**High Flow Nasal Cannula Weaning Pathway:**

1. **Inclusion Criteria**
   - Respiratory distress with diagnosis of bronchiolitis who have failed to respond to low flow oxygen

2. **Exclusion criteria**
   - Neonates in special care nurseries

**CONTRAINDICATIONS**

- Nasal obstruction
- Ingestion/toxins
- Life threatening hypoxia/apneas/hemodynamic instability
- Trauma (maxillofacial/suspected base of skull fracture/chest)
- Pneumothorax
- Foreign body aspiration.

Proceed with caution in those with:

- Decreased level of consciousness (LOC)
- Congenital heart disease
- Asthma
- Chronic lung disease

**Reference:**

**DCMC HFNC Initiation, Maintenance, and Weaning Pathway**

**Initiation**
- Q15 min Assessment
  - Bronchiolitis Score
  - RR, Pulse ox, WOB
- Initiate HFNC the following rates
  - <7 kg 4 LPM
  - 7-9 kg 6 LPM
  - >9 kg 8 LPM

**Bronchiolitis Score ≥ 9-12**
- Did you suction?
  - Yes: Contact Primary Team to Assess
  - No: Suction
- On Max Flow?
  - Yes: Increase Flow Rate by 2 LPM to a max of:
    - <7 kg 8 LPM
    - 7-9 kg 10 LPM
    - >9 kg 12 LPM
    - Monitor for signs of excess flow
  - No: Contact Primary Team to Assess

**Maintenance**
- Continuous Pulse Ox
- Suction Prn + Score Q4 or according to PEWS Score
- Document HR, RR, Pulse Ox
- Feeding
  - May resume Po if Mild score with 1st feed observed by staff
  - If score moderate to severe consider NG Feeds
- Bronch Score > 9-12
- Contact Primary Team to Assess
- On Max Flow or FiO2 > 50%
  - Yes: On Max Flow
  - No: Increase Flow Rate by 2 LPM to a max of:
    - <7 kg 8 LPM
    - 7-9 kg 10 LPM
    - >9 kg 12 LPM
    - Monitor for signs of excess flow
    - Must be stable for 4 hrs on maintenance phase before moving on to weaning phase

**Weaning**
- Bronch Score ≤ 3 Mild
  - FiO2 40% or Less
    - Yes: Wean Flow by 2 LPM
      - Monitor for 10 Min
      - If not weanable after 2L change to NC
  - Wean to FiO2 40%
    - Yes: 30 min Reassessment
      - Bronch Score ≤ 3 and pt tolerated?
        - Yes: Continue Wean q2 by 2L
          - If not wearable after 2L change to NC
        - No: Increase to previous setting
    - No: Wean FiO2
  - Wean FiO2
    - Yes: Continue Wean q2 by 2L
      - If not wearable after 2L change to NC
    - No: Increase to previous setting

For questions concerning this pathway, Click Here
Last Updated October 8, 2019
### Bronchiolitis Assessment Scoring (BAS) Tool

<table>
<thead>
<tr>
<th>Bronchiolitis Assessment Scoring (BAS) Tool</th>
<th>0</th>
<th>1</th>
<th>2</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>RR</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>&lt;2 mos: &lt;50</td>
<td></td>
<td></td>
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<tr>
<td>2-12 mos: &lt;40</td>
<td></td>
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<tr>
<td>&gt;1 yr: &lt;30</td>
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<tr>
<td><strong>FiO2 AND O2 sat</strong></td>
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<tr>
<td>≤24% &amp; &gt;90%</td>
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<tr>
<td><strong>Breath Sounds (crackles don’t change score)</strong></td>
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<tr>
<td>Good air movement, few crackles, few wheezes</td>
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<tr>
<td>Decreased air movement, I-E wheezes, or crackles</td>
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<tr>
<td>Diminished or absent breath sounds, with severe wheezing, prolonged expiratory phase, crackles.</td>
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<tr>
<td><strong>Work of Breathing</strong></td>
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<tr>
<td>None, to mild substernal retractions, abdominal breathing</td>
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<tr>
<td>Moderate retractions, nasal flaring</td>
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<tr>
<td>Severe retractions, nasal flaring, grunting, head bobbing</td>
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<tr>
<td><strong>Mental Status</strong></td>
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<tr>
<td>Normal to mildly irritable</td>
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<tr>
<td>agitated, restless</td>
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<tr>
<td>Lethargic</td>
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<tr>
<td><strong>Color</strong></td>
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<tr>
<td>Normal</td>
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<tr>
<td>Pale</td>
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<tr>
<td>Cyanotic</td>
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<tr>
<td><strong>TOTAL</strong></td>
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<tr>
<td>(calculate total score from all rows)</td>
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<td>10</td>
</tr>
</tbody>
</table>

**Total Score**

**Mild = Weanable Score of 0-3**

**Moderate = Maintain = score of 4-8**

**Severe = increase support = score of 9-12**
EBOC Project Owner: Jennifer Simpson

Approved by the Bronchiolitis Team

Revision History
Date Approved: October 2019
Revised:
Next Review Date: September 2021

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