Neonatal Ventilator Weaning Guidelines:  
ACUTE Care Patients:

Protocol for:  
Weaning from conventional mechanical ventilation

Patient Type:  
Neonatal Intensive Care patients who have been identified by the NICU attending physicians and team to be hemo-dynamically stable and with a pulmonary condition suitable for weaning from the ventilator towards extubation in the next 24-48 hours. An order will be entered: **NICU Ventilator Weaning Protocol-Acute.**

Clinical Area:  
Le Bonheur Neonatal Intensive Care

Equipment Needed:  
Conventional Mechanical Ventilator, TcPCO2: I-STAT, ABG kits, Stethoscope, cardio-respiratory and hemo-dynamic monitor, pulse oximeter.

Basic Sequence:

**Initiate:**
Place TcPCO2 and correlate with BG after 30 mins. to monitor trends.

**Target blood gas results:**
- pH 7.25-7.35
- PCO2 45-55 mmHg
- PO2 45-60 mmHg

**Respiratory Therapist works with other NICU Nursing Staff and NICU Fellows/APN’s/Attending to assess patient. Therapist will reduce rate, FiO2, (may add pressure support) as the team continues to monitor patient response**

**Nursing**
- Inform physician about paralytics, sedatives or analgesics scheduled to be administered and clear with physician that patient can receive the medication. Sedation/pain meds minimized as per MD assessment.
- Document TcPCO2 readings q15 min x 3 after each change then regularly Q 2 hours
- Inform RT if TcPCO2 changes by >10 units from last documented reading
- Wean FiO2 per Unit guidelines
- Inform RT if FiO2 is increased by > 10% from last FiO2 setting when a change was done.

**Begin Weaning**
Assess initial patient settings with physician for target pressure settings. If CXR shows no hyperinflation, and tidal volume is not consistently > 6ml/kg, then wean rate. Otherwise continue adjusting PIP/PEEP (up or down) until optimized pressure settings are reached.
- PIP/VT: ↓ 1-2 cmH2O
- Peep: ↓ 1 cmH2O/change to 4 cmH2O
- If using SIMV PS/PC, keep PS 2 units below PIP
- Rate: ↓ 5-10 breaths/change. Target RR 15-25 before extubation
- Inform physician if patient does not tolerate a wean
- If at any point the patient becomes distressed- immediately return to previous settings and notify physician.
- Changes no more frequently than every 20 - 30 minutes
- At target settings, assess for extubation
  - *Perform Blood Gases q 4-6° and PRN to monitor and correlate TcPCO2*
  - **Communicate with bedside RN and/or physician after all changes.**