LOWER RESPIRATORY TRACT INFECTIONS

Community-acquired pneumonia (CAP)

Bacterial causes:
- *Streptococcus pneumoniae* (very common in all age groups).
- *Haemophilus influenzae* (uncommon).
- *Mycoplasma pneumoniae* (particularly in young adults, usually in 3-4 yearly peaks that last for 12-15 months, rare in >65yr olds).
- *Chlamydophila pneumoniae* (probably common).
- *Chlamydophila psittaci* (uncommon, history of pet birds).
- *Legionella pneumophila* (uncommon, may be a history of recent travel).

CAP is defined as the presence of the following symptoms and signs, which cannot otherwise be explained:

- Acute lower respiratory tract symptoms i.e. cough and one or more other symptoms.
- Focal chest signs of recent onset.
- Systemic symptoms or signs:
  - Pyrexia >38°C.
  - Sweating.
  - Shivers (rigors).
  - Aches and pains.

Treatment
- Confirmation of diagnosis with a chest X-ray is helpful where available.
- A 5 day course for low-severity pneumonia treated in the community should be sufficient, longer courses may be necessary in hospitalised patients or those with more severe pneumonia.
- If symptoms do not improve as expected after 3 days, consider extending the course for longer than 5 days.
- Assessment of patients using the CRB-65 score helps to determine the management of CAP for patients in the community.

**CRB-65** score for mortality risk = score 1 point for each of the following features present:
- Confusion (AMT <8 or new disorientation in person, place or time).
- Respiratory rate ≥ 30/min.
- Blood pressure (SBP <90mmHg or DBP < 60mmHg).
- ≥ 65 years.

A score of 0 (low risk) indicates that the patient is likely to be suitable for home treatment. A score of 1-2 (intermediate risk) indicates a need to consider hospital referral and antibiotics should include cover for atypical organisms. Patients with a score of 3 or 4 (high risk) require urgent hospital admission.

Consider immediate antibiotic administration for patients being referred to hospital if CAP is thought to be life threatening or there is likely to be a delay >2 hours to admission.
Also seek risk factors for *Legionella* and *Staphylococcus aureus* infection. For *Legionella* these may include: exposure to air conditioning systems, recent travel, cooling towers, spa pools and other artificial water systems. For *S. aureus* these may include: recent influenza, nursing home residents, aspiration, and chronically ill or debilitated patients.

**Treatment**

<table>
<thead>
<tr>
<th>Drug</th>
<th>Dose</th>
<th>Duration of TX</th>
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<tbody>
<tr>
<td><strong>If CURB-65=0:</strong></td>
<td></td>
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<tr>
<td>Amoxicillin</td>
<td>500mg TDS</td>
<td>5 days</td>
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<tr>
<td>Or Clarithromycin</td>
<td>500mg BD</td>
<td>5 days</td>
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<tr>
<td>Or Doxycycline</td>
<td>200mg first day then 100mg OD</td>
<td>(review at 3 days and extend to 7-10 days slow/poor response)</td>
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<tr>
<td><strong>If CURB-65=1 &amp; at home:</strong></td>
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<tr>
<td>Amoxicillin AND Clarithromycin</td>
<td>500mg – 1g TDS</td>
<td>7-10 days</td>
</tr>
<tr>
<td>Or Doxycycline alone</td>
<td>200mg first day then 100mg OD</td>
<td>7-10 days</td>
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