or 1.5°C above baseline twice in 12 hours AND >1 other symptom.</p> <p>In treatment failure: always perform culture.</p>	<p>First line: Nitrofurantoin MR 100mg BD (if fever, use alternative) Use Nitrofurantoin if GFR <u>over</u> 45ml/min, only use if GFR 30-45ml/min if no alternative</p> <p>If low risk of resistance: Trimethoprim 200mg BD</p> <p>If first line options unsuitable: Pivmecillinam 400mg stat then 200mg TDS</p> <p>If organism susceptible: Amoxicillin 500mg TDS</p> <p>If high risk of resistance: Fosfomycin (via microbiologist) see below for dosing</p> <p>Low risk of resistance: younger women with acute UTI and no resistance risks.</p> <p>Risk factors for increased resistance include: care home resident, recurrent UTI (2 in 6 months; ≥ 3 in 12 months), hospitalisation >7 days in the last 6 months, unresolving urinary symptoms, recent travel to a country with increased antimicrobial resistance (outside Northern Europe and Australasia) especially health related, previous known UTI resistant to Trimethoprim, Cephalosporins or Quinolones.</p> <p>If increased resistance risk, send urine for culture and susceptibility testing, and give safety net advice. If GFR <45ml/min or elderly consider Pivmecillinam; reserve Fosfomycin for microbiologist use only (3g stat in women, & second 3g dose in men 3 days later).</p>	<p>Women all ages 3 days</p> <p>Men 7 days</p>
People > 65 years: do not treat asymptomatic bacteriuria; it is common but is not associated with increased morbidity.			
UTI in patients with catheter in situ: antibiotics will not eradicate asymptomatic bacteriuria; only treat if systemically unwell or pyelonephritis likely. Do not use prophylactic antibiotics for catheter changes unless history of catheter-change-associated UTI or trauma (NICE & SIGN guidance). Take sample if new onset of delirium, or one or more symptoms of UTI.			
<p>UTI in pregnancy</p> <p>SIGN UTI</p>	<p>Send MSU for culture and start antibiotics in all with significant positive culture, even if asymptomatic.</p> <p>Short-term use of Nitrofurantoin in pregnancy is unlikely to cause problems to the foetus, but BNF advises to avoid at term.</p> <p>Avoid Trimethoprim if low folate status or if on folate antagonist (e.g. antiepileptic), but BNF notes manufacturers advice to avoid in 1st trimester.</p>	<p>First line: Nitrofurantoin MR 100mg BD (avoid at term)</p> <p>If susceptible: Amoxicillin 500mg TDS</p> <p>Second line: Trimethoprim 200mg BD (off-label) <i>Avoid in 1st trimester if possible, otherwise give folate</i></p> <p>Third line: Cefalexin 500mg BD</p>	<p>All for 7 days</p>
<p>Acute Prostatitis</p> <p>BASHH, CKS</p>	<p>Send MSU for culture and start antibiotics. 4 week course may prevent chronic prostatitis.</p> <p>Quinolones achieve high prostate concentrations.</p>	<p>Ciprofloxacin 500mg BD</p> <p>Second line: Trimethoprim 200mg BD</p>	<p>28 days</p>
<p>UTI in children</p> <p>NICE UTI in under 16s</p>	<p>Child < 3 months: refer urgently for assessment. Child ≥ 3 months: use positive nitrite to guide. Send pre-treatment MSU and start antibiotics.</p> <p>Imaging: only refer if child < 6 months, or recurrent or atypical UTI.</p>	<p>Lower UTI: Nitrofurantoin ☺ OR Trimethoprim ☺</p> <p>If susceptible: Amoxicillin ☺</p> <p>Second line: Cefalexin ☺</p> <p>Upper UTI: Refer to paediatrics, obtain a sample for culture, assess for signs of systemic infection, consider systemic antimicrobials</p>	<p>Lower UTI 3 days</p>
<p>Acute Pyelonephritis</p> <p>CKS</p>	<p>If admission not needed, send MSU for culture and susceptibility testing, and start antibiotics.</p> <p>Admit patient to hospital if urosepsis is suspected, or if there is no response within 24 hours.</p> <p>If ESBL risk and on advice from microbiology consider outpatient IV antibiotic via Rapid Response Team.</p>	<p>Ciprofloxacin 500mg BD OR Co-Amoxiclav 625mg TDS</p> <p>If lab report shows sensitive: Trimethoprim 200mg BD</p>	<p>7 days</p> <p>14 days</p>
<p>Recurrent symptomatic UTI in non-pregnant women (≥3 UTIs/year, or 2 in 6 months)</p> <p>TARGET UTI</p>	<p>First line: To reduce recurrence advise simple measures including hydration, and analgesia. Cranberry products work for some women.</p> <p>Second line: Standby or post-coital antibiotics.</p> <p>Third line: Methenamine (Hexamine) Hippurate should be used for prophylaxis of chronic or recurrent uncomplicated lower UTIs; it works best in acidic urine. Avoid in hepatic and renal (GFR < 10ml/min) impairment.</p> <p>Avoid long term antibiotics if possible: adverse effects, resistance and <i>Clostridium difficile</i> risk.</p>	<p>Nitrofurantoin MR 100mg OR Ciprofloxacin 500mg</p> <p>If recent culture sensitive: Trimethoprim 100mg</p> <p>Methenamine Hippurate 1g BD (1g TDS if catheterised)</p>	<p>Post coital stat (off-label)</p> <p>Long term</p>

ILLNESS	GOOD PRACTICE POINTS	TREATMENT ADVICE Child doses ☺ (see page 12)	TREATMENT DURATION
GASTRO INTESTINAL TRACT INFECTIONS			
<p>Oral Candidiasis CKS Candida</p>	<p>Topical azoles are more effective than topical Nystatin. Oral candidiasis is rare in immunocompetent adults; consider undiagnosed risk factors including HIV. For extensive/severe candidiasis use oral Fluconazole.</p>	<p>Miconazole oral gel 2.5ml QDS hold in mouth after meals ☺ <i>If miconazole not tolerated:</i> Nystatin suspension 100,000units (1mL) QDS after meals ☺ OR Oral Fluconazole 50mg OD ☺ (if <i>HIV or immunocompromised</i> use 100mg OD)</p>	<p>7 days continue for 2 days after symptoms resolve 7-14 days</p>
<p>Eradication of Helicobacter pylori NICE GORD and dyspepsia PHE H. pylori</p>	<p>Treat all positives if known DU, GU or low grade MAL Toma. In Non-Ulcer Dyspepsia NNT 14. Do not offer eradication for GORD. Do not use Clarithromycin, Metronidazole or Quinolone if used in the past year for any infection. Retest for H.pylori post DU/GU or relapse after second line therapy using urea breath test or stool antigen test OR consider referral for endoscopy and culture.</p>	<p>Always use PPI ☺ First and second line: PPI WITH Amoxicillin 1g BD ☺ AND EITHER Clarithromycin 500mg BD ☺ OR Metronidazole 400mg BD ☺ Penicillin allergy: PPI WITH Clarithromycin 500mg BD ☺ AND Metronidazole 400mg BD ☺ Penicillin allergy AND previous treatment with Clarithromycin: PPI WITH Tripotassium Dicitratobismuthate (De-nol®) 240mg BD AND Metronidazole 400mg BD ☺ AND Tetracycline hydrochloride 500mg QDS Relapse AND previous treatment with Clarithromycin AND Metronidazole: PPI WITH Amoxicillin 1g BD ☺ AND EITHER Tetracycline hydrochloride 500mg QDS OR Levofloxacin 250mg BD (available via microbiologist) Penicillin allergy: PPI WITH Tripotassium Dicitratobismuthate (De-nol®) 240mg BD AND Tetracycline hydrochloride 500mg QDS AND Levofloxacin 250mg BD (available via microbiologist)</p>	<p>All for 7 days MAL Toma 14 days</p>
<p>Infectious diarrhoea PHE Diarrhoea</p>	<p>Refer previously healthy children with acute painful or bloody diarrhoea to exclude <i>E. coli</i> 0157 infection. Antibiotic therapy usually not indicated unless patient is systemically unwell. If systemically unwell and campylobacter suspected (e.g. undercooked meat and abdominal pain), consider Azithromycin 500mg OD for 3 days if treated early (within 3 days).</p>		
<p>Clostridium difficile PHE Clostridium difficile</p>	<p>Follow local policy/discuss with microbiology Stop unnecessary antibiotics, PPIs and anti-peristaltic agents (e.g. Loperamide). Mild cases (< 4 episodes of diarrhoea/day) may respond without treatment, but treatment is suggested. Review progress closely. Severe infections require hospital admission. Definition of severe: Temp > 38.5°C, WCC > 15, rising creatinine or signs/symptoms of severe colitis.</p>	<p><i>If > 60 years old, recurrent infection, risk of recurrence or other antibiotics need to continue:</i> Fidaxomicin 200mg BD (via microbiologist) Fidaxomicin is the treatment of choice for all free toxin positive patients. Use oral Vancomycin initially for such patients, pending a supply of Fidaxomicin via the microbiologist. Second line: Oral Vancomycin* 125mg QDS ☺ (no need to monitor levels, not absorbed orally) <i>* Reconstituted Vancomycin injection can be stored in the fridge and used for 24 hours as a liquid for patients with swallowing difficulties or via enteral tubes (off-label use).</i></p>	<p>10 days 10-14 days</p>
<p>Traveller's diarrhoea</p>	<p>Prophylaxis rarely, if ever, indicated. Consider stand-by antimicrobial only for patients at high risk of severe illness, or visiting high risk areas.</p>	<p>Stand-by: Azithromycin 500mg OD Prophylaxis / Treatment: Bismuth Subsalicylate (Pepto-Bismol®) - available from pharmacies) 2 tablets QDS</p>	<p>1-3 days 2 days</p>
<p>Threadworm CKS threadworm</p>	<p>Treat all household contacts at the same time. PLUS advise hygiene measures for 2 weeks (e.g. hand hygiene, wear pants at night, morning shower including perianal area) PLUS wash sleepwear, bed linen, and dust/ vacuum. For child < 6 months add perianal wet wiping or washes 3 hourly during day.</p>	<p>All patients over 6 months: Mebendazole 100mg Avoid if pregnant; note not licensed for under 2 year olds. Child < 6 months: Use hygiene measures alone for 6 weeks.</p>	<p>Stat dose, but repeat in 2 weeks if infestation persists</p>

ILLNESS	GOOD PRACTICE POINTS	TREATMENT ADVICE Child doses ☺ (see page 12)	TREATMENT DURATION
GENITAL TRACT INFECTIONS - Contact UKTIS for information on foetal risks if patient is pregnant.			
STI screening	Refer individual and partners to GUM service. People with risk factors should be screened for chlamydia, gonorrhoea, HIV, syphilis. Risk factors: <25 years, no condom use, recent (<12 month) / frequent change of partner, symptomatic partner, area of high HIV.		
Chlamydia trachomatis/ Urethritis SIGN Chlamydia	Treat patient and partners, refer to GUM service. Repeat test of cure in all at three months. Pregnancy or breastfeeding: Azithromycin is the most effective option. As lower cure rate in pregnancy, test for cure at least 3 weeks after end of treatment.	Azithromycin 1g OR Doxycycline 100mg BD Pregnant or breastfeeding: Azithromycin 1g (off-label use) OR Erythromycin 500mg BD OR Amoxicillin 500mg TDS	Stat 7 days Stat 10-14 days 7 days
Epididymitis	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.	Epididymitis (low STI risk): Doxycycline 100mg BD OR Ofloxacin 200mg BD OR Ciprofloxacin 500mg BD	10-14 days 14 days 10 days
Vaginal Candidiasis BASHH Vulvovaginal candidiasis	All topical and oral azoles give over 70% cure. In pregnancy: Avoid oral azoles and use intravaginal treatment for 7 days. Recurrent (>4 episodes per year): 150mg oral Fluconazole every 72 hours for three doses induction, followed by one dose once a week for six months maintenance.	Clotrimazole 500mg pessary or 10% cream OR Oral Fluconazole 150mg Pregnant: Clotrimazole 100mg pessary at night OR Miconazole 2% cream 5g intravaginally BD Recurrent: Oral Fluconazole 150mg every 72hours (induction), then 150mg once a week (maintenance)	Stat 6 nights 7 days 3 doses 6 months
Bacterial Vaginosis BASHH Bacterial vaginosis	Oral Metronidazole is as effective as topical treatment, and is cheaper. There is less relapse with 7 day course than 2g stat at 4 weeks. Pregnant/Breastfeeding: Avoid Metronidazole 2g stat dose; consider topical Clindamycin. Treating partners does not reduce relapse.	Oral Metronidazole 400mg BD OR 2g OR Metronidazole 0.75% vaginal gel 5g applicatorful at night OR Clindamycin 2% cream 5g applicatorful at night	7 days Stat 5 nights 7 nights
Genital herpes BASHH Anogenital herpes	Advise: saline bathing, analgesia, or topical lidocaine for pain, and discuss transmission. First episode: treat within five 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 six episodes per year.	First line: Aciclovir 400mg TDS OR 800mg TDS (if recurrent) If poor compliance, BUT much higher price: OR Valaciclovir 500mg BD OR Famciclovir 250mg TDS OR 1g BD (if recurrent)	5 days 2 days 5 days 5 days 1 day
Gonorrhoea	Refer to GUM service.		
Trichomoniasis BASHH Trichomoniasis	Oral treatment needed as extravaginal infection common. Treat partners, and refer to GUM for other STIs. Pregnant/Breastfeeding: Avoid Metronidazole 2g stat dose. Consider Clotrimazole for symptom relief (not cure), if Metronidazole declined.	Oral Metronidazole 400mg BD OR 2g (more adverse effects) Pregnancy for symptoms: Clotrimazole 100mg pessary at night	5-7 days Stat 6 nights
Pelvic Inflammatory Disease BASHH PID	Refer women & sexual contacts to GUM service. Always culture for gonorrhoea and chlamydia, 28% of gonorrhoea isolates now resistant to Quinolones. If gonorrhoea likely (partner has it, severe symptoms, sex abroad) refer to GUM.	Metronidazole 400mg BD AND Ofloxacin 400mg BD If gonorrhoea confirmed: Refer to GUM urgently	14 days
SKIN INFECTIONS			
Note: Refer to RCGP Skin Infections online training. For MRSA, discuss therapy with microbiologist.			
Impetigo PHE Impetigo	Localised lesions: Use topical antibiotics, to reduce the risk of resistance. Reserve Mupirocin for MRSA. Extensive, severe, or bullous: Oral antibiotics.	Topical Fusidic acid 2% Cream Apply TDS ☺ MRSA: Topical Mupirocin Apply TDS (via microbiologist) Flucloxacillin 250-500mg QDS ☺ If penicillin allergic: Clarithromycin 250-500mg BD ☺	5 days 7 days
Cold sores CKS Cold sores	Most resolve after 5 days without treatment. Topical antivirals applied prodromally can reduce duration by 12-18 hours. If frequent, severe, and predictable triggers: consider oral prophylaxis at prodrome: Aciclovir 400mg BD for 5-7 days.		
Eczema NICE Eczema	No visible signs of infection: using antibiotics (alone or with steroids) encourages resistance and does not improve healing. Eczema with visible signs of infection: use treatment as in impetigo.		
Scabies NHS Scabies	Treat whole body from ear/chin downwards, under nails. Under 2 or elderly, also treat face/scalp. Home/sexual contacts: Treat within 24 hours.	Permethrin 5% cream ☺ Permethrin allergy: Malathion 0.5% aqueous liquid ☺	2 applications, 1 week apart
MRSA	For MRSA screening and suppression, refer to the States of Jersey Community MRSA policy.		

ILLNESS	GOOD PRACTICE POINTS	TREATMENT ADVICE Child doses ☺ (see page 12)	TREATMENT DURATION
SKIN INFECTIONS			
<p>Acne</p> <p>CKS Acne vulgaris</p>	<p>Mild (open and closed comedones) or moderate (inflammatory lesions):</p> <p>First line: self-care (wash with mild soap; do not scrub; avoid make-up).</p> <p>Second line: topical retinoid or benzoyl peroxide.</p> <p>Third-line: add topical antibiotic, or consider addition of oral antibiotic.</p> <p>Severe (nodules and cysts): add oral antibiotic (for 3 months max) and refer.</p>	<p>First line: Self-care</p> <p>Second line: Topical Retinoid Apply thinly OD ☺ OR Topical Benzoyl peroxide 5% gel Apply OD-BD ☺</p> <p>Third-line: Topical Clindamycin 1% solution Apply thinly BD ☺</p> <p>If treatment failure/severe: Doxycycline 100mg OD ☺ OR Tetracycline 500mg BD ☺</p>	<p>6-8 weeks 6-8 weeks 12 weeks 6-12 weeks</p>
<p>Cellulitis and Erysipelas</p> <p>CREST Cellulitis BLS Cellulitis</p>	<p>Cellulitis is defined by 2 or more of: Erythema, warmth, pain, tenderness, induration +/- drainage.</p> <p>Class I: Patient afebrile and healthy other than cellulitis, use oral Flucloxacillin alone.</p> <p>Class II: If febrile and unwell or co-morbidity use IV treatment via Rapid Response Team, BUT always admit if physiological derangement.</p> <p>Class III: Toxic appearance, admit to hospital.</p> <p>River/sea water exposure: discuss with microbiologist</p> <p>Erysipelas: often facial and unilateral. Use Flucloxacillin for non-facial erysipelas.</p>	<p>Flucloxacillin 500mg QDS ☺</p> <p>If penicillin allergic: Clarithromycin 500mg BD ☺</p> <p>If penicillin allergy and taking statins: Doxycycline 200mg stat then 100mg OD</p> <p>If unresolving: Clindamycin 300–450mg QDS ☺</p> <p>If facial (non-dental): Co-Amoxiclav 625mg TDS ☺</p>	<p>All for 7 days If slow response continue for a further 7 days</p>
<p>Mastitis</p> <p>CKS Mastitis and breast abscess</p>	<p><i>S. aureus</i> is the most common infecting pathogen.</p> <p>Suspect if woman has: a painful breast; fever and/or general malaise; a tender, red breast.</p> <p>Breastfeeding: oral antibiotics are appropriate, where indicated. Women should continue feeding, including from the affected breast.</p>	<p>Flucloxacillin 500mg QDS</p> <p>Penicillin allergy: Erythromycin 250-500mg QDS OR Clarithromycin 500mg BD</p>	<p>10-14 days</p>
<p>Leg ulcer</p> <p>PHE Venous leg ulcers</p>	<p>Ulcers are always colonised. Antibiotics do not improve healing unless active infection.</p> <p>Active infection: deep swab cleaned ulcer & send pre-treatment swab. Review antibiotics after culture results. Wound dressing & pressure relief is always important.</p>	<p>Active infection is defined as infection of the tissue (i.e. Cellulitis – see definition above), and not just exudate, increased exudate or odour.</p> <p>Flucloxacillin 500mg QDS ☺ OR Clarithromycin 500mg BD ☺</p> <p>Non-healing: antimicrobial reactive oxygen gel may reduce bacterial load.</p>	<p>As for cellulitis</p>
<p>PVL-SA</p> <p>PHE PVL-SA</p>	<p>Panton-Valentine Leukocidin (PVL) is a toxin produced by 20.8-46% of <i>S.aureus</i> from boils/abscesses.</p> <p>Always refer cases to Microbiology.</p> <p>Topical suppression therapy should only be started after primary infection has resolved, as ineffective if lesions are still leaking.</p> <p>Risk factors: recurrent skin infections (send swabs), invasive infections, MSM, if there is more than one case in a home or close community (school children, military personal, nursing home residents, household contacts), poor hygiene, returned traveller.</p>		
<p>Bites</p> <p>CKS Bites</p>	<p>Human: Thorough irrigation is important. Assess risk of tetanus, HIV, and hepatitis B&C. Antibiotic prophylaxis is advised.</p> <p>Cat: Always give prophylaxis.</p> <p>Dog: Give prophylaxis if: puncture wound; bite to hand, foot, face, joint, tendon, or ligament; diabetic, cirrhotic immunocompromised, asplenic, or presence of prosthetic valve/joint.</p> <p>Consider Rabies exposure if animal bite abroad.</p>	<p>Prophylaxis or treatment: Co-Amoxiclav 375-625mg TDS ☺</p> <p>If penicillin allergic: Metronidazole 400mg TDS ☺ AND Doxycycline 100mg BD ☺ (animal bite)</p> <p>OR Metronidazole 400mg TDS ☺ AND Clarithromycin 250-500mg BD ☺ (human bite)</p>	<p>All for 7 days, AND review at 24 & 48 hours</p>
<p>Dermatophyte infection-Skin</p> <p>PHE Fungal skin and nail infections</p>	<p>Most cases:Terbinafine is fungicidal, so treatment time shorter than with fungistatic imidazoles. If candida possible, use imidazole.</p> <p>If intractable/scalp: send skin scrapings lesion edge</p> <p>If infection confirmed: oral Terbinafine/Itraconazole</p> <p>Scalp: Discuss with specialist, oral therapy indicated.</p>	<p>Topical Terbinafine 1% cream Apply OD-BD ☺</p> <p>OR Topical Imidazole Apply OD-BD ☺ (e.g. Clotrimazole, Miconazole)</p> <p>Athlete's foot: Topical Undecanoates (e.g. Mycota®) Apply OD-BD (available from pharmacies) ☺</p>	<p>1-4 weeks 4-6 weeks total</p>
<p>Dermatophyte infection-Nail</p> <p>CKS Fungal nail infection</p>	<p>Treatment not always necessary. Take nail clippings.</p> <p>Infection present: Oral terbinafine is more effective than oral azole. Liver reactions rare with oral antifungals (0.1-1%). Topical nail lacquer is not as effective.</p> <p>If candida or non-dermatophyte infection confirmed, use oral Itraconazole.</p> <p>To prevent recurrence: apply weekly topical imidazole antifungal cream to entire toe area.</p> <p>Children: seek specialist advice.</p>	<p>First line (if treatment necessary): Terbinafine 250mg OD ☺</p> <p>Second line: Itraconazole 200mg BD ☺</p> <p>Stop treatment with continual, new healthy, proximal nail growth.</p>	<p>Fingers 6 weeks Toes 12 weeks</p> <p>1 week each month Fingers 2 courses Toes 3 courses</p>
<p>Varicella Zoster (Chicken pox)</p> <p>PHE Varicella</p> <p>Herpes Zoster (Shingles)</p> <p>PCDS Herpes zoster</p>	<p>Pregnant / immunocompromised / neonate: seek urgent specialist advice.</p> <p>Chicken pox: Consider Aciclovir if rash onset <24 hours and one of the following >14 years old, severe pain, dense/oral rash, taking steroids or smoker.</p> <p>Shingles: Treat if >50 years and within 72 hours of rash (PHN rare if <50 years); or if active ophthalmic, Ramsey Hunt, eczema, non-truncal involvement, moderate or severe pain, moderate or severe rash</p>	<p>Aciclovir 800mg five times a day ☺</p> <p>Second line for shingles if poor compliance, BUT note much higher price: Valaciclovir 1g TDS ☺</p> <p>OR Famciclovir 250-500mg TDS (or 750mg BD)</p> <p>Treatment not within 72 hours: consider starting antiviral drug up to one week after rash onset, if high risk of severe shingles or complications (continued vesicle formation, older age, immunocompromised severe pain)</p>	<p>7 days</p>

Summary table – Suspected dental infections in Primary Care (outside Dental Setting)

Derived from the Scottish Dental Clinical Effectiveness Programme (SDCEP) 2013 Guidelines			
This guidance is not designed to be a definitive guide to oral conditions. It is for GPs in the management of acute oral conditions pending review 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.			
ILLNESS	GOOD PRACTICE POINTS	TREATMENT ADVICE Child doses ☺ (see page 12)	TREATMENT DURATION
<i>Note: Antibiotics do not cure toothache. First line treatment is with paracetamol and/or ibuprofen; codeine is not effective for toothache.</i>			
Mucosal ulceration & inflammation (simple gingivitis) SDCEP Dental problems	Temporary pain and swelling relief can be attained with saline mouthwash . 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.	Simple Saline mouthwash Half tea spoon of salt dissolved in glass warm water ☺ Chlorhexidine mouthwash* (0.12-0.2%) Rinse mouth for 1 minute BD with 10mL ☺ (do not use within 30 minutes of toothpaste) Hydrogen Peroxide* (6%) Rinse mouth for 2-3 mins TDS with 15mL diluted in half glass warm water ☺	Always spit out after use Use until lesions resolve or less pain allows oral hygiene
Acute necrotising ulcerative gingivitis	Refer to dentist for scaling and oral hygiene advice. Use antiseptic mouthwash if pain limits oral hygiene. Commence Metronidazole in the presence of systemic signs and symptoms.	Chlorhexidine* (0.12-0.2%) or Hydrogen Peroxide* (6%) mouthwash (see dosing above) Metronidazole 400mg TDS ☺	Until pain allows for oral hygiene 3 days
Pericoronitis SDCEP Dental problems	Refer to dentist for irrigation & debridement. If persistent swelling or systemic symptoms use Metronidazole or Amoxicillin . Use antiseptic mouthwash if pain and trismus limit oral hygiene.	Amoxicillin 500mg TDS ☺ OR Metronidazole 400mg TDS ☺ Chlorhexidine* (0.2%) or Hydrogen Peroxide* (6%) mouthwash (see dosing above)	3 days Until pain allows for oral hygiene
Dental Abscess SDCEP Dental problems	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 the 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) should be referred urgently for hospital admission to protect airway, for surgical drainage and IV antibiotics. The empirical use of Cephalosporins , Co-Amoxiclav , Clarithromycin , and Clindamycin do not offer any advantage for most dental patients and should only be used if there is no response to first line drugs.	Amoxicillin 500mg-1gTDS ☺ OR Phenoxymethylpenicillin 500mg-1g QDS ☺ Spreading infection: ADD Metronidazole 400mg TDS ☺ True penicillin allergy: Clarithromycin 500mg BD ☺ OR Clindamycin 300mg QDS	Up to 5 days, review at day 3
	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, i.e. fever or malaise) ADD Metronidazole . If severe infection: Refer to hospital.		

*Available from community pharmacies

☺ CHILD DOSES (oral administration; for other routes refer to BNF for Children)	
Amoxicillin	<p>Neonate 7 days to 28 days: 30mg/kg TDS (max. per dose 125mg) Child 1–11 months: 125mg TDS; increased if necessary up to 30mg/kg TDS Child 1–4 years: 250mg TDS; increased if necessary up to 30mg/kg TDS Child 5–11 years: 500mg TDS; increased if necessary up to 30mg/kg TDS (max. per dose 1g) Child 12–17 years: 500mg TDS; increased if necessary up to 1g TDS, use increased dose in severe infection</p>
Cefalexin	<p>Neonate up to 7 days: 25mg/kg BD (max. per dose 125mg) Neonate 7–20 days: 25mg/kg TDS (max. per dose 125mg) Neonate 21–28 days: 25mg/kg QDS (max. per dose 125mg) Child 1–11 months: 12.5mg/kg BD, alternatively 125mg BD Child 1–4 years: 12.5mg/kg BD, alternatively 125mg TDS Child 5–11 years: 12.5mg/kg BD, alternatively 250mg TDS Child 12–17 years: 500mg BD or TDS, increase to 1–1.5g 3–4 times a day in serious infections</p> <p style="text-align: right;">} Increase to 25mg/kg 2–4 times a day (max. per dose 1g QDS) in serious infections</p>
Clarithromycin (doses are for immediate release)	<p>Neonate: 7.5 mg/kg BD <u>Child 1 month–11 years</u> Body-weight up to 8 kg: 7.5mg/kg BD Body-weight 8–11 kg: 62.5mg BD Body-weight 12–19 kg: 125mg BD Body-weight 20–29 kg: 187.5mg BD Body-weight 30–40 kg: 250mg BD Child 12–17 years: 250mg BD usually for 7–14 days, increase to 500mg BD (in severe infections e.g. pneumonia)</p>
Co-amoxiclav	<p><u>By mouth using 125/31 oral suspension</u> Neonate: 0.25mL/kg TDS Child 1–11 months: 0.25mL/kg TDS (dose doubled in severe infection) Child 1–5 years: 0.25mL/kg TDS, alternatively 5mL TDS (dose doubled in severe infection)</p> <p><u>By mouth using 250/62 oral suspension</u> Child 6–11 years: 0.15mL/kg TDS, alternatively 5mL TDS (dose doubled in severe infection)</p> <p><u>By mouth using 400/57 oral suspension</u> Child 2 months–1 year: 0.15mL/kg BD, (doubled in severe infection) Child 2–6 years (body-weight 13–21 kg): 2.5mL BD (doubled in severe infection) Child 7–12 years (body-weight 22–40 kg): 5mL BD (doubled in severe infection) Child 12–17 years (body-weight 41 kg and above): 10mL BD, increased if necessary to 10 mL TDS (in severe infection)</p> <p><u>By mouth using tablets</u> Child 12–17 years: 375mg TDS; increased to 625mg TDS (for severe infection)</p>
Erythromycin	<p>Neonate: 12.5mg/kg QDS Child 1 month–1 year: 125mg QDS; increased to 250mg QDS (for severe infections) Child 2–7 years: 250mg QDS; increased to 500mg QDS (for severe infections) Child 8–17 years: 250–500mg QDS; increased to 500mg–1g QDS (for severe infections)</p> <p style="text-align: right;">} Total daily dose can be given in 2 divided doses</p>
Flucloxacillin	<p>Neonate up to 7 days: 25mg/kg BD Neonate 7–20 days: 25mg/kg TDS Neonate 21–28 days: 25mg/kg QDS Child 1 month–1 year: 62.5–125mg QDS Child 2–9 years: 125–250mg QDS Child 10–17 years: 250–500mg QDS</p>
Fluconazole	<p><u>Mucosal candidiasis (except genital)</u> Neonate up to 14 days: 3–6mg/kg (dose to be given on first day), then 3 mg/kg every 72 hours Neonate 14 days to 28 days: 3–6mg/kg (dose to be given on first day), then 3 mg/kg every 48 hours Child 1 month–11 years: 3–6mg/kg (dose to be given on first day), then 3 mg/kg daily (max. per dose 100 mg) Child 12–17 years: 50mg daily, increased to 100 mg daily for unusually difficult infections</p> <p>Treatment for 7–14 days in oropharyngeal candidiasis (max. 14 days except in severely immunocompromised patients); for 14–30 days in other mucosal infections (e.g. oesophagitis, candiduria, non-invasive bronchopulmonary infections).</p>
Metronidazole	<p>Child 1 month: 7.5mg/kg BD Child 2 months–11 years: 7.5mg/kg TDS (max. per dose 400mg) Child 12–17 years: 400mg TDS</p>
Miconazole oral gel	<p>Neonate: 1mL 2–4 times daily Child 1 month–1 year: 1.25mL QDS Child 2–17 years: 2.5mL QDS; to be administered after meals, retain near oral lesions before swallowing (dental prostheses and orthodontic appliances should be removed at night and brushed with gel).</p> <p>In all cases continue for at least 7 days after lesions have healed or symptoms have cleared.</p>
Nitrofurantoin	<p><u>Acute uncomplicated urinary-tract infections</u> <u>Doses for immediate-release medicines</u> Child 3 months–11 years: 750micrograms/kg QDS for 3–7 days Child 12–17 years: 50mg QDS for 3–7 days</p> <p><u>Doses for modified-release medicines</u> Child 12–17 years: 100mg BD (dose to be taken with food)</p> <p><u>Severe chronic recurrent urinary-tract infections</u> <u>Doses for immediate-release medicines</u> Child 12–17 years: 100mg QDS for 3–7 days.</p>
Phenoxy methylpenicillin	<p>Child 1–11 months: 62.5mg QDS; increased if necessary up to 12.5mg/kg QDS Child 1–5 years: 125mg QDS; increased if necessary up to 12.5mg/kg QDS Child 6–11 years: 250mg QDS; increased if necessary up to 12.5mg/kg QDS Child 12–17 years: 500mg QDS; increased if necessary up to 1g QDS</p>
Trimethoprim	<p>Neonate: 3mg/kg (for one dose), then 1–2mg/kg BD Child 4–5 weeks: 4mg/kg BD (max. per dose 200 mg) Child 6 weeks–5 months: 4mg/kg BD (max. per dose 200 mg), alternatively 25 mg BD Child 6 months–5 years: 4mg/kg BD (max. per dose 200 mg), alternatively 50 mg BD Child 6–11 years: 4mg/kg BD (max. per dose 200 mg), alternatively 100 mg BD Child 12–17 years: 200mg BD</p>



Treating your infection



Patient name: Date: Self-care advice provided *
 *Product(s) suggested: Back-up antibiotic prescription (see below)
 Patient advised to contact GP

Your infection	Usually lasts	How to treat yourself better for these infections, now and next time	When should you get help, for advice: Contact your GP practice OR out of hours the on-call GP service (tel. 445445)
<input type="checkbox"/> Middle-ear infection	4 days	<ul style="list-style-type: none"> Have plenty of rest. Drink enough fluids to avoid feeling thirsty. Ask your local pharmacist to recommend medicines to help your symptoms or pain (or both). Fever is a sign the body is fighting the infection and usually gets better by itself in most cases. You can use paracetamol (or ibuprofen) if you or your child are uncomfortable as a result of a fever. Use a tissue and wash your hands well to help prevent the spread of infection to your family, friends and others you meet. Other things you can do suggested by your doctor, nurse or pharmacist: 	<p>1. to 8. are possible signs of serious illness and should be assessed urgently. Phone for advice if you are not sure how urgent the symptoms are.</p> <ol style="list-style-type: none"> If you develop a severe headache and are sick. If your skin is very cold or has a strange colour, or you develop an unusual rash. If you feel confused, have slurred speech or are very drowsy. If you have difficulty breathing. Signs can include: <ul style="list-style-type: none"> breathing quickly turning blue around the lips and the skin below the mouth skin between or above the ribs getting sucked or pulled in with every breath If you develop chest pain. If you have difficulty swallowing or are drooling. If you cough up blood. If you are feeling a lot worse. <p>Less serious signs that can usually wait until next available GP appointment:</p> <ol style="list-style-type: none"> If you are not improving by the time given in the 'Usually lasts' column. In children with middle-ear infection: if fluid is coming out of their ears for more than 10 days or if they have new deafness. Other:
<input type="checkbox"/> Sore throat	7 days		
<input type="checkbox"/> Common cold	10 days		
<input type="checkbox"/> Sinusitis	18 days		
<input type="checkbox"/> Cough or bronchitis	3 weeks		
<input type="checkbox"/> Other infection: days		

Back-up antibiotic prescription to be collected after days only if you are not starting to feel a little better or you feel worse.
 Collect from: GP reception GP or nurse Pharmacy

- Colds, most coughs, sinusitis, ear infections, sore throats and other infections often get better without antibiotics, as your body can usually fight these infections on its own.
- Taking antibiotics when you don't need them allows bacteria to build up resistance. This means, they're less likely to work in the future, when you really might need them.
- Antibiotics can cause side effects such as rashes, thrush, stomach pains, diarrhoea, reactions to sunlight, or being sick if you drink alcohol with metronidazole.
- Find out more about how you can make better use of antibiotics and help keep this vital treatment effective by visiting www.gov.je/antibiotics

Leaflet based on a template published by Public Health England and endorsed by the following professional societies:



Never share antibiotics and always return any unused antibiotics to a pharmacy for safe disposal