

Supplementary Table 1 – Criteria for Extubation from Invasive Mechanical Ventilation Both Study Periods

<p>Extubation Criteria:</p> <ol style="list-style-type: none">1. Frequency < 60 breaths/min with spontaneous efforts2. Pulse oximetry within target ranges on FIO₂ < 0.403. pH > 7.254. PCO₂ < 60 mm Hg5. Hemodynamic and clinical stability6. Loading dose of caffeine citrate7. Passed spontaneous breathing trial on CPAP without desaturations, bradycardia, apnea, or increased WOB (grunting, retractions, nasal flaring)
<p>WOB = work of breathing</p>

Supplementary Table 2 – Criteria for Considering Reintubation Both Study Periods

<p>Reintubation Criteria:</p> <ol style="list-style-type: none">1. FIO₂ > 0.40–0.502. PCO₂ > 60 mm Hg3. NIV with IPAP ≥ 20 cm H₂O, EPAP ≥ 8 cm H₂O; CPAP ≥ 8 cm H₂O <i>WITH</i>4. Hemodynamic instability5. Significant RDS6. Infection – (eg, pneumonia, sepsis, NEC)7. Significant clinical event – eg, aspiration8. Significant apnea, bradycardia or desaturations within 24 h9. Increase in WOB – grunting, retractions, nasal flaring10. Cardiac issues including PDA
<p>NIV = noninvasive ventilation; IPAP = inspiratory positive airway pressure; EPAP = expiratory positive airway pressure; RDS = respiratory distress syndrome; NEC = necrotizing enterocolitis; WOB = work of breathing; PDA = patent ductus arteriosus</p>