Bronchiolitis Care Map

Go directly to Care Map Flowchart
How to Use Reference Icons

Care Map Symbols

- Decision Point
- Start of a Care Map Segment
- Stop and Evaluate
- Care Map Step: Blue underlined text is a hyperlink
- Progression of care – Patient Improving

Source Reference
- Education Module
- Hospital Policy
- Hospital Reference
- Provider Information
- Download File

When accessing a document, please use the browser return arrow (upper left-hand corner) to return to the Care Map.

For questions concerning this care map, contact: CareMap@etch.com
Last Update: 1/18/16
Suggested Inclusion Criteria for Bronchiolitis Care Map

- Age <48 months with peak age range 3-6 months.
- A constellation of clinical signs and symptoms occurring in children typically younger than 2 years, including a viral upper respiratory tract prodrome followed by increased respiratory effort and wheezing. Clinical signs and symptoms of bronchiolitis consist of rhinorrhea, cough, tachypnea, wheezing, crackles, and increased respiratory effort manifested as grunting, nasal flaring, and intercostal and/or subcostal retractions.
- Risk factors for severe disease which include a history of prematurity, age <12 weeks, underlying cardiopulmonary disease, or immunodeficiency should be assessed.

Why does ETCH include patients ages 24-48 months in our Care Map when most hospitals would not?
Potential Reasons to Avoid Bronchiolitis Care Map

- Cardiac disease requiring baseline medication
- Anatomic airway abnormalities
- Neurologic disease processes
- Immunodeficiency
- Chronic lung disease

Executive Summary

This care map document does not supersede the clinical judgment of a provider regarding the care that is ultimately ordered for a given patient. Click to see full disclaimer.

American Academy of Pediatrics 2014 Bronchiolitis Treatment Guidelines

Why does ETCH include patients ages 24-48 months in our Care Map when most hospitals would not?
This grid is a tool used to help determine the airway care a bronchiolitis patient receives while at ETCH.
- The original grid has been modified for use at ETCH to include RR values for patients in the 2-4 year age range.
- The grid is used by RC for patients they treat in both the ED and on the general care floors.
- The grid is not used by RN’s in the ED to assess patients for treatment.
- The grid is used by RN’s for all bronchiolitis patients admitted to the floors.
- All patients are to be scored every assessment visit, and re-scored after any airway intervention has been performed.

### RESPIRATORY RATE

<table>
<thead>
<tr>
<th>Age Group</th>
<th>RR ≥70</th>
<th>RR ≥60</th>
<th>RR ≥50</th>
<th>RR ≥45</th>
<th>RR &lt;45</th>
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<td>&lt;2 mos.</td>
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<td>2-12 mos.</td>
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<td>12-24 mos.</td>
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<td>&gt;24-48 mos.</td>
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### RETRACTION SIGNS

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### WHEEZING

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Example: **How to use the scoring grid**

Diagnostic testing & therapies not routinely recommended:
• Albuterol
• Racemic Epi
• Hypertonic Saline (ED)
• Hypertonic Saline (In-Pt)
• Corticosteroids
• Chest Physiotherapy
• Nasopharyngeal Suction
• Singulair
• Antibiotics
• Chest X-rays
• Routine viral testing

Emergency Department Care: Chief Complaint = Respiratory/Wheezing <4 years
(Registration & Triage)

Registration
Preliminary ESI* level assigned before triage.
• ESI* 3 = Triage in order of arrival
• ESI* 2 = Triage next
• ESI* ONE = Immediate treatment required

Triage
• Obtain vital signs & pox
• Perform respiratory assessment
• Reassess ESI level
• RN Initiates appropriate ED Standing Order
  Set per patient age, if indicated.

ESI Level
• ESI = ONE
  Request immediate provider evaluation.
• ESI = 2 or 3

Pt. age
12-48 months
<12 months

Treat per ED Wheezing 1-4 Care Map
Continue to ED Wheezing 1-4 Protocol CareMap
Continue to next page

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Diagnostic testing & therapies not routinely recommended:
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Admit Patient to ED Pod/Room
- BBG or bulb suctioning by assigned RN or ED Tech if nasal congestion indicates.
- RN reassessment of patient post-suction.
- If pox sat <90%, begin O2 per NC or other appropriate device; titrate as needed.
- Reassess assigned ESI* level.
- Inform provider if O2 required.
- Await provider evaluation.

Provider evaluates for admission, discharge, or additional treatment.

Admit or Discharge
ESI = ONE
Request immediate provider evaluation.
ESI = 2 or 3

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- Antibiotics
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Emergency Department Care: ED Wheezing 1-4 Years Care Map

**Continued from ED Registration And Triage page**

- Perform respiratory specific assessment & reassess ESI* level.
  - BBG suctioning by RN or RC if nasal congestion present or suspected.
  - Begin O2 if Spo2 <90%. Titrate liter flow as needed.
  - Pre/Post grid scores to be obtained by RC.

**ESI Level**

- ESI = One
- ESI = 2 or 3

**ESI = Emergency Severity Index**

**Discharge Home with:**
- Bulb suction & instruct
- MDI/spacer or home neb instruct, as needed

**Admit to floors if:**
- Dehydration needing IV
- Inability to bottle/feed
- O2 sats OK on ≤50% FIO2
- HFNC initiated with improvement after 2 hours in ED
- (Admit as bronchiolitis or VLRI, based on response to bronchodilators, if admin.)

**Admit to PICU if:**
- Apnea present
- Toxic appearance
- FIO2 > 50%
- Pt. requires HFNC
- Hx of lung dz/cardiac dz

**Trial of 4 puffs albuterol HFA 90mcg/puff with mask/spacer, or 2.5 mg nebulized. [Xopenex substitution criteria]**

**Await provider evaluation.**
- Continue albuterol per provider orders

**Await provider evaluation**

**Provider to evaluate for admission/discharge.**

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Diagnostic testing & therapies not routinely recommended:
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Pt. admitted on either Bronchiolitis or VLRI order set

- Explain details of care plan & pox tips to family.
- Suction/Score/Suction by either/both RN/RC Q2H, or @ initial freq. ordered by provider.
- Continuous Pox for first 24-hours of admit.
- Consider need for IV fluids if RR consistently >60
- RC & RN to consider weaning of assessment/sxn freq. per weaning policy guidelines if grid scores are ≤ 4. (RN assessment freq. may not wean to greater than Q4H. RC assessments may be weaned out to Q12H per weaning policy guidelines, if pt scores and condition allow.)
- Wean O2 if Pox >90% awake, or >88% sleeping.

Patient improving and/or stable with score ≤ 6

Yes

Continue to next page

No

Admission Order Set: Bronchiolitis Care Map

Admission Order Set: Viral Lower Respiratory Illness (VLRI) Care Map

Quick Reference: Guidelines for Weaning of RC Assessments to Q-shift

Quick Reference for RNs’ floating to the Medical floors: An RSV Survival Packet

Escalation of Care
- Call provider to evaluate if pt. condition &/or scores are worsening. (Consider need for Rapid Response Team. Call ext. 8911)
- NP suction X1, but only if pt’s WOB not improving with BBG suction.
- If bronchiolitis admission, may consider trial of racemic epi (with MD approval) for scores ≥ 4.
- If VLRI admission, may consider trial of ordered PRN aerosol for scores >4.
- Consider High Frequency Nasal Cannula trial.
**Diagnostic testing & therapies not routinely recommended:**
- Albuterol
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**Quick Reference for RNs’ floating to the Medical floors:**
- An RSV Survival Packet

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**Medical Floor Care - Bronchiolitis & VLRI Order Sets (Patient Score ≤6)**

**Continued from Medical Floor Initial Care page**

- Suction/Score/Suction by RN Q3-4H as tolerated; assess by RC @ Q12H freq. per protocol, if appropriate. *All pts to get nasal suction at least Q4H until assessed as able to handle secretions with less frequent interventions.*
- Wean to Pox spot checks after first 24-hours of admit if pt. is off O2. *(Probe can be left on pt. for sleep checks, if desired.)*
- Wean O2 if Pox >90% awake, or >88% sleeping.
- Pt. to remain on RA if Pox >90% awake, or >88% sleeping.
- RC & RN to consider further weaning of assessment/sxn frequencies if pt. grid scores ≤ 4. *(RN assessments to be done per nursing care plan. RC assessments may be weaned to Q12H per guidelines, if tolerated & appropriate.)*
- Assess ability of pt. for bottle/oral feeds.
- Begin parent/caregiver teaching for bulb suctioning.
- If MDI or neb meds administered, RC to teach/review optimal technique to pt. caregivers.

**Escalation of Care**
- Consider need to increase assessment/suction freq.
- Call provider to evaluate if pt. condition &/or scores are worsening & worrisome.
- If bronchiolitis admission, may consider trial of racemic epi (with MD approval) for scores ≥ 4.
- If VLRI admission, may continue aerosols, or consider trial of ordered PRN med for scores ≥ 4.
- Consider NP suction X1.

**Patient improving and/or stable w/ scores ≤ 3**

- Yes

**Pt. on RA, feeding, and tolerating Q4H suction**

- Yes

**No**

**Continue to next page**

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Last Update: 1/18/16
Diagnostic testing & therapies not routinely recommended:
- Albuterol
- Racemic Epi
- Hypertonic Saline (ED)
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- Corticosteroids
- Chest Physiotherapy
- Nasopharyngeal Suction
- Singulair
- Antibiotics
- Chest X-rays
- Routine viral testing

Consider for Discharge when:
- Score < 3 for 12 hours
- No need for suction for 4 hrs
- Wean O2 if Pox > 90% awake, or >88% sleeping.
- Off O2 for 12 hrs. w/ period of sleep
- No apnea for 48 hrs.
- Feeding/bottling adequately
- Parent teaching completed
- Smoking cessation needs fulfilled

Patient &/or scores stable ≤ 3, or improving?

Yes:
- Consider need to increase assessment/sxn frequency.
- Call provider to evaluate if pt. condition &/or scores are worsening & worrisome.
- If Bronchiolitis admission, may consider trial of racemic epi (w/ provider approval) for scores ≥ 4.
- If VLRI admission, may continue aerosols, or consider trial of ordered PRN med for scores ≥ 4.

No:
- Escalation of Care
- Consider need to increase assessment/sxn frequency.
- Call provider to evaluate if pt. condition &/or scores are worsening & worrisome.
- If Bronchiolitis admission, may consider trial of racemic epi (w/ provider approval) for scores ≥ 4.
- If VLRI admission, may continue aerosols, or consider trial of ordered PRN med for scores ≥ 4.
Why Does ETCH Include Patients 24-48 Months of Age in our Bronchiolitis Care Map?

- In past years, a number of bronchiolitis patients at ETCH were excluded by age alone from what seemed a logical, effective protocol of care for their specific illness. This occasionally led to inconvenience and some inefficiency in overall care delivery.
  - Providers were forced to enter multiple, individual orders to cover all key elements of care, instead of a comprehensive protocol set.
  - Caregivers treated patients with identical diagnoses and symptoms, but differing sets of orders.
  - Extra caregiver/provider conversations were frequently needed to clarify provider intent.
- Patients in the age range of 24 to 48 months were most often those presenting in this fashion.
- Three separate care pathways, each with an individualized order set, were developed in 2014-15 in an attempt to better serve the following patient groups:
  - Pure bronchiolitics
  - True asthmatics
  - The middle group of patients typically between the ages of 24-48 months whose history and symptoms often do not clearly place them in either a bronchiolitic or an asthmatic diagnostic category.
Nationwide:

• Bronchiolitis nationwide is the most common cause of hospitalization for children < 1 year of age, with peak admits occurring for infants 30-60 days of age.
• There are an estimated 100,000 admissions yearly to U.S. hospitals.
• The annual cost is 1.7 billion dollars to the U.S. healthcare system.
• Highest incidence is during the months of December-March.
The Scope of Bronchiolitis

For ETCH:

• Cases are seen year-round, but peak months are Dec – Mar.
• 2014 patient statistics for ETCH
  – Total bronchiolitis admits = 676
  – PICU admits for bronchiolitis = 49
  – Total patient charges for care = $6.7 million
  – Insurer payments for care = $2.7 million (30%)
Bronchiolitis: Definition & Etiology

- Bronchiolitis is a lower respiratory tract disorder often caused by viral infection which may begin in the upper airway, especially the nose. The infection leads to acute inflammation, edema, increased mucous production, bronchospasm, hyperinflation and necrosis of epithelial cell lining of small airways leading to airflow obstruction. The most common viruses causing bronchiolitis, ranked in order of incidence, are:
  - RSV-76%
  - Rhinovirus-39%
  - Influenza- 10%
  - Metapneumovirus- 3%
  - Coronavirus-2%
  - Para influenza-1%
  - Co-infection sometimes occurs
  - Re-infection can also occur. No immunity is afforded by a first episode.

[Link to AAP article pages 1476 – Scope Definition]
[Return to Page 3: Bronchiolitis Care Map]
Bronchiolitis: Transmission

• Absence of effective hand hygiene is the most significant vectors for transmission, both in the hospital and at home.
• Virus survives best on hard surfaces, often for ≥6 hours.
• Virus can survive on paper or gowns for 20-30 min; on skin for 20 min.
• Use gloves & gowns as needed when handling any item in a patient’s environment, not just when touching the patient or bed.
• Use masks when performing or anticipating cough/aerosol producing procedures such as airway suctioning.
• Alcohol-based hand rubs are more effective than soap/water if hands are not visibly soiled. Compliance is increased by availability and ease of use.
• An infected child can shed (and spread) viruses for a 1-2 week period.
Bronchiolitis: Preventive Steps

• The AAP has outlined the evidence for and against the administration of *palivizumab* to specific subsets of at-risk infants during the first year of life.

• Reinforce the importance of *good hand washing/hygiene* for all caregivers - family, professional, and others. Tell family to **“SPEAK UP”** if staff neglect hand hygiene.

• Encourage restricting a newborn’s contact with others during RSV season. Infants 30-60 days of age are the group most likely to develop illness requiring hospitalization.

• Encourage steps to protect infants from *environmental tobacco smoke*.

• Exclusive *breastfeeding* for at least 6 months has been shown to confer protection against more serious episodes of respiratory infection, including bronchiolitis.
Characteristics of a Bronchiolitic Episode

• Episodes characteristics tend to be highly variable and dynamic.
• Episodes typically have high morbidity, but low mortality.
• Upper respiratory tract infections can progressively spread to the lower airways within a few days.
• Symptoms may last for 4 weeks or more.
• Intermittent apnea can be a sign of progressive respiratory distress as the disease progresses.
• At highest risk for a poor outcome are children with a history of prematurity, cardiac disease, chronic pulmonary disease, immunodeficiency, prior wheezing episodes, congenital anomalies, genetic abnormalities, in-utero smoke &/or nicotine exposure.
Bronchiolitis: Typical progression of Signs & Symptoms

Initial
- Viral URI prodrome
  - Rhinorrhea (secretions can be copious & tenacious)
  - Cough

Progressing to
- Tachypnea
- Increased work of breathing
  - Retractions
  - Grunting
  - Nasal Flaring
- Adventitious breath sounds
  - Crackles
  - +/- Wheezing
- Fever (can sometimes be caused by an increased WOB)
- Significant difficulty with feeds/bottling.

Severe cases may present with
- Significant apnea
- Respiratory failure
- Secondary bacterial infections

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Last Update: 1/18/16
Diagnostic Recommendations

- **Diagnosis** should be based solely on history and physical exam. A primary goal is to differentiate viral bronchiolitis from other, similarly presenting disorders.

- Assess disease **severity & other risk factors** which may point to disease progression. Assessment would include respiratory status, mental status, oral intake, hydration status.

- **Viral testing** should be used sparingly, only for
  - infants to be co-horted upon admission
  - infants receiving pavizumilab, if future doses may be cancelled

- **Radiographic and/or laboratory studies** should not be obtained routinely.
• Regular (at least Q4H) initial *nasal suctioning*
• A trial of *HFNC therapy* can be considered for patients with WOB that is not improving or worsening.
• Consider not using, or limiting, the use of *continuous pulse oximetry* for infants not on supplemental O2.
• Administer *nasogastric and/or IV fluids* for infants and children unable to maintain oral hydration
• May consider *hypertonic saline* administration for hospitalized infants with the prospect of being admitted for >3 days.
Bronchiolitis: Treatments *Not* Recommended

- Administration of **beta-adrenergic bronchodilators** (albuterol)
- Administration of **racemic epinephrine**
- Administration of **systemic corticosteroids**
- Administration of **oxygen if saturation >90%**
- **Chest physiotherapy**
- Administration of **antibiotics**
- Administration of **hypertonic saline in the ED**
- Routinely ordered/repeated **nasopharyngeal suctioning**

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Return to Page 3: Bronchiolitis Care Map
The findings of the two articles referenced below do not currently support the use of leukotriene inhibitors (Singulair) in the treatment of acute bronchiolitis.

  - Montelukast (Singulair) did not improve the clinical course in acute bronchiolitis. No significant effect of montelukast on the T-helper 2/T-helper 1 cytokine ratio when given in the early acute phase could be demonstrated.

  - The current evidence does not allow definitive conclusions to be made about the effects of leukotriene inhibitors on length of hospital stay and clinical severity score in infants and young children with bronchiolitis. The quality of the evidence was low due to inconsistency (unexplained high levels of statistical heterogeneity) and imprecision arising from small sample sizes and wide confidence intervals, which did not rule out a null effect or harm. Data on symptom-free days and incidence of recurrent wheezing were from single studies only. Further large studies are required. We identified one registered ongoing study, which may make a contribution in the updates of this review.
Bronchiolitis: Admission/Discharge Criteria

Admission Criteria:
• Moderate/severe respiratory distress
• Hypoxemia with sats <90%
• Dehydration requiring ongoing IV fluids
• Apnea or a high risk for apnea
• Risks factors for more severe disease
  – age<12 weeks,
  – history of prematurity
  – underlying cardiopulmonary disease
  – immunodeficiency
• Family’s ability to care for the child
• Family’s ability to return for further evaluation if needed

Discharge Criteria:
• Respiratory distress only mild (respiratory scores< 3)
• No need for BBG suctioning q4h
• O2 sats >90% awake, >88% sleeping
• Off O2 a minimum of 12 hours (including a sleep time)
• No apnea for > 48 hours
• Feeding adequately
• Parent teaching completed
  – Suctioning
  – Signs of respiratory distress
  – Safe feeding
  – Second hand smoke exposure

Return to Page 8: Emergency Department Care (ED Wheezing 1-4 Protocol)
HFNC Floor Limits

- Contraindications to the use of HFNC in non-critical care units:
  - Apnea
  - History of severe GERD

- Maximum HFNC flow rates and FIO2 on non-critical care units:
  - Maximum FIO2 = 50%
  - Maximum flow rate:
    - 0-5 y.o. = 4 L/min
    - 5-10 y.o. = 6 L/min
    - >10 y.o. = 8 L/min

ETCH High Flow Nasal Cannula in Non-Critical Care policy

Return to Page 9: Medical Floor Admission Care - Both Bronchiolitis & VLRI Order Sets
Inter-Observable Agreement Between Physicians, Nurses, and Respiratory Therapists for Respiratory Clinical Evaluation in Bronchiolitis

V. Gajdos, MD,¹,²,³*, N. Beydon, MD,⁴ L. Bommenel, MD,² B. Pellegrino, MD,⁵ L. de Pontual, MD, PhD,⁶,⁷ S. Bailleux,² P. Labrune, MD, PhD,²,³ and J. Bouyer, PhD¹,³,⁸

Summary. Care providers for children with bronchiolitis use various tools to evaluate respiratory status. The use of a single tool by different types of care provider requires a high level of inter-observer agreement, an aspect rarely studied. This study, involving 82 physicians, nurses, and respiratory therapists aimed to evaluate inter-observer agreement for clinical evaluations in children hospitalized for a first episode of bronchiolitis. Respiratory evaluation included three frequently reported parameters of respiratory status: respiratory rate, retraction signs, and wheezing. The frequency of concordance for observers from the same and from different care provider groups was assessed using a weighted kappa statistic and considering all possible combinations of care providers. We also calculated inter-provider agreement as a function of patient age, regardless of care provider type. Overall inter-observer agreement for all provider pairs was 93.1%, with a weighted kappa statistic of 0.72 (95% CI, 0.66–0.78), indicating substantial agreement, with no difference as a function of pair composition. Inter-observer agreements for the various age groups ranged from 87% to 93%, with kappa scores ranging from 0.62 to 0.78. We conclude that a simple clinical evaluation for respiratory status assessment has a high level of inter-observer agreement within and between physicians, nurses and respiratory therapists. Thus, once the validity of this test has been confirmed in a large population sample, it should be possible to use this test to monitor children hospitalized with bronchiolitis and as an endpoint in clinical trials.

### CPG Admission Order Set: Bronchiolitis (1 of 3)

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<td>Continuous the first 24 hours</td>
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<td>O2 sat monitoring should be continuous the first 24 hours. Once the patient is stable, change to spot checks every &lt;specify # of hours&gt;, and prn respiratory distress.</td>
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For questions concerning this care map, contact: CareMap@etch.com

Last Update: 1/18/16

Return to Page 8: Emergency Department Care (ED Wheezing 1-4 Protocol)

Return to Page 9: Medical Floor Admission Care - Both Bronchiolitis & VLRI Order Sets
### Viral LRI with Wheeze

**Warning:** Medication doses may calculate to a greater amount than the maximum dose, depending on the patient's weight.

#### Bronchiolitis/Responder Admission Orders

- **Admit to:**
  - Inpatient
  - Observation

- **Isolation:**
  - Per Policy
  - *Type of Isolation* Per Policy

#### Condition

- **Condition:**
  - Critical
  - Fair
  - Good
  - Serious
  - Stable

- **Activity:**
  - Bedrest
  - Other
  - Up ad lib
  - Up to chair
  - Elevate HOB

- **Diet:**
  - Diet For Age (Provider Only)

#### Order

- **Clear Liquid Non-Preop (Provider Only):**
  - Advance as tolerated
  - Advance to Soft Diet
  - Cereals Only
  - Sugar Free
  - NPO (Provider Only)
  - NPO after midnight
  - NPO Only
  - Enteral Feedings (Provider Only)

- **IV:**
  - D5 1/2 NS + 10 mEq KCl/Liter (Premix)
  - D5 1/2 NS + 20 mEq KCl/Liter (Premix)

- **Nursing**
  - Vital Signs
  - Routine
  - N/R Q2H
  - N/R Q4H
  - I & O
  - Routine
  - Strict
  - INT
  - Yes
  - Pulse Oximeter

- **Continuous the first 24 hours:**
  - O2 sat monitoring should be continuous the first 24 hours. Once the patient is stable, change to spot checks every # of hours, and prn respiratory distress.

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Last Update: 1/18/16
CPG Admission Order Set: VLRI (3 of 3)

Ibuprofen [Motrin Suspension]
- 100 mg PO Q6H PRN suspension
- 10 mg/kg Q6H PRN (100 mg/5 ml)
  Maximum Dose: 800 MG
  Maximum dose of Ibuprofen should not exceed more than 800 mg every 6 hours. Use of Ibuprofen in children less than 6 months is not recommended.

Laboratory
- RSV ANTIGEN (RAPID)
  - Routine
    - Per hospital policy, RSV testing is available from October through April
    - Not routinely recommended except if received Synagis.

Blood Gas
- Stat
- Routine
- N/R PRN
- N/R Q12H
- N/R Q2H
- N/R Q4H
- N/R Q6H
- N/R Q8H
- N/R QAM

Radiology
- XR CHEST PA/AP AND LATERAL
  - Routine

Consultations
- Physician Consult
  - Yes

Return to Page 8: Emergency Department Care (ED Wheezing 1-4 Protocol)
Return to Page 9: Medical Floor Admission Care - Both Bronchiolitis & VLRI Order Sets
Key Risks to Children from Secondhand Smoke:

- Increased risk for sudden infant death (SIDS)
- Increased risk of developing asthma
- Increased risk of developing childhood leukemia
- Double the risk of developing pneumonia
- Four-times the risk of being admitted to the hospital for breathing difficulty
- Increased risk of developing ear infections (otitis media)
- Double the risk of having sinus or other nasal problems
- Double the chances of becoming a smoker themselves when they get older
Key Points for Anyone Wanting to Quit Smoking:

• Children exposed to SHS are also smokers.
• Keep trying! You have lots of company in having failed a first quit attempt.
• The average number of quit attempts averages 5-7 before someone succeeds.
• Using nicotine replacement or other meds doubles the chances of quitting.
• Having good support doubles again the chances of successfully quitting.
• The Tennessee 1-800-QUITLINE is a free support service offered to all residents.
• Many private insurances now cover the cost of cessation meds for quit attempts.
• TennCare covers 24-weeks of cessation meds, both prescription meds and OTC’s.
Smoking Cessation/Second Hand Smoke

- **Fear:** I can’t talk to family members about smoking. *They’ll get mad and throw me out of the room!!*

- **Fact:** No they won’t. Not a single respiratory therapist has been thrown out of a room for discussing smoking in the past 5–6 years! Almost everyone is willing to listen, even if they do not act on the advice provided. For the few who are truly unwilling to listen, we simply move on before anyone becomes angry. Change will not occur till an individual is ready.
How you can help the effort this year:

If you do nothing more than get some of the great information shown above into the hands of a family member, you will be helping. **Smart Move!** is an American Cancer Society booklet for someone thinking about quitting eventually. **Set Yourself Free** is a companion ACS booklet with great tips for quitting – including detailed information on all approved cessation meds.
**Reference: Family instruction upon admission**

- **Key points: Plan of care**
  - Treatment may be primarily supportive -- monitoring oxygen needs/feeds & nasal suctioning
  - Frequent RN/RC assessments initially, weaning with improvement
  - Importance of hand hygiene & proper PPE use; help by SPEAKING UP if they witness poor technique
  - Nasal suction at least Q4H initially, weaning with improvement.
  - Bulb suction will be initiated, taught, & practiced by caregiver(s) before discharge.
  - **Clinical** criteria determining readiness for discharge.
    - Eating/drinking
    - Less suction
    - Work of breathing
    - No oxygen

- **Key points: Pulse oximeter**
  - Identification of HR & saturation numbers displayed on the monitor.
  - Good probe placement = fewer alarms.
  - Activity = erratic waveforms & false alarms.
  - Leave sensor probe on your child as much as possible.
  - Need to move beyond cable length? OK to disconnect probe at the connection to monitor cable.
  - Call your nurse of therapist for any questions about the monitor.

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**Last Update:** 1/18/16
• **Contraindications to albuterol; possible substitution of Xopenex:**
  – Patient has heart disease or a known cardiac dysrhythmia
  – Patient hypersensitivity/allergy to the S-component of racemic albuterol
Medical Disclaimer

Medicine is an ever-changing science. As new research and clinical experience broaden our knowledge, changes in treatment and drug therapy are required.

The authors of this Care Map have checked with sources believed to be the most current and reliable in their efforts to provide information that is complete and generally in accord with the standards accepted at the time of publication.

However, in view of the possibility of human error or changes in medical sciences, neither the authors nor East Tennessee Children’s Hospital warrants that the information contained herein is in every respect accurate or complete, and they are not responsible for any errors or omissions, or for the results obtained from the use of such information. Readers should make every effort to confirm the information contained herein with other sources, and are encouraged to consult with other health care providers in the making of clinical care decisions.

References to specific products, processes, websites, or services within this Care Map neither constitute nor imply corporate recommendation or endorsement by East Tennessee Children’s Hospital.
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