Appendix 1. Algorithm for prone positioning in awake or intubated pregnant women. AMS, altered mental status; NPO, nil per os; ECG, electrocardiogram; RASS, Richmond Agitation-Sedation Scale; ABG, arterial blood gas; BIS, bispectral index; ETT, endotracheal tube; ICU, intensive care unit. RASS –4 corresponds to deep sedation (no response to voice, but movement or eye opening to physical stimulation). BIS is a technique used to monitor the depth of sedation.

**PRONE POSITIONING FOR A PREGNANT PATIENT**

<table>
<thead>
<tr>
<th>Indications</th>
<th>NO</th>
</tr>
</thead>
<tbody>
<tr>
<td>Requiring supplemental oxygen to achieve SpO2 ≥95% (postpartum SpO2 ≥92%)</td>
<td></td>
</tr>
<tr>
<td>Unable to wean O2 requirement</td>
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<tr>
<td>Suspected or confirmed acute respiratory distress syndrome (ARDS)</td>
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</tbody>
</table>

**Absolute Contraindications**
- Hemodynamic instability or life-threatening arrhythmia
- Non-measurable fetal status requiring immediate delivery
- Spinal instability
- Increased intracranial pressure
- Concern for acute respiratory decompensation requiring intubation ("awake only")
- Unable to communicate or cooperate with the procedure ("awake only")

**Relative Contraindications**
- Recent thoracotomy, thoracoscopic surgery or trauma, or Cesarean delivery within last 48 hours
- Fetal monitors, central lines, and umbilical cord devices
- Estimated gestational age ≥34 weeks

**Before Prone Positioning**
- If possible, NPO at least 1 hour
- Explain procedure and goals, obtain patient consent
- Introduce team (minimum 2 people, 1 per side)
- Secure lines (Foley, arterial, peripheral and central lines, drains, chest tubes)
- Confirm O2 delivery device well connected and increase O2 to max setting (ie, for low flow nasal cannula)
- Move ECG leads to back (mirror image)

**Prone Positioning Procedure**
- Place patient in reverse Trendelenburg ("10")
- Adjust fetal monitors as needed
- Confirm all lines and tubing not pressing against skin
- Readjust O2 settings to pre-prone settings
- If possible, stop enteral feeds at least 1 hour
- Assemble the team (minimum 5 people, 2 per side, 1 at head for array, plus one for directing and for feet, if available)
- Sedate to RASS −4, give neuromuscular blockers, obtain ABG to optimize settings before positioning, monitor with BIS or nerve stimulator, neuromuscular blockade precautions
- Secure lines (Foley, arterial, peripheral and central lines, drains, chest tubes), remove ECG electrodes

**Prone Positioning**
- Place clean sheet under patient
- Arm closest to ventilator is tucked underneath buttocks with palm facing up
- Place patient in reverse Trendelenburg ("10")
- Adjust pillow for patient comfort (consider possible engorgement of breasts postpartum)
- Position arms overhead or to the side, or 1 of each "swimmer's position" (change every 2 hours)
- Place hand in "reverse Trendelenburg" ("10")
- Adjust fetal monitors as needed
- Confirm all lines and tubing not pressing against skin
- Readjust O2 settings to pre-prone settings
- Monitor O2 saturation for 15 minutes
  - SpO2 ≥95% (postpartum SpO2 ≥92%)
  - Signs of tissue ischemia or desaturation

**If deteriorating oxygen saturations**
- Ensure O2 is connected to patient
- Increase inspired O2
- Change patient’s position, consider return to supine
- Discontinue prone positioning
- No improvement with change of position
- Cardiac arrest impending or occurring
- Patient unable to tolerate position
- Concern for acute respiratory decompensation requiring intubation ("awake only")

**Tolcher MC, McKinney JR, Eppes CS, Muigai D, Shamshirsaz A, Guntupalli KK, et al. Prone positioning for pregnant women with hypoxemia due to Coronavirus Disease 2019 (COVID-19). Obstet Gynecol 2020;136. The authors provided this information as a supplement to their article. ©2020 American College of Obstetricians and Gynecologists.**
Appendix 2. Prone positioning in awake pregnant patient. A. Patient lies on side facing towards the oxygen source. Adjust bed to reverse Trendelenburg (≈ 10°). Place three pillows at head, two above gravid uterus, two at level of the pelvis (line up with symphysis pubis), and two under knees. B. Help patient kneel between two lower sets of pillows (lower leg pillows may be placed once she is prone). Ensure pelvic pillows are touching her thighs. Raise head of the bed. C. Help patient lie forward onto the pillows. D. Lower head of the bed (maintain reverse Trendelenburg). Adjust padding for patient comfort. Check gravid abdomen and ensure no pressure. Replace maternal and fetal monitors.
Appendix 3. Prone positioning in intubated pregnant patient. A. Physician or respiratory therapist at head of bed monitors endotracheal tube and head and neck and leads counting and all maneuvers. Roll patient to side and spread clean sheet under them. B. Tuck arm closest to ventilator underneath buttocks with palm facing up. C. Position patient supine on clean sheet. Place two pillows above gravid uterus under neck, two at level of the pelvis (line up with symphysis pubis), two under knees, with two other pillows within reach to pad head. D. Spread clean sheet over pillows (under neck) and roll both sheets on both sides to encase the patient and pillows. E. Roll patient on side facing the ventilator. Readjust grip on sheets (staff on the side nearest the ventilator grip the section of sheets nearest the top side of the patient). F. Roll patient to the prone position. Check gravid abdomen and ensure no pressure. Replace maternal and fetal monitors.