CHAT Collaborative 2016
Evidence based pathway for the diagnosis and treatment of bronchiolitis

Goals:
• Deliver high quality evidence based care
• Reduce unnecessary interventions that may cause harm and increase length of stay
• Provide education regarding best practices across continuum of pediatric care

Eligible patients:
• Infants and children from 1 month to 2 years old
• Previously healthy

Exclusion criteria:
• Congenital heart disease
• Anatomical airway abnormality
• Chronic lung disease
• Immunodeficiency
• Neuromuscular disease
• Recurrent wheezing (defined as)
• Gestational age <35 weeks,
• Prior history of respiratory support (intubation, 02, CPAP)
• Severe co-morbid disease

Diagnosis should be based on history and physical alone. See algorithm.

Not recommended:
• Deep suction
• Albuterol
• Steroids
• Antibiotics
• Epinephrine
• Chest physiotherapy
• Decongestants
• Hypertonic saline
• Viral testing
• CXR
• CBC

Admission criteria:
• Severe respiratory distress
• Oxygen requirement
• Dehydration
• Need for frequent suctioning
• Parent unable to care for child at home

→ Admission to observation unit, inpatient unit, or PICU will be determined by policies at each individual institution

Initial management:
• Each patient suspected of having bronchiolitis should be placed in contact and droplet isolation with standard hand hygiene measures in place
• Nasal suction and saline should be utilized before feeds and as needed
• Patients should be positioned and repositioned to optimize air exchange and minimize work of breathing
• If unable to hydrate orally
  o Place NG for enteral hydration with breastmilk or formula, continuous vs. bolus
  o If IVF are indicated, strongly consider isotonic fluid to decrease complications from iatrogenic hyponatremia
• Oxygen should be utilized for saturations <90% but has no role in improvement of work of breathing
• Age appropriate antipyretic as needed
• HFNC where appropriate
• CAM if at risk for apnea

Ongoing care decisions should be dictated by frequent reassessment and physical exam.
• In a child with worsening respiratory distress (increased RR, desaturations, increased work of breathing):
  o Re-evaluate fit for pathway by reviewing inclusion/exclusion criteria
  o Consider blood gas to assess air exchange and need for escalation of care
• Oxygen should be weaned as the patient improves, and the switch to spot checks from continuous pulse oximetry should be made as soon as possible

Discharge criteria:
• RR< __________
• Off 02 for _____ hours
• No apnea for ____ hours
• Feeding well
• Bulb suction teaching complete
• Safe sleep education, reinforce there is no need for home oximeter
• Smoking cessation education
• Breastfeeding support when applicable
• PCP follow up (hospital to set up?)

Comment [1]: Each institution to check on policy to ensure this is equal across sites and can stay in pathway

Comment [2]: Group to review and email thoughts about defining these or leaving more vague
References

3. Children’s Medical Center Dallas Bronchiolitis Guidelines.
5. Dell Children’s Medical Center of Central Texas Inpatient Bronchiolitis Pathway, 2014.
6. Driscoll Children’s Hospital Evidence Based Clinical Care Guideline for the Management of Bronchiolitis, 2011. Adapted from Cincinnati Children’s Hospital Medical Center, 2010.
7. Texas Children’s Hospital Evidence Based Bronchiolitis Guidelines, 2015.
8. Bronchiolitis Guideline Team, Cincinnati Children’s Hospital Medical Center: Evidence based clinical practice guideline for medical management of bronchiolitis in infants 1 year of age or less presenting with a first time episode. Bronchiolitis Pediatric Evidence-Based Care Guidelines, Cincinnati Children’s Hospital Medical Center, Guideline 1, pages 1-16, 2010.

Albuterol


Epinephrine


HFNC

Hypertonic saline

Monitoring and oximetry
Risk of SBI and antibiotics


CPT


Steroids


Hydration

CXR

Deep suction

Cough and cold meds