

Bronchiolitis Care Guideline

Inclusion Criteria:

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

Exclusion Criteria:

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

Assessment

- Respiratory status, O₂ 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 O₂ saturations $\geq 93\%$
- Assure adequate hydration PO or IV
- Nasal bulb suction PRN
- Begin patient education on admission

Bronchiolitis Respiratory Assessment

Bronchiolitis Respiratory Assessment Scoring Sheet (attached) if ordered, is used to assess response to albuterol aerosol trial and guide continued aerosol use

Hypertonic Saline 3%

Hypertonic Saline 3% is suggested if a Bronchiolitis Respiratory Assessment score of 5 or greater does not respond to albuterol aerosol trial with a decreased score of at least 3 points

- Dose: 4 ml 3% hypertonic saline
- Frequency: q6h until discharge

Continued Care Considerations

- Advance to diet for age as tolerated
- Wean O₂ 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, demonstrate MDI usage w/ spacer & mask, discharge medication/ equipment in place

Recommendations/ Considerations

- The mainstay of Bronchiolitis care is supportive with adequate hydration, oxygenation & maintaining an open airway by nasal bulb suctioning PRN.
- **CXR and labs NOT indicated in typical bronchiolitis. Consider ONLY if fever > 39, severe distress, localized findings on PE**
- The data does not support the routine use of steroids in the treatment of bronchiolitis.
- 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.
- High Flow Nasal Cannula (HFNC) should be considered for patients presenting with increased respiratory distress. Protocol includes starting at 6 LPM with Fio₂ of 0.4 and titrating accordingly. A patient requiring greater than 6 LPM or Fio₂ of 0.4 should be immediately transferred to PICU.
- Consider Phenylephrine nose gtt 2-4 days, if nasally obstructed.
- Bronchodilator therapy is not routinely recommended. Trial of B₂ agonist can be given. Continue only if improvement noted per respiratory scoring sheet.
- Racemic epinephrine (nebulized) can be used in selected patients (Alpha-agonist and Beta-agonist).
- If patient exhibits clinical deterioration, consider rescoring for albuterol or racemic epi use.
- RSV/VRP is not clinically indicated for the diagnosis or treatment of bronchiolitis.
- Chest physiotherapy is not routinely recommended
- Consider AB monitoring during acute phase for prematurity, chronic underlying conditions & for infants < 3 months of age.

Patient/Family Education

- Bronchiolitis – Kids Health Handout - Parent Version
- Bulb suction
- Hand sanitation
- MDI w/ spacer/mask if prescribed

BRONCHIOLITIS RESPIRATORY ASSESSMENT SCORING SHEET

*PRIOR TO GIVING AEROSOL, SUCTION PATIENT: IF BREATH SOUNDS CLEAR, NO TREATMENT NEEDED
 *PRIOR TO GIVING AEROSOL, AFTER SUCTIONING: DO THE INITIAL BRONCHIOLITIS SCORE-IF 2 OR LESS THAN, NO TREATMENT REQUIRED *

Respiratory treatment trial shall include the following:

1st treatment assessment should be given upon admission

2nd treatment assessment (IF REQUIRED) should be given (within a period of 4 hours after 1st treatment)

— This is a tool for the bedside therapist to take into the room and use as an aid to assess the Bronchiolitis score if needed.

RESPIRATORY ASSESSMENT SCORING GRID

SCORES:	0	1	2	3	1 st Treatment		2 nd Treatment	
					PRE	POST	PRE	POST
Respiratory Rate <small>(when patient is quiet)</small>	Normal Newborns < 60 Infants <40 Toddler 20-30	Mild Dyspnea Newborns 60-80 Infants 40-60 Toddler 30-40	Moderate Dyspnea Newborns 81-99 Infants 61-79 Toddlers 41-59	Severe Dyspnea / Apnea Newborns >100 Infants >80 Toddler > 60				
Oxygen Saturations <small>(in room air)</small>	>93%	90-93%	86-89%	<85%				
General Appearance	Asleep, calm & content. Happy and/or interactive.	Mildly irritable when touched with occasional crying, but can be consoled.	Moderately irritable, difficult to console and less interactive.	Extremely irritable, cannot be comforted, crying inconsolable. Or non interactive.				
Accessory Muscle Use	No retractions	Mild retractions (<i>Abdominal</i>)	Moderate retractions (intercostals, subcostal with some increased work of breathing)	Severe retractions (obvious intercostals, subcostal, tracheal retractions. With seesaw breathing and nasal flaring)				
Wheezing	No wheezing or crackles	Scattered wheezing with end expiratory wheezes and crackles	Moderate wheezing (diffuse expiratory wheezing, with or without scattered early inspiratory wheezing)	Severe wheezing (diffuse inspiratory and expiratory wheezing). Tight/absent breath sounds.				
PLEASE TALLY FOR TOTAL SCORE:								
(Not Included in Scoring of Patient)					Heart Rate			

1ST RESPIRATORY TREAT

SCORE BEFORE _____
 SCORE AFTER _____
 NO TREATMENT INDICATED, CLEARED WITH SUCTIONING. INITIALS: _____

2ND RESPIRATORY TREATMENT

SCORE BEFORE _____
 SCORE AFTER _____
 NO TREATMENT INDICATED, CLEARED WITH SUCTIONING. INITIALS: _____

***AN IMPROVEMENT IN PATIENT SCORE OF 3 OR MORE INDICATES RESPONSIVENESS TO TREATMENT. IF SCORE DOES NOT IMPROVE BY AT LEAST 3 WITH BOTH TREATMENTS, DISCONTINUE AEROSOLS.**
****IF AT ANY POINT THE SCORING PROCESS THE BRONCHIOLITIS SCORE IS 2 OR LESS, DISCONTINUE AEROSOLS**
*****MAKE SURE TO DELETE THE PRN ALBUTEROL AEROSOLS FROM THE MAR IF NOT REQUIRED, IF THE FIRST TREATMENT IS NOT REQUIRED DELETE BOTH PRNS FROM THE MAR AND DOCUMENT (NOT GIVEN PER BRONCHIOLITIS GUIDELINES ON EACH MEDICATION.**