





# Summary of antimicrobial prescribing guidance – managing common infections

- For all PHE guidance, follow [PHE's principles of treatment](#).
- See BNF for appropriate use and dosing in specific populations, for example, hepatic impairment, renal impairment, pregnancy and breastfeeding.

Key:   Click to access doses for children



 Click to access NICE's printable visual summary




Infection	Key points	Medicine	Doses		Length	Visual summary		
			Adult	Child				
<b>▼ Lower respiratory tract infections</b>								
<b>Acute exacerbation of COPD</b>  <b>NICE</b>  Public Health England  Last updated: Dec 2018	Many exacerbations are not caused by bacterial infections so will not respond to antibiotics. Consider an antibiotic, but only after taking into account severity of symptoms (particularly sputum colour changes and increases in volume or thickness), need for hospitalisation, previous exacerbations, hospitalisations and risk of complications, previous sputum culture and susceptibility results, and risk of resistance with repeated courses.  Some people at risk of exacerbations may have antibiotics to keep at home as part of their exacerbation action plan.  <i>For detailed information click on the visual summary. See also the <a href="#">NICE guideline on COPD in over 16s</a>.</i>	<b>First choice:</b> amoxicillin <b>OR</b>	500mg TDS (see BNF for severe infection)	-	5 days			
		doxycycline <b>OR</b>	200mg on day 1, then 100mg OD (see BNF for severe infection)	-				
		clarithromycin	500mg BD	-				
		<b>Second choice: use alternative first choice</b>						
		<b>Alternative choice (if person at higher risk of treatment failure):</b> co-amoxiclav <b>OR</b>	500/125mg TDS	-	5 days			
		co-trimoxazole <b>OR</b>	960mg BD	-				
		levofloxacin (with specialist advice if co-amoxiclav or co-trimoxazole cannot be used; consider safety issues)	500mg OD	-				
<b>IV antibiotics</b> (click on visual summary)								




Infection	Key points	Medicine	Doses		Length	Visual summary
			Adult	Child		
<b>Acute exacerbation of bronchiectasis (non-cystic fibrosis)</b>  <b>NICE</b>  Public Health England  Last updated: Dec 2018	<p>Send a sputum sample for culture and susceptibility testing. Offer an antibiotic.</p> <p>When choosing an antibiotic, take account of severity of symptoms and risk of treatment failure. People who may be at higher risk of treatment failure include people who've had repeated courses of antibiotics, a previous sputum culture with resistant or atypical bacteria, or a higher risk of developing complications.</p> <p>Course length is based on severity of bronchiectasis, exacerbation history, severity of exacerbation symptoms, previous culture and susceptibility results, and response to treatment.</p> <p>Do not routinely offer antibiotic prophylaxis to prevent exacerbations.</p> <p>Seek specialist advice for preventing exacerbations in people with repeated acute exacerbations. This may include a trial of antibiotic prophylaxis after a discussion of the possible benefits and harms, and the need for regular review.</p> <p><i>For detailed information click on the visual summary.</i></p>	<b>First choice empirical treatment:</b> amoxicillin (preferred if pregnant) <b>OR</b>	500mg TDS		7 to 14 days	
		doxycycline (not in under 12s) <b>OR</b>	200mg on day 1, then 100mg OD			
		clarithromycin	500mg BD			
		<b>Alternative choice (if person at higher risk of treatment failure) empirical treatment:</b> co-amoxiclav <b>OR</b>	500/125mg TDS		7 to 14 days	
		levofloxacin (adults only: with specialist advice if co-amoxiclav cannot be used; consider safety issues) <b>OR</b>	500mg OD or BD			
		ciprofloxacin (children only: with specialist advice if co-amoxiclav cannot be used; consider safety issues)	-			
		<b>IV antibiotics</b> (click on visual summary)				
<b>When current susceptibility data available:</b> choose antibiotics accordingly						

<b>COVID-19</b>  <b>NICE</b>  Last updated: June 2021	<p>Antibiotics should not be used for preventing or treating COVID-19 unless there is clinical suspicion of additional bacterial co-infection.</p> <p>Do not use azithromycin to treat COVID-19.</p> <p>Do not offer an antibiotic for preventing secondary bacterial pneumonia in people with COVID-19.</p> <p>If a person in the community has suspected or confirmed secondary bacterial pneumonia, start antibiotic treatment as soon as possible, see <i>community-acquired pneumonia</i> (below) for choices.</p> <p>In hospital, start empirical antibiotics if there is clinical suspicion of a secondary bacterial infection in people with COVID-19, see <i>hospital-acquired pneumonia</i> (below) for choices. Start antibiotics as soon as possible after establishing a diagnosis of secondary bacterial pneumonia, and certainly within 4 hours. Start treatment within 1 hour if the person has suspected sepsis and meets any of the high-risk criteria for this outlined in the <a href="#">NICE guideline on sepsis</a>.</p> <p><i>For detailed information, see the <a href="#">NICE guideline on managing COVID-19</a>.</i></p>
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Infection	Key points	Medicine	Doses		Length	Visual summary		
			Adult	Child				
<b>Acute cough</b>  <b>NICE</b>  Public Health England  Last updated: Feb 2019	<p>Some people may wish to try honey (in over 1s), the herbal medicine pelargonium (in over 12s), cough medicines containing the expectorant guaifenesin (in over 12s) or cough medicines containing cough suppressants, except codeine, (in over 12s). These self-care treatments have limited evidence for the relief of cough symptoms.</p> <p><b>Acute cough with upper respiratory tract infection:</b> no antibiotic.</p> <p><b>Acute bronchitis:</b> no routine antibiotic.</p> <p><b>Acute cough and higher risk of complications (at face-to-face examination):</b> immediate or back-up antibiotic.</p> <p><b>Acute cough and systemically very unwell (at face to face examination):</b> immediate antibiotic.</p> <p>Higher risk of complications includes people with pre-existing comorbidity; young children born prematurely; people over 65 with 2 or more of, or over 80 with 1 or more of: hospitalisation in previous year, type 1 or 2 diabetes, history of congestive heart failure, current use of oral corticosteroids.</p> <p>Do not offer a mucolytic, an oral or inhaled bronchodilator, or an oral or inhaled corticosteroid unless otherwise indicated.</p> <p><i>For detailed information click on the visual summary.</i></p>	<b>Adults first choice:</b> doxycycline	200mg on day 1, then 100mg OD	-	5 days			
		<b>Adults alternative first choices:</b> amoxicillin (preferred if pregnant) <b>OR</b> clarithromycin <b>OR</b> erythromycin (preferred if pregnant)	500mg TDS	-			-	
		clarithromycin <b>OR</b> erythromycin (preferred if pregnant)	250mg to 500mg BD	-			-	
		erythromycin (preferred if pregnant)	250mg to 500mg QDS or 500mg to 1000mg BD	-			-	
		<b>Children first choice:</b> amoxicillin	-	-			5 days	
		<b>Children alternative first choices:</b> clarithromycin <b>OR</b> erythromycin <b>OR</b> doxycycline (not in under 12s)	-	-				-
		doxycycline (not in under 12s)	-	-				-

Infection	Key points	Medicine	Doses		Length	Visual summary		
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<b>Community-acquired pneumonia</b>  <b>NICE</b>  Public Health England  Last updated: Sept 2019	<p>Assess severity in adults based on clinical judgement and guided by a mortality risk score (CRB65 or CURB65) when these scores can be calculated:</p> <p><b>low severity</b> – CRB65 0 or CURB65 0 or 1  <b>moderate severity</b> – CRB65 1 or 2 or CURB65 2  <b>high severity</b> – CRB65 3 or 4 or CURB65 3 to 5.</p> <p>1 point for each parameter: <b>confusion</b>, (<b>urea</b> &gt;7 mmol/l), <b>respiratory rate</b> ≥30/min, low systolic (&lt;90 mm Hg) or diastolic (≤60 mm Hg) <b>blood pressure</b>, <b>age</b> ≥65.</p> <p>Assess severity in children based on clinical judgement.</p> <p>Offer an antibiotic. Start treatment as soon as possible after diagnosis, within 4 hours (within 1 hour if sepsis suspected and person meets any high risk criteria – see the <a href="#">NICE guideline on sepsis</a>).</p> <p>When choosing an antibiotic, take account of severity, risk of complications, local antimicrobial resistance and surveillance data, recent antibiotic use and microbiological results.</p> <p>* Stop antibiotics after 5 days unless microbiological results suggest a longer course is needed or the person is not clinically stable.  <i>For detailed information click on the visual summary.</i></p>	<b>First choice (low severity in adults or non-severe in children):</b> amoxicillin	500mg TDS (higher doses can be used, see BNF)		5 days*			
		<b>Alternative first choice (low severity in adults or non-severe in children):</b> doxycycline (not in under 12s) <b>OR</b> clarithromycin <b>OR</b>	200mg on day 1, then 100mg OD					
		erythromycin (in pregnancy)	500mg QDS					
		<b>First choice (moderate severity in adults):</b> amoxicillin <b>AND (if atypical pathogens suspected)</b> clarithromycin <b>OR</b>	500mg TDS (higher doses can be used, see BNF)	-	5 days*			
		erythromycin (in pregnancy)	500mg QDS	-				
		<b>Alternative first choice (moderate severity in adults):</b> doxycycline <b>OR</b> clarithromycin	200mg on day 1, then 100mg OD	-				
		<b>First choice (high severity in adults or severe in children):</b> co-amoxiclav <b>AND (if atypical pathogens suspected)</b> clarithromycin <b>OR</b>	500/125mg TDS		5 days*			
		erythromycin (in pregnancy)	500mg QDS					
		<b>Alternative first choice (high severity in adults):</b> levofloxacin (consider safety issues)	500mg BD	-				
		<b>IV antibiotics</b> (click on visual summary)						

Infection	Key points	Medicine	Doses		Length	Visual summary
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<b>Hospital-acquired pneumonia</b>  <b>NICE</b>  Public Health England  Last updated: Sept 2019	<p>If symptoms or signs of pneumonia start within 48 hours of hospital admission, see <i>community acquired pneumonia (above)</i>.</p> <p>Offer an antibiotic. Start treatment as soon as possible after diagnosis, within 4 hours (within 1 hour if sepsis suspected and person meets any high risk criteria – see the <a href="#">NICE guideline on sepsis</a>).</p> <p>When choosing an antibiotic, take account of severity of symptoms or signs, number of days in hospital before onset of symptoms, risk of developing complications, local hospital and ward-based antimicrobial resistance data, recent antibiotic use and microbiological results, recent contact with a health or social care setting before current admission, and risk of adverse effects with broad spectrum antibiotics.</p> <p>No validated severity assessment tools are available. Assess severity of symptoms or signs based on clinical judgement.</p> <p>Higher risk of resistance includes relevant comorbidity (such as severe lung disease or immunosuppression), recent use of broad-spectrum antibiotics, colonisation with multi-drug resistant bacteria, and recent contact with health and social care settings before current admission.</p> <p>If symptoms or signs of pneumonia start within days 3 to 5 of hospital admission in people not at higher risk of resistance, consider following community acquired pneumonia for choice of antibiotic.</p> <p><i>For detailed information click on the visual summary.</i></p>	<b>First choice (non-severe and not higher risk of resistance):</b> co-amoxiclav	500/125 mg TDS		5 days then review	
		<b>Adults alternative first choice (non-severe and not higher risk of resistance)</b> Choice based on specialist microbiological advice and local resistance data <b>Options include:</b> doxycycline	200mg on day 1, then 100mg OD	-	5 days then review	
		cefalexin (caution in penicillin allergy)	500 mg BD or TDS (can increase to 1 to 1.5g TDS or QDS)	-		
		co-trimoxazole	960mg BD	-		
		levofloxacin (only if switching from IV levofloxacin with specialist advice; consider safety issues)	500mg OD or BD	-	-	
		<b>Children alternative first choice (non-severe and not higher risk of resistance):</b> clarithromycin Other options may be suitable based on specialist microbiological advice and local resistance data	-			
For first choice IV antibiotics (severe or higher risk of resistance) and antibiotics to be added if suspected or confirmed MRSA infection see visual summary						