Supplemental Oxygen should be administered to maintain SaO2 >90%.

Inclusion Criteria: Patients 2-18 years of age with acute asthma exacerbation.

**Goals for Best Practice**
- Steroids within 60 minutes of arrival
- Beta-Agonists within 60 minutes of arrival
- Ipratropium with 1st ED Albuterol Neb
- Standardized Asthma Scoring (PAS)
- CXR and Blood Gas are not recommended for Routine Asthma Exacerbation

**if Respiratory Arrest Imminent**
Move to Resuscitation Room and Notify ED MD

1st HOUR

**PAS 1-2**
RT
- Albuterol 5 mg Neb
RT
- Consider Steroids in some cases- consult with physician

2nd HOUR

**PAS 0-2**
Discharge to HOME
- Asthma Education
- Smoking Cessation referral if indicated
- **Script for Albuterol MDI**
- Script for Dexamethasone Dose

**PAS 3-5**
RT
- Albuterol Neb over 1 hour
  - <20 kg: Albuterol 10 mg
  - ≥20 kg: Albuterol 15 mg
- Ipratropium 1 mg via neb- in conjunction with Albuterol
RT
- Dexamethasone 0.6 mg/kg (max 16 mg) PO/IM OR
  - Methylprednisolone 2mg/kg (max 60mg) IV for PO intolerant

**PAS 3-5 Call Seton Transfer Center: 324-3515**
RT
- Albuterol Neb over 1 hour
  - <20 kg: Albuterol 10 mg or ≥20 kg: Albuterol 15 mg

3rd HOUR

**PAS 3-5**
**Reassess VS (including BP) & PAS Score**

**Pediatric Asthma Score (PAS)**

<table>
<thead>
<tr>
<th>Assessment</th>
<th>0</th>
<th>1</th>
<th>2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Respiratory Rate (Obtain over 30 seconds and multiply x2)</td>
<td>≤34</td>
<td>35-39</td>
<td>≥40</td>
</tr>
<tr>
<td>2-3 years old</td>
<td>≥30</td>
<td>31-35</td>
<td>≥36</td>
</tr>
<tr>
<td>4-5 years old</td>
<td>≤26</td>
<td>27-30</td>
<td>≥28</td>
</tr>
<tr>
<td>6-12 years old</td>
<td>≤23</td>
<td>24-27</td>
<td>≥25</td>
</tr>
<tr>
<td>≥12 years old</td>
<td>90-95% RA</td>
<td>&lt;90% RA</td>
<td></td>
</tr>
<tr>
<td>Oxygen Requirement (RA for 2min- return O2 if Sats &lt;90)</td>
<td>&gt;95% RA</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Respiratory Wheezes</td>
<td>Insp. &amp; Exp. wheeze or Diminished BS</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Auscultation</td>
<td>BBS clear to End exp. wheeze</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Work of Breathing- nasal flaring, suprasternal, intercostal or subcostal muscle use</td>
<td>≤1 accessory muscle</td>
<td>2 accessory muscles</td>
<td>≥3 accessory muscles</td>
</tr>
<tr>
<td>Dyspnea</td>
<td>speaks full sentences, playful, babbles</td>
<td>speaks partial sentences, short cry</td>
<td>speaks short phrases, single words, grunting</td>
</tr>
</tbody>
</table>

**ADJUNCTIVE THERAPY OPTIONS**

**IV NS bolus**
(20ml/kg, max 1L)
If Giving Therapies Below Contact Seton Transfer Center for Transfer: 324-3515
- Terbutaline
  - 10mcg/kg SQ (Max 50mg=0.25ml) X1 FOR CHILD IN EXTREMIS (NOTE: can be given Q20min. x3 doses until transfer)

**MgSO4**
50 mg/kg IV (max 2 g) over 20-30 min. x1
(NOTE: Strongly consider NS bolus if not already given)

**Albuterol to MDI w/ Spacer Puff Conversions**
- 5mg neb = 8 puffs
- 10mg neb = 16 puffs
- Continuous= 5 puffs Q20min. x3
- Q2 hours= 4 puffs Q30 minutes x4
- Q3 hours= 5 puffs Q1 hour x 3
- 15mg neb = 24 puffs
- Continuous= 8 puffs Q20min. x3
- Q2 hours= 6 puffs Q30 minutes x4
- Q3 hours= 8 puffs Q1 hour x 3

**Call Seton Transfer Center for Immediate Transfer: 324-3515**
Consider Early Adjunctive therapy**
- Albuterol Neb over 1 hour (continuous) as necessary
  - <20 kg: Albuterol 10 mg/ ≥20 kg: Albuterol 15 mg

**Emergency Department**
Entry Assessment for ASTHMA PATHWAY

**Supplemental Oxygen** should be administered to maintain SaO2 >90%.

Inclusion Criteria: Patients 2-18 years of age with acute asthma exacerbation.

**Goals for Best Practice**
- Steroids within 60 minutes of arrival
- Beta-Agonists within 60 minutes of arrival
- Ipratropium with 1st ED Albuterol Neb
- Standardized Asthma Scoring (PAS)
- CXR and Blood Gas are not recommended for Routine Asthma Exacerbation

If Respiratory Arrest Imminent
Move to Resuscitation Room and Notify ED MD

1st HOUR

**PAS 1-2**
RT
- Albuterol 5 mg Neb
RT
- Repeat per clinician discretion
RN
- Consider Steroids in some cases- consult with physician

2nd HOUR

**PAS 0-2**
Discharge to HOME
- Asthma Education
- Smoking Cessation referral if indicated
- **Script for Albuterol MDI**
- Script for Dexamethasone Dose #2-0.6mg/kg (max 16mg) PO x 1 to be given 24 hours after 1st dose, if applicable

**PAS 3-5**
RT
- Albuterol Neb over 1 hour
  - <20 kg: Albuterol 10 mg
  - ≥20 kg: Albuterol 15 mg
- Ipratropium 1 mg via neb- in conjunction with Albuterol
RT
- Dexamethasone 0.6 mg/kg (max 16 mg) PO/IM OR
  - Methylprednisolone 2mg/kg (max 60mg) IV for PO intolerant

**PAS 3-5 Call Seton Transfer Center: 324-3515**
RT
- Albuterol Neb over 1 hour
  - <20 kg: Albuterol 10 mg or ≥20 kg: Albuterol 15 mg

3rd HOUR

**PAS 3-5**
**Reassess VS (including BP) & PAS Score**

**Pediatric Asthma Score (PAS)**

<table>
<thead>
<tr>
<th>Assessment</th>
<th>0</th>
<th>1</th>
<th>2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Respiratory Rate (Obtain over 30 seconds and multiply x2)</td>
<td>≤34</td>
<td>35-39</td>
<td>≥40</td>
</tr>
<tr>
<td>2-3 years old</td>
<td>≥30</td>
<td>31-35</td>
<td>≥36</td>
</tr>
<tr>
<td>4-5 years old</td>
<td>≤26</td>
<td>27-30</td>
<td>≥28</td>
</tr>
<tr>
<td>6-12 years old</td>
<td>≤23</td>
<td>24-27</td>
<td>≥25</td>
</tr>
<tr>
<td>≥12 years old</td>
<td>90-95% RA</td>
<td>&lt;90% RA</td>
<td></td>
</tr>
<tr>
<td>Oxygen Requirement (RA for 2min- return O2 if Sats &lt;90)</td>
<td>&gt;95% RA</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Respiratory Wheezes</td>
<td>Insp. &amp; Exp. wheeze or Diminished BS</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Auscultation</td>
<td>BBS clear to End exp. wheeze</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Work of Breathing- nasal flaring, suprasternal, intercostal or subcostal muscle use</td>
<td>≤1 accessory muscle</td>
<td>2 accessory muscles</td>
<td>≥3 accessory muscles</td>
</tr>
<tr>
<td>Dyspnea</td>
<td>speaks full sentences, playful, babbles</td>
<td>speaks partial sentences, short cry</td>
<td>speaks short phrases, single words, grunting</td>
</tr>
</tbody>
</table>

**ADJUNCTIVE THERAPY OPTIONS**

**IV NS bolus**
(20ml/kg, max 1L)
If Giving Therapies Below Contact Seton Transfer Center for Transfer: 324-3515
- Terbutaline
  - 10mcg/kg SQ (Max 50mg=0.25ml) X1 FOR CHILD IN EXTREMIS (NOTE: can be given Q20min. x3 doses until transfer)

**MgSO4**
50 mg/kg IV (max 2 g) over 20-30 min. x1
(NOTE: Strongly consider NS bolus if not already given)

**Albuterol to MDI w/ Spacer Puff Conversions**
- 5mg neb = 8 puffs
- 10mg neb = 16 puffs
- Continuous= 5 puffs Q20min. x3
- Q2 hours= 4 puffs Q30 minutes x4
- Q3 hours= 5 puffs Q1 hour x 3
- 15mg neb = 24 puffs
- Continuous= 8 puffs Q20min. x3
- Q2 hours= 6 puffs Q30 minutes x4
- Q3 hours= 8 puffs Q1 hour x 3

**Call Seton Transfer Center for Immediate Transfer: 324-3515**
Consider Early Adjunctive therapy**
- Albuterol Neb over 1 hour (continuous) as necessary
  - <20 kg: Albuterol 10 mg/ ≥20 kg: Albuterol 15 mg

Special Needs or Questions? Call Dell Children's ED Transfer Line: 512-324-3515