Acute Uncomplicated Bronchiolitis V 3.0

Guideline Introduction | Approvals and Bibliography | Summary of Version Changes | Overview

This guideline is intended for use in the ED and general inpatient patients. It is not intended for use in ICU patients.

Inclusion Criteria
- Age ≤ 2 years old
- Lower respiratory tract symptoms such as increased work of breathing, cough, feeding difficulty, tachypnea, wheeze

Exclusion Criteria: Evaluation and Management of excluded patients may require additional testing, monitoring, and interventions. *Management of excluded patients generally needs to be individualized and is not covered in this guideline.*
- Chronic lung disease
- Tracheomalacia or other airway abnormality, congenital heart disease requiring home medication management
- Immunodeficiency
- Neurological disorder and/or developmental delay that impairs management of oral and respiratory secretions, ability to cough.
- PICU admission

Key to using guideline
- This is a guideline, not a policy. *Patient variation and other factors may impact management decisions*.
- While it could be appropriate for the guideline user to use some of the treatment recommendations in patients who meet exclusion criteria, patients who meet one or more exclusion criteria may need additional interventions or more expedient care.
- Jump to boxes contain hyperlinks to other pages of the guideline. Clicking on the underlined word or phrase will take you to the page.
- Green boxes represent steps in an algorithm.
- Yellow shapes represent decision branch points or key points of concern/caution.
- Red stop sign means exit guideline as it no longer is inappropriate for investigating and treating the patient's signs and symptoms.

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Bronchiolitis Score (BrS)

Variable	0	1	2	3
Respirations 2-12 mo		≤ 50	51-59	60 or above
Respirations 1-2yr		≤ 40	41-44	45 or above
Retractions	None	Subcostal or intercostal	2 of the following: subcostal, intercostal, substernal, OR nasal flaring (infant)	3 of the following: subcostal, intercostal, substernal, suprasternal, supraclavicular OR nasal flaring / head bobbing (infant)
Auscultation	Normal, no wheezing	End-expiratory wheeze	Expiratory wheeze (greater than end-expiratory)	Inspiratory and expiratory wheeze, or decreased breath sounds, or both
Activity	Normal feeding, vocalizations and activity	1 of the following: difficulty feeding, decreased vocalization or agitated	2 of the following: difficulty feeding, decreased vocalization or agitated	Stops feeding or has order for NPO, no vocalization or drowsy and confused

Acute Bronchiolitis Severity Classification Based on Bronchiolitis Score (BrS)
- Mild: BrS= 1 – 4 and no supplemental oxygen
- Moderate: BrS= 1 – 4 and supplemental oxygen OR BrS= 5 – 8
- Severe: BrS= 9 - 12

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ED Management

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Inclusion Criteria
Exclusion Criteria:

- If impending acute respiratory failure or shock, proceed with stabilization
- Add supplemental oxygen for persistent desaturation until further evaluation and treatment occurs

Patient has acute bronchiolitis and meets inclusion criteria and no exclusion criteria

↓

Place in contract and droplet isolation

↓

Calculate Bronchiolitis Score. Suction. Offer antipyretics if febrile. Offer nutrition/hydration if appropriate.

↓

Provide low flow oxygen if oxygen saturations are low

Evidence does NOT support routinely using

- Antibiotics
- Albuterol
- Chest X-rays
- Chest physiotherapy
- Hypertonic saline
- Laboratory tests, including testing for viral pathogens
- Racemic epinephrine
- Steroids

Mild: BrS 1-4
- Spot pulse oximetry checks
- Nasal suctioning prn
- PO ad lib or home regimen

Moderate: BrS 1-4 AND on oxygen OR BrS = 5-8
- Spot pulse oximetry checks every 4 hours if no supplemental oxygen; continuous pulse oximetry if on supplemental oxygen
- OP/Nasal suctioning

Severe: BrS 9-12
- Continuous pulse oximetry
- OP/Nasal suctioning
- NP suctioning
- Consider albuterol trial
- Consider high flow nasal cannula oxygen(HFNC) if failed pause

↓

Reassess, Recalculate BrS, Adjust Interventions. Consider additional/alternative diagnoses if worsening. More testing may be required. *May need to exit this guideline.*

↓

Determine disposition

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Disposition from ED

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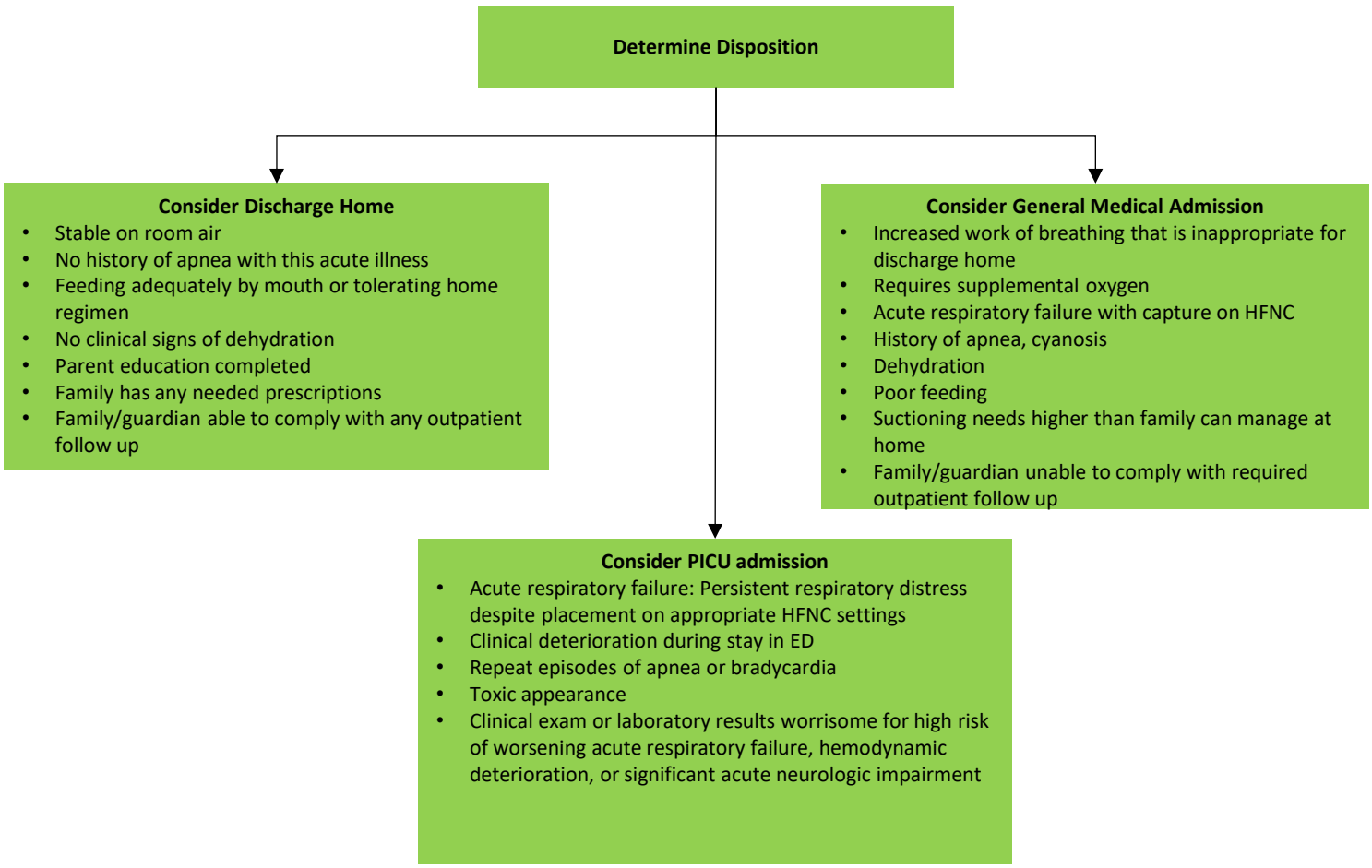
Inclusion Criteria
Exclusion Criteria:



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Inpatient Management

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Inclusion Criteria
Exclusion Criteria:

Notify Resident if
- Worsening BrS classification
- BrS increase 2 or more from prior assessment

Evidence does NOT support routinely using
- Antibiotics
- Albuterol
- Chest X-rays
- Chest physiotherapy
- Hypertonic saline
- Laboratory tests, including testing for viral pathogens
- Racemic epinephrine
- Steroids

Patient admitted with working diagnosis of acute bronchiolitis, meets inclusion criteria, and has no exclusion criteria

↓

Droplet and contact isolation

↓

Enter admission orders using the Acute Bronchiolitis order set

Obtain bronchiolitis score during admission assessment

Recommended Discharge Criteria (generally patient will meet most or all of these criteria)
- Improving bronchiolitis scores
- Oxygen saturation > 90% on RA
- No recent apnea
- Feeding adequately by mouth or tolerating home regimen
- No clinical signs of dehydration
- Parent education completed
- Family has any needed prescriptions
- Family/guardian able to comply with any outpatient follow up

Mild: BrS 1 – 4
- Spot pulse oximetry checks
- Nasal suctioning q 4 hours and prn
- PO ad lib or home regimen
- Offer antipyretics if febrile

Moderate: BrS 1-4 and on supplemental oxygen or BrS 5-8
- BrS with RN and RT assessments
- Spot pulse oximetry checks q4h if no supplemental oxygen; continuous pulse oximetry if on supplemental oxygen
- Follow suctioning process q 4 hours, reassess
- Encourage enteral nutrition unless severe respiratory distress
- Do not routinely hold feeds on HFNC
- Offer antipyretics if febrile

Severe: BrS 9 – 12
- BrS with RN and RT assessments.
- Continuous Oximetry
- Follow suctioning process q 4 hours, reassess
- Consider albuterol trial
- Consider high flow nasal cannula oxygen(HFNC) if failed pause.
- Do not routinely hold feeds on HFNC
- Offer antipyretics if febrile

Consider PICU Transfer
- Acute respiratory failure: Persistent respiratory distress despite placement on appropriate HFNC settings
- Repeat episodes of apnea, bradycardia, or cyanosis
- Toxic appearance
- Exam or laboratory results worrisome for high risk of acute respiratory failure, hemodynamic deterioration, or significant acute neurologic impairment

- Reassess, recategorize severity as needed, adjust interventions
- Consider additional or alternative diagnoses if failing to improve or clinically worsening
- *May need to exit pathway*

Supplemental Oxygen Criteria
- Oxygen saturation < 90%
- Increased work of breathing

Discontinue continuous oximetry if:
- BrS 4 or less AND 6 or more hours with oxygen saturation > 90% on RA
- BrS 5-8 AND more than 12 hours with oxygen saturation > 90% on RA

Order Sets
- Bronchiolitis Admission order set

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ED HFNC Initiation for Bronchiolitis and Patient Placement Guidelines

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Criteria for Initiating HFNC for acute bronchiolitis in the ED

- Respiratory distress manifested as deep retractions, grunting, head bobbing
- Oxygen saturation < 90% despite standard nasal cannula therapy
- Failure of HFNC pause

HFNC Initiation PAUSE

- Optimize nasal suctioning
- Offer antipyretics if febrile
- Offer nutrition or hydration if appropriate
- Consider IVF bolus if clinically dehydrated
- Encourage parent to hold patient, dim lights
- Consider low-flow oxygen
- Monitor patient for 15-30 minutes following completion of above interventions, reassess

Initial HFNC Settings

- 1 L/kg/min flow to start, titrate up if inadequate response up to 2 L/kg/min
- Assess for "**capture**" of patient – improved HR, RR, work of breathing
- Adjust until patient has been captured
- Start at 40-60% FIO_2 and decrease to maintain saturations >92%
- Calculate BrS. Suction and recalculate BrS if indicated

- If impending acute respiratory failure or shock, proceed with stabilization
- Add supplemental oxygen for persistent desaturation until further evaluation and treatment occurs
- Start IVF if appears dehydrated and unable to safely tolerate oral intake

Reassess by RT at least every 30 min

- Huddle 60-90 minutes after HFNC Initiation (earlier if patient condition warrants) to determine disposition.
- At this time, patient considered captured if meets med/surg admission criteria
- May need new BrS performed to aid in decision making.

Consider PICU admission

- Acute respiratory failure: Persistent respiratory distress despite placement on appropriate HFNC settings
- Patient appears lethargic or altered mental status
- Repeat episodes of apnea, bradycardia, or cyanosis
- Toxic appearance
- Exam or laboratory results worrisome for high risk of acute respiratory failure, hemodynamic deterioration, neurologic impairment

Consider medical-surgical admission

- Hypoxemia
- Placement on HFNC with successful capture
- History of apnea or cyanosis
- Dehydration
- Poor feeding
- Family/guardian unable to comply with required outpatient follow up

Additional ED Management

- Adjust HFNC settings as needed for "capture"
- If "capture" seen on HFNC, consider med/surg admission
- Consider additional or alternative diagnosis
- *Consider exiting guideline and customize care to meet needs of patient.*

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General Inpatient HFNC Initiation for Bronchiolitis

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Inclusion Criteria for Initiating HFNC for acute bronchiolitis in a General Medical-Surgical Unit

- Respiratory distress manifested as deep retractions, grunting, head bobbing
- Oxygen saturation < 90% despite standard nasal cannula therapy
- Failure of HFNC pause

- Activate Code 300 if impending arrest
- If impending acute respiratory failure or shock, activate RRT
- Meets one or more criteria in the PICU admission policy

Initial flow rates and oxygen support

- 1 L/kg/min flow to start, titrate up if inadequate response up to 2 L/kg/min
- Assess for "**capture**" of patient – improved HR, RR, work of breathing
- Adjust until patient has been captured
- Start at 40-60% FIO_2
- Calculate BrS. Suction and recalculate BrS if indicated

HFNC Initiation PAUSE

- Optimize nasal suctioning
- Offer antipyretics if febrile
- Offer nutrition or hydration if appropriate
- Consider IVF bolus if clinically dehydrated
- Encourage parent to hold patient, dim lights
- Consider low-flow oxygen
- Monitor patient for 15-30 minutes following completion of above interventions, reassess

Jump to:

- Inpatient Management
- ED Management
- HFNC Weaning

RT to reassess at 30 min

- Adjust HFNC settings as needed to obtain "capture"
- If oxygenation improved, may start decreasing supplemental oxygen in 5% increments

- Huddle 60-90 minutes after HFNC Initiation (earlier if patient condition warrants) to determine disposition.
- At this time, patient considered captured if meets med/surg admission criteria
- May need new BrS performed to aid in decision making.

Consider transfer to PICU

- Acute respiratory failure: Persistent respiratory distress despite placement on appropriate HFNC settings
- Patient remains lethargic and/or BrS 9-12 after initiation of HFNC
- Repeat episodes of apnea, bradycardia, or cyanosis
- Toxic appearance
- Exam or laboratory results worrisome for high risk of acute respiratory failure, hemodynamic deterioration, neurologic impairment

Additional recommendations if unchanged

- **Suction and recalculate BrS per protocol until off HFNC**
- Consider additional or alternative diagnosis
- *Consider exiting guideline and customize care to meet needs of patient.*

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General Inpatient HFNC Weaning Guideline for Bronchiolitis

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High Flow Holiday
- Once per shift if meets criteria
- First holiday potential is shift after admission
- At settings of 1 L/kg/min
- Heart Rate in normal limits for age
- Sats 92% or higher on FIO2 <40%
- Place on nasal cannula if unable to maintain saturations >90%, titrate as appropriate
- Reassess 2 hours later (RT)
- If BrS 6 or greater, restart HFNC at previous settings
- If BrS less than 6, continue off HFNC – remove HFNC orders

60 – 90 minute huddle completed and patient unchanged or improved

Begin to wean HFNC Support as tolerated
- Wean FIO_2 as tolerated for sats >90%
- Wean flow by 1-2 LPM per assessment as appropriate to goal of 1 L/kg/min or minimum settings on cartridge
- Criteria for wean:
- No deep retractions, grunting, or head-bobbing
- High Flow Holiday Once per shift if meet criteria

Notify Resident
- Increase in flow, FIO2
- If persistent failure to tolerate weaning, then exit guideline, consider alternative diagnosis, additional testing. Further weaning will need to be individualized for the patient.

RT assessment q4h
- Document pre and post weaning assessment with vital signs and BrS

- Wean flow if no deep retractions, grunting, or head-bobbing

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HFNC Initiation Pause

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HFNC Initiation PAUSE

- Optimize nasal suctioning
- Offer antipyretics if febrile
- Offer nutrition or hydration if appropriate
- Consider IVF bolus if clinically dehydrated
- Encourage parent to hold patient, dim lights
- Consider low-flow oxygen
- Monitor patient for 15-30 minutes following completion of above interventions, reassess

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Objective of Guideline: To standardize the Emergency Department and inpatient care of children with bronchiolitis who do not need critical care.

Target Users: Attending physicians, resident physicians, nurse practitioners, medical students, nurses, respiratory therapists

Describe the patient population(s) covered by the Guideline (Inclusion criteria)

This guideline applies to patients who are under 2 years old who have lower respiratory tract symptoms such as increased work of breathing, persistent cough, feeding difficulty, +/- wheeze, and rapid shallow respiration. Fever may or may not be present. Patients who need critical care are not covered by this bronchiolitis guideline.

Describe the patient population(s) not covered by the Guideline (Exclusion criteria)

- Older than 2 years
- Chronic lung disease
- Congenital heart disease requiring home medication
- Immunodeficiency
- Neurological disorder or developmental delay that impairs management of oral and respiratory secretions, ability to cough, muscle tone.
- Tracheomalacia or other airway abnormality
- Patients admitted to critical care unit

Definitions, Abbreviations, Acronyms used in the Guideline

- **Bronchiolitis**: acute inflammation of the bronchioles of the lungs usually triggered by a viral infection which occurs in children under two years of age. Symptoms may begin with upper respiratory tract symptoms (nasal congestion, rhinorrhea, fever) which can trigger lower respiratory tract involvement. The inflammation results in obstructive pulmonary disease causing small airway edema, mucous production, and bronchospasm. [Ralston AAP 2014]
- **HFNC**: High Flow Nasal Cannula
- **RSV**: Respiratory Syncytial Virus
- **Score, Suction**: Patients who have respiratory secretions, increased work of breathing will benefit by suctioning. Rescoring if notable change occurs. If suctioning doesn't improve the patient's status, then additional interventions may be needed.
- **Capture**: Notable reduction in work of breathing such that respiratory rate and heart rate decrease after titration of high-flow nasal cannula to appropriate settings. Ideally, HR and RR normalize for age.
- **High-Flow Holiday**: Trial of discontinuation of high-flow nasal cannula when appropriate criteria are met. This is a two-hour trial to see if can be discontinued.
- **High Flow Initiation Pause**: Trial prior to starting HFNC to maximize comfort of the patient – includes treating fever, pain, dehydration, and soothing by parent after nasal suctioning.

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Background and Introduction:
Scope of the Problem: Bronchiolitis is the leading cause of infant hospitalization in the United States. As a result of the prevalence of bronchiolitis and the frequent need for hospitalization, bronchiolitis is among the top ten costliest pediatric inpatient diagnoses (approximately 100,000 admissions nationally at ~$1.7 billion in 2009). [Hasegawa 2013, Keren 2012]

Epidemiology**:** Bronchiolitis traditionally had a peak incidence in the winter months in the Northern hemisphere (December – March). Since the COVID-19 pandemic, bronchiolitis season is variable depending on viral outbreaks.

Etiology: Bronchiolitis is the most common lower respiratory tract infection in infants. Causative agents most commonly include respiratory syncytial virus (RSV), human metapneumovirus, rhinovirus, coronavirus, adenovirus and parainfluenza virus.

Diagnosis

History: Bronchiolitis typically begins as an apparent upper respiratory tract infection (URI) with sneezing, cough, rhinorrhea, and/or congestion. There may be diminished oral intake, post-tussive emesis, and presence of fever. These symptoms of URI are then followed by the gradual onset of respiratory distress including paroxysmal cough, wheezing, and tachypnea. Apnea can be present in extremely young infants. [Ralston AAP 2014] *In neonates, apnea or irregular respiratory pattern may be the first symptom of bronchiolitis.*

Physical Exam: Initial vital signs must include temperature measurement, respiratory rate, and oxygen saturation. Patients with bronchiolitis often display tachypnea and hypoxemia. The physical exam of a child presenting with suspected bronchiolitis focuses on respiratory symptoms including tachypnea, abnormal findings on auscultation, and signs of respiratory distress. Auscultation may reveal referred upper airway sounds of congestion, as well as the presence of lower respiratory tract involvement including wheezing, rhonchi, crackles, and a prolonged expiratory phase. Patients in severe distress may have grunting respirations and head-bobbing. Retractions in the suprasternal, intercostal, and subcostal regions may be present in patients with bronchiolitis. [Ralston AAP 2014]

Laboratory investigation: Routine laboratory testing for RSV and other viral pathogens via rapid antigen testing or molecular testing is not routinely recommended, however isolation practices post COVID-19 pandemic may warrant additional testing. A respiratory pathogen panel (RPP) may be considered if inpatient cohorting is needed. In the event an infant receiving monthly prophylaxis is hospitalized with bronchiolitis, testing should be performed to determine if RSV is the etiologic agent (if positive, monthly palivumab prophylaxis should be discontinued). [Ralston AAP 2014]

Imaging studies: Imaging: There is no evidence to support the routine use of chest radiography in the evaluation of bronchiolitis. In general, the risk of bacterial pneumonia in patients with bronchiolitis who do not require ICU admission is low. Findings on chest x-ray do not correlate with disease severity, and imaging often leads to inappropriate overuse of antibiotics. Initial chest radiography should be considered in patients with an asymmetric lung exam or signs of pneumothorax. [Ralston AAP 2014]

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Severity scoring systems: A bronchiolitis score (BrS) should be obtained on initial assessment of the patient, as well as on all repeated respiratory assessments. The BrS can be used as objective data to aid in determining the severity of the illness. Norton Children's Hospital uses a scoring tool adapted from Seattle Children's Hospital. All variables are scored and a total score is calculated. Mild bronchiolitis is a score of 1-4 and no supplemental oxygen. Moderate bronchiolitis is a score of 1-4 and supplemental oxygen or BrS of 5-8. Severe bronchiolitis is a score of 9-12.

Treatment: Overall, best practice recommendations for the treatment of bronchiolitis is supportive with minimal interventions.

The following treatment options are recommended in the management of ED patients and general medical-surgical inpatients with bronchiolitis:

Cardiorespiratory and other vital sign monitoring: Frequent evaluation of vital signs is imperative in bronchiolitis. Pulse oximetry should be monitored intermittently unless the patient is on supplemental oxygen or the BrS is 9-12 (severe).

Pulse Oximetry: Continuous pulse oximetry should be discontinued when patients are clinically improving and no longer requiring supplemental oxygen. [Ralston AAP 2014]

Nutrition/Intravenous Fluids: Intravenous fluid therapy or nasogastric feeds should be initiated in patients with clinical/laboratory signs of dehydration or the inability to feed safely/effectively due to respiratory distress. Oral feeds should not be routinely held in patients placed on HFNC. If a patient shows significant respiratory distress that feeding is a concern, HFNC should be considered to ease work of breathing to allow patient to eat orally. [Sochet 2017]

Suctioning: Suctioning of the nares/airway is essential in the treatment of bronchiolitis. Suctioning is used to clear secretions of the nares/airway, induce coughing, decrease work of breathing, and improve oral intake. The treatment algorithm directs the type of suctioning that should be performed. Initial suctioning should be performed using a bulb syringe in mild patients. Moderate and severe patients should initially be suctioned with an olive tip or Neosucker™ syringe. Nasal suctioning every 4 hours during the first 12 hours of hospitalization has shown a reduction in overall length of stay. If the patient has minimal improvement with this form of suctioning, nasopharyngeal (NP) suctioning may be initiated. A single retrospective study of NP suctioning demonstrated a longer length of hospitalization in those patients with bronchiolitis with "deep" suctioning – as such, the routine use of "deep" suctioning is not recommended. Respiratory scoring should be documented before suctioning during assessments. Frequent suctioning may be necessary emergently and chronically during the course of bronchiolitis. [Mussman 2013, Ralston AAP 2014]

Oxygen/HFNC: Supplemental oxygen is indicated if oxygen saturation is consistently below 90%. If supplemental oxygen therapy is initiated, the goal should be to maintain saturations greater than or equal to 90%. Initiation of oxygen should begin with nasal cannula with increasing flow as needed. In patients with severe bronchiolitis, high-flow nasal cannula (HFNC) should be considered. The largest study on HFNC in infants with bronchiolitis demonstrated decreased need for escalation of care with patients on HFNC versus standard oxygen therapy. Further information on the specifics for the use of HFNC please click on the ED and Inpatient HFNC Initiation links at the bottom of the page. [Ralston AAP 2014, Franklin NEJM 2018]

Family and caregiver education: Immediately following the diagnosis, education of the family/caregiver on the management of the pediatric patient with bronchiolitis should begin. The topics should include (1) recognition of respiratory distress, (2) process and frequency of nasal suctioning, (3) monitoring/maintenance of hydration, (4) expected disease course, and (5) outpatient follow-up.

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Treatment not indicated: ***The following treatment options are not routinely recommended in the management of ED patients and general medical-surgical inpatient with bronchiolitis:***

Albuterol/Levalbuterol: Most randomized controlled trials have not demonstrated benefit in the use of bronchodilators in the treatment of bronchiolitis. Although some children may receive some temporary benefit with the use of albuterol, bronchodilators should not be routinely used in the treatment of bronchiolitis. However, since there is limited data on critically ill infants with respiratory distress, a single dose of albuterol may be trialed in those patients with severe disease and a BrS 9-12 or in high-risk patients. High-risk patients are defined as those patients greater than 12 months old with wheezing, a history of recurrent wheezing, and/or a family history of atopy (eczema/asthma). Albuterol should only be continued if there is a documented significant improvement (RS decreases by 2 or more) with albuterol administration. [Ralston AAP 2014]

Racemic Epinephrine: There is no data that supports the routine use of racemic epinephrine in the inpatient treatment of bronchiolitis. Although there is some conflicting evidence in the short-term benefit of racemic epinephrine in the outpatient/emergency setting, there is no indication for its use in our algorithm. [Ralston AAP 2014]

Hypertonic saline (HS): Nebulized hypertonic saline is thought to increase clearance of respiratory secretions. However, there is no data that recommends the use of HS in the outpatient setting. Some previous studies shoed marginal decreases in length of hospitalization with the use of HS, however more recent studies cannot replicate that data. Therefore, the AAP does not recommend routine inpatient use of HS in bronchiolitis. [Ralston AAP 2014, Zhang Pediatrics 2015]

Corticosteroids: A comprehensive systematic review and large multicenter randomized trials provide clear evidence that corticosteroids alone do not provide significant benefit to children with bronchiolitis. Corticosteroids do not improve length of illness, clinical score, or length of hospitalization in bronchiolitis, and they should not be used routinely in bronchiolitis. [Ralston AAP 2014]

Antibiotics: Antibiotics should not be used routinely in bronchiolitis except in cases of a documented and specific concomitant bacterial infection (otitis media, etc). [Ralston AAP 2014]

Chest physiotherapy (CPT): Chest physiotherapy does not improve respiratory score, length of stay, or oxygen requirement. [Ralston AAP 2014]

Care management:

Home nebulizer prescriptions for bronchiolitis is not recommended.

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ED and Inpatient Management Rubric

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Intervention	Mild (BrS= 1-4, no oxygen)	Moderate (BrS = 1-4 on oxygen OR BrS = 5-8)	Severe (BrS 9-12)

Evaluation	• Score, suction as needed
	• BrS performed at assessment
	  • RN every 4 hours
	  • RT every 12 hours
		• Score, Suction
		• BrS performed at assessment
		  • RN every 4 hours
		  • RT every 4 hours
			• Score, Suction
			• BrS performed at assessment
			  • RN every 4 hours
			  • RT every 4 hours

Supplemental oxygen	Initiate if patient's oxygen saturation consistently < 90% on RA after suctioning. Supplemental oxygen to maintain SpO2 90% or higher	Initiate if patient's oxygen saturation consistently < 90% on RA after suctioning. Supplemental oxygen to maintain SpO2 90% or higher	Initiate if patient's oxygen saturation consistently < 90% on RA after suctioning. Supplemental oxygen to maintain SpO2 90% or higher
Pulse oximetry	Spot O_2 checks every 4 hours	Spot O_2 checks every 4 hours if not on oxygen OR continuous pulse oximetry if on oxygen	Continuous pulse oximetry
Suctioning	Bulb suction by caregiver Nasal suctioning prn by staff	• Nasal suction first • OP suctioning if needed • Only NP suction if score ≥ 5 after nasal/OP	Nasal suction first. OP suctioning if needed NP suction only if BrS does not improve after OP and Nasal suctioning
Albuterol	No	• One time trial of albuterol only if clinically worsening and/or personal or family history of atopy (eczema or asthma) • If schedule albuterol, remove patient from pathway. This is not considered typical treatment for bronchiolitis.	• One time trial of albuterol only if clinically worsening and/or personal or family history of atopy (eczema or asthma) can be considered. Not routinely recommended. • If schedule albuterol, remove patient from pathway. This is not considered typical treatment for bronchiolitis.
Activity	• PO ad lib or tolerating home regimen • Consider IV fluids if unable to tolerate or inadequate enteral feeds	• PO ad lib or tolerating home regimen • Consider IV fluids if unable to tolerate or inadequate enteral feeds	• PO ad lib or tolerating home regimen • Consider IV fluids if unable to tolerate or inadequate enteral feeds

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If questions about this guideline, contact evidencedbasedcollaborative@nortonhealthcare.org

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Next expected revision: Sept 2026

- Order Sets
  - Bronchiolitis Admission Order Set
  - HFNC Weaning Protocol Order Set
- Protocols
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- Policies
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Acute Uncomplicated Bronchiolitis V 3.0

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Version	Date	Guideline Owner	Summary of Edits	Next Revision Due
1.0	11/27/2018	Klint Schwenk, MD	New	Mini: June 2020 Full: June 2022
2.0	9/26/2019	Klint Schwenk, MD	1. Deemphasized albuterol use, removed language of holding feeds for tachypnea and on high flow. 2. Removed HFNC limits for floor, adjusted initiation of HFNC methodology, introduce high-flow holiday in high-flow weaning.	
3.0	9/25/2323	Klint Schwenk, MD	1. HFNC pause prior to initiation of HFNC 2. New HFNC wean and holiday practices 3. Emphasized safe sleep practices in the hospital for bronchiolitis inpatients.	Mini: March 2025 Full: September 2026

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Disclaimers and Restriction

Approvals and Bibliography | Summary of Version Changes | Overview

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