# Asthma (Children)

## Table 3.81 – ASSESSMENT and MANAGEMENT

### Asthma

<table>
<thead>
<tr>
<th>ASSESSMENT</th>
<th>MANAGEMENT</th>
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<tbody>
<tr>
<td>● Assess ABCD</td>
<td>● If any of the following <strong>TIME CRITICAL</strong> features present:</td>
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<tr>
<td>● Specifically assess for the severity of the asthma attack (refer to Figure 3.20)</td>
<td>- major ABCD problems</td>
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<td></td>
<td>- extreme difficulty in breathing or requirement for assisted ventilations</td>
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<td>- exhaustion</td>
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<td>- cyanosis</td>
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<td></td>
<td>- silent chest</td>
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<td></td>
<td>- SpO₂ &lt;92%</td>
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<td>- PEF &lt;33% best or predicted.</td>
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<td></td>
<td>● Start correcting A and B problems.</td>
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<td></td>
<td>● Undertake a <strong>TIME CRITICAL</strong> transfer to nearest receiving hospital.</td>
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<td></td>
<td>● Continue patient management en-route.</td>
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<tr>
<td></td>
<td>● Provide an alert/information call.</td>
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</tbody>
</table>

### Mild/moderate asthma
- Able to talk in sentences
- SpO₂ >92%
- PEFR >50% best or predicted
- Pulse >140 in child aged 2-5 years
- Respiratory >40 in child ages 2-5 years
- >30 in child aged >5 years

Move to a calm quiet environment.
- Encourage use of own inhaler, using a spacer if available.
- Ensure correct technique is used (refer to Figure 3.20).
- If unresponsive:
  - administer high levels of supplementary oxygen
  - administer nebulised salbutamol ([refer to salbutamol guideline](#)).

### Severe asthma
- Can’t complete sentences in one breath or too breathless to talk or feed
- SpO₂ <92%
- PEFR 33–50% best or predicted
- Pulse >140 in child aged 2-5 years
- Respiratory >40 in child ages 2-5 years
- >30 in child aged >5 years

Administer high levels of supplementary oxygen.
- Administer nebulised salbutamol ([refer to salbutamol guideline](#)).
- If no improvement administer ipratropium bromide ([refer to ipratropium bromide guideline](#)).
- Administer steroids ([refer to relevant steroids guideline](#)).
- Continuous salbutamol nebulisation may be administered unless clinically significant side effects occur ([refer to salbutamol guideline](#)).

### Life-threatening asthma
- Silent chest
- SpO₂ <92%
- Cyanosis
- PEFR <33% best or predicted (exercise caution with PEFR in this patient group)
- Poor respiratory effort
- Hypotension
- Exhaustion
- Confusion

- Continuous salbutamol nebulisation may be administered unless clinically significant side effects occur ([refer to salbutamol guideline](#)).
- Administer adrenaline 1 in 1000 IM only ([refer to adrenaline guideline](#)).
- Assess for bilateral tension pneumothorax.

### Transfer
- Transfer rapidly to nearest receiving hospital.
- Provide an alert/information call.
- Continue patient management en-route.

For cases of mild asthma that respond to treatment consider alternative care pathway where appropriate.

**Note:** exercise caution in known severe asthmatics.
**Asthma (Children)**

**MILD/MODERATE ASTHMA**
- Move to a calm, quiet environment
- Encourage use of own inhaler, preferably using a spacer. Ensure correct technique is used; two puffs, followed by two puffs every 2 minutes to a maximum of ten puffs
- Administer high levels of supplementary oxygen
- Administer nebulised salbutamol using an oxygen driven nebuliser (refer to salbutamol guideline)

**SEVERE ASTHMA**
- If no improvement, administer ipratropium bromide by nebuliser (refer to ipratropium bromide guideline)
- Administer steroids (refer to relevant steroids guideline)
- Continuous salbutamol nebulisation may be administered unless clinically significant side effects occur (refer to salbutamol guideline)

**LIFE-THREATENING ASTHMA**
- Administer adrenaline (refer to adrenaline guideline)
  - NB Check the child is still receiving high levels of oxygen before administering

**NEAR FATAL ASTHMA**
- Provide an alert / information call
- As you progress through the treatment algorithm consider the child's overall response on the condition arrow and transfer as indicated

**Figure 3.20** – Asthma assessment and management algorithm.