

LOWER RESPIRATORY TRACT INFECTIONS

Acute Cough, Bronchitis ([CKS Acute Bronchitis in 12years onwards, NG120 acute cough](#))

In previously healthy patients most cases of acute bronchitis are associated with viral infection. For children up to 2 years old, consider whether the cause of the cough is RSV ([NG9](#)).

Numerous randomised controlled trials have shown little or no benefit from the use of antibiotics for acute bronchitis in otherwise healthy adults in primary care.

Advise patients that a cough is usually self-limiting and gets better within 3 to 4 weeks without antibiotics.

Discoloured sputum does not necessarily indicate infection, it may be due to non-infective inflammatory conditions.

Advise the patient on self-care strategies such as adequate fluid intake, and the use of paracetamol or ibuprofen for symptomatic relief. ([TARGET RTI patient information leaflet](#)) ([APC Cough patient information leaflet](#)) ([Caring for children with coughs](#))

Some patients may wish to purchase over the counter (OTC) self-care treatments (limited evidence of effectiveness):

- Honey (in people aged > 1 year).
- Pelargonium (herbal medicine; in people aged ≥ 12 years).
- Cough medicines containing guaifenesin (an expectorant; in people aged ≥ 12 years).
- Cough medicines containing cough suppressants (except codeine) if the person does not have a persistent cough or excessive secretions (in people aged ≥ 12 years)

Limited evidence suggests antihistamines, decongestants and cough medicines containing codeine do not help cough symptoms.

Assess if antibiotic treatment is required:

- Acute cough associated with acute bronchitis in patients who are **not** systemically very unwell or at higher risk of complications: **Do not offer routine antibiotic.**
 - When no antibiotic is given, give advice about:
 - why an antibiotic is not needed,
 - acute bronchitis is usually self-limiting lasting 3-4 weeks,
 - and how to manage symptoms with self-care treatments.
 - Reassurance that it is not serious and patient information leaflets informing previously well patients about the natural history of LRTI symptoms are an effective strategy for reducing re-consultations and antibiotic use.
- Acute cough **and systemically very unwell** (at face-to-face examination): **offer immediate antibiotic.**
- Acute cough **and higher risk of complications** (at face-to-face examination): **consider immediate or delayed antibiotic.**
 - 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.
 - When a delayed prescription is given, advise the person to use the prescription if symptoms get worse rapidly or significantly.
- **If a C-reactive protein (CRP) test has been carried out**, use the results to guide antibiotic prescribing as follows:
 - CRP less than 20 mg/L — do not routinely offer antibiotics.
 - CRP 20–100 mg/L — consider a delayed antibiotic prescription.
 - CRP >100mg/L — offer antibiotic prescription.

Do not offer:

- a mucolytic,
- an oral or inhaled bronchodilator,
- an oral or inhaled corticosteroid unless otherwise indicated.

Reassess if symptoms worsen rapidly or significantly, taking account of:

- alternative diagnoses such as pneumonia,
- any symptoms suggesting a more serious illness or condition, such as cardiorespiratory failure or sepsis,
- previous antibiotic use, which may have led to resistant bacteria.

Refer to NICE NG120 acute cough flowchart for [visual summary](#)

Antibiotics for adults over 18 years if indicated (see above):

Antibiotic ¹	Dosage	Duration
First Choice		
Doxycycline ²	<ul style="list-style-type: none"> 200mg first day then 100mg once a day 	5 days
Alternative first choices		
Amoxicillin ³	<ul style="list-style-type: none"> 500mg three times a day 	5 days
Clarithromycin ⁴	<ul style="list-style-type: none"> 250mg to 500mg twice a day 	5 days
Erythromycin ^{3,4}	<ul style="list-style-type: none"> 250mg to 500mg four times a day or 500mg to 1000mg twice a day 	5 days

¹ See [BNF](#) for appropriate use and dosing in specific populations, e.g., hepatic, or renal impairment, pregnancy and breastfeeding.
² Doxycycline is not suitable for pregnant women
³ Amoxicillin or Erythromycin are preferred in women who are pregnant.
⁴ Withhold statins whilst on clarithromycin/erythromycin course.

Antibiotics for children and young adults under 18 years if indicated (see above):

Antibiotic ¹	Dosage ²	Duration
First Choice		
Amoxicillin	<ul style="list-style-type: none"> 1 to 11 months: 125mg three times a day 1 to 4 years: 250mg three times a day 5 to 17 years: 500mg three times a day 	5 days
Alternative first choices		
Clarithromycin	<ul style="list-style-type: none"> 1 month to 11 years: <ul style="list-style-type: none"> Under 8kg: 7.5mg/kg twice a day 8 to 11kg: 62.5mg twice a day 12 to 19kg: 125mg twice a day 20 to 29kg: 187.5mg twice a day 30 to 40kg: 250mg twice a day or 12 to 17 years: 250mg to 500mg twice a day 	5 days
Erythromycin (consider syrup in children)	<ul style="list-style-type: none"> 1 month to 1 year: 125mg four times a day or 250mg twice a day 2 to 7 years: 250mg four times a day or 500mg twice a day 8 to 17 years: 250mg to 500mg four times a day or 500mg to 1000mg twice a day 	5 days
Doxycycline	<ul style="list-style-type: none"> 12 to 17 years: 200mg first day then 100mg once a day 	5 days

¹ See [BNF for children](#) for appropriate use and dosing in specific populations, for example, hepatic impairment and renal impairment.
² The age bands apply to children of average size and, in practice, the prescriber will use age bands in conjunction with other factors such as the severity of the condition and the child's size in relation to the average size of children of the same age. Doses given are by mouth using immediate-release medicines, unless otherwise stated.

Version Control- Acute Cough, Bronchitis			
Version	Author(s)	Date	Changes
V2.1	Nichola Butcher - Medicine Optimisation Pharmacist	28/03/22	Review of NICE and CKS guidelines, links added. Self-care guidance added with age limits. Link to TARGET PIL and APC cough PIL added. Addition antibiotic choices and doses added as per NICE CRP information added. Information about stopping statin when on erythromycin/clarithromycin Information about RSV and premature babies added. Caring for children with coughs leaflet added Specific information regarding premature babies removed.
V2.2	Nichola Butcher Specialist MO Interface pharmacist	22/09/22	Advice to buy self-care options OTC added. Doses changed from Latin abbreviations.