Pediatric Bronchiolitis Pathway in the Emergency Department

The following information is intended as a guildeline for the acute management of children with bronchiolitis. Management of your patient may require a more individualized approach

Suspected bronchiolitis: **Otherwise healthy child** <24 months of age with prodrome of viral URI progressing to lower respiratory involvement including

- Increased work of breathing
- Tachypnea
- Wheezing
- Crackles

Consider Pediatric Asthma Exacerbation Pathway for:

- Age ≥24 months
- History of recurrent wheezing/prior steroid use
- Strong response to albuterol and/or steroid controller use

Breathing Assessment
(See opposite page)

- Education on clearance of nasal secreations by bulb suction
- Antipyretics and supplemental oxygen as needed
- Frequent reassessments

Mild

- Consider bulb suction

Moderate

- Bulb suction
- Observe 1-2 hours on pulse oximetry, then decide to admit or discharge

Severe

- Bulb or wall suction
- NPO
- Place IV
- Consider NS bolus
- Initiate maintenance IV fluids
- If no improvement after suctioning strongly consider initiating **High Flow Nasal Cannula oxygen (HFNC)**

Age	Starting Flow	Cannula Size	Cannula Max Flow	Initial FiO2
< 3 mo	1.5 L/kg/min	Sml/Med	8/10 LPM	<40%
3-12 mo	1.5 L/kg/min	Med/Lrg	10/23 LPM	
>12 mo	1.5 L/kg/min	Lrg	23 LPM	

- Start at 1.5 L/kg/min or max for cannula (whichever is lower).
- Only increase FiO2 over 40% for hypoxemia (sat < 88%) not responsive to suctioning and HFNC initiation.

Discharge Criteria

- Sats ≥90% when awake; ≥ 88% when asleep
- Adequate PO intake
- Mild/moderate work of breathing
- Reliable caretaker
- Able to obtain follow-up care

Admission Criteria

- Need for supplemental oxygen
- Need for IV rehydration
- At risk for progression
  - Significant chronic disease
  - Respiratory rate >60-70
- Consider in very young infants (<3 months of age) presenting with significant symptoms early in disease course
- **If on HFNC admit to PICU/ Intermediate Care unit**
- Attending discretion

Other interventions for specific indications only	Supplemental oxygen	Saturations persistently < 90% when awake or < 88% while asleep after suctioning and repositioning	Hypertonic saline	**Not routinely recommended**
	Supplemental fluids	Inadequate PO intake. Consider NG feeds	Systemic or inhaled steroids	**Not routinely recommended**
	Albuterol	**Not routinely recommended.** Consider if history of recurrent wheezing, age > 12 months	Chest X-ray	**Not routinely recommended.** Consider if • Atypical clinical course • New fever late in disease process • Severe disease
	Racemic epinephrine	Increasing severe respiratory distress	Viral respiratory panel, including RSV testing	**Not routinely recommended.** Consider testing for flu if high local flu activity and/or clinical suspicion of flu
	Antibiotics	Evidence of bacterial superinfection (not common)	Pertussis PCR	**Not routinely recommended**. Consider if • Significant pertussis activity in the community • Known exposure • History of apnea • Unimmunized

Breathing Severity Assessment (BSA)				
Highest rating in any category dictates patient's BSA **Children at risk for severe disease:** -Prematuriy -Cardiac disease -Pulmonary Disease -Neuromuscular disease				
Category		**Mild**	**Moderate**	Severe
Respiratory Rate	< 3 mo	30-60	61-80	>80
	3-12 mo	25-50	51-70	>70
	1-2 yr	20-40	41-60	>60
Work of Breathing		Normal	Retractions	Nasal flaring, grunting, head bobbing, retracting throughout
Mental Status		Baseline	Fussy	Lethargic or inconsolable
Breath Sounds		Clear	Crackles, Wheezing	Diminished breath sounds or significant crackles, wheezing

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esch@email.unc.edu
Based on the 2014 Clinical Practice Guidelines for the Diagnosis, Management, and Prevention of Bronchiolitis published by the American Academy of Pediatrics and “ED Clinical Pathway for Evaluation/Treatment of Children with Bronchiolitis” developed by Children’s Hospital of Philadelphia.