

# Inpatient Bronchiolitis Care Guideline

## Inclusion Criteria:

- Children who are  $\leq 24$  months of age,
- Suspected Bronchiolitis with respiratory distress or hypoxemia
- Months of October - March

## Exclusion Criteria:

- PICU status,
- **Prior wheezing episode, concern for asthma**
- Co-morbidity (MRCP, CHD, suspected Sepsis, history  $< 33$  wk prematurity, other significant disease)

## Assessment

- Respiratory status, O<sub>2</sub> saturation w/ vital signs
- Vital signs based on acuity
- Continuous pulse oximetry **ONLY** if on supplemental oxygen or in distress

## Interventions

- Contact isolation
- Oxygen to keep O<sub>2</sub> saturations  $\geq 93\%$
- Assure adequate hydration PO or IV
- Nasal bulb suction PRN
- Begin patient education on admission

## Continued Care Considerations

- Advance to diet for age as tolerated
- Wean O<sub>2</sub> to keep saturation  $\geq 90\%$  when free of respiratory distress
- When respiratory distress resolved & stable on room air, change from continuous pulse oximetry to pulse oximetry spot checks

## Discharge Criteria

- On room air without respiratory distress
- Adequate PO and activity
- Able to handle secretions (bulb suction only)
- Teaching completed; family able to demonstrate nasal bulb suctioning, verbalize follow up care, and as applicable: understand dosing and purpose of medications, discharge medication/equipment in place

## Patient/Family Education

- Bronchiolitis – Kids Health Handout - Parent Version
- Bulb suction

## At Risk for Severe Disease

- Premature ( $< 32$  weeks)
- Age  $< 12$  weeks

## NOT Indicated:

- CXR
- RSV/VRP
- Routine Labs (consider only if fever  $> 39^{\circ}\text{C}$ )
- Antibiotics
- Bronchodilators
- Steroids
- Chest Physiotherapy

## Recommendations/Considerations

- The mainstay of Bronchiolitis care is supportive with adequate hydration, oxygenation & maintaining an open airway by nasal bulb suctioning PRN.
- Suctioning should be performed by the least invasive/aggressive but effective means (i.e. bulb suction if possible). The transition from wall suction to bulb suction should be made well prior to discharge.
- Nebulized Hypertonic Saline 3%: Some studies suggest a decrease length of stay for nebulized hypertonic saline, but the quality of evidence is weak.
  - \***Dose:** 4ml NEB 3% hypertonic saline
  - \***Frequency:** q6h until discharge
- High Flow Nasal Cannula (HFNC) should be considered for patients presenting with increased respiratory distress. Refer to Protocol for initiation flows and transfer to ICU criteria
- Consider Phenylephrine nose gtt 2-4 days, if nasally obstructed.
- Consider cardiorespiratory monitoring during acute phase for prematurity, chronic underlying conditions & for infants  $< 3$  months of age.

**References**  
**Bronchiolitis Care Guideline**

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- Silver, A. H., Esteban-Cruciani, N., Azzarone, G., Douglas, L. C., Lee, D. S., Liewehr, S., . . . O'Connor, K. (2015). 3% hypertonic saline versus normal saline in inpatient bronchiolitis: A randomized controlled trial. *Pediatrics*, 136(6), 1036-1043. doi:10.1542/peds.2015-1037

# RESPIRATORY ASSESSMENT SCORING SHEET

This tool is to assist provider in deciding if HFNC is appropriate for patient

1. Score the patient according to vital signs and assessment
2. Insert score in each category and total.
3. **If scoring a 3 on Any One of the following: Immediate Assessment by provider is required**
4. Patients  $\leq$  24 months, suction patient, reassess, score, if scoring  $\geq$  5 place on HFNC according to policy.
5. Patients on bronchiolitis guidelines will be scored upon admission and Q shift if not on scheduled respiratory modalities.
6. Patients  $>$  24 months scoring  $\leq$  7, do not place on HFNC, utilize low flow oxygen, treatments and suctioning as appropriate.
7. Patients  $>$  24 months scoring  $\geq$ 8 place on HFNC according to policy

HFNC RESPIRATORY ASSESSMENT SCORING GRID					
SCORES:	<u>0</u>	<u>1</u>	<u>2</u>	<u>3</u>	TALLY
<b>Respiratory Rate</b>	<b>Normal</b> Neonates (0-1 mo) 30-60 Infants (1mo-1yr) 30-50 Toddler (1-4yr) 20-30 Child ( 5-11yr) 18-25 Adolescent (12+yr) 12-20	<b>Mild Tachypnea</b> Neonates (0-1 mo) 61-69 Infants (1mo-1yr) 51-60 Toddler (1-4yr) 31-40 Child ( 5-11yr) 25-30 Adolescent (12+yr) 21-25	<b>Moderate Tachypnea</b> Neonates (0-1 mo) 70-79 Infants ( 1mo-1yr) 61-79 Toddler (1-4yr) 41-59 Child ( 5-11yr) 30-35 Adolescent (12+yr) 26-30	<b>Severe Tachypnea</b> Neonates (0-1 mo) $>$ 80 Infants ( 1mo-1yr) $>$ 80 Toddler (1-4yr) $>$ 60 Child ( 5-11yr) $>$ 35 Adolescent (12+yr) $>$ 30	
<b>Respiratory Pattern</b>	No Distress	Prolonged Exhalation or Nasal Flaring or Mild Retractions	Forced Exhalation or Moderate Retractions	Prolonged /Forced Exhalation With Moderate to Severe Retractions or with Use of Accessory Muscles	
<b>Breath Sounds</b>	Clear	Mild rales/rhonchi or Expiratory wheeze or Diminished BS	Moderate rales/rhonchi or Biphasic wheeze or Moderate Stridor	Absent BS or Severe Stridor	
<b>* Oxygen Saturations (on roomair)</b>	Normal range $>$ 95%	Mild range 90-95%	Moderate range 85-90%	Severe range $<$ 85%	
<b>PLEASE TALLY FOR TOTAL SCORE:</b>					

Clinical judgement supersedes any score related to this scoring tool.

\*N/A if patient is on home oxygen or does not have normal baseline saturation