

# Pediatric Acute Asthma Management Guideline

## Clinical Asthma Severity (CAS) Score and Medications

Guidelines are for:

- Children  $\geq$  24 Months old WITH previous Physician– Diagnosed asthma or reactive airway disease, presenting with:
  - Wheezing, or
  - Cough, or
  - Shortness of Breath, or
  - Increased work of Breathing

Exclusion Criteria include:

- Cystic fibrosis, tracheostomy, Neuromuscular disease, immunodeficiency, chronic cardiac or lung disease/ bronchopulmonary dysplasia
- Stridor
- Altered Mental Status

CAS	0 (Mild )	1 (Moderate)	2 (Severe)
Dyspnea	Speaks in sentences, Coos and Babbles	Speaks in partial sentences, short cry	Speaks in single words/ short phrases/ grunting
Wheezing	No Wheeze Good air movement	Expiratory Wheeze Mild to moderate air movement	Inspiratory and expiratory Wheeze Poor air movement (silent chest)
Work of Breathing	None or intercostal	Intercostal and substernal retractions (and/or) Nasal flaring	Intercostal, substernal, AND supra-clavicular retractions with or without nasal flaring
Cough	No or mild cough	Frequent coughing without loss of breath	Frequent coughing with loss of breath
Respiratory rate	24-36m <35 3-6yr <30 7-12yr <20 <u>&gt;</u> 13 <20	24-36m 35-55 3-6yr 30-50 7-12yr 20-40 <u>&gt;</u> 13yr 20-30	24-36m >55 3-6yr >50 >7-12yr >40 <u>&gt;</u> 13yr >30
O2 Sat	<u>&gt;</u> 96% on Room Air	90-95% on room air	<u>&lt;</u> 89% on Room air

### \*Medications\*

#### **PO Steroid (CAS 1-8)**

- Dexamethasone 0.6mg/Kg  
Max dose 16mg

#### **IV Steroid (CAS >9)**

- Methylprednisolone (Solu-Medrol) 2mg/kg/IV  
Max dose 125mg

#### **Magnesium Sulfate**

- 50mg/kg IV  
Max dose 2g over 30minutes  
(only 1 dose in ED setting)

#### **Terbutaline:**

- 0.2mcg/kg/min  
(Loading dose: 0.01 mg/kg (10 mcg) SQ/IV, max of 0.4mg)

#### **Albuterol MDI (CAS 0-5)**

- <20Kg 6 puffs with spacer  
 $\geq$ 20Kg 8 puffs with spacer  
\* choice of Albuterol for CAS 3-5\*

#### **Albuterol Continuous neb treatment W/ Ipratropium (CAS 3-12)**

- <20Kg 10mg Albuterol per hour  
w/ 0.5mg (500mcg) Ipratropium  
 $\geq$ 20Kg 20mg Albuterol per hour  
w/ 1mg Ipratropium

#### **Albuterol Neb**

- <10 kg: 2.5 mg  
10-20 kg: 5 mg  
20+ kg: 10 mg

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