Cough (acute): antimicrobial prescribing

In an adult with acute cough associated with acute bronchitis, who has had a C-reactive protein test, follow NICE’s guideline on pneumonia in adults.

**Background**
- Acute coughs are usually self-limiting but can last up to 3 to 4 weeks.
- Usually caused by a viral upper respiratory tract infection, such as a cold or flu.
- Also caused by acute bronchitis, which is usually viral but can be bacterial.
- Antibiotics make little difference to how long a cough lasts.

**Self-care**
Be aware that limited evidence suggests that the following have some benefit in relieving cough symptoms:
- honey (in people over 1 year)
- pelargonium (herbal remedy)
- cough medicines containing the expectorant guaifenesin (in people over 12 years)
- cough medicines containing the antitussive dextromethorphan (in people over 12 years and if the cough is not persistent, such as in asthma, or accompanied by excessive secretions)

**Cough (acute)**

- Associated with upper respiratory tract infection in a person who is not at higher risk of complications
- Associated with acute bronchitis in a person who is not at higher risk of complications
- In a person who is at higher risk of complications (identified at face-to-face examination)
- In a person who is systemically very unwell (identified at face-to-face examination)

**Do not offer an antibiotic**

- Advise on:
  - the usual course of acute cough (up to 3 or 4 weeks)
  - managing symptoms with self-care
  - when to seek medical help, for example if symptoms worsen rapidly or significantly do not improve after 3 or 4 weeks, or the person becomes systemically very unwell

**Do not routinely offer an antibiotic**

- If antibiotics are not prescribed, advise why not
- With an antibiotic, advise on possible adverse effects including diarrhoea
- With a back-up prescription, advise on using if symptoms worsen rapidly or significantly at any time

**Consider:**

- an immediate antibiotic or
- a back-up antibiotic prescription

**Offer an immediate antibiotic**

- Reassess if symptoms worsen rapidly or significantly, taking account of:
  - alternative diagnoses such as pneumonia
  - any symptoms or signs 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 hospital, or seek specialist advice on further investigation and management, if the person has any symptoms or signs suggesting a more serious illness or condition, for example sepsis, a pulmonary embolism or lung cancer**

**DRAFT August 2018**

NICE uses ‘offer’ when there is more certainty of benefit and ‘consider’ when evidence of benefit is less clear.
# Cough (acute): antimicrobial prescribing

## Choice of antibiotic: adults aged 18 years and over

<table>
<thead>
<tr>
<th>Antibiotic</th>
<th>Dosage and course length</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>First choice</strong></td>
<td></td>
</tr>
<tr>
<td>Doxycycline${}^{1}$</td>
<td>200 mg on first day, then 100 mg once a day for 4 days (5-day course in total)</td>
</tr>
<tr>
<td>Alternative first choices${}^{4}$</td>
<td></td>
</tr>
<tr>
<td>Amoxicillin</td>
<td>500 mg three times a day for 5 days</td>
</tr>
<tr>
<td>Clarithromycin</td>
<td>500 mg twice a day for 5 days</td>
</tr>
<tr>
<td>Erythromycin (in pregnancy)</td>
<td>250 mg to 500 mg four times a day or 500 mg to 1000 mg twice a day for 5 days</td>
</tr>
</tbody>
</table>

1. See BNF for appropriate use and dosing in specific populations, for example, hepatic impairment, renal impairment, pregnancy and breast-feeding
2. Doses given are by mouth using immediate-release medicines, unless otherwise stated
3. Doxycycline should not be given to pregnant women (BNF June 2018)
4. Amoxicillin or erythromycin are preferred in women who are pregnant

## Choice of antibiotic: children and young people under 18 years

<table>
<thead>
<tr>
<th>Antibiotic</th>
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</tr>
</thead>
<tbody>
<tr>
<td><strong>First choice</strong></td>
<td></td>
</tr>
<tr>
<td>Amoxicillin</td>
<td>1 to 11 months: 125 mg three times a day for 5 days 1 to 4 years: 250 mg three times a day for 5 days 5 to 17 years: 500 mg three times a day for 5 days</td>
</tr>
<tr>
<td>Clarithromycin</td>
<td>Under 8 kg, 7.5 mg/kg twice a day for 5 days 8 to 11 kg, 12.5 mg twice a day for 5 days 12 to 19 kg, 125 mg twice a day for 5 days 20 to 29 kg, 187.5 mg twice a day for 5 days 30 to 40 kg, 250 mg twice a day for 5 days 12 to 17 years: 250 mg twice a day or 500 mg twice a day for 5 days</td>
</tr>
<tr>
<td>Erythromycin</td>
<td>1 month to 1 year: 125 mg four times a day or 250 mg twice a day for 5 days 2 to 7 years: 250 mg four times a day or 500 mg twice a day for 5 days 8 to 17 years: 250 mg to 500 mg four times a day or 500 mg to 1000 mg twice a day for 5 days 12 to 17 years: 200 mg on first day, then 100 mg once a day for 4 days (5-day course in total)</td>
</tr>
<tr>
<td>Doxycycline${}^{4}$</td>
<td></td>
</tr>
</tbody>
</table>

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 the 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
3. Amoxicillin or erythromycin are preferred in young women who are pregnant
4. Doxycycline is contraindicated in children under 12 years and should not be given to young women who are pregnant (BNF June 2018)

When exercising their judgement, professionals and practitioners are expected to take this guideline fully into account, alongside the individual needs, preferences and values of their patients or the people using their service. It is not mandatory to apply the recommendations, and the guideline does not override the responsibility to make decisions appropriate to the circumstances of the individual, in consultation with them and their families and carers or guardian.