COVID-19 RESPIRATORY PATHWAY

Awake proning is beneficial
Early intubation may not be needed
Permissive hypoxemia is ok. Target O_2 saturation: ≥88%
See text for information and references

Does the patient with suspected or confirmed COVID-19 have O_2 <88%

no → Continue supplemental O2, Monitor ≤ q2h then q4h

yes → Start O_2 Up to 6 L via face mask

O_2 >88% → Continue supplemental O2, Monitor ≤ q2h then q4h

O_2 <88%

Escalate respiratory support AND awake proning (if appropriate) to maintain O2 ≥88%
based on work of breathing and patient tolerance

Escalate Respiratory Support
Prefer use of HFNC (≤50 LPM) + Surgical Mask
or
Nonrebreather < 15 LPM

Alternative: NIV in negative pressure room, if available
CPAP preferred over BiPAP in absence of significant hypercarbia

Initiate awake proning

Patient must meet following criteria
Respiratory rate <30
No retractions
Alert, oriented, follows instructions (no AMS)
Patient able to tolerate rolling over (or on side)
No additional contraindications†

1. Remove chest leads / stickers
2. Place cardiac leads on back
3. Assist patient rolling over
4. Ensure leads, wires, lines, O_2 in place
5. Continue oxygen or HFNC
6. Ensure call bell in patient's hand / reach
7. Consider rotating bed for visualization of patient if feasible/needed
8. Minimize sedation

worsening

RN reassess after 15 minutes

Is the patient tolerating respiratory support ± proning?
(O2 ≥88%)
No respiratory distress/AMS/signs of poor perfusion

no → **Escalate respiratory support based on patient's work of breathing/mental status/perfusion**
↑ HFNC to: FiO_2 0.8 + 50 LPM
or
NIV: EPAP 10cmH_20 and FiO_2 0.6
or
intubation

yes →
- Patient can remain prone or side-lying for as long as they tolerate, up to 3 hours, and rotate as needed
- RN Visual or intercom assessment minimum q2h and PRN
- Encourage incentive spirometry
- Physician reassessment minimum 30 min, 2 h, then q4h

worsening

In general, consider these patients for intubation:
- Respiratory distress and/or shock
- **HFNC** FiO_2 >0.8
- **NIV** EPAP>10cmH20, FiO_2 >0.6, or no improvement after 48 h
- ROX index <3.85 predicts high likelihood of failure of HFNC. Can be measured if clinician judgment is uncertain and patient is not improving

† Proning Absolute contraindications: Respiratory distress (RR≥35, accessory muscle use), immediate need for intubation based on clinician judgment, Hemodynamic instability (SBP <90 mmHg or arrhythmia), agitation, unstable spine/thoracic injury/recent tracheal, chest, or abdominal surgery
Proning Relative contraindications: Facial injury, neurological issues (e.g. frequent seizures), hemoptysis, morbid obesity, pregnancy (2/3rd trimesters), pressure sores/ulcers