Management of common infections in general practice: Part 2

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Disease: What does it look like?	**Patients**	**Organisms**	**Antibiotics:** In order of preference	**Other Issues**
Conjunctivitis	Any age, if newborn give special consideration	Viral or allergic if starts bilaterally. Bacterial if eyelids very sticky or unilateral. In newborn think of C. trachomatis or N. gonorrhoeae	Consider chloramphenicol, framycetin or fusidic acid If Chlamydia or N. gonorrhoeae: get advice on treatment. Need systemic treatment	Benefit by treating conjunctivitis due to bacteria other than Chlamydia and N. gonorrhoeae is uncertain - most resolve spontaneously
Blepharitis (inflamed purulent eyelids)	Older patients, often secondary to seborrhoeic dermatitis	S. aureus acutely	1st Topical chloramphenicol +/- oral doxycycline or erythromycin 2nd Fusidic acid, oral doxycycline or erythromycin	Can be very difficult to treat
Herpes keratitis Presents as a dendritic ulcer with fluorescein staining	Any age	Herpes simplex	Ophthalmological referral	Rare, but must always be considered in patients with red eyes
Dental and gingival infections	Any age, usually poor dental hygiene	Mixed aerobic and anaerobic	1st Metronidazole 400mg bd with food + penicillin VK 500 mg qid for 3-5 days 2nd Amox/clav 500mg tds	Metronidazole must be taken with food as very irritating to GI tract. Avoid alcohol while on metronidazole. Penicillin must be taken on an empty stomach
Gastritis and peptic ulceration H. pylori can be 'diagnosed' on blood or stool antigen test or direct biopsy	Patients with ulcers not induced by NSAIDs	H. pylori	Triple therapy omeprazole 20 mg bd, clarithromycin 500mg bd, amoxycillin 1000 mg bd for one week If allergic to penicillin then doxycycline 100mg bd and if allergic to clarithromycin then metronidazole 400mg tds. These come as commercial packs Losec HP7 or Klacid HP7	Can only test clearance with breath or repeat biopsy. Blood serology can stay positive even after successful treatment

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Diarrhoea Little place for antibiotics in diarrhoea. Two exceptions are Giardia and C. difficile. Sometimes Shigella is treated with antibiotics to reduce secondary cases. Only Giardia is common in general practice	All ages	Many but usually viral If camping or travel consider Giardia If on antibiotics recently, then C. difficile	Replace fluids Giardiasis - give metronidazole Campylobacter: erythromycin 250 to 500 mg tds for 5 days. Erythromycin shortens carriage, but only shortens symptoms if started in first 24 hours C. difficile - stop antibiotic, give metronidazole 400mg tds for 7-10 days	Most diarrhoea not serious. If persists then do cultures after about 10 days. Rare to find any treatable cause. Other rarer causes or recent travel to be guided by stool culture. For travel full ova and parasite examination may be indicated
Cholecystitis/Cholangitis (difficult to tell from cholelithiasis unless febrile or persisting pain)	Adults	Enterobacteriaciae 70% Enterococcus 10% Bacteroides, Clostridium	Usually hospitalise, consider gentamicin. If in GP then cotrimoxazole or amox/clav	If afebrile then give pain relief. Reassess if not improving, consider antibiotics or refer to hospital
Urinary Tract infection – Cystitis Frequency, dysuria +/- hematuria, +/-pyuria. Asymptomatic bacteriuria in pregnancy warrants treatment because of risk of subsequent pyelonephritis	Women - from sexual activity onwards. Children not toilet trained may need a catheter urine. A negative bag rules out UTI but a +ve is non-specific. If documented UTI in child or male of any age further assessment is needed.	Mainly E. coli and S. saprophyticus. Smaller number of other organisms	1st Trimethoprim 300mg nocte 3 nights or 600mg as single dose 2nd Norfloxacin 400mg bd 3 days or 800mg as single dose or nitrofurantoin 50mg qid for 3-7 days	3 day courses OK. Single dose slightly less effective. One option is to give trimethoprim with a delayed prescription for norfloxacin. Don't give trimethoprim in 1st trimester, don't give norfloxacin in pregnancy or in children and don't give nitrofurantoin at term. Cotrimoxazole not superior to trimethoprim alone
Pyelonephritis Can have symptoms of cystitis, but not always - fever (not always) - low back pain - chills - vomiting	Woman - especially pregnant. Older men	As for UTI except S. saprophyticus which is uncommon	Usually hospitalised If treat in GP then norfloxacin +/- amoxycillin for 5 –14 days	

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Cervix/Vaginal infection Candida Trichomonas Chlamydia N. gonorrhoeae	Women - usually adult	Candida diagnosed on culture + have clinical symptoms. Trichomonas diagnosed on microscopy. Chlamydia nucleic acid amplification or antigen detection. N. gonorrhoeae on culture	Candida give: eg. clotrimazole vag cream/tablet 3-7 nights Trichomonas give: Metronidazole 2 gm stat or 400 mg bd 7 days Chlamydia give: Azithromycin 1gm stat or doxycycline 100mg bd 7 days N. gonorrhoeae give: Ciprofloxacin 500mg stat	With N. gonorrhoeae treat for Chlamydia at same time. Erythromycin is a safe option for pregnant women with Chlamydia infection, but retreat definitively after delivery. In women with recurrent Candida, consider giving partner treatment, check for diabetes and consider oral anticandidal agents. NB. ~10% of N. gonorrhoeae now resistant to ciprofloxacin. Treat with ceftriaxone 250mg IM
Pelvic inflammatory disease	Adult women	N. gonorrhoeae C. trachomatis anaerobes Enterobacteriaciae streptococci	Amox/clav 625 mg qid + doxycycline 100mg bd +/- ciprofloxacin 500mg bd for 14 days. If ceftriaxone 250mg IM given as single dose, there is no need for ciprofloxacin	Treat immediately after taking cultures. Consider referral for diagnosis and IV treatment. Always consider ectopic pregnancy
Urethritis In males painful micturition and small creamy discharge in morning. In women WBC on microscopy but no growth from urine culture	Sexually active men and women	C. trachomatis N. gonorrhoeae Ureaplasma	Ciprofloxacin 500mg+ azithromycin 1gm stat together effective against both Chlamydia and 90% of N.gonorrhoeae. Can give ceftriaxone 250mg IM for gonorrhoea	
Epididymitis	Men	Younger men - think of sexually transmitted agents. Older men -Enterobacteriaciae	Sexually-Transmitted: Ceftriaxone 250mg IM in single dose (or ciprofloxacin 500mg bd for 10 days) plus doxycycline 100mg bd for 10 days. UTI-related: Ciprofloxacin 500mg bd for 10-14 days	Older men may get this after urinary tract instrumentation
Meningitis - fever - looks sick - neck stiffness - non-blanching rash	Any age	N. meningitidis S. pneumoniae H. influenzae	Penicillin IV or IM stat and immediate referral to hospital. Adults: 1.2 gm stat Children: 40 mg/kg stat	