Antibiotics Guidelines - SUMMARY

A summary of recommendations for the initial treatment of commonly encountered infections

Please see full guidelines on Trust intranet for further details

Vulnerable elderly patients are those who are frail, housebound, or from nursing or residential homes

Doses quoted are based on normal renal and hepatic function. Modify doses in patients with renal or hepatic impairment.

Specify the indication and duration of therapy or a review date for **all** antibiotic prescriptions in the notes **and** on the drug chart

Check previous microbiology results on iCM prior to starting antibiotics in case of infection due to resistant organism

	First choice	Alternative / comments
Respiratory system		
Community-acquired pneumonia		
***Mild severity* – oral** (CURB-65 score 0–1)	Amoxicillin 500 mg three times a day by mouth for 5 days	Clarithromycin 500 mg twice daily by mouth for 5 days
	Vulnerable elderly: Doxycycline 200 mg *stat* then 100 mg once daily by mouth for 5 days	
***Moderate severity* – oral** (CURB-65 score = 2)	Amoxicillin 500 mg three times a day by mouth +/- clarithromycin 500 mg twice daily by mouth for 7 days **Stop clarithromycin after 48 hours if unilateral pneumonia** *If a concurrent urine infection is suspected, add gentamicin IV* stat*	Doxycycline 200 mg *stat* then 100 mg once daily by mouth for 7 days *If a concurrent urine infection is suspected, add gentamicin IV* stat*
	Vulnerable elderly: Doxycycline 200 mg *stat* then 100 mg once daily by mouth for 7 days. If IV required, discuss with microbiology.	
***High severity* – IV initially** (CURB-65 score ≥3) Review need for IV antibiotics **daily**	Benzylpenicillin 1.2 g four times a day intravenously *plus* clarithromycin 500 mg twice daily intravenously for 7–10 days If *S. aureus* or Gram negatives suspected, discuss with microbiology	Vancomycin intravenously** *plus* clarithromycin 500 mg twice daily IV for 7–10 days If *S. aureus* or Gram negatives suspected, discuss with microbiology
Infective exacerbation of COPD – oral	Doxycycline 200 mg *stat* then 100 mg once daily by mouth for 5 days	Previous doxycycline exposure: amoxicillin 500 mg three times a day by mouth for 5 days
Aspiration pneumonia	Amoxicillin 1 g three times daily by mouth **or** benzylpenicillin 1.2 g four times daily intravenously for 5 days **Metronidazole is not required**	Clarithromycin 500 mg twice daily by mouth or intravenously for 5 days **Metronidazole is not required**
Hospital-acquired pneumonia		
Early onset (<5 days after admission) – oral	Doxycycline 200 mg *stat* then 100 mg once daily by mouth for 5 days	
IV **only** if unable to tolerate oral antibiotics	Amoxicillin 500 mg three times a day intravenously *plus* trimethoprim 200 mg twice daily by mouth for 5 days	Clarithromycin 500 mg twice daily intravenously *plus* trimethoprim 200 mg twice daily by mouth for 5 days
Late onset (>5 days after admission), or **high severity early onset**	Piperacillin/ tazobactam 4.5 g three times a day intravenously for 5 days Switch to oral antibiotics once improving clinically	Meropenem 500 mg four times a day intravenously for 5 days Investigate history of penicillin allergy before prescribing Switch to oral antibiotics once improving clinically
Genitourinary tract		
Uncomplicated UTI – oral Review urine culture results	Trimethoprim 200 mg twice daily by mouth for 3 days (women) or 7 days (men) **or** Cefalexin 500 mg three times a day by mouth for 3 days (pregnant women only)	Nitrofurantion 100 mg four times a day by mouth for 5 days (women) or 7 days (men) (Avoid nitrofurantion if eGFR is less than 50 ml/min)
Uncomplicated UTI – oral (ESBL producing organism)	Pivmecillinam 400 mg *stat* then 200 mg three times a day by mouth for 3 days (women) or 7 days (men)	Contact microbiology if penicillin allergic or complicated infection such as pyelonephritis
Pyelonephritis – IV initially	Gentamicin once daily intravenously* for 24–48 hours followed by co-amoxiclav 625 mg three times a day by mouth to complete 7–10 day total course	Gentamicin once daily intravenously* for 24–48 hours followed by ciprofloxacin 500 mg twice daily by mouth to complete 7–10 day total course
	Vulnerable elderly: gentamicin intravenously* *stat*. Subsequent doses at discretion of the consultant	
Catheter UTI	*Asymptomatic*: no antibiotics required *Symptomatic*: gentamicin once daily intravenously* for 5 days Elderly: give a *stat* dose; subsequent doses at consultant discretion	Do not treat if asymptomatic as all catheters become colonised with bacteria. Urine dipstick is meaningless; urine culture unreliable: do not use to guide treatment. Remove infected catheter where possible.
Gastro-intestinal system		
***Clostridium difficile* infection**		
Mild disease	Metronidazole 400 mg three times a day by mouth for 14 days	Stop other antibiotics if clinically possible Stop any laxatives; review need for proton pump inhibitors if taking them
Moderate/severe disease or significant co-morbidities	Vancomycin 125–500 mg four times a day by mouth or nasogastric tube for 14 days	Urgent gastroenterology/surgical review if severe disease
Gastroenteritis	No antibiotics	
Cholecystitis/ cholangitis/ diverticulitis/ peritonitis	Gentamicin once daily intravenously* *plus* co-amoxiclav 1.2 g three times a day intravenously Switch to co-amoxiclav 625 mg three times a day by mouth as soon as possible	Gentamicin once daily intravenously* *plus* ciprofloxacin 200 mg twice daily intravenously (500 mg twice daily by mouth) **plus** metronidazole 500 mg three times a day intravenously (400 mg three times a day by mouth)
Systemic infections		
Meningitis		
Aged less than 50 years	Ceftriaxone 2 g twice daily intravenously for 14 days	Ceftriaxone can be used in penicillin allergy, unless previous anaphylaxis (see Management of Penicillin Allergy in Adults policy on Trust intranet)
Aged 50 years and over	Ceftriaxone 2 g twice daily intravenously *plus* amoxicillin 2 g four hourly intravenously for 14 days	Seek microbiology advice
Septicaemia/ sepsis syndrome		
Unknown source	Amoxicillin 1 g three times a day intravenously *plus* metronidazole 500 mg three times a day intravenously *plus* gentamicin once daily intravenously*	Seek microbiology advice for penicillin allergic patients, patients who are severely ill or who are failing to respond to treatment
MRSA colonised	Vancomycin intravenously** *plus* metronidazole 500 mg three times a day intravenously *plus* gentamicin once daily intravenously*	Seek microbiology advice for patients who are severely ill or who are failing to respond to treatment
Previously ESBL positive	Meropenem 500 mg four times a day intravenously *plus* amikacin 15 mg/kg *stat* intravenously (max dose 1.5 g)	Seek microbiology advice for penicillin allergic patients, patients who are severely ill or who are failing to respond to treatment
Neutropenic sepsis	Piperacillin/ tazobactam 4.5 g three times a day intravenously *plus* gentamicin once daily intravenously*	Meropenem 500 mg four times daily intravenously *plus* gentamicin once daily intravenously*
Skin and soft tissue		
Cellulitis		
Mild/ Moderate	Flucloxacillin 1 g four times daily by mouth for 7–14 days	Clindamycin 450 mg four times daily by mouth for 7–14 days
Severe	Flucloxacillin 2 g four times daily intravenously for 14 days Consider adding clindamycin 600 mg four times daily intravenously or by mouth	Clindamycin 600 mg four times daily intravenously for 14 days. Switch to oral clindamycin after 24-48 hours as 100% bioavailable.
Necrotising fasciitis	Meropenem 500 mg four times daily intravenously *plus* clindamycin 600 mg four times daily intravenously	Ciprofloxacin 400 mg twice daily intravenously *plus* clindamycin 600 mg four times daily intravenously *plus* vancomycin intravenously**
	This is a surgical emergency – seek senior review and microbiology advice **urgently**	
MRSA infected/colonised		
Mild/Moderate	Doxycycline 200 mg *stat* then 100 mg once daily by mouth for 7–14 days	
Severe	Vancomycin intravenously** for 14 days	

Review the duration, need for the IV route and the indication for antibiotics in light of the clinical picture and microbiology results **within 48 hours**.

*Refer to intranet quick guide to gentamicin for details on prescribing and monitoring. Give 5 mg/kg lean body weight if creatinine clearance over 30 ml/min. If creatinine clearance is less than 30 ml/min, use 3 mg/kg once daily. **Maximum daily dose of gentamicin is 480 mg**. Check pre-dose levels before second dose due. Aim for a pre-dose level of less than 1 mg/L.

**Prescribe a single loading dose of vancomycin based on actual body weight: less than 60 kg give 1 g; 60-90 kg give 1.5 g; greater than 90 kg give 2 g. Base subsequent doses on renal function. See policy on intranet for full details.

Drugs marked in red contain penicillin and are contra-indicated in penicillin allergy; drugs marked in orange can cause allergic reactions in penicillin allergic patients, and must be avoided if there is any history of anaphylaxis to penicillin; drugs marked in green are safe in penicillin allergy. See Management of Penicillin Allergy in Adults policy on Trust intranet for full details.

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