**Clinical Asthma Pathway**

For patients over two years without preexisting conditions.*

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### Medication Dosing

**ALL MEDICATIONS REQUIRE AN MD ORDER**

**ED & Inpatient**

**Albuterol dosing:**
- <20 kg: 4 puff MDI or 2.5 mg nebulized
- ≥20 kg: 8 puff MDI or 5 mg nebulized

**Continuous albuterol via nebulizer:**
- <20 kg: 10 mg/hr  |  ≥20 kg: 15 mg/hr

**Ipratropium bromide:**
- 500 mcg nebulized

**Prednisone or Prednisolone (oral):**
- 1st dose: 2 mg/kg/day (max dose 60 mg/day)
- Subsequently: 1-2 mg/kg/day

**Dexamethasone:**
- 0.3 mg/kg (max 10 mg)

**Methylprednisolone:**
- First dose: 2 mg/kg (max - 60mg)
- Then: 1 mg/kg IV Q6h (max 125 mg/day)

Indications for IV/IM steroids: Inability to tolerate PO or concern for inadequate (not adequate) GI absorption.

*Consider steroids if using albuterol q4 hours at home without clinical improvement or cough > 1 week

### Discharge/Home

**Albuterol dosing:**
- <20 kg: 2 puff MDI or 2.5 mg nebulized
- ≥20 kg: 4 puff MDI or 2.5 mg nebulized

### Adjunct Therapies

**Magnesium sulfate IV:** 50-75 mg/kg (max 2 gms) over 20 minutes (Consider administration of Normal Saline bolus)

**Epinephrine (1:1000 = 1 mg/ml) or terbutaline (1 mg/ml):**
- 0.01 ml/kg (max 0.4 ml) given SQ or IM q10-20min

*Exclusion

- Chronic lung disease (e.g. cystic fibrosis, restrictive lung disease, bronchopulmonary dysplasia)
- Congenital and acquired heart disease
- Airway Issues (e.g. vocal cord paralysis, tracheomalacia, tracheostomy dependent)
- Medically complex children
- Immune disorders
- Sickle cell anemia

**RN/RT to Notify MD**

- For all phase transitions
- Failure to advance on pathway after 12 hours in all inpatient phases
- Persistent O2 requirement in Phase IV
- An increase in respiratory score

**Signs of Clinical Decline**

- Drowsiness
- Agitation
- Confusion
- Silent chest exam

Notify MD and consider PMET activation

**Escalation—Notify MD**

- Albuterol+Ipratropium bromide: 3 treatments q20mins over 1 hour
- Magnesium sulfate
- Reassess after interventions

Consider PMET activation

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**Discharge Plan**

1. Completion of online education
2. Pharmacy education on use of spacer
3. Modification of home medications (if indicated)
4. Asthma Action Plan
5. Appointment with PMD
6. Appointment with subspecialty (if indicated)
## Respiratory Scoring Tool

<table>
<thead>
<tr>
<th>Variable</th>
<th>0 Points</th>
<th>1 Point</th>
<th>2 Points</th>
<th>3 Points</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>RR</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>&lt;2 months</td>
<td>≤60</td>
<td>61-69</td>
<td>≥70</td>
<td></td>
</tr>
<tr>
<td>2-12 months</td>
<td>≤50</td>
<td>51-59</td>
<td>≥60</td>
<td></td>
</tr>
<tr>
<td>13-23 months</td>
<td>≤40</td>
<td>41-44</td>
<td>≥45</td>
<td></td>
</tr>
<tr>
<td>2-3 year</td>
<td>≤34</td>
<td>35-39</td>
<td>≥40</td>
<td></td>
</tr>
<tr>
<td>4-5 year</td>
<td>≤30</td>
<td>31-35</td>
<td>≥36</td>
<td></td>
</tr>
<tr>
<td>6-12 year</td>
<td>≤26</td>
<td>27-30</td>
<td>≥31</td>
<td></td>
</tr>
<tr>
<td>&gt;12 year</td>
<td>≤23</td>
<td>24-27</td>
<td>≥28</td>
<td></td>
</tr>
<tr>
<td><strong>Retractions</strong></td>
<td>None</td>
<td>Subcostal or intercostal</td>
<td>2 of the following: subcostal, intercostal, substernal OR nasal flaring (infant)</td>
<td>3 of the following: subcostal, intercostal, substernal, suprasternal, supraclavicular OR nasal flaring/head bobbing (infant)</td>
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<tr>
<td><strong>Dyspnea</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>0-23 months</td>
<td>Normal feeding, vocalizations and activity</td>
<td>1 of the following: difficulty feeding, decreased vocalization or agitated</td>
<td>2 of the following: difficulty feeding, decreased vocalization or agitated</td>
<td>Stops feeding, no vocalization, drowsy or confused</td>
</tr>
<tr>
<td>2-4 years</td>
<td>Normal feeding, vocalizations and play</td>
<td>1 of the following: decreased appetite, increased coughing after play, hyperactivity</td>
<td>2 of the following: decreased appetite, increased coughing after play, hyperactivity</td>
<td>Stops eating or drinking, stops playing, OR drowsy and confused</td>
</tr>
<tr>
<td>&gt;4 years</td>
<td>Counts to ≥10 in one breath</td>
<td>Counts to 7-9 in one breath</td>
<td>Counts to 4-6 in one breath</td>
<td>Counts to ≤3 in one breath</td>
</tr>
<tr>
<td><strong>Auscultation</strong></td>
<td>Normal breathing, no wheezing present</td>
<td>End-expiratory wheeze only</td>
<td>Expiratory wheeze only (greater than end-expiratory wheeze)</td>
<td>Inspiratory and expiratory wheeze OR diminished breath sounds OR both</td>
</tr>
</tbody>
</table>