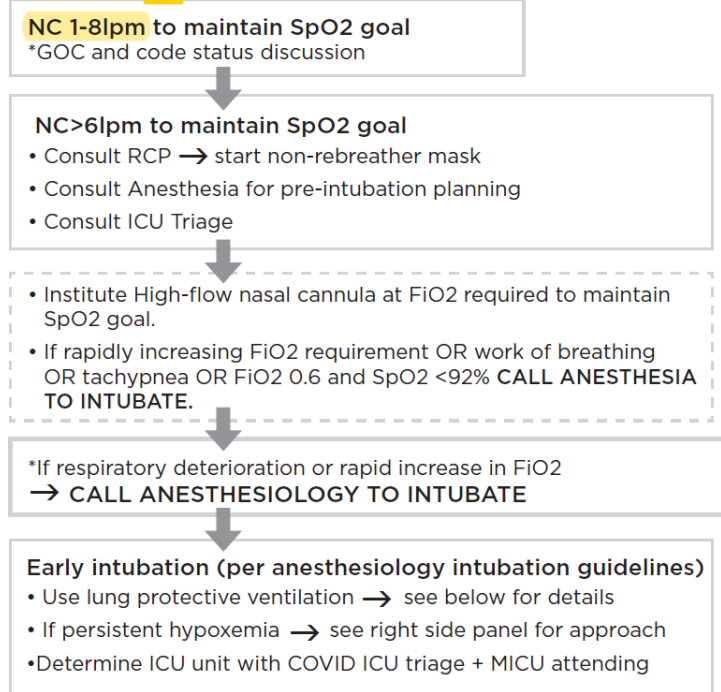


QUICK GUIDE FOR MANAGEMENT OF CRITICALLY ILL PATIENTS WITH COVID19: RESPIRATORY FAILURE

OXYGEN THERAPY: **Goal SpO2 92-96% PaO2 >75**

- Nasal cannula 1-6L/min → if need more O2 use Non-rebreather mask
- Consult anesthesia EARLY (when Non-rebreather mask @ 60%)
- AVOID CPAP or BiPAP for ARDS, but can consider in reversible cases (e.g. flash pulmonary edema, mild COPD exacerbation)

RESPIRATORY FAILURE ALGORITHM: What to do in each situation...



UPFRONT VENTILATOR SETTINGS: Immediately upon intubation

- Volume control with Vt 6cc/kg IBW + RR 16-24 + FiO2 1.0 + PEEP based on BMI as below
- If BMI<35 PEEP 10; if BMI 35-50 PEEP 12; if BMI>50 PEEP 15

INITIAL VENT ADJUSTMENTS: (do this before bedside procedures)

- 1) **TITRATE PEEP** with RT help if vent use PV tool, otherwise Best PEEP protocol (if RT has time) or ARDSNET lower PEEP table w/RT help see here →
- 2) **TITRATE DOWN FiO2** for goal SpO2 92-96% or PaO2 >75
- 3) **MEASURE RESISTANCE + COMPLIANCE** (RT can do this)
- 4) **MEASURE PLATEAU PRESSURE:** if >30, decrease Vt to 4cc/kg IBW (tolerate incr pCo2 as a result)

FiO2	PEEP
0.3	5
0.4	5
0.4	8
0.5	8
0.5	10
0.6	10
0.7	10
0.7	12
0.7	14
0.8	14
0.9	14
0.9	16
0.9	18
1.0	18-24

WHAT TO DO FOR DIFFICULTY WITH OXYGENATION

- 1) PEEP titration (as above for initial settings)
- 2) Increase sedation to goal RAAS -5
- 3) Initiate continuous paralysis
- 4) **PRONE POSITIONING** if P:F <150 or FiO2 >0.75
See MICU protocol for proning
1 hr post-prone check mechanics + adjust PEEP as above
DC proning if P:F>200 or if O2 @ goal w FiO2 <0.5
- 5) Inhaled epoprostenol (veletri) titrate to 0.05mcg/kg/min bycontinuous neb, x4 hrs if P:F no better wean off per protocol
- 6) Inhaled Nitric Oxide: 40-80ppm into vent circuit trial x4 hrs ifP:F no better wean off over 2 hrs
- 7) ECMO consultation

VENT TITRATION for ACID/BASE ISSUES:

- target pH 7.25-7.45**
- if pH <7.25 increase RR towards 35
 - if pH <7.15 and RR is 35 then increase Vt to 8cc/kg IBW (as long as plateau pressure <30) AND do steps 1-4 above (sedation to RASS -5 + paralysis + prone)