Central Manchester NHS
Primary Care Trust

South Manchester NHS
Primary Care Trust

ANTIBIOTIC GUIDELINES

Adult and Paediatric

See BNF or Summary of Product Characteristics for full prescribing information

Aim

To produce simple, appropriate and cost-effective guidelines for the treatment of infections commonly encountered in general practice.

In view of the increasing problems of antibiotic resistance and the cost of inappropriate prescribing, the PCT Prescribing Team and the Consultant Microbiologists, have revised the local Primary Care Antibiotic Guidelines.

Useful contact numbers:

Manchester Health Protection Unit: 0161 786 6710
Health Protection Agency NW Laboratory – CMMC (MRI) Microbiology: 0161 276 4281
Microbiology - Wythenshawe: 0161 291 2885 (general enquiries) and 4772 (results)
GUM Clinic Withington: 0161 611 4939
Infectious Diseases Unit - North Manchester General Hospital: 0161 720 2540 (general)
909 0901 (doctors)
Medicines Information Centre - CMMC: 0161 276 6270
Medicines Information Centre - SMUHT: 0161 291 3331

General Advice

- The Department of Health's Standing Medical Advisory Committee - **SMAC** has identified **4** things that can make a difference:

> ***KEY MESSAGES:***
> - ***NO prescribing of antibiotics for simple coughs and colds***
> - ***NO prescribing of antibiotics for viral sore throats***
> - ***For uncomplicated cystitis in otherwise fit women limit course to 3 days***
> - ***Limit prescribing of antibiotics over the telephone to exceptional cases***

- The use of **deferred scripts** in other indications of doubtful value (e.g. otitis media) is one method of managing patient expectation. Retaining the prescription in the surgery for future collection is more successful.

- Educating patients about the benefits and disadvantages of antimicrobial agents is advocated. Practices can provide leaflets and/or display notices advising patients not to expect a prescription for an antibiotic, together with the reasons why. This educational material can be obtained from various sources, such as the British Medical Association (BMA), Department of Health and PCT Prescribing Support Team.

- **AVOID:** Using longer courses than are necessary
  Unnecessary use of combinations where a single drug would be equally effective
  Broad-spectrum antibiotics where a narrow spectrum agent is indicated
  Prophylactic use of antibiotics unless of proven benefit

- Topical antibiotics should be used very rarely, if at all (eye infections are an exception). For wounds, topical antiseptics are generally more effective. Topical antibiotics encourage resistance and may lead to hypersensitivity. If antibiotic use is essential, try and select an antibiotic that is not used systemically.

- **Hypersensitivity to penicillin**
  True penicillin-allergic patients will react to all penicillins. About 10% of penicillin-sensitive patients will also be allergic to cephalosporins. If necessary a microbiologist can advise on suitable alternatives.

- **Pregnancy**
  The following are felt to be safe in pregnancy:
  Penicillins, Cephalosporins, Erythromycin and Nitrofurantoin (not after the 8th month)

- **Contraception**
  -Some broad-spectrum antibiotics (e.g. amoxicillin, doxycycline) may reduce the efficacy of ***combined* oral contraceptives** by impairing the bacterial flora responsible for recycling of ethinylestradiol from the large bowel. Family Planning Association (FPA) advice is that additional contraceptive precautions should be taken whilst taking a *short course of a broad-spectrum antibiotic* and for 7 days after stopping. If these 7 days run beyond the end of a packet the next packet should be started immediately without a break (in the case of everyday (ED) tablets the inactive ones should be omitted). If the antibiotic course *exceeds 3 weeks*, the bacterial flora develops antibiotic resistance and additional precautions become unnecessary; additional precautions are also unnecessary if a woman starting a *combined* oral contraceptive has been on a course of antibiotics for 3 weeks or more.
  -It is possible that some antibacterials affect the efficacy of **contraceptive patches**. Additional contraceptive precautions are recommended during concomitant use and for 7 days after discontinuation of the antibacterial (except tetracycline). If concomitant administration runs beyond the 3 weeks of patch treatment, a new treatment cycle should be started immediately without a patch-free break.
  -Anecdotal reports of contraceptive failure have been made with the concomitant use of antifungals.

- **Interaction with warfarin and other anticoagulants**
  Experience in anticoagulant clinics suggests that the INR can be altered by a course of most antibiotics. Increased frequency of INR monitoring is necessary during and after a course of antibiotics until the INR has stabilized. Cephalosporins, erythromycin, ciprofloxacin and trimethoprim seem to cause a particular problem. Contact the anticoagulant clinic for any further advice.

ADULT GUIDELINES

RECOMMENDED DOSES ARE FOR ADULTS ONLY

CLINICAL DIAGNOSIS	COMMENTS	DRUG	DURATION of TREATMENT
UPPER RESPIRATORY TRACT INFECTIONS			
Sore throat	The majority of sore throats (viral or bacterial) are self-limiting (lasting up to 7 days) & **do not** respond to antibiotics - recommend aspirin gargles (adults only) or paracetamol & warm drinks.	**Antibiotics are rarely needed** **1st line:** Penicillin V 500mg bd-qds **Penicillin allergy:** Erythromycin 250mg qds or 500mg bd	Treat for 10 days to ensure eradication of Group A Streptococci.
Acute otitis media	**Viral** infection common. Not clear whether antibiotics actually affect the outcome or complications of otitis media. About 80% of cases resolve within 3 days without treatment. Consider waiting 24-48 hours before treating. Use simple analgesics such as paracetamol for pain relief.	**1st line:** Amoxicillin 250-500mg tds **2nd line:** Co-amoxiclav 375mg tds **Penicillin allergy:** Erythromycin 250-500mg qds or 500mg bd **2nd line:** Doxycycline 200mg stat then 100mg od (adults only)	Treat for 5 days.
Acute otitis externa	**Topical treatment** usually effective. Avoid antibiotics wherever possible. Oral antibiotics only required if severe. Pain relief – paracetamol. Swab severe cases and patients with diabetes.	**1st line:** Flucloxacillin 250-500mg qds **Penicillin allergy:** Erythromycin 250-500mg qds or 500mg bd	Treat for 5 days.
Chronic otitis externa	No antibacterials / antifungals needed	Clean and keep dry	
Sinusitis	**Viral** infection common. Encourage drainage with steam inhalations. Reserve for severe or persistent symptoms.	**1st line:** Amoxicillin 500mg tds **Alternative 1st line or Penicillin allergy:** Erythromycin 500mg qds **or** doxycycline 200mg stat then 100mg od (adults only) **2nd line:** Co-amoxiclav 625mg tds	Treat for 7-10 days.
Chronic sinusitis		**1st line:** Doxycycline 200mg stat then 100mg od (adults only)	Treat for 14 days.
LOWER RESPIRATORY TRACT INFECTIONS			
Acute bronchitis	**Antibiotics are of no proven benefit in otherwise healthy adults.** Explanation of the likely course of the illness is recommended. Cough commonly persists for 2-3 weeks regardless of whether an antibiotic has been given. .	**Antibiotics not normally required.** **Patients > 60yrs old & those with significant co-existing disease** have increased risk of bacterial infection & morbidity, so early antibiotic use may be considered. See below - section on acute exacerbation of COPD.	
Acute exacerbation of COPD	Antibiotics most valuable if patient has increased dyspnoea with increased / purulent sputum. Higher percentage of Haemophilus infections in this group. (∴Erythromycin maybe less effective) **N.B**. Quinolones should **not** be pescribed first line. Only use on the basis of sensitivity results. (Poor activity against Strep. Pneum.)	**1st line:** Amoxicillin 500mg tds **Alternative 1st line or Penicillin allergy:** Doxycycline 200mg stat then 100mg od **2nd line:** Co-amoxiclav 625mg tds Recurrent problems: Consult local microbiologist.	Treat for 5-10 days.

ADULT GUIDELINES - RECOMMENDED DOSES ARE FOR ADULTS ONLY

CLINICAL DIAGNOSIS	COMMENTS	DRUG	DURATION of TREATMENT
Community - acquired pneumonia – treatment in the community	Any patient presenting with new focal chest signs should be treated for pneumonia and antibiotic therapy should not be delayed. If no response within 48 hours consider admission or add erythromycin to cover Mycoplasma. In severely ill give parenteral benzylpenicillin before admission. Mycoplasma is rare in over 65s. Epidemics occur ≈ every 4 yrs when incidence of infection rises to 12-15%.	**1st line:** Amoxicillin 500mg-1g tds **Add** erythromycin if *atypical* infection suspected (especially young adults). If Staph. aureus infection suspected (e.g. following *viral influenza*) **add** flucloxacillin 500mg qds **or** change amoxicillin to co-amoxiclav 625mg tds. **2nd line or Penicillin allergy:** Erythromycin 500mg bd-qds	Treat for 10 days.
URINARY TRACT INFECTIONS			
Uncomplicated urinary tract infection in otherwise healthy women	UTI can only be proven bacteriologically in 50% of women, others have inflammation of the urethra. Routine urine culture is unnecessary. Use dipstick urine tests to reduce antibiotic use and unnecessary investigations.	**1st line:** Trimethoprim 200mg bd **or** cefalexin 500mg bd **2nd line:** Only after MSU culture & sensitivity results.	Limit treatment to **3** days.
Complicated urinary tract infection	Applies to pregnant women, men, recurrent infection, infection ascending to the upper tract. **Catheterised patients** - Do not give an antibiotic unless the patient is symptomatic as bacteria are unlikely to clear while catheter is in situ.	**Treatment depends on MSU culture & sensitivity results.** Amoxicillin & cefalexin may be used in pregnancy depending on sensitivities. Follow-up MSU required at 2 wks and 6 wks post-antibiotic treatment for high-risk groups e.g. pregnancy.	7 days treatment usually required.
GENITAL TRACT INFECTIONS - REFER patients with **STDs** to **GUM** clinic for screening for other infections, contact tracing and health promotion.			
Acute Prostatitis		**1st line:** Ciprofloxacin 500mg bd **2nd line:** Trimethoprim 200mg bd	Treat for 4 weeks.
Bacterial vaginosis	The commonest infective cause of vaginal discharge. It is a synergistic infection between anaerobic bacteria & Gardnerella vaginalis.	**1st line:** Metronidazole 400mg bd **or** 2g in a single dose (Avoid 2g dose in pregnancy) **2nd line:** Metronidazole vaginal gel 0.75% **or** clindamycin 2% cream	Treat for 7 days. Topical agents: metronidazole - 5 nights, clindamycin - 3-7 nights.
Gonorrhoea	Cefixime has been recommended due to increasing levels of resistance. However, if isolates are sensitive to agents like ciprofloxacin these agents should be used.	**1st line:** Cefixime 400mg stat +doxycycline 100mg bd (cover chlamydia) **Pregnancy / breast-feeding:** Cefixime can be used in pregnancy, but doxycycline should be avoided. **Alternative: Pregnancy /breast-feeding:** Amoxicillin 3g stat + probenecid 1g stat + erythromycin 500mg bd for 14 days	Single dose. Doxycycline for 7 days.
N.B. Pregnant patients need follow-up to ensure successful eradication of infections. (Ideally by **GUM** clinic.)			
Chlamydia	Azithromycin is more expensive than doxycycline, however, single dose azithromycin may be useful if compliance is a problem.	**1st line:** Azithromycin 1g stat **or** Doxycycline 100mg bd (avoid in pregnancy / breast-feeding) **Pregnancy / breast-feeding:** Erythromycin 250mg qds or 500mg bd	Single dose. Treat for 7 days. Treat for 14 days.
Pelvic inflammatory disease	Test for STDs, if positive refer to GUM clinic.	Metronidazole 400mg bd + ofloxacin 400mg bd **or** metronidazole 400mg bd + doxycycline 100mg bd	Treat for 14 days.

ADULT GUIDELINES – RECOMMENDED DOSES ARE FOR ADULTS ONLY

CLINICAL DIAGNOSIS	COMMENTS	DRUG	DURATION of TREATMENT
SKIN			
Acne	Oral preparations should be used in severe cases or if topical preparations have proved inadequate. Where possible use non-antibiotic antimicrobials (e.g. benzoyl peroxide) or a topical retinoid. Minocycline treatment > 6 months, monitor every 3 months for hepatoxicity, pigmentation and SLE.	**1st line:** Oxytetracycline 500mg bd **2nd line:** Erythromycin 500mg bd **3rd line:** Doxycycline **or** Minocycline 100mg od Change antibiotic if <80% improvement after 3 months.	Maximum improvement usually after 4 to 6 months, but in severe cases may need 2 years or longer.
Cellulitis	Review patient if no improvement within 48 hours. Failure to respond may necessitate urgent parenteral antibiotics. Clindamycin causes increased risk of colitis in elderly patients.	**1st line:** Penicillin V 500mg qds + flucloxacillin 500mg qds **Penicillin allergy:** Erythromycin 500mg qds **or** clindamycin 300mg qds	Duration depends on severity and response. Minimum 14 days treatment.
Erysipelas		**1st line:** Penicillin V 500mg qds **Add** flucloxacillin to cover Staph. Aureus if response is poor. **Penicillin allergy:** Erythromycin 500mg qds	Treat for 2 weeks then review.
Infected eczema		**1st line:** Flucloxacillin 500mg qds **Penicillin allergy:** Erythromycin 500mg qds	Treat for 7-14 days.
Impetigo	Remove crusts by soaking before topical treatment.	**Minor infection:** Fusidic acid 2% cream/ointment tds-qds **Widespread infection:** Flucloxacillin 500mg qds **Penicillin allergy:** Erythromycin 500mg qds	Treat for 7 days. Restrict topical treatment to max. 10 days to avoid resistance.
Animal/human bites	Surgical toilet most important. Assess tetanus and rabies risk if animal bite. Assess HIV/hepatitis B & C risk if human bite. **NB**: Asplenic patients are prone to overwhelming sepsis following dog bites.	**1st line:** Co-amoxiclav 375-625mg tds **Penicillin allergy:** Metronidazole 400mg tds **plus** doxycycline 100mg bd **or** oxytetracycline 250-500mg qds for (animal) Metronidazole **plus** erythromycin 250-500mg qds for (human) **Pregnancy / breast-feeding:** Erythromycin only	Treat for 7 days.
Dental infections	Dental consultation required.	**1st line:** Amoxicillin 250-500mg tds + metronidazole 400mg tds **Penicillin allergy:** Erythromycin 500mg bd + metronidazole 400mg tds	Treat for 5 days whilst awaiting dental consultation.
EYES			
Bacterial conjunctivitis	Most cases of acute conjunctivitis are self-limiting. If recurrent infection, exclude chlamydia. Fusidic acid 1% is in a gel basis, which liquifies on contact with the eye and can be applied twice daily.	**1st line:** Chloramphenicol 0.5% drops **Alternatively**: 1% ointment can be used at night and the drops during the day **or** use ointment alone 3-4 times a day. **2nd line:** Gentamicin 0.3% drops **or** fusidic acid 1% drops (gel)	Eye drops: Instill 1 drop every 2 hours, reducing freq. as infection controlled. Use for 48 hrs after healing.

ADULT GUIDELINES - RECOMMENDED DOSES ARE FOR ADULTS ONLY

CLINICAL DIAGNOSIS	COMMENTS	DRUG	DURATION of TREATMENT
GASTRO-INTESTINAL TRACT INFECTIONS			
Gastrointestinal infections	Faeces specimens should be sent to the local microbiology department. Please state clinical details as special investigations are carried out if: history of foreign travel, blood in stool or previous antibiotic treatment. Notify Manchester Health Protection Unit if food poisoning suspected.	Antibiotics are **NOT** usually indicated in gastroenteritis. If considering their use please discuss with a microbiologist. Antibiotics are **contraindicated** if E. coli 0157 is a possibility.	
Diverticulitis	For an infective exacerbation of known diverticulosis which does not require hospital admission.	**1st line:** Co-amoxiclav 625mg tds **2nd line or Penicillin allergy:** Ciprofloxacin 500mg bd + metronidazole 400mg tds	Treat for 7-14 days.
MENINGITIS			
Meningitis	**When meningitis or meningococcal septicaemia is suspected a <u>parenteral</u> antibiotic should be given prior to transfer to hospital.** The Manchester Health Protection Unit will be notified of any cases of systemic meningococcal or haemophilus meningitis infections and they will advise on prophylaxis for contacts.	**Give:** Benzylpenicillin 1.2g stat **Penicillin allergy:** Ceftriaxone 2g **or** cefotaxime 2g stat IV administration recommended unless a vein cannot be found, in which case IM administration may be used. History of anaphylaxis with penicillin use chloramphenicol 25mg/kg IV (if available)	Immediately

CLINICAL DIAGNOSIS	COMMENTS	DRUG	DURATION of TREATMENT
VIRAL INFECTIONS			
Herpes zoster (shingles) ***Varicella zoster (chickenpox)***	Ideally more effective, if started within 48hrs of onset of rash. Seek advice from Microbiologist or Infectious Diseases Consultant if patient is pregnant or immunocompromised.	Aciclovir 800mg 5xdaily	Treat for 7 days.
Herpes simplex	**Severe cases only.** Treatment should begin as early as possible after the start of an infection.	Aciclovir 200mg 5xdaily	Treat for 5 days.

ADULT GUIDELINES - RECOMMENDED DOSES ARE FOR ADULTS ONLY

CLINICAL DIAGNOSIS	COMMENTS	DRUG	DURATION of TREATMENT
FUNGAL INFECTIONS			
Oral candidiasis		**1st line:** Nystatin 1ml suspension (100,000 units) or 1 pastille qds **2nd line:** Amphotericin 1ml suspension or 1 pastille qds	Usually treat for 7 days. Usually for 10-15 days Continue for 48hrs after lesions resolved.
Vaginal candidiasis or	Oral fluconazole should be avoided in pregnancy / breast-feeding. Repeated relapses, consider treatment of sexual partners.	**1st line:** Clotrimazole pessary 500mg for internal use 1 single dose at night +/- clotrimazole 2% cream for external application 2-3 times daily. (If require both prescribe as Combi pack.) **2nd line:** Fluconazole caps 150mg	Pessary = single dose Cream - usually treat for 14 days. Single dose
Candidal skin infections		Clotrimazole 1% cream applied 2-3 times daily	Continue for 7 days after lesions resolved.
Dermatophyte infections *Tinea capitis*	Drug treatment only if infection is confirmed by microscopy / culture. Selenium shampoo used twice weekly for 2 weeks may reduce spread of infective spores.	**Scalp** **1st line:** Terbinafine 250mg daily **2nd line:** Itraconazole 100mg daily (Above treatments are not licensed for tinea capitis.)	Treat for 4-6 weeks. Review after 2 weeks. Continue for at least 2 weeks after all signs of infection have disappeared.
Tinea corporis /cruris/pedis	Patients should be reassured that infections may still respond even after treatment course has finished.	**Body/groin/feet** **1st line:** Terbinafine 1% cream apply twice daily Consider oral therapy if poor response.	Treat for 1-2 weeks in tinea pedis and 2-4 weeks in tinea corporis/cruris.
Onychomycosis	**Nail clippings should be sent for mycological examination prior to commencing treatment.** Re-assure patients that their nail infection will continue to respond, after the course has finished. **Topical agents** should only be used in infections confined to the distal nail ends (such infections may not require treatment at all). **Monitoring:** Idiosyncratic liver reactions occur rarely with terbinafine. Itraconazole can also be prescribed continuously as a *once* daily dose (see BNF). LFTs are necessary for continuous treatment longer than 1 month. The pulsed regimen may reduce the risk of liver problems. The continuous regimen may be better tolerated – lower daily dose.	**Finger nails** **1st line:** Terbinafine 250mg od **2nd line:** Itraconazole '*pulse therapy*' 200mg bd for 7 days then 3 weeks treatment-free. (Useful for yeasts, other non-dermatophyte mould infections & mixed infections.) **Alternatives:** Amorolfine 5% nail paint applied 1-2 times weekly **Toe nails** **1st line:** Terbinafine 250mg od **2nd line:** Itraconazole '*pulse therapy*' 200mg bd for 7 days then 3 weeks treatment-free. **Alternatives:** Amorolfine 5% nail paint applied 1-2 times weekly N.B. Adding Amorolfine nail paint to oral treatment increases response rate.	Treat for 6-12 wks. Treat for 7 days monthly. Give **2** cycles of treatment. Treat for 6 months. Treat for 12-16wks. Treat for 7 days monthly. Give **3** cycles of treatment. Treat for 6-12 months. It may take 3-6 months for finger nails and 6-12 months for toe nails before the nail returns to normal.

PAEDIATRIC GUIDELINES

CLINICAL DIAGNOSIS	COMMENTS	DRUG	DURATION of TREATMENT
RESPIRATORY TRACT INFECTIONS			
Sore throat	The majority of sore throats (viral or bacterial) are self-limiting (lasting up to 7 days) & **do not** respond to antibiotics - recommend paracetamol & warm drinks.	**Antibiotics are rarely needed** **1st line:** Penicillin V **Penicillin allergy:** Erythromycin	Treat for 10 days to ensure eradication of Group A streptococci
Acute otitis media	**Viral** infection common. Not clear whether antibiotics actually affect the outcome or complications of otitis media. About 80% of cases resolve within 3 days without treatment. Consider waiting 24-48 hours before treating. Use paracetamol for pain relief.	**1st line:** Amoxicillin **2nd line:** Co-amoxiclav **Penicillin allergy:** Erythromycin	Treat for 5 days
Acute otitis externa	**Topical treatment** usually effective. Avoid antibiotics wherever possible. Oral antibiotics only required if severe. Pain relief - paracetamol Swab severe cases and diabetics.	**1st line:** Flucloxacillin **Penicillin allergy:** Erythromycin	Treat for 5 days
Chronic otitis externa	No antibacterials / antifungals needed	Clean and keep dry	
Sinusitis	**Viral** infection common. Encourage drainage with steam inhalations Reserve for severe or persistent symptoms.	**1st line:** Amoxicillin **Alternative 1st line or Penicillin allergy:** Erythromycin **2nd line:** Co-amoxiclav	Treat for 5 days
Community -acquired pneumonia – treatment in the community	Between 1 month and 4 years, most respiratory infections are viral. After 4 years of age, bacterial infections become more common. Mycoplasma is more common in older school-aged children & adolescents.	**1st line:** Amoxicillin **Alternative 1st line or Penicillin allergy:** Erythromycin (particularly if Mycoplasma is suspected)	Treat for 7 days
URINARY TRACT INFECTIONS			
Urinary tract infection	Refer for further investigation following 1st **proven** UTI. Consider low-dose antibiotic prophylaxis until paediatric out-patient appointment. Collection of one or more urine samples for C&S testing **prior** to drug treatment is essential.	**1st line:** Trimethoprim **2nd line:** Cefalexin	Treat for 5-7 days
SKIN			
Cellulitis	Failure to respond may necessitate urgent parenteral antibiotics.	**1st line:** Penicillin V + flucloxacillin **Penicillin allergy:** Erythromycin	Duration depends on severity and response. Minimum 14 days treatment.

PAEDIATRIC GUIDELINES

CLINICAL DIAGNOSIS	COMMENTS	DRUG	DURATION of TREATMENT
Erysipelas		**1st line:** Penicillin V **Add** flucloxacillin to cover Staph. Aureus if reponse is poor. **Penicillin allergy:** Erythromycin	Treat for 2 weeks then review.
Infected eczema		**1st line:** Flucloxacillin **Penicillin allergy:** Erythromycin	Treat for 7-14 days.
Impetigo	Remove crusts by soaking before topical treatment.	**Minor infection:** Fusidic acid 2% cream/ointment tds-qds **Widespread infection:** Oral flucloxacillin. **Penicillin allergy:** Erythromycin	Treat for 7 days. Restrict topical treatment to max. 10 days to avoid reistance.
Animal/human bites	Surgical toilet most important. Assess tetanus and rabies risk if animal bite. Assess HIV/hepatitis B & C risk if human bite. **NB**: Asplenic patients are prone to overwhelming sepsis following dog bites.	**1st line:** Co-amoxiclav for 7 days **Penicillin allergy:** Erythromycin (less effective)	Treat for 7 days.
Dental infections	Dental consultation required.	**1st line:** Amoxycillin + metronidazole **Penicillin allergy:** Erythromycin + metronidazole	Treat for 5 days whilst awaiting dental consultation.
EYES			
Bacterial conjunctivitis	Most cases of acute conjunctivitis are self-limiting. If recurrent infection, exclude chlamydia. Fusidic acid 1% is in a gel basis, which liquifies on contact with the eye and can be applied twice daily.	**1st line:** Chloramphenicol 0.5% eye drops **Alternatively**: 1% ointment can be used at night and the drops during the day **or** use ointment alone 3-4 times a day. **2nd line:** Gentamicin 0.3% drops **or** fusidic acid 1% drops (gel)	Eye drops: Instill 1 drop every 2 hours, reducing freq. as infection controlled. Use for 48 hrs after healing.
MENINGITIS			
Meningitis	**When meningitis or meningococcal septicaemia is suspected a <u>parenteral</u> antibiotic should be given prior to transfer to hospital.** The Manchester Health Protection Unit will be notified of any cases of systemic meningococcal or haemophilus meningitis infections and they will advise on prophylaxis for contacts.	**Give:** Benzylpenicillin 300mg for infants, 600mg for 1-9 year olds, 1.2g if 10 years or over **Penicillin allergy:** Ceftriaxone **or** cefotaxime (50mg/kg/dose – max dose 4g) IV administration recommended unless a vein cannot be found, in which case IM administration may be used. History of anaphylaxis with penicillin use chloramphenicol 25mg/kg IV (if available). (12.5mg/kg if < 14days old)	Immediately

CLINICAL DIAGNOSIS	COMMENTS	DRUG	DURATION of TREATMENT
FUNGAL INFECTIONS			
Oral candidiasis	Localised lesions - apply a small amount of miconazole gel to the affected area with a clean finger 2-4 times daily.	**1st line:** Nystatin 1ml suspension (100,000 units) or 1 pastille qds **2nd line:** Miconazole oral gel (Under 2 years 2.5ml bd, 2-6 years 5ml bd, over 6 years 5ml qds)	Usually treat for 7 days. Continue for 48hrs after lesions resolved.
Candidal skin infections		Clotrimazole 1% cream applied 2-3 times daily.	Continue for 7 days after lesion resolved.
Dermatophyte infections *Tinea capitis*	Drug treatment only if infection is confirmed by microscopy / culture. Selenium shampoo used twice weekly for 2 weeks may reduce spread of infective spores.	**Scalp** **1st line:** Terbinafine tablets Over 1 year, body weight 10-20kg = 62.5mg daily, 20-40kg = 125mg daily, >40kg = 250mg daily (unlicensed) **2nd line:** Griseofulvin 10mg/kg/day for 8-10 weeks ('Specials' liquid available from Novo Laboratories)	Terbinafine - treat for 4-6 weeks. Griseofulvin - treat for 8-10 weeks. Review after 2 weeks. Continue for at least 2 weeks after all signs of infection have disappeared.
Tinea corporis/cruris/ pedis	Reassure that infections still respond even after treatment course has finished.	**Body/groin/feet** **1st line:** Terbinafine cream 1% apply bd	Treat for 1-2 weeks in tinea pedis and 2-4 weeks tinea cruris / corporis, review after 2wks.

USUAL PAEDIATRIC DOSAGES

See appropriate paediatric formulary/text for neonatal dosages

Amoxicillin	1 month-2 years	125mg tds
	2-12 years	125-250mg tds
	12-18 years	500mg tds
Cefalexin	1 month-2 years	62.5-125mg bd
	2-12 years	125-250mg tds
	12-18 years	250-500mg tds
Co-amoxiclav	1 month-1 year	0.25ml/kg of 125/31 suspension tds
	1-6 years	5ml of 125/31 suspension tds
	7-12 years	5ml of 250/62 suspension tds
	12-18 years	1 (250/125) tablet tds
Erythromycin	1 month-2 years	125mg qds
	2-8 years	250mg qds
	> 9 years	500mg qds
Flucloxacillin	1 month-1 year	62.5mg qds
	1-5 years	125mg qds
	> 5 years	250mg qds
Penicillin V	1 month-1 year	62.5mg qds
	1-5 years	125mg qds
	6-12 years	250mg qds
	12-18 years	500mg qds
Trimethoprim	> 1 month	4mg/kg bd (max. single dose = 200mg)
	Or	
	1-5 years	50mg bd
	6-12 years	100mg bd

Dosage information from Medicines for Children.
Refer to BNF or Summary of Product Characteristics for further prescribing information.

Developed by Central & South Manchester Primary Care Trusts in consultation with South and Central Manchester Hospital Trusts.

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A full list of references is available on request. Email: Jennifer.Bartlett@smpct.manchester.nwest.nhs.uk

MARCH 2005 **REVIEW DATE: MARCH 2006**