

INCLUSION CRITERIA

Pts 1mo-<2year presenting with viral lower respiratory tract infection with/without rhinitis and cough, tachypnea, wheezing, rales, use of accessory muscles or nasal flaring

EXCLUSION CRITERIA

- Complex medical history
- History of asthma or chronic pulmonary disease
- Cardiac disease
- Neuromuscular disease
- Abnormal airway
- Immunodeficiency

MEASURES

- Use of respiratory score

NOT ROUTINELY RECOMMENDED

- Deep suction; only recommended for airway obstruction causing significant respiratory distress
- Respiratory viral testing
- Covid/Flu/RSV, *unless required for hospital admission*
- CXR
- Albuterol
- Steroids
- Hypertonic saline
- Racemic epinephrine
- Antibiotics

CXR Criteria-

Hypoxia <90%, persistent focal abnormalities on repeat examinations, prolonged course of illness, severe respiratory distress scoring >8.

Apnea - Cessation of breathing for 20 seconds or longer, or as a briefer episode associated with bradycardia, cyanosis, or pallor (AAP)

DISCHARGE CRITERIA

- Resp Score 1-6 with retractions to only 1 area or mild tachypnea
- | | |
|----------|----------|
| <2 mo | RR 61-69 |
| 2-12 mo | RR 51-59 |
| 13-24 mo | RR 41-44 |
- Tolerating PO by hx or observation
 - Sats ≥ 90%
 - No apneic episodes

INITIAL ASSESSMENT

- Document **initial respiratory score** (During triage process)
- Suction (Nasal Aspirator) and documents intervention
- Obtain vital signs, including spot pulse ox
- Treat fever per protocol
- Encourage PO intake if scoring mild or moderate (1-8)
- Utilize Bronchiolitis Order Set
- Record 2nd resp score in moderate to severe patients post suction, attempt to calm patient

Mild (1-4)

Treatment

- Recommend supportive care including suctioning, fever management, and ensuring adequate PO intake
- Observation not necessary
- Provide education to family

Moderate (5-8)

Treatment

- Spot check pulse ox, unless requiring oxygen
- If SpO2 <90% apply nasal cannula and continuous pulse ox
- **HFNC only initiated for resp score ≥9**

Reassess in 30 Minutes

Reassess

- Repeat resp score 30 mins after previous score
- Consider need for IV fluids
- **Dispo decision based on repeat score**

Resp Score ≥9?

YES

No

Dispo Decision

Admit

Discharge

Discharge Patient

- Provide education
- Suctioning demonstrated
- Signs of dehydration discussed
- Signs of resp distress including tachypnea and retractions
- Duration of illness (2-4wk)
- Follow-up as needed with PCP

Admit to Acute Care

- Resp score above discharge criteria
- IV fluids
- Supplemental oxygen or HFNC/HiVNI
- Concern for apnea

Severe (≥9)

Treatment

- Initiate/Increase HFNC^{page2}
- Titrate FiO2 to maintain SpO2 ≥90%
- Place IV and start IV fluids after HFNC initiated

Resp Score ≥9?

Yes

No

- Titrate HFNC flow rate per resp score^{page 2}

Resp Score ≥9?

Yes

No

Treatment

- Consider Albuterol trial in severe illness failing to respond to HFNC
- Consider BIPAP 10/5 if continued severe distress^{page 2}

Admit to PICU

- Persistent Resp score ≥9
- HFNC at max settings
- FiO2 >50%
- Requiring BIPAP
- Intubated
- Rapid decompensation
- Witnessed apnea in ED

Initiation of HFNC

NCH-DV

- Initiate HFNC at 6 LPM
- Rapidly increase flow rates by 2 LPM increments to decrease resp score within 30 minutes
- Max Acute Care Flow Rate 12 LPM
- Flow rates above 12 LPM requires PICU admission

NCH-FL

- Initiate HFNC at 1 L/kg
- Increase flow rate by 0.5 L/kg every 5-15 minutes
- Max Acute Care Flow Rate 2 L/kg

Initiation of NIV

BIPAP

Mode: Spontaneous Timed (S/T)

Set RR: 10 bpm

EPAP: Start at 5cmH₂O

IPAP: RT will determine set IPAP to maintain the following

- Maintain minimum delta P of 5cmH₂O
- Mask leak < 60 lpm
- Target Vte 8-10ml/kg

Titration Orders

(Per order or local protocol)

Respiratory Score Guideline (Under 2)				
Variable	0 points	1 point	2 points	3 points
RR				
≤ 2 mo		<60	61-69	≥70
2-12 mo		≤50	51-59	≥60
1-2 yr		≤40	41-44	≥45
Retractions	None	Mild retractions: Subcostal or intercostal	Moderate retractions in 2 of the following: subcostal, intercostal, substernal, OR nasal flaring	Severe retractions in 3 of the following: subcostal, intercostal, substernal, suprasternal, supraclavicular, OR nasal flaring/head bobbing
Dyspnea *Automatic score of 1 for enteric feeding device	Normal feeding, vocalizations and play	1 of the following: difficulty feeding, decreased vocalization or agitation	2 of the following: difficulty feeding, decreased vocalization or agitated	Lethargic, inconsolable, refusing to take PO
Auscultation	No wheezing and/or clear breath sounds	End-expiratory wheeze only	Expiratory wheeze only (greater than end-expiratory wheeze)	Inspiratory/Expiratory wheeze OR diminished breath sounds OR both

Disclaimer: The clinical pathways are based upon publicly available medical evidence and/or a consensus of medical practitioners at Nemours Children's Health ("Nemours") and are current at the time of publication. These clinical pathways are intended to be a guide for practitioners and may need to be adapted for each specific patient based on the practitioner's professional judgment, consideration of any unique circumstances, the needs of each patient and their family, and/or the availability of various resources at the health care institution where the patient is located.

VERSION MANAGEMENT

- Version 1.0 (10/2/2022): Go Live.
- Version 2.0 (10/23/2025): Look back review completed.

Questions about this pathway should be directed to clinicalpathways@nemours.org.

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