NHS FORTH VALLEY
Primary Care Management of Infection Guidance

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Consultation and Change Record – for ALL documents

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Change Record			
Date	**Author**	**Change**	**Version**
Jan 12	AMG	Addition of guidance on UTI in patients with CKD,	2
		Addition of guidance on treatment of dental abcess	
		Addition of guidance on treatment of mastitis	
		Addition of guidance on treatment of epididymo-orchitis	
Sep 13	AMG	Addition of guidance on dental infections	3

Aims

- to provide a simple, best guess approach to the treatment of common infections
- to promote the safe, effective and economic use of antibiotics
- to minimise the emergence of bacterial resistance in the community

Principles of Treatment

1. This guidance is based on the best available evidence but its application must be modified by professional judgement.
2. Prescribe an antibiotic only when there is likely to be a clear clinical benefit
3. Avoid prescribing an antibiotic for sore throat, simple coughs and colds. Consider a no, or delayed antibiotic strategy for acute self-limiting upper respiratory tract infections.
4. Limit prescribing over the telephone to specific cases.
5. Use simple generic antibiotics first whenever possible.
6. Avoid where possible the use of broader spectrum antibiotics (e.g. co-amoxiclav, quinolones and cephalosporins) if narrow spectrum antibiotics are effective to reduce the risk *of clostridium difficile*, MRSA and resistant UTIs.
7. Avoid widespread use of topical antibiotics (especially those agents also available as systemic preparations).
8. **In pregnancy AVOID tetracyclines, aminoglycosides, quinolones and *high dose* metronidazole (2g)**. Short-term use of trimethoprim (theoretical risk in first trimester; trimethoprim is folate antagonist so avoid if low folate status or taking another folate antagonist such as an antiepileptic) or nitrofurantoin (theoretical risk of neonatal haemolysis at term) is unlikely to cause problems to the foetus.
9. Clarithromycin is preferred over erythromycin in adults as it has fewer side effects, greater compliance, and generic tablets are similar cost. In children erythromycin may be preferred as it is half the cost of clarithromycin syrup.
10. **Due to the increased risk of rhabdomyolysis patients on simvastatin (any dose) should not receive concurrent treatment with clarithromycin or erythromycin**. Patients on doses of atorvastatin > 20mg/day should not receive concurrent treatment with clarithromycin. Possible options are: Stop statin for duration of antibiotic course; use alternative antibiotic e.g. doxycycline; change statin to pravastatin for duration of antibiotic course. Considerations for stopping/switching the statin should include the patient's risk factors for ischaemic heart disease and/or an acute coronary event.
11. Where a 'best guess' therapy has failed or special circumstances exist, microbiological advice can be obtained via the hospital switchboard (01324 566000 for Larbert)

***Note:* Doses are oral and for adults with normal renal function unless otherwise stated. Please refer to current edition of BNF for further information. For prescribing in children and adolescents please refer to current edition of BNF for Children.**

Key

The strength of each recommendation is qualified by a letter in parenthesis

Study design	Recommendation grade
Good recent systematic review of studies	A+
One or more rigorous studies, not combined	A-
One or more prospective studies	B+
One or more retrospective studies	B
Formal combination of expert opinion	C
Informal opinion, other information	D

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Recommendations are based on Management of Infection Guidance for Primary Care Published by HPA July 2010. Revised February 2013. Full guideline including references and rational for recommendations are available at www.hpa.org.uk

ILLNESS	COMMENTS	DRUG and DOSE	DURATION OF Tx
UPPER RESPIRATORY TRACT INFECTIONS: Consider delayed antibiotic prescriptions.[A-]			
Influenza HPA Influenza NICE guidance	**Annual vaccination is essential for all those at risk of influenza**. For otherwise healthy adults antivirals not recommended. **Treat 'at risk' patients**, ONLY within 48 hours of onset & when influenza is circulating in the community or in a care home where influenza is likely. **At risk: Pregnant,** 65 years or over, chronic respiratory disease (including COPD and asthma) significant cardiovascular disease (not hypertension), immunocompromised, diabetes mellitus, chronic neurological, renal or liver disease. Use **5 days treatment with oseltamivir 75 mg bd** or if there is suspected or confirmed resistance to oseltamivir or in severely immunocompromised patients use **5 days zanamivir 10 mg BD** (2 inhalations by diskhaler). For prophylaxis, see NICE. (NICE Influenza). Patients under 13 years see HPA Influenza link.		
Pharyngitis / sore throat / tonsillitis Clinical Knowledge Summaries	**Avoid antibiotics** as 90% resolve in 7 days without, and pain only reduced by 16 hours[A+] If Centor score 3 or 4: (Lymphadenopathy; No Cough; Fever; Tonsillar Exudate)[A-] consider 2 or 3-day delayed or immediate antibiotics[,A+] For treatment of Group A strep – see below Antibiotics to prevent Quinsy (NNT >4000[B-]),Antibiotics to prevent Otitis media (NNT 200[A])		
	QDS phenoxymethylpenicillin may be more appropriate if severe.[D]	Phenoxymethylpenicillin 500 mg QDS or 1000mg BD *if allergy to penicillin* Clarithromycin (check sensitivities once available) 250 - 500 mg BD	10 days 5days
Acute Otitis media - child Clinical Knowledge Summaries	**Optimise analgesia and target antibiotics** [B-] • Use NSAID or paracetamol.[A] • **Avoid antibiotics** as 60% are better in 24 hours without: they only reduce pain at 2 days (NNT15) **and do not prevent deafness** [A+] • **Many are viral** Consider 2 or 3-day delayed[A+] or immediate antibiotics for pain relief if: • < 2yrs with bilateral AOM (NNT4[A+]) • All ages with otorrhoea (NNT3 [A+]) (Abx to prevent Mastoiditis (NNT >4000 [B])) (Haemophilus is an extracellular pathogen, thus macrolides, which concentrate intracellularly, are less effective treatment.)	**Child doses** *1st line* ***Amoxicillin*** 40mg/kg/day in 3 divided doses. Maximum 1g TDS **or** *if allergy to penicillin* Erythromycin <2 yrs 125 mg QDS 2-8 yrs 250 mg QDS Other: 250-500 mg QDS (Check sensitivities once available)	 5 days[A+] 5 days[A+]
Acute Otitis Externa **Clinical Knowledge Summaries**	First use aural toilet (if available) & analgesia Cure rates similar at 7 days for topical acetic acid or antibiotic +/- steroid [A+] If cellulitis or disease extending outside ear canal, start oral antibiotics and refer [A+]	*First Line:* acetic acid 2% - 1 spray TDS *Second Line:* neomycin sulphate with corticosteroid [A-,D] 3 drops TDS	7 days 7 days min to 14 days max[A+]

ILLNESS	COMMENTS	DRUG and DOSE	DURATION OF Tx
Acute rhinosinusitis **Clinical Knowledge Summaries**	**Avoid antibiotics as** 80% resolve in 14 days without, and 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 (NNT8 [A+]) For child doses refer to BNF for children. Avoid tetracyclines in children < 12 years, use erythromycin	*1st line* Amoxicillin [A+] 500 mg TDS (1G TDS if severe[D]) **or** Phenoxymethylpenicillin[B+] 500mg QDS *if allergy to penicillin* Doxycycline 200 mg stat followed by 100mg OD	7 days 7 days 7 days
	In persistent infection use an agent with anti-anaerobic activity eg. co-amoxiclav [B+] For treatment failure in children refer to microbiologist for advice – avoid quinolones	*2nd line* Co-amoxiclav 625mg TDS **or** *if allergy to penicillin* Discuss with microbiology	7 days
LOWER RESPIRATORY TRACT INFECTIONS			
Note: Avoid tetracyclines in pregnancy. Low doses of penicillins are more likely to select out resistance. Ciprofloxacin and ofloxacin have poor activity against pneumococci and should not be used first line unless PROVEN Psuedomonal infection. Obtain sputum for culture if possible but do not delay starting treatment. Penicillin allergic patients on simvastatin or atorvastatin (>20mg) should have doxycycline rather than clarithromycin due to risk of drug interaction.			
Community-acquired pneumonia - treatment in the community BTS guidelines 2009	**Start antibiotics immediately.**[B-] • In severely ill antibiotics before admission[C]. • If no response in 48 hours consider admission or add a second antibiotic (clarithromycin or a tetracycline[C]) to cover mycoplasma infection (rare in >65 years). • If no improvement and/or penicillin allergy discuss options with microbiology. • If no response to antibiotics after 2 weeks and/or if severely ill consider possibility of lung cancer or tuberculosis and arrange chest X –ray. Seek risk factors for *Staph aureus* and Legionella.	amoxicillin[A+] 500mg – 1000mg TDS **OR** if allergy to penicillin doxycyline[D] 200mg day 1 then 100mg OD **OR** clarithromycin[A-] 500mg BD	7 - 10 days 7 - 10 days 7 - 10 days
Acute exacerbation of COPD NICE guidance GOLD	Treat exacerbations promptly if purulent sputum AND increased shortness of breath and/or increased sputum volume[B+] *Risk factors for antibiotic resistant organisms include; co-morbid disease, severe COPD, frequent exacerbations, antibiotics in last 3 months*	*1st line* Amoxicillin 500mg TDS *if allergy to penicillin* Doxycycline 200mg day 1 then 100mg OD **or** Clarithromycin 500mg BD --- *If risk factors for resistance or failure of first line treatment* Co-amoxiclav 625mg TDS If penicillin allergic, discuss with microbiology	5 days 5 days 5 days --- 5 days

ILLNESS	COMMENTS	DRUG and DOSE	DURATION OF Tx
Acute cough, bronchitis **Clinical Knowledge Summaries** NICE 69	In Primary Care antibiotics have marginal benefits in otherwise healthy adults.[A+] Symptom resolution can take 3 weeks Consider 7-14 day delayed antibiotic with symptomatic advice / patient information leaflet[A-] Consider antibiotics if unwell and >80 years AND ONE of: hospitalisation in past year, oral steroids, diabetic or CCF or >65 years with TWO of above If treatment failure send sputum samples for sensitivity testing	Amoxicillin 500mg TDS *if allergy to penicillin* Doxycycline 200mg day 1 then 100mg OD	5 days 5 days
Bronchiectasis **BTS Non CF Bronchiectasis Guideline**	Treatment indicated if there are signs of infection e.g. o change in sputum colour/volume, o increased dyspnoea o increased cough o fever o increased wheeze o fatigue o change in clinical signs. • Sputum culture essential to identify causative organism • Initial treatment following sputum culture: previous cultures and sensitivities should guide antibiotic choice. • Clarithromycin **should not** be used in patients receiving treatment long term with azithromycin. • Further treatment should be guided by sputum culture and sensitivities. • Consider bronchodilators and ensure expectoration techniques are being carried out. • Home antibiotic therapy (IV or nebulised) or long term azithromycin therapy should only be commenced after consultation with Respiratory Physician	First line treatment if no guiding microbiology: Amoxicillin 500 - 1000mg TDS *if allergy to penicillin* Clarithromycin 500mg BD 2nd line – discuss with microbiology if *pseudomonas spp*. Isolated and sensitive Ciprofloxacin 750mg BD	 14 days 14 days 14 days

ILLNESS	COMMENTS	DRUG and DOSE	DURATION OF Tx
URINARY TRACT INFECTIONS			
Note: *Amoxicillin resistance is common, therefore ONLY use if culture confirms susceptibility[B+]. In the elderly (>65 years), do not treat asymptomatic bacteriuria; it occurs in 25% of women and 10% of men and is not associated with increased morbidity.[B+]* *In the presence of a catheter, antibiotics will not eradicate bacteriuria; only treat if systemically unwell or pyelonephritis likely.* Do not use prophylactic antibiotics for catheter changes unless history of catheter-change associated UTI			
Uncomplicated UTI – men and women i.e. no fever or flank pain **Clinical Knowledge Summaries**	**Women** with severe ≥3 symptoms: treat[C] **Women** with mild ≤2 symptoms: use dipstick to guide treatment. Nitrite and blood/leucocytes has 92% positive predictive value; -ve nitrite, leucocytes and blood has a 76% NPV.[A-] **Men:** Send pre-treatment MSU **OR** of symptoms mild/non-specific, use –ve nitrite and leucocytes to exclude UTI[C] Consider prostatitis	*1st line* Trimethoprim[B+] 200 mg BD **or** Nitrofurantoin[A-] 50mg QDS NB: Nitrofurantoin not recommended in elderly. Contra-indicated in patients with eGFR <60ml/min/1.73m^2 due to increased risk of side effects and potential for treatment failure due to inadequate urinary concentrations.	3 days[A+] (7 days in men[C])
		2nd line – Ensure samples taken in all treatment failures[B] and recurrent infections. Community multi-resistant Extended Spectrum Beta-lactamase *E.Coli* are increasing.: Consider Pivmecillinam 400mg stat dose then 200mg TDS for 3 days depending on sensitivities. D/W microbiology re suitability of Fosfomycin if no oral alternatives.	
Recurrent UTI women ≥ 3/yr	As low compliance to prophylaxis consider standby treatment course or post coital antibiotic. Long term prophylaxis increases the risk of resistant infections. Risk of pulmonary fibrosis in patients on long term nitrofurantoin	Nitrofurantoin 50-100mg or Trimethoprim 100mg	Stat post coital or od at night Review after 6-12 months
UTI in pregnancy Ensure pregnancy noted on request form	• Send MSU for susceptibility testing and start empirical antibiotics[A]. • Short-term use of nitrofurantoin in pregnancy is unlikely to cause problems to the foetus. Avoid trimethoprim if low folate status or taking folate antagonist (e.g. antiepileptic or proguanil)	Cefalexin 500mg BD *or* Nitrofurantoin 50mg QDS [C] (Avoid if near term – risk of neonatal haemolysis) *or* Trimethoprim 200mg BD (unlicensed) – Avoid in first trimester if other options available – if unavoidable – give folic acid in addition *Co-amoxiclav 625mg TDS – for resistant organisms*	7 days 7 days 7 days 7 days
UTI in Chronic Kidney Disease **CKD 4/5** Ref: Renal Drug Handbook	• Avoid nitrofurantoin in patients with CKD 4 or 5. • Trimethoprim can be used in patients with CKD 3 (unless baseline K is high). Trimethoprim can cause a temporary increase in serum potassium and creatinine during treatment. • Ensure samples are marked with CKD 4 or 5 to allow lab to release sensitivities to cefalexin (ciprofloxacin for penicillin allergic patients)	CKD 4: Trimethoprim (with caution) 100mg BD or Cefalexin 500mg BD or *(penicillin allergy)* Ciprofloxacin 250mg BD CKD 5: Cefalexin 250-500mg BD or *(penicillin allergy)* Ciprofloxacin 250mg BD	5 days 5 days 5 days 5 days 5 days

ILLNESS	COMMENTS	DRUG and DOSE	DURATION OF Tx
UTI in Children HPA **Clinical Knowledge Summaries**	Send pre-treatment MSU for culture and susceptibility. Refer < 3 months. to specialist urgently[C] If ≥ 3 years use positive nitrite to start antibiotics. Only refer for imaging <6months or atypical UTI[C]	**Lower UTI** Trimethoprim[A] **or** Nitrofurantoin[A] if susceptible; amoxicillin 2nd line Cefalexin[C] **Upper UTI** Co-amoxiclav[A] 2nd line – Cefixime[A] See BNF for Children for dosages	3 days[A+] 7-10 days[A+] 7-10 days[A+]
Acute pyelonephritis	If admission not required, send MSU for culture and start antibiotics If no response within 24 hours admit.	Ciprofloxacin[A-] 500mg BD **or** Co-amoxiclav[C] 625mg TDS	7 days[A-] 14 days[C]
Acute prostatitis **BASHH** **Clinical Knowledge Summaries**	Send MSU for culture and susceptibility and start antibiotics[C] Refer to specialist. 4 weeks treatment may prevent chronic infection. Quinolones achieve higher prostate levels	Ofloxacin[C] 200mg BD **or** Ciprofloxacin 500mg BD **or** Trimethoprim[C] 200mg BD	28 days 28 days 28 days
Acute epididymo-orchitis		Ofloxacin 200mg BD	28 days
MENINGITIS			
Suspected meningococcal disease HPA SIGN 102	**Transfer all patients to hospital immediately.** If time allows and non-blanching rash, give IV benzylpenicillin or cefotaxime,[B+] unless hypersensitive i.e. history of difficulty breathing, collapse, loss of consciousness.[B-] (Give IM if vein cannot be found)	IV or IM benzylpenicillin or IV or IM cefotaxime	Age 10 yr and over: 1200 mg Children 1 - 9 yr: 600 mg Children <1 yr: 300 mg Age 12+ years: 1 gram Child < 12 years; 50mg/kg
Prevention of secondary case of meningitis	Only prescribe following advice from Public Health Doctor – telephone 01786 457260 (9am – 5pm) Out of hours: Call switchboard at FVRH (01324 566000) and ask for Public Health Doctor on call		

ILLNESS	COMMENTS	DRUG and DOSE	DURATION OF Tx
GASTRO-INTESTINAL TRACT INFECTIONS			
Eradication of *Helicobacter pylori* HPA **Clinical Knowledge Summaries**	Eradication is beneficial in DU, GU[A+] and low grade MALToma[B+], but NOT in GORD.[C] In NUD, then NNT is 14 for symptom relief[A+] Triple treatment attains >85% eradication.[A+] Avoid clarithromycin or metronidazole if used within last 12 months for any infection[A+] In penicillin allergy use clarithromycin and metronidazole.	*First line* Omeprazole caps 20mg BD **PLUS** Clarithromycin 500mg BD and Amoxicillin 1g BD **OR** Clarithromycin 250mg BD and Metronidazole 400mg BD	**All for 7 days** **(14 days in relapse or MALToma)**
Symptomatic relapse	• DU/GU: Re-test (stool antigen test) for helicobacter if symptomatic. • In confirmed treatment failure, consider referral to Gastroenterologist. Treatment failure usually indicates bacterial resistance or poor compliance NUD: Do not retest, offer PPI or H_2RA[A+,C]	2nd line Omeprazole caps 20mg daily **PLUS** Bismuthate (De-nol®) 240mg BD **PLUS** two unused antibiotics • Amoxicillin 1g BD • Metronidazole 400mg BD • Tetracycline 500mg QDS	**(14 days in relapse or MALToma)**
Traveller's diarrhoea	**Only consider standby antibiotics for** remote areas or people at high-risk of severe illness with traveller's diarrhoea[C]. If standby treatment appropriate, ciprofloxacin 500mg BD for 3 days (Private Rx)		
Gastroenteritis **Clinical Knowledge Summaries**	Fluid replacement essential. **Antibiotic therapy is not indicated as it** can cause resistance.[B+], increases the risk of *C.diff*, and causes prolonged carriage of some of the organisms and risks haemolytic uraemic syndrome. Initiate treatment following discussion with microbiologist if the patient is systemically unwell or following a course of antibiotics suggesting *C. diff* infection. Please notify suspected cases of food poisoning to, and seek advice on exclusion of patients from, Public Health Doctor on 01786 457260		
Infectious diarrhoea **Clinical Knowledge Summaries**	**Antibiotic therapy not indicated unless patient systemically unwell[C].** If systemically unwell, discuss with microbiology. Refer previously healthy children with acute painful or bloody diarrhoea to exclude *E.Coli* 0157 infection.		

ILLNESS	COMMENTS	DRUG and DOSE		DURATION OF Tx
Clostridium difficile HPA	Stop unnecessary antibiotics and PPI's to re-establish normal flora[B+]. 92% respond in 14days. Admit if Severe: if T>38.5°C; WCC>15, rising creatinine or signs/symptoms of severe colitis	1st/2nd episodes Metronidazole[A-] 400mg TDS Severe Vancomycin[A-] 125mg QDS (oral) 3rd and subsequent episodes – use pulsed vancomycin therapy - d/w microbiology – see CDI Policy – page 36 of attached http://show.fv.scot.nhs.uk/web/FILES/CE_Guideline_AcuteMedicine/EmpiricalAntimicrobialGuidelines.pdf		10-14 days 10-14 days
Threadworms **Clinical Knowledge Summaries**	Treat household contacts. Advise hygiene measures for 2 weeks :morning shower/baths and hand hygiene and pants at night PLUS wash sleepwear, bed linen, dust and vacuum on day 1.	> 6mths: Mebendazole 3-6 mths: Piperazine/senna sachet <3 mths: 6 weeks hand hygeine	100mg as single dose 2.5ml of reconstituted sachet as a single dose	Repeat after 14 days Repeat after 14 days

ILLNESS	COMMENTS	DRUG and DOSE	DURATION OF Tx
SKIN / SOFT TISSUE INFECTIONS			
Eczema Clinical Knowledge Summaries	Using antibiotics or adding them to steroids in eczema encourages resistance and does not improve healing unless there are visible signs of infection[B]. If infection treat as impetigo[C].		
Impetigo Clinical Knowledge Summaries	For extensive, severe or bullous impetigo, use oral antibiotics[C] For dosing in children refer to BNF for children	*First line* Flucloxacillin 500mg QDS *if allergy to penicillin* Clarithromycin 250-500mg BD (Erythromycin in children)	7 days 7 days
	As resistance is increasing reserve topical antibiotics for **very localised** lesions[B,C.] Review sensitivities Reserve Mupirocin for MRSA[C]	Fusidic acid topically TDS Mupirocin (MSSA/MRSA) topically TDS	**5 days** **5 days**
Scabies Clinical Knowledge Summaries	Treat all home & sexual contacts within 24 hours Treat whole body from ear/chin downwards and under nails. If less than 2yrs or elderly, treat face and scalp also.	Permethrin[A+] 5% cream if allergy Malathion 0.5% aqueous liquid	2 applications one week apart 2 applications one week apart
Non – Diabetic Leg ulcers Clinical Knowledge Summaries (leg ulcers continued)	Bacteria will always be present. **Antibiotics do not improve healing.**[A+] Culture swabs and antibiotics are only indicated if diabetic or there is evidence of clinical infection such as inflammation/redness/cellulitis; increased pain; purulent exudate; odour; rapid deterioration of ulcer or pyrexia.		
	Review antibiotics after culture results. Refer for specialist opinion if severe infection	Flucloxacillin 500mg QDS *if allergy to penicillin* Clarithromycin 500mg BD **For MRSA positive patients – discuss with microbiology**	7days and review 7days and review
Diabetic Foot Ulcers	See separate guidance http://www.nhsforthvalley.com/__documents/qi/ce_guideline_acutemedicine/empiricalantimicrobialguidelines.pdf		

ILLNESS	COMMENTS	DRUG and DOSE	DURATION OF Tx
Cellulitis **Facial cellulitis**	If patient afebrile and healthy other than cellulitis, flucloxacillin may be used as a single drug treatment. If river or sea water exposure discuss with microbiologist If febrile and ill admit for IV treatment	Flucloxacillin 500mg QDS *In penicillin allergy* Clarithromycin alone 500mg BD **or** Clindamycin (caution in elderly due to ADR's) 300-450mg QDS (if diarrhoea – stop) Co- amoxiclav 625mg TDS **For MRSA positive patients – discuss with microbiology**	All for 7 days. If slow response, continue for further 7 days
Cellulitis associated with lymphoedema	See Strathcarron Hospice guidance		
MRSA	Use antibiotics sensitivities to guide treatment. If severe infection seek advice from microbiology.	Avoid monotherapy with oral agents	
PVL S.*aureus* HPA org	Panton-Valentine Leukocidin (PVL) is a toxin produced by 2% of *Staphylococcus aureus* (both MSSA and MRSA) and is associated with persistent recurrent pustules and carbuncles or cellulitis. Send swabs for culture in these clinical scenarios. On rare occasions it causes more severe invasive infections, even in otherwise fit people. Risk factors include: contact sports, sharing equipment, poor hygiene and eczema		
Mastitis		1st line – Flucoxacillin 500mg QDS 2nd Line – Co-amoxiclav 625mg TDS Penicillin allergy: 1St line – Clarithromycin 500mg bd 2nd Line - Doxycycline 200mg for 1 dose then 100mg daily for 6 days – not in pregnant or breast feeding patients – discuss with microbiology	7 days 7 days 7 days
Conjunctivitis **Clinical Knowledge Summaries**	**Most bacterial infections are self-limiting.** 65% resolve on placebo by day 5. They are usually unilateral with yellow-white mucopurulent discharge. Fusidic acid has no Gram-negative activity or streptococcal activity Gentamicin has no streptococcal cover	Chloramphenicol 0.5% drops - 1 drop 2 hrly reducing to QDS PLUS 1% ointment at night PLUS *Second line:* Fusidic acid 1% gel – Apply BD or Gentamicin 0.3% eye drops 2 hrly reducing to QDS	Continue all for 48 hours after resolution

ILLNESS	COMMENTS	DRUG and DOSE	DURATION OF Tx
Animal bite / Human bite **Clinical Knowledge Summaries**	Surgical toilet most important. Assess tetanus and rabies risk. Antibiotic prophylaxis advised for – puncture wound; bite involving hand, foot, face, joint, tendon, ligament; immunocompromised, diabetics, elderly, asplenic, cirrhotic Antibiotic prophylaxis advised. Assess tetanus, HIV/hepatitis B & C risk[B]	*First line animal & human prophylaxis and treatment* Co-amoxiclav[B-] 625mg TDS *If penicillin allergy:* Metronidazole 400mg TDS PLUS Doxycycline 200mg day 1- then 100mg OD or Metronidazole PLUS Clarithromycin 500mg BD review at 24 & 48 hrs	 7 days 7 days 6 days 7 days 7 days
Dermatophyte infection of the skin **Clinical Knowledge Summaries**	Take skin scrapings for culture. Treatment: 1 week terbinafine is as effective as 4 weeks azole. [A-] If candida possible, use imidazole. If intractable send skin scrapings. Discuss scalp infections with specialist.	Topical 1% Terbinafine [A+]BD or 1% imidaazole[A+] BD or (athlete's foot only) topical undecanoates BD	1-2 weeks[A+] for 1-2 weeks after healing (i.e.4 – 6 weeks[A+])

ILLNESS	COMMENTS	DRUG and DOSE	DURATION OF Tx
Dermatophyte infection of the proximal fingernail or toenail - for children seek advice	Take nail clippings: Start therapy only if infection is confirmed by laboratory. Idiosyncratic liver reactions occur rarely with terbinafine. It is more effective than the azoles **For infections with yeast and non-dermatophyte mould use itraconazole[C] (can also be used for some dermatophytes)**	Superficial only 5% Amorolfine nail lacquer[B-] (for superficial) – 1-2 x a week Terbinafine[A-] 250mg daily Itraconazole 200 mg BD for 7 days monthly	6 months for fingers 12 months for toes 6 – 12 weeks for fingers 3 – 6 months for toes 2 courses for fingers 3 courses for toes
Acne Vulgaris	Consider topical antibiotics after topical benzoyl peroxide or azeleic acid. Use alone or in combination with benzoyl peroxide, retinoids or zinc Other antimicrobials may be beneficial if topical treatments fail. Do not routinely use topical and oral. (Use of Isotrexin gel with oral erythromycin is an option)	*Topical* Clindamycin or Erythromycin – apply BD **Or** *Oral* Erythromycin 500mg BD **Or** Doxycycline 100mg OD **Or** Oxytetracycline 500mg BD **Or** Lymecycline 408mg OD	Treat for at least 6 months Assess effect after 3 months. Continue for at least 6 months if effective
Varicella zoster/ Chicken pox **&** **Herpes zoster/ Shingles** **Clinical Knowledge Summaries**	If pregnant /immunocompromised/ neonate seek urgent advice re treatment and prophylaxis. **Chicken pox**: Clinical value of antivirals minimal unless >14 years, immunocompromised, severe pain or dense/oral rash, on steroids,smoker, or secondary household case **AND** treatment started <24h of onset of rash.[A-] **Shingles**: Always treat if active ophthalmic or Ramsey Hunt or eczema. **Non-ophthalmic**: Treat > 50years[A+] if < 72 h of onset of rash, as post-herpetic neuralgia rare in < 50yrs but occurs in 20%>50yr[A+]	*1st line* – Aciclovir 800mg 5 x day *2nd line for shingles or if compliance a problem* – Famciclovir 250mg TDS **Or** Valaciclovir 1g TDS Child doses – see BNF for children	7 days 7 days 7 days

ILLNESS	COMMENTS	DRUG and DOSE	DURATION OF Tx
DENTAL INFECTIONS			
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.			
Mucosal ulceration and inflammation (simple gingivitis)	• Temporary pain and swelling relief can be attained with saline mouthwash • Use antiseptic mouthwash: • If more severe & 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 – ½ teaspoon salt dissolved in glass warm water Chlorhexidine 0.12-0.2% *(Do not use within 30 mins of toothpaste)* – Rinse mouth for 1 minute BD with 5ml diluted in 5-10ml water Hydrogen peroxide 6% *(spit out after use)* – Rinse mouth for about 2 minutes TDS with 15ml diluted in ½ glass warm water	Always spit out after use Use until lesions resolve or less pain allow oral hygiene
Acute necrotising ulcerative gingivitis	Commence metronidazole and refer to dentist for scaling and oral hygiene advice Use in combination with antiseptic mouthwash if pain limits oral hygiene	Metronidazole400mg TDS Chlorhexidine or hydrogen peroxide - as above	3 days Until oral hygiene possible
Dental abscess	• Regular analgesia should be first option until a dentist can be seen for urgent drainage, as repeated courses of antibiotics for abscess are not appropriate; Repeated antibiotics alone, without drainage are ineffective in preventing spread of infection. • Antibiotics are recommended if there are signs of severe infection, systemic symptoms or high risk of complications. • Severe odontogenic infections; defined as cellulitis plus signs of sepsis, difficulty in swallowing, impending airway obstruction, Ludwigs angina. Refer urgently for admission to protect airway, achieve surgical drainage and IV antibiotics The empirical use of cephalosporins, co-amoxiclav, clarithromycin, and clindamycin do not offer any advantage for most dental patients and should only be used if no response to first line drugs when referral is the preferred option.		
	If pus drain by incision, tooth extraction or via root canal. Send pus for microbiology. *True penicillin allergy*: use clarithromycin or clindamycin if severe. *If spreading infection* (lymph node involvement, or systemic signs ie fever or malaise) ADD metronidazole	Amoxicillin - 500mg TDS or Phenoxymethylpenicillin - 500mg-1g QDS *True penicillin allergy:* Clarithromycin 500mg BD *Severe infection add* Metronidazole 400mg TDS *if allergy* Clindamycin 300mg QDS	Up to 5 days – review at 3 days 5 days 5 days
Pericoronitis	Refer to dentist for irrigation & debridement. If persistent swelling or systemic symptoms use metronidazole. Use antiseptic mouthwash if pain and trismus limit oral hygiene	Amoxicillin 500mg TDS Metronidazole 400mg TDS Chlorhexidine or hydrogen peroxide - dose as above	3 days 3 days Until oral hygiene possible

ILLNESS	COMMENTS	DRUG and DOSE	DURATION OF Tx
GENITAL TRACT INFECTIONS – UK NATIONAL GUIDELINES			
Note: *Central Sexual Health line: 01786 433697 Central Sexual Health professional and patient helpline: 01324 613944 Mon-Fri 0900-1215 Can refer via scigateway Central Sexual Health Secretary: 01324 673555 Website: www.centralsexualhealth.org British association for sexual health: www.bashh.org West of Scotland sexual health MCN guidelines http://www.centralsexualhealth.org/west-of-scotland-managed-clinical-network/resources/guidelines.htm*			
Syphilis	**Refer all patients with positive blood tests indicating "syphilis" to GUM, Central Sexual Health by the helpline number above without treatment.**		
Gonorrhoea	**Refer all patients with positive NAATs and/or cultures to GUM, Central Sexual Health via the helpline. Patients should attend GUM for management, culture for antibiotic sensitivity, partner notification and follow-up. First line therapy is intramuscular ceftriaxone 500mg stat together with azithromycin 1g stat**		
Vaginal candidiasis	Exclude genital Herpes on inspection before making diagnosis of Candida infection. Check pH from lateral vaginal wall In pregnancy avoid oral azole[B] Use intravaginal	Clotrimazole 10% 5g vaginal cream **or** Clotrimazole 500mg pessary **or** Fluconazole 150mg orally Add topical 1% clotrimazole and 1% hydrocortisone cream if severe inflammatory component	stat stat stat
Chlamydia trachomatis Chlamydia quick reference guide	Samples should be taken before treatment. • Patients with symptoms, i.e. pelvic pain in women, scrotal pain or urethral discharge in men, urgently refer using the helpline number above or to the relevant service e.g urology / ED / gynaecology. Treat partners Pregnancy/breastfeeding: Tetracyclines are contra-indicated; Azithromycin can be used but is off-label. Test of cure should be done in pregnancy or after treatment with erythromycin or amoxicillin. Test of cure should be done 6 weeks after treatment	Azithromycin[A+] 1g stat Or Doxycyline 100mg BD Do not use doxycycline in pregnancy/ breastfeeding Alternatives to doxycycline: Erythromycin[A-] 500mg BD (less efficacious than doxycycline or azithromycin) or amoxicillin 500mg TDS	I hr before or 2 hrs after food 7 days 14 days 7 days
Pelvic Inflammatory Disease (PID)	**Patients with symptoms should be referred urgently to GUM, Central Sexual Health or ED if severe.** **Essential to do dual test for *N. gonorrhoea* and Chlamydia AND cervical culture for gonorrhoea**. Gonorrhoea more likely if partner has gonococcal infection, severe symptoms, sex abroad PARTNERS should be tested and treated in all cases of PID. Please refer to GUM, Central Sexual Health	**IF Gonorrhoea likely:** ceftriaxone 500mg IM PLUS metronidazole 400mg BD PLUS doxycyline 100mg BD or Metronidazole 400mg BD PLUS Ofloxacin[B] 400mg BD	stat 14 days 14 days 14 days 14 days

ILLNESS	COMMENTS	DRUG and DOSE	DURATION OF Tx
Bacterial vaginosis	• A 5 day course of oral metronidazole is slightly more effective than 2 g stat.[A+] • Avoid 2g stat dose in pregnancy/breast feeding. • Use intravaginal treatment for lactating women • Topical treatment gives similar cure rates[A+] but is more expensive. • Treating partners does not reduce relapse	Oral Metronidazole[A+] 400mg BD ***or*** Metronidazole 2g Vaginal Metronidazole Gel 0.75%[A+] - 5g applicator at night or Vaginal Clindamycin 2% cream[A+] - 5g applicatorful at night	5 days stat 5 nights 7 nights
Trichomoniasis	Refer to GUM, Central Sexual Health. Test and treat partners simultaneously In pregnancy and breastfeeding avoid 2g single dose metronidazole.	Metronidazole[A-] 400 mg BD or 2 g in single dose	5 days stat
Genital Herpes	• Take a viral swab before treatment. It is important to the patient that they have an accurate diagnosis. • Start treatment immediately. • Telephone GUM, Central Sexual Health for **urgent** referral.	Aciclovir 200mg five times daily	5 days

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