SUBJECT: Prone Position for Non-Intubated Patients

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RECOMMENDATION(S): Dr. Kyle Kalkwarf **APPROVAL: 4/9/2020**

CONCURRENCE(S): Dr. Ben Davis **EFFECTIVE: 4/9/2020**

PURPOSE: To describe the proper use of prone positioning (PP) for non-intubated patients with respiratory compromise resulting from COVID-19.

BACKGROUND: Prone positioning has been demonstrated to improve outcomes in intubated patients respiratory failure causing hypoxia.[1] COVID-19 has been shown to cause hypoxia and there has been some evidence that it can improve hypoxia in non-intubated patients, which may decrease their need for intubation.[2]

EXCLUSION CRITERIA:

1. Signs of respiratory fatigue
    a. RR persistently > 24/min
    b. $PaCO_2$ > baseline + 20 mmHg
    c. pH < 7.3
    d. obvious accessory muscle use
2. Immediate need for intubation
    a. severe ARDS = PaO_2/FiO_2 < 100
    b. inability to protect airway
    c. mental status changes
3. Unstable hemodynamic status
4. Inability to cooperate with PP

INCLUSION CRITERIA:

1. All hospitalized patients with known or suspected COVID-19

INTERVENTIONS:

1. All patients should concomitantly be treated with HFNC (if available)
2. PP should be attempted for at least 30 minutes
3. PP should continue until patient feels too tired to maintain that position
4. PP should be attempted no less than 2 times per 24 hour period
5. If tube feeds are being used for nutrition, they can continue, but the head of the bed should be elevated (reverse Trendelenburg) from 10 to 25 degrees.[3]

REFERENCES:

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2. Ding L, Wang L, Ma W, He H. Efficacy and safety of early prone positioning combined with HFNC or NIV in moderate to severe ARDS: a multi-center prospective cohort study. Critical care. 2020 Dec 1;24(1):28.
3. Nutrition Therapy in the Patient with COVID-19 Disease Requiring ICU Care. https://www.sccm.org/getattachment/Disaster/Nutrition-Therapy-COVID-19-SCCM-ASPEN.pdf?lang=en-US.