

## UNC Children's Respiratory Care Services Continuous Albuterol Pathway for Asthma Patients



The following information is intended as a <u>guideline</u> for the acute management of children with asthma.

Management of your patient may require a more individualized approach

**Inclusion Criteria:** 2 yo or greater with hx of asthma or recurrent wheezing presenting with acute onset wheezing, cough, shortness of breath, hypoxemia, tachypnea, or other signs of increased work of breathing

**Exclusion Criteria:** Bronchiolitis, Viral pneumonitis, Aspiration Pneumonia, Croup, Cystic Fibrosis, Airway Anomalies, Cardiac disease

#### <u>Admission</u>

- Admitting Diagnosis: Asthma
- PICU admission if Pediatric Asthma Score (PAS) ≥ 9
- CONSULT PICU if FiO2 > 60%
- Patients < 2 years old needing Continuous Albuterol CONSULT PICU

## Pediatric Asthma Score (PAS)

- Weaning every 4 hours; After 1st initial dosage change
- PAS < 5: Weaning Score
- PAS 6-7: Maintain current dose of Albuterol
- PAS ≥ 8: Return patient to previous Albuterol dose AND Notify the MD

## WEANING SCORE = PAS < 5

- PAS < 5 on three (Q2) assessments: Decrease to 15 mg (1st initial wean)
- Decrease dosage by 5 mg/hr for a PAS < 5 every 4 hours until 10 mg

Stay here

or Go to

**Drange Box** 

NO

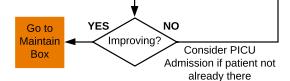
## MAINTAIN SCORE = PAS 6-7

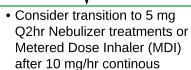
- · Maintain current therapy
- PAS > 8: Return to previous Continuous Albuterol dose AND Notify the MD
- · Perform PAS Q2hr

# Go to Weaning Box | YES NO | Stay here or Go to Red Box if PAS ≥ 8

## RETURN TO PREVIOUS DOSE + MD NOTIFICATION = PAS > 8

- Initiate Continuous Albuterol at 20 mg/hr
- Consider PICU Admission
- Perform PAS every 15 minutes for the first hour and Q2hr after the first hour





Improving?

YES

• If going to intermittent albuterol dosing then HFNC should also be stopped if being used.



## PEDIATRIC ASTHMA SCORE (PAS)



- 1. PAS should be done prior to treatment and repeated 15 minutes afterward (preferably by the same provider)
- 2. Add elements into a single score
- 3. Document score in Epic flowsheet, Scoring Tools, and/or other areas of clinical documentation

ELEMENT		POINTS		
		0	1	2
1. Respiratory Rate	2 - 3 yrs	<u>&lt;</u> 34	35-39	<u>≥</u> 40
Obtain over 30 sec and multiply by 2	4 - 5 yrs	<u>&lt;</u> 30	31-35	<u>&gt;</u> 36
	6 - 11 yrs	<u>&lt;</u> 26	27-30	<u>&gt;</u> 31
	<u>&gt;</u> 12 yrs	<u>&lt;</u> 23	24-27	<u>&gt;</u> 28
2. <u>Ausculatation</u> Auscultate anterior and posterior lung fields Assess air entry and presence of wheezing		No Wheezes	Expiratory Wheezes	Inspiratory & expiratory wheezes OR diminished breath sounds
3. Work of Breathing Assess for nasal flaring or retractions (suprasternal, intercostal, subcostal)		≤1 sign	2 signs	<u>&gt;</u> 3 signs
4. <u>Dyspnea</u> * As developmentally appropriate. * If sleeping AND not showing physical signs of respiratory distress, sscore the patient zero for this category		Speaks full sentences, playful, <u>AND</u> takes PO well	Speaks partial sentences, short cry <u>OR</u> poor PO	Speaks short phrases, grunting, <u>OR</u> unable to take PO
5. O2 Requirement **  ** Do not take patients off supplemental oxygen to obtain score		≥ 92% on RA		Supplemental oxygen required to maintain saturations above 92%

## CONTINUOUS ALBUTEROL DELIVERY DEVICES

### **PICU**

High flow nasal cannula (HFNC)

∘ Infant circuit: Min: 5L, Max: 12L

• Adult circuit: Min: 10L, Max: 20L

Servo U/I: Invasive vs. Non-Invasive

### **ACUTE FLOORS**

• HFNC

Infant circuit: 5LAdult circuit: 10L

• If more flow is required, consult primary team

Aerogen Ultra