1. **Determine the need for prone therapy.**
   a. Confirm patient has failed to meet oxygenation goals.
   b. Allow 12-24 hours for improvement.
   c. Re-confirm patient has failed to meet oxygenation goals.

2. **Determine the bed you will be using.** RotoProne beds are indicated for patients with:
   a. Cervical, thoracic or lumbar spine precautions
   b. Open abdomen
   c. Pelvic or long bone fractures

3. **Hospital bed algorithm**
   a. Confirm that an ABG has been obtained within the last hour
   b. Place patient in the prone position.
   c. Obtain another ABG one hour after the patient is prone
   d. The nurse (with the respiratory therapist) turns the patient’s head every 2 hours
   e. Each morning the patient will be placed in the supine position.
      i. Once supine, perform routine nursing care (evaluate skin, bath and mouth care)
      ii. Obtain a portable chest X-ray
   f. After care is complete, obtain an ABG and determine if oxygenation goals are met.
      i. If so, remain supine for 4 hours.
      ii. If not return to the prone position.
   g. After 4 hours supine, obtain an ABG and again re-assess oxygenation goals.
      i. If goals are met, remain supine and stop neuromuscular blockade.
      ii. If not, resume prone position.
   h. After 4/4 twitches have been achieved, wait 1 hour then obtain an ABG and again assess oxygenation goals.
      i. If goals are met, remain off paralytics and stop sedation.
      ii. If not, resume paralytics (in the first 48 hrs) and consider resuming prone positioning.
   i. Perform a sedation interruption and assess agitation and oxygenation goals.
      i. If Riker 3 or 4 and oxygenation goals are met, begin weaning PEEP and FiO₂.
      ii. If not, resume sedation at half dose and consider resuming prone positioning and/or paralysis (in the first 48hrs).

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**Oxygenation goals:**

1. P:F>150mmHg
2. PEEP ≤ 10 cmH₂O
3. FiO₂ ≤ 0.6
j. If the patient is not achieving goals to remain supine they will return to the prone position at or before 6 hours. **The patient should remain prone at least 18 hours a day.**

k. Steps should be repeated daily until the patient achieves requirements for cessation of prone positioning, paralytics and sedation.

4. **RotoProne bed algorithm**
   a. Confirm that an ABG has been obtained within the last hour.
   b. Place patient in the RotoProne bed (see accompanying video and tutorial).
   c. Obtain another ABG one hour after the patient is prone.
   d. Begin side-to-side rotation in the prone position.
   e. Each morning the patient will be placed in the supine position.
      i. Once supine, perform routine nursing care (evaluate skin, bath and mouth care).
      ii. Obtain a portable chest X-ray.
   f. After care is complete, obtain an ABG and determine if oxygenation goals are met.
      i. If so, remain supine for 4 hours.
      ii. If not return to the prone position and begin prone:supine rotation in a 3:1 hourly ratio.
   g. After 4 hours supine, obtain an ABG and again re-assess oxygenation goals.
      i. If goals are met, remain supine, discontinue RotoProne bed and stop neuromuscular blockade.
      ii. If not, resume prone position with a prone:supine rotation in a 3:1 hourly ratio.
   h. After 4/4 twitches have been achieved, wait 1 hour then obtain an ABG and again assess oxygenation goals.
      i. If goals are met, remain off paralytics and stop sedation.
      ii. If not, resume paralytics (in the first 48 hrs) and consider resuming prone with a prone:supine rotation in a 3:1 hourly ratio.
   i. Perform a sedation interruption and assess agitation and oxygenation goals.
      i. If Riker 3 or 4 and oxygenation goals are met, begin weaning PEEP and FiO₂.
      ii. If not, resume sedation at half dose and consider resuming prone positioning and/or paralysis (in the first 48hrs). For prone positioning use a prone:supine rotation in a 3:1 hourly ratio.
   j. If the patient is not achieving goals to remain supine they will return to the prone position. A prone time of at least 18 hours a day is required. This will be met if the 3:1 ratio is maintained.
   k. Steps should be repeated daily until the patient achieves requirements for cessation of prone positioning, paralytics and sedation.