

# Pediatric Inpatient Asthma Exacerbation Protocol

The following information is intended as a guideline for the acute management of children with asthma. Management of you patient may require a more individualized approach.

**Inclusion Criteria:** 2 y/o or greater with history of asthma or recurrent wheezing presenting with wheezing, cough, dyspnea, hypoxia, and/or tachypnea. 12-23 months to be included on a case-by-case basis.

**Exclusion Criteria:** <2 y/o, diagnosed with viral bronchiolitis or croup, history of cystic fibrosis, cardiac disease, airway abnormalities, and chronic lung disease other than asthma. These patients are excluded unless cleared by a Provider for inclusion.



- Review orders and ensure systemic steroids have been given prior to admission to floor
- Review orders and ensure medication (albuterol, oxygen to keep saturations >92%, systemic steroids, and home medications) have been ordered
- Order spacer for all patients receiving MDI therapy
- Identify triggers for asthma exacerbation (allergies, reflux, infections, medication adherence, weather change, cigarette smoke)
- Consider additional inhaled corticosteroid for all admitted patients not already prescribed the same and to be administered by RT
- Begin asthma education at admission
- Advise parents how to contact nurse if patient's condition worsens
- RN to obtain vital signs
- RT to obtain **Admission Pediatric Asthma Score (Admission PAS)** within 30 minutes of patient's arrival to the floor
- Review the most recent **Pre-Albuterol Pediatric Asthma Score (Pre-Albuterol PAS)**

Use the greater of the most recent Pre-Albuterol PAS and Admission PAS to determine initial standing albuterol orders. Respiratory Therapy (RT) administers albuterol, scoring patient before and after each treatment.



## Mild = PAS 0-2

- Albuterol MDI 4 puffs Q4h  
OR Albuterol 2.5mg neb Q4h
- RT repeat PAS 15min after Albuterol
- Notify Provider if PAS increases above this level or does not decrease
- Consider Albuterol 4 puffs Q6h
- Provider to reassess Q4-6h
- Discharge home at Q4-6h Albuterol

## Mild-Moderate = PAS 3

- Albuterol MDI 4 puffs Q3h  
OR Albuterol 2.5mg neb Q3h
- RT repeat PAS 15min after Albuterol
- Notify Provider if PAS increases above this level or does not decrease
- If PAS 0-2, go to Mild on pathway
- Provider to reassess Q6h

## Moderate = PAS 4-5

- Albuterol MDI 8 puffs Q2h  
OR Albuterol 5.0mg neb Q2h
- RT repeat PAS 15min after Albuterol
- Notify Provider if PAS increases above this level or does not decrease
- If PAS <4 go to the appropriate pathway level
- Provider to reassess Q6h

## Severe = PAS 6-8

- Albuterol 5mg nebulized
- Contact Provider for PAS >5
- Consult PICU
- Repeat PAS within 15min after Albuterol
- Notify Provider and PICU if PAS remain  $\geq 6$  and initiate 2<sup>nd</sup> Albuterol 5mg nebulized. Transfer to PICU
- If PAS <6, go to appropriate pathway level

## Discharge Criteria:

- Patient on room air
- Albuterol spaced to every 4-6hrs
- Asthma education completed
- Contact PCP for follow-up
- Rx for Albuterol, oral corticosteroids, and other home medications as needed
- Consider new or increased dose of inhaled corticosteroid Rx
- Review and provide Asthma Action Plan (AAP)
- Consider Flu Shot when appropriate

Provider Name:		Date:	
<b>Pediatric Asthma Score (PAS)</b>			
Element	Points		
	0	1	2
1. <u>Respiratory Rate</u> Obtain over 30 sec and multiple by 2.	2-3 yrs	35-39	≥ 40
	4-5 yrs	31-35	≥ 36
	6-11 yrs	27-30	≥ 31
	≥ 12 yrs	24-27	≥ 28
2. <u>Auscultation</u> Auscultation anterior and posterior lung fields. Assess air entry and presence of wheezing.	No Wheezes	Expiratory Wheezes	Inspiratory & expiratory wheezes OR diminished breath sounds
3. <u>Work of Breathing</u> Assess for nasal flaring or retractions. (suprasternal, intercostal, subcostal)	≤ 1 sign	2 signs	≥ 3 signs
4. <u>O2 Requirement</u>	≥ 92% on RA		Supplemental oxygen required to maintain saturations above 92%
Date			
Time			
Treatment Y/N			
Score Before/ After Treatment			