NHS Dumfries & Galloway empirical antimicrobials guidance
Primary Care

Aims

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

Principles of Treatment

1. This guidance is based on the available evidence but professional judgement should be used and patients should be involved in decisions
2. Prescribe an antibiotic only when there is likely to be clear clinical benefit
3. Do not prescribe an antibiotic for viral sore throat, simple coughs and colds
4. Use caution when prescribing quinolones and refer to recent safety update before choosing for high risk patients MHRA Quinolones for safety info and Quinolones patient leaflet
5. Consider whether Pharmacy First could be a suitable point of referral for the patient.
6. Limit prescribing over the telephone to clinically appropriate cases
7. Lower threshold for antibiotics in Immunocompromised or those with multiple morbidities: consider culture and seek advice
8. Use simple generic antibiotics first whenever possible
9. The use of antibiotics associated with a higher risk of developing Clostridioides Difficile infection, MRSA and resistant UTI's (e.g. cephalosporins, co-amoxiclav, quinolones and clindamycin) is inappropriate when effective alternates are available
10. Avoid topical antibiotics (especially those agents available as systemic preparations)
11. In pregnancy AVOID tetracyclines, aminoglycosides, quinolones and high dose metronidazole. Trimethoprim is no longer licensed for use at any stage of pregnancy. Nitrofurantoin should be avoided at term.
12. Where a "best guess" therapy has failed or special circumstances exist, microbiology advice can be obtained from duty microbiologist – via switchboard.
13. For the management of MRSA please refer to the D+G infection control manual Management of MRSA

ILLNESS	COMMENTS	DRUG	DOSE	DURATION OF Tx
UPPER RESPIRATORY TRACT INFECTIONS: Consider delayed antibiotic prescriptions				
Acute sore throat. CKS	**Avoid antibiotics** as 90% resolve in 7 days without and pain reduced by 16 hours [2A+] .Patients with 3 of 4 centor criteria(history of fever, purulent tonsils, cervical adenopathy, absence of cough) [3A-] or history of otitis media may benefit more from antibiotics – consider 2 or 3 day delayed or immediate antibiotics [1,A+.] Number needed to treat (NNT) with antibiotics to prevent 1 episode of quinsy is >4000 [4B-] . NNT to prevent 1 episode of otitis media is 200 [2A+] .			
	Evidence indicates that penicillin 500mg QDS for 7 days is more effective than 3 days. 1g BD can also be used. [6+] QDS may be more effective if severe.	Phenoxymethyl penicillin. [5B-]	500mg QDS OR 1g BD (QDS in severe infections)	7 days [8A-]
		Clarithromycin if allergic to penicillin	500mg BD	5 days [9A+]
Acute Otitis media (child doses) CKS	**Optimise analgesia** [2,3B-] **Target antibiotic appropriately –** Otitis Media resolves in 60% of cases within 24 hours without antibiotics: they only reduce pain at 2 days (NNT=15) and do not prevent deafness[4A+] Consider 2 or 3 days delayed [1A+] or immediate antibiotics for pain relief in the following instances : • **< 2 yrs** with bilateral acute otitis media (NNT =4) or bulging membrane and ≥4 marked symptoms [5A+]	Amoxicillin [8A-] Clarithromycin if allergic to Penicillin	<1 yr - 125mg TID 1-5yrs - 250mg TID >5 yrs - 500mg TID Bodyweight <8kg :- 7.5mg/kg BD 8 – 11kg – 62.5mg BD	5 days [10A+] 5 days [10A+] 5 days [10A+]

	• **All ages** with otorrhoea (NNT=3) [6A+] NNT with an antibiotic to prevent one case OF mastoiditis IS >4000[7B] Haemophilus is an extracellular pathogen, thus macrolides, which concentrates intracellularly, are less effective treatment		12 – 19kg - 125mg BD 20 – 29kg – 187.5mg BD 30 – 40kg – 250mg BD	
Acute Otitis externa CKS	Important to exclude an underlying chronic otitis media before commencing treatment. Many cases recover after thoroughly cleansing of the external canal by suction or dry mopping. Cure rates similar at 7 days for topical acetic acid or antibiotic +/- steroid[1A+] If cellulitis, or disease extending outside ear canal, start oral antibiotics based on previous sensitivities if available and also send a swab for culture[2A+] **Do not prescribe blindly more than once.**	**1st line:** Betamethasone 0.1% drops **2nd line:** Neomycin sulphate with corticosteriod[3A-,4D] If suspected fungal infection: Clotrimazole 1% solution	Apply 2 to 3 drops every 3 to 4 hours; reduce frequency when relief obtained. 3 drops TID Apply BD to TID	7 days 7 days Continue for at least 14 days after infection clears.
Rhinosinusitis Acute[5c] or chronic CKS	**Avoid antibiotics as** 80% resolve in 14 days without and they only offer marginal benefits after 7 days NNT=15 [2.3A+] **Use adequate analgesia** [4B+] Consider 7 days delayed or immediate antibiotics when purulent nasal discharge NNT=8 [1,2A]	Amoxicillin [4A+, 7D] Or Doxycyline Or Phenoxymethlypenicillin[8B+]	500mg TID 1 g if severe [10D] 200mg stat/100mg OD 500mg QID	5 days [9A+] 5 days 5 days
	In persistent infection, an agent with anti-anaerobic activity should be considered[6B+]	**Only for use in persistent symptons**:- Co –amoxiclav [6B+]	625mg TID	5 days
LOWER RESPIRATORY TRACT INFECTIONS				
Note: Low doses of penicillins are more likely to select out resistance[1.] Quinolones are NOT to be used first line due to poor activity against pneumococcal infections and association with a higher risk of causing Clostridioides Difficile. All quinolones must be reserved for proven resistant organism.				
Acute cough, bronchitis CKS	Systematic reviews indicate antibiotics are of little benefit in otherwise healthy adults [1,4A+.] Consider 7 – 14 day delayed antibiotic with symptomatic advice/leaflet[1,5A-] Consider immediate antibiotics if >80 years with ONE of the following OR>65 years with TWO of the following:- hospitalisation in past year, taking oral steroids, diabetic, congestive heart failure.	Amoxicillin or Doxycycline	500mg TID 200mg stat/100mg OD	5 days 5 days

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Acute exacerbation of COPD NICE (NG114) GOLD	**Antibiotic not indicated in absence of purulent/ mucopurulent sputum.** Treat exacerbation promptly with antibiotics if purulent sputum **and** increased shortness of breath **and/or** increased sputum volume [1,38+] Risk factors for antibiotic resistant organisms include co-morbid disease, severe COPD, frequent exacerbation, antibiotics in last 3months	**1st line:-** Amoxicillin **2nd line:-** Doxycycline **Penicillin allergy:-** Doxycycline Or Clarithromycin if Doxycycline contraindicated **If resistance risk factors:-** Doxycycline	 500mg TID 200mg stat/100mg OD 200mg stat/100mg OD 500mg BD 200mg stat/100mg OD	 5 days 5 days 5 days 5 days 5 days
Scarlet fever CKS	Prompt treatment with appropriate antibiotics significant reduces the risk of complications. Observe immuncompromised individuals (diabetes; women in the puerperal period; chickenpox) as they are at increased risk of developing invasive infection.	Phenoxymethlypenicillin Penicillin allergy: Azithromycin	500mg QDS 500mg OD	10 days 5 days
LOWER RESPIRATORY TRACT INFECTIONS (CONTINUED)				
Community acquired pneumonia – treatment in the community NICE 138 BTS	Use CURB65 score to help guide and review: [1] Each scores 1: **C**onfusion (new) (MSQ<8); **U**rea >7mmol/l (if available) **R**espiratory rate >30/min; **B**P systolic <90 or diastolic <60; Age >**65 years** Score = 0: suitable for home Treatment ; Score =1-2: consider hospital assessment or admission **Score =3 – 4 : urgent hospital admission** If no response in 48 hours consider admission or add clarithromycin first line or a tetracycline to cover Mycoplasma infection (rare in over 65s) In delayed admission/life threatening cases, give immediate parental benzylpenicillin or amoxicillin 1g orally before admission and seek risk factors for legionella and Staph aureus infection	**If CURB 65=0:** Amoxicillin [A+] or Doxycycline[D] or Clarithromycin[A-] **If CURB 65=1 at home:** Amoxicillin [A+] AND Clarithromycin [A-] Or Doxycycline alone	 500mg TID 200mg stat/ 100mg OD 500mg BD 500mg TID 500mg BD 200mg stat/100mg OD	 5 days 5 days 5 days 5 days 5 days
MENINGITIS				
Prevention of secondary cases : Only prescribe following advice from public Health Doctor : 9am – 5pm :01387 272726 Out of hours: Contact on –call doctor via D+GRI switchboard: 01387 246246				

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URINARY TRACT INFECTIONS (UTI QUICK REFERNECE GUIDE ESBL CKS SIGN88				
Note: In the elderly (>65yrs), do not treat asymptomatic bacteriuria; it is common but not associated with increased morbidity. [1B+] In the presence of a catheter, antibiotic will not eradicate bacteriuria; only treat if systemically unwell or pyelonephritis likely. [-2B+] Do not use prophylactic antibiotic for catheter changes unless history of catheter-change-associated UTI [3B].7				
Lower UTI in non- pregnant women CKS, SIGN NICE 109	Over 33% of symptomatic women have no identifiable bacterial infection [15.] **Severe** (≤ 2 symptoms):use dipstick to guide treatment and send MSU for culture [3A-.] Consider the use of delayed prescriptions in women with mild symptoms [16,17,18,19.] There is also evidence that Ibuprofen plus general advice about maintaining fluid intake is non-inferior to using Ciprofloxacin and can provide resolution of symptoms without the need for antibiotics [19.] Nitrofurantoin should be used with caution in the elderly and is contraindicated in individuals with an eGFR<45ml/min.	Trimethoprim [6B+] Or Nitrofurantoin [MR7B+, 8c, 9B+.]	200mg BD 100mg MR BD	3 days (consider a delayed prescription in women presenting with mild symptoms)
		2 nd line – Perform culture in all treatment failures [1B] Consider Cefalexin for patients with CKD, 500mg BD for 3 days Amoxicillin resistance common, therefore ONLY use if culture confirms susceptibility [10b+] Multi – resistant ESBL E. Coli is increasing but often remain sensitive to Nitrofurantoin, Pivmecillinam and Fosfomycin. [11,12B] Discuss with microbiologist		
UTI in men NICE 109 SIGN CKS	Consider prostatitis and send pre-treatment MSU [1,4 C] OR if symptoms - mild/non-specific, use –ve dipstick to exclude UTI [5C] Men with uncomplicated UTI can be treated with Trimethoprim or Nitrofurantoin Men with symptoms suggestive of prostatitis (abrupt onset of avoiding symptoms, distressing but poor localised pain and systemic symptoms such as fever and malaise) should be treated with quinolones. [14] <10% of men who receive a diagnosis of prostatitis have a proven bacterial infection [14]	**Uncomplicated UTI** Trimethoprim OR Nitrofurantoin MR Consider Cefalexin for patients with CKD **Signs and symptoms suggestive of prostatitis** Ciprofloxacin **2nd line:-** Trimethoprim	 200mg BD 100mg BD 500mg BD 500mg BD 200mg	 7 days 7 days 7 days Review after 14 days and either stop or continue for a further 14 days. Provide Quinolones patient leaflet 28 days

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UTI in pregnancy CKS SIGN NICE 109	Send MSU for culture and sensitivity and start empirical antibiotics[1A.] A repeat urine culture should be performed 7 days after the completion of the antibiotic course as a test cure Asymptomatic bacteriuria in pregnancy should be treated with an antibiotic Nitrofurantoin is contraindicated in individuals with e GFR <45ml/min **and should be avoided at term.** Note: Trimethoprim no longer licensed in pregnancy (at any stage). Many years of use have shown it is safe in the **2nd and 3rd** trimester but it should not be used first line. Discuss with microbiologist if unsure.	**1st line:-** Nitrofurantoin MR **2nd line:-** (If no improvement after 48 hours or Nitrofurantoin not suitable) Amoxicillin(if culture results show susceptibility) OR Cefalexin Discuss with microbiologist for alternatives	100mg BD 500mg TID 500mg BD	7 days 7 days 7 days
UTI in children NICE 109 CKS	Children <3 months: refer urgently for assessment[1C] Children ≥ 3 months: use positive nitrite to start antibiotics [1A+.] Send pre-treatment MSU for culture and sensitivity is not detrimental to outcome.[A-]	**1st** line- Trimethoprim[1A] **2nd** line - Nitrofurantoin MR[1A-] **3RD** line - Amoxicillin[1A] (if cultures show sensitivity) OR Cefalexin (if cultures show sensitivity)	3 – 5 months – 4mg/kg or 25mg BD (max 200mg per dose) 6 months to 5 yrs - 4mg/kg or 50mg BD (max 200mg per dose) 6 – 11 years- 4mg/kg or 100mg BD (max 200mg per dose) 3 months – 11 yrs – 750mcg/kg QDS 12 - 15 yrs – 50mg QDS or 100mg MR BD 1 – 11months- 125mg TDS 1 – 4 years- 250mg TDS 5 – 15 yrs – 500mg TDS 3 – 11 months – 12.5mg/kg BD or 125mg BD 1 – 4 years 12.5mg/kg BD or 125mg TDS 5 – 11 years 12.5mg/ kg BD or 250mg TDS 12 – 15 years – 500mg BD	All 3 days

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Acute pyelonephritis CKS NICE 111	If admission not needed, send MSU for culture and sensitivities and start antibiotic [1C] If no response within 24 hours, admit[2C]	Trimethoprim **If Penicillin allergy** – Ciprofloxacin[3A-]	200mgBD 500mg BD	7 – 10 days[3A-] 7 days Provide Quinolones patient leaflet 14 days
Recurrent UTI in women(≥3 Infections per year OR ≥ 2 in 6 months) CKS NICE 112	Try simple measures to prevent infections, i.e. better hydration, urge initiated voiding and postcoital voiding if appropriate Post coital prophylaxis is an effective as prophaylaxis taken nightly[1.] The use of "standby"antibiotics may be a useful method of avoiding daily prophylactic antibiotics in recurrent UTI[3B+] Where continued problems exist, consider renal tract ultrasound and Post void bladder residual volume scan and in new presentations in post-menopausal women also consider referral for cystoscopy. In menopausal women consider prescribing vaginal oestrogen if underlying cause has been investigated and behavioural /hygiene measures alone are ineffective or inappropriate.	Nitrofurantoin OR Trimethoprim	50mg-100mg 100mg	Review in 6 months
Catheter infection NICE 113	Treat empirically **if symptomatic.** 60% of cases are sensitive to Trimethoprim. Asymptomatic colonisation is common and should not be treated. Do not dip urine! Change catheter after 24 hours of antibiotic treatment. Do not give prophylactic antibiotics to prevent catheter associated UTI. Consider prophylaxis at the time of catheter change for men who have a history of symptomatic UTI after catheter change or experience trauma during catheterisation	**1st line:-** Nitrofurantoin MR Trimethoprim Amoxicillin (if culture results show sensitivity) **2nd line:-** **(when first line unsuitable)** Pivimecillinam (a Penicillin)	 100mg BD 200mg BD 500mg TID 400mg stat/ 200mg TID	 7 days 7 days 7 days 7 days

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GASTROINTESTINAL INFECTIONS				
Clostridioides difficile (see below) CKS HPS	First line treatment For patients who do not respond to 1st line antibiotic after 7 days treatment, consider need for admission for IV fluid replacement and surgical assessment. Recurrence of CDI **within 12 weeks** (relapse) Exception- treatment failure identified as incomplete treatment course (treat as per first line treatment) Recurrence of CDI **after 12 weeks** **Second recurrence of CDI-** Discuss with infection specialist/microbiologist and consider Faecal Microbiota Transplant (FMT). Pulse/Tapered vancomycin if FMT not available.	Vancomycin po Fidaxomicin po or higher dose Vancomycin po with or without intravenous metronidazole IV Treat with fidaxomicin po Treat with oral vancomycin as per first line treatment	125mg QID 200mg BD 500mg QID 500mg TID 200mg BD 125mg QID	10 days 10 days 10 days 10 days 10 days
Clostridioides difficile	***S*top unnecessary antibiotics and/or acid suppression.** Metronidazole may be prescribed in community settings if delays in supply of oral vancomycin would result in delayed initiation of treatment. Metronidazole should be substituted with oral vancomycin as soon as availability is resolved to complete a total of 10 days treatment			
Gastroenteritis	The aim of antibiotic therapy is gastroenteritis is to treat those with invasive **Salmonella** infection to prevent life –threatening complications- this can be predicted by those with dysenteric symptoms plus another risk factor such as achlorhydria, age >65 yrs, immunosuppression, inflammatory bowel disease or vascular disease. Antibiotics increase the risk of haemolytic uraemic syndrome in **E.Coli 0157** and have a small effect on reducing duration in non-life threatening **Campylobacter** but where antibiotic treatment is deemed to be indicated, **Clarithromycin 500mg BD for 7 days** is recommended and liaise with microbiology.			
Traveller's diarrhoea	**Limited prescription of antibacterial to be carried abroad** as standby treatment to people travelling to remote areas and for those in whom an episode of infective diarrhoea could be dangerous[1,2C]. Recommended treatment is **Azithromycin 500mg** given as a **stat dose**[3B+] in view of increasing resistance to Ciprofloxacin and the C.Diff risk associated with quinolones. **In all cases, this should be supplied via private prescription.**			
Threadworms CKS	Treatment household contacts. Advise morning shower/baths, hand hygiene and night time pants for 2 weeks PLUS wash sleepwear, bed linen, dust and vacuum on day [1C.] These simple hygiene measures are the preferred treatment option in pregnant patients. If drug treatment is deemed necessary in pregnant patients then it is best avoided in the 1st trimester. In children aged under 3 months, a 6 week hygiene regime is recommended[1C]	6 **months to adult:-** Mebendazole	100mg[1C]	Stat. If reinfection occurs second dose may be needed after 2 weeks.

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Genital tract infections [BASHH]				
The following guidelines are recommended for further information: • BASHH guidelines • West of Scotland Sexual Health MCN guidelines • Sexually Transmitted Infections in Primary Care • IUSTI				
Acute and chronic prostatitis BASHH CKS	Send MSU for culture and start antibiotics[1C] Quinolones achieve higher prostate levels however; Trimethoprim also achieves good prostate levels[1C] . Trimethoprim associated with a lower risk of causing C. Diff infection than quinolones and is preferred in the treatment of Chronic Bacterial Prostatis for this reason	**Acute** **1st line:-** Ciprofloxacin **2nd line:-** Trimethoprim[1C] **Chronic** Trimethoprim[3]	 500mg BD 200mg BD 200mg BD	14 days then review Provide Quinolones patient leaflet 14 days then review 4 to 6 weeks[3]
Bacterial vaginosis **BASHH** CKS WOS MCN	Oral Metronidazole is as effective as topical treatment[1A+] but is cheaper. Less relapse with 7 day then 2g stat at 4 wks[3A+] Pregnant [2A+]/ breastfeeding: avoid 2g stat [3A+ 4B-] Treating partners does not reduce relapse[5B+]	Metronidazole [1,3A+] OR Metronidazole 0.75% vag gel [1A+] OR Clindamycin 2% cream[1A+]	400mg BD Or 2g 5g applicatorful at NIGHT 5g applicatorful at NIGHT	7 days[1A+] Stat 5 nights[1A+] 7 nights[1A+]
Chlamydia trachomatis **BASHH**	Current partner(s) require treatment and previous partner(s) require testing. Assistance is available from Sexual Health . Patients should be encouraged to have blood tests for HIV, syphilis and where relevant hepatitis. Patients under 25 should be offered a test of re-infection at 3 – 6 months Pregnancy [1C] or breastfeeding: Azithromycin is the most effective option [4A+;5B-] The 2017 BASHH statement highlighted concerns that some antibiotics (including Azithromycin) use in pregnancy maybe associated with an increase in spontaneous	**Genital and Pharyngeal** (1) Doxycycline[3A+] (2) Azithromycin [3A+] Pregnant/ breastfeeding: Azithromycin[4A+] OR Erythromycin[4A+] OR	 100mg BD 1g stat (use 2 x 500mg)then 500mg OD for 2 days 1g (off-label use) 500mg BD Or 500mg QDS	 7 days 1 hr before or 2 hrs after food Stat [4A+] then 500mg OD for 2 days 14 days[4A+] 7 days[4A+]

	abortion. BASHH sees no reason at present time to change recommendations in its current guidelines for treating genital infections in pregnancy. Azithromycin is more effective and better tolerated than alternative antibiotics for genital Chlamydia. The potential risks and benefits of treatment options should be discussed with the patient and this should be documented in the clinical notes. Due to a lower cure rate in pregnancy, test for cure no earlier than 3 weeks after completion of treatment[2C]. A repeat test at 36 weeks gestation is recommended to exclude-infection.	Amoxicillin [4A+]	500mg TID	7 days [4A+]
	All men with rectal Chlamydia and women with rectal Chlamydia and one of the following:- • Rectal symptoms • Inguinal lymphadenopathy • HIV • Who are a contact of lymphogranuloma venerum (LGV) Should referred to sexual Health for management Test for cure in rectal Chlamydia no earlier than 3 weeks after completion of therapy.	**<u>Rectal Chlamydia</u>** <u>Women:</u> Doxycycline <u>Men:</u> Refer to Sexual Health	100mg BD	7 days
Epididymo-orchitis <u>WOS MCN</u>	Age and sexual history alone are not sufficient for guiding antibiotic therapy. Regimes should take into account age, sexual history, recent surgery / catheterisation, any known urinary tract abnormalities, urinalysis and the local prevalence of gonorrhoea and antibiotic resistance patterns. If treating as enteric organisms there should be a low threshold for Chlamydia and gonorrhoea testing . A painful swollen testicles in an adolescent boy or a young man should be managed as torsion until proven otherwise but if an infective cause cannot be excluded, antibiotics should be prescribed in addition to the emergency surgical referral	**For epididymo-orchitis in men under 35yr** Doxycycline If over 35yrs Ofloxacin **STI testing MUST be considered. Above regimens won't cover gonorrhoea driven cases. If gonorrhoea will need additional of STAT IM**	 100mg BD 200mg BD	 14 days 14 days Provide <u>Quinolones patient leaflet</u>

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		Ceftriaxone 1g.		
Genital herpes BASHH	Recurrences are generally self limiting and cause more minor symptoms. Management strategies include supportive therapy only, episodic antiviral treatment or suppressive antiviral therapy.	**First episode:** Aciclovir **Short course therapy in recurrent disease :** Aciclovir **Suppressive therapy in recurrent disease:** Aciclovir	400 mg TDS 800mg TDS 400mg BD	5 days 2 days Up to 1 year- then assess ongoing need.
External Anogenital warts CKS WOS MCN	Choosing not to treat is an option at any site. 30% of patients experience spontaneous clearance over 6 months. Cryotherapy is also an option for a small number of lesions. Podophyllotoxin cream and solution used for have similar efficacy and costs. The cream may be easier for patients to apply especially to less accessible lesions. Although commonly used for peri-anal Podophyllotoxin use is off license. Camellia sinensis (green tea) leaf extract (Catephen) SMC approved for restricted use for treatment of external genital and perianal warts for use in patients not suitable/not responded to treatment with Podophyllotoxin. The use Podophyllotoxin and Imiquimod have similar response rates but Imiquimod is often reserved for refractory lesions because it is 3 times more expensive. **DO NOT** use Podophyllotoxin, Camellia sinensis or Imiquimod in pregnancy.	Podophyllotoxin 0.5% solution OR Podophyllotoxin 0.15% Cream Camellia sinensis (green tea) leaf extract (Catephen) **Refractory cases:** Imiquimod 5% cream	Apply BD Apply BD Apply TDS Apply 3 times per week	Applied for 3 days followed by 4 days rest with this cycle repeated a total of 4 times. Use until warts are visibly cleared or for a maximum of 16 weeks, whichever comes first. Use until warts are visibly cleared or for a maximum of 16 weeks, whichever comes first.
Gonorrhoea	Discuss urgently with Sexual Health D & G for recommendations regarding management which includes the latest national advice on choice of antibiotics. A patient's identity does not have to be released.			
Pelvic Inflammatory Disease (PID) BASHH	A low threshold for empirical treatment is recommended because of for the potential for long term sequelae. Not all patients are suitable for outpatient treatment. Always test Chlamydia and Gonorrhoea. Refer to Sexual Health for	Ceftriaxone Metronidazole	1g IM plus 400mg BD and	stat 14 days

	partner notification (current partner as a minimum needs Chlamydia treatment) If high risk of Gonorrhoea (GC) PID beware of using quinolones due to high levels of resistance. GC is more likely to be found in young adults, when there is a history of previous GC, a known contact of GC, females with a male partner who has sex with men; sex took place overseas and in those with severe symptoms. If high risk of GC severe symptoms discuss with gynaecology. If high risk of GC but symptoms not severe discuss with Sexual Health if available otherwise with gynaecology. Refer to guidelines for alternative regimes	doxycycline	100mg BD	14 days
Syphillis	Refer urgently to Sexual Health D&G			
Trichomoniasis BASHH 2014	Refer to Sexual Health D & G. Treat partners simultaneously[1B+] In pregnancy and breastfeeding avoid 2g single dose Metronidazole [2B-]	Metronidazole	400mg BD Or 2g	5 to 7 days stat
Vaginal candidiasis WOS MCN	All topical and oral azoles give 75% cure[1A+]c= In pregnancy avoid oral azoles and use longer courses of intravaginal treatment	Fluconazole OR Clotrimazole pessary OR Clotrimazole 500mg pessary +Clotrimazole 2% topical cream **Pregnancy:** Clotrimazole[3A+] OR Miconazole 2% cream	150mg orally 500mg pessary Pessary - 1 x 500mg Topical cream – apply sparingly to surrounding area. 100mg pessary ON 5g intravaginally ON OR 5g intravaginally BD	Stat (Avoid if breastfeeding) Stat Stat 2 – 3 times a day until resolution of symptoms 6 nights 10 nights 7 days
Pre Exposure Prophylaxis for HIV (PrEP)	All men who have sex with men should be assessed for PrEP/ PrEP is only available from Sexual Health D&G. For more information refer to https://prep.scot/			
Post exposure prophylaxis for HIV for Sexual Exposure (PEP)	PEP for Sexual Exposure is available from Sexual Health D&G, ED and Minor Injury Units. For more information please refer to: http://hippo.citrix.dghealth.scot.nhs.uk/sorce/beacon/singlepageview.aspx?pii=589&row=2342&SPVPrimaryMenu=5&SPVReferrer=SH_Pathway_Guidelines_Referral_Forms_Folder_P			

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	age			
SKIN / SOFT TISSUE INFECTIONS				
Impetigo CKS	Consider Pharmacy First For extensive, severe or bullous impetigo, use oral antibiotics [1C] **Reserve topical antibiotics for very localised lesions to reduce the risk of resistance**[1,5C, 4B+] Reserve Mupirocin for MRSA.	Topical Fusidic acid [3B+] If more severe: Flucloxacillin[2C] **If Penicllin allergic:** Oral Clarithromycin[2C] **MRSA only**: Mupirocin [3A+]	TDS 500mg QDS 500mg BD TDS	5 days 5 days 5 days
Eczema CKS	If no visible signs of infection, use of antibiotics (alone or with steroids) encourages resistances and does not improve healing [1B.] In eczema with visible signs of infection, use treatment as in impetigo [2C]			
Cellulitis CKS	If patient afebrile and healthy other than cellulitis, use oral Flucloxacillin alone[1,2C] If river or sea water exposure, discuss with microbiologist. If febrile and ill, admit for IV treatment[1C] Low threshold for admission if peri-orbital cellulitis	Flucloxacillin[1,2,3C] **If Penicillin allergy:** Clarithromycin[1,2,3C] **Facial:** Co-amoxiclav **If penicillin allergy**: Clarithromycin 500mg BD for 5 – 7 days plus Metronidazole 400mg TDS for 7 days	500mg QDS 500mg BD 625mg TDS	All for 7 days.
Leg ulcers CKS	Bacteria will always be present. **Antibiotics do not improve healing unless active infection**[1A+] .Culture swabs and antibiotics are only indicated if there is evidence of clinical infection such as inflammation/redness/cellulitis; increase pain; purulent exudates; rapid deterioration of ulcer or pyrexia[2C.] Sampling for culture requires cleaning then vigorous curettage and aspiration. Culture swabs should be sent pre-treatment[3C] and treatment reviewed following culture results	Flucloxacillin **Penicillin allergic:** Doxycycline	500mg QDS 200mg STAT followed by 100mg BD	All for 7 days. **Routine long-term use of topical antiseptics and antimicrobials is not recommended**
Animal bite CKS	Surgical toilet most important[1C] Assess Tetanus and rabies risk[2C] Antibiotic prophylaxis advised for – puncture wounds; bite involving hand, foot, face, joint, tendon, ligament;	**First line animal & human prophylaxis and treatment:** Co-amoxiclav	625mg TDS[4C]	7 days

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Human bite	immunocompromised, diabetics, elderly, asplenic. If bite is from an animal living in an aquatic environment then consider adding in **Ciprofloxacin 500mg BD** to cover pseudomonas infection. For all other animal bites, contact consultant microbiologist for advice. Antibiotic prophylaxis advised[3B-] Assess HIV/hepatitis B & C risk[1C]	**If Penicillin allergic:** Metronidazole + Doxycycline (animal/human) OR Metronidazole + Clarithromycin (human) and review at 24 to 48 hrs[7C]	400mg TDS 100mg BD[5C] 400mg TDS 500mg BD[6C]	7 days 7 days 7 days 7 days
Scabies CKS	Treat whole body from ear/chin downwards and under nails. Individuals under 2 yrs of age and the elderly include the face and scalp [2.] Treat all household and sexual contracts within 24 hrs[1C]	Permethrin[3A+]	5% cream	2 applications one week apart.
Dermatophyte infection of the fingernail or toenail CKS	Take nail clippings: Start therapy only if infection is confirmed by laboratory[1C] Terbinafine is more effective than azoles[6A+] Idiosyncratic liver reactions occur only rarely with oral antifungals[2A +] For children, seek specialist advice [3C]	Terbinafine [6A-]	250mg OD fingers toes	6 – 12 weeks 6 months. May require a further 6 months
	Pulsed Itraconazole monthly is recommended for infections with candida and non-dermatrophyte moulds[3B+,4C]	Itraconazole [6A+]	200mg BD fingers Toes	7 days monthly 2 courses 7 days monthly 3 courses
Fungal infection of the skin CKS	One week of Terbinafine is as effective as 4 weeks azoles since it is fungicidal whilst the azoles are fungistatic Take if candida possible, use imidazole Skin scraping for culture if intractable[2C]. If infection confirmed then consider oral Terbinafine or Itraconazole[3B+] Discuss scalp infections with specialist	Topical Terbinafine[4A+] Or Topical Imidazole[4A+] if candida possible	BD BD	1 week[4A+] 4 to 6 week[4A+]
Chickenpox & Shingles CKS	If pregnant seek urgent specialist advice re treatment and prophylaxis[1B+] **Chicken pox:** Immunocompromised patients, including those on steroids are considered high risk and specialist advice should be sought in these cases. A low threshold for treatment is advised in all adults but treatment is especially warranted if it can be started within 24 hrs in Asian patients, obese patients, smokers, secondary household cases and those with an extensive rash and/or oral rash[2-4.] Treatment should also be started in these patients beyond 24 hrs if they	Aciclovir	800mg x 5/day Dispersible tablets are available if swallowing issues	7 days

	are unwell, febrile and new lesions are still appearing. **Shingles:** treat > 50 yrs[5A +] and within 72 hrs of rash[6B+] (PHN rare if <50 yrs[7B-]) or if active ophthalmic [8B+] or Ramsey Hunt [9C] or eczema, severe pain, severe skin rash or prolonged prodromal pain			
Cold sore	Cold sores resolve after 7 -10 days without treatment. Topical antivirals applied prodromally reduce duration by 12 – 24 hrs[1,2,3B+,4]			
MRSA INFECTION MRSA policy	Colonisation with MRSA is common and does not require treatment unless there is active infection	Doxycycline	100mg BD	7days
Mastitis CKS	**S. aureus is the most common infecting pathogen:** Suspect if women has: a painful breast, fever and / or genital malaise, a tender red breast **Breast feeding:** oral antibiotics are appropriate where indicated. Women should continue feeding, including the affected breast. **Send sample of milk for culture**	Flucloxacillin **Penicillin allergic:** Erythromycin OR Clarithromycin	500mg QDS 500mg QDS 500mg BD	10 days 10 – 14 days 10 days
EYE INFECTIONS				
Conjunctivitis CKS	Treat if severe, as most viral or self limiting. Bacterial conjunctivitis is usually unilateral and **ALSO** self limiting [2C] it is characterised by red eye with mucopurulent, not watery, discharge: 65% resolve on placebo by day 5 [1A+]	**Mild:** advise selfcare measures such as bathing eyelids, cool compresses and lubricating drops or artificial tears **If severe:** [4,5B+,6B-] s Chloramphenicol 0.5% drops OR 1% ointment	Hourly for 2 days then QDS for 5 days. Apply QDS for 2 days then BD for 5 days Apply BD 7 days	