### Initial assessment

<table>
<thead>
<tr>
<th>History</th>
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<tbody>
<tr>
<td>– Assess risk factors for severe disease; age &lt; 2 months, prematurity, chronic lung disease, congenital heart disease, neuromuscular disease</td>
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<tr>
<td>– Assess symptoms; apnoe, wheezing, cough, nutrition and fluid intake</td>
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<tr>
<th>Observation</th>
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<tr>
<td>– Respiratory rate, chest movements, prolonged expiration, recessions, use of accessory muscles, cyanosis, general condition, mental status</td>
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<th>Examination</th>
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<tbody>
<tr>
<td>– Wheezing or inspiratory crackles by auscultation, hydration status</td>
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<th>Investigations</th>
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<tr>
<td>– Oxygen saturation, rapid virological testing</td>
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<tr>
<th>Severity</th>
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<td>– Mild, moderate or severe (Table 1)</td>
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### Moderate or severe bronchiolitis

- Generally, a “minimal handling” approach is recommended, especially for infants < 3 months
- Prone position (if continuously observed)
- Careful nasal suctioning if copious secretions
- Oxygen by face mask or nasal cannula to keep SpO2 ≥ 90 - 92%
- Fluid and nutrition
  - Restore fluid loss and treat dehydration
  - Small volume frequent feed – breast milk is advocated
  - If inadequate oral feeding; feed by gastric tube
  - If enteral feeding not tolerated; give crystalloids IV
  - Fluid requirement 100 ml/kg, consider 80 ml/kg if severely ill
- Inhaled adrenaline – consider in infants > 3 months, given “as needed”
  - Racemic adrenaline 2 – 5 mg in 2-5 ml NaCl 9 mg/ml or
  - Adrenalin 1 mg/ml: 1 - 2 mg in 2-5 ml NaCl 9 mg/ml.
  - May be repeated every 1-2 hourly

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### Additional investigations
- in severe bronchiolitis,
- by clinical indication only in moderate bronchiolitis

Blood tests
- Full blood count, CRP (suspected bacterial infection)
- Serum electrolytes (suspected imbalance)
- Blood gases (severe respiratory distress)

Chest X-ray (prolonged fever, SpO2 < 90%, child at ICU)

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### Reassessments at regular intervals
(every 1 hour for severe bronchiolitis, every 2-4 hours for moderate bronchiolitis)

Oxygen requirement, physical observation and examination as above, additional investigations

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### Poor improvement or deterioration, impending respiratory failure
- Severe apnoes, high oxygen supply, low oxygen saturation, increasing respiratory distress
- Referral to an intensive care unit depending on local conditions
- Consider nasal CPAP – level 7 cm H₂O
  - Optionally; heated humidified high-flow nasal cannulae

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### Further deterioration
- Respiratory distress, high oxygen supply,
- Worsening of general signs and mental status,
- Increasing pCO₂ > 7.5 – 8 kPa
- Consider mechanical ventilation

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### Improvement, moderate and decreasing respiratory distress
- Step down treatment / medication