WVU Medicine Adult ICU
NURSING PRONE THERAPY GUIDELINES

Checklist: Prior to Prone & Supination

- ✓ Verify all orders. Ensure that the patient &/or family understands pre-procedural teaching
- ✓ Determine if patient has adequate & appropriate IV access and arterial line if needed
- ✓ Assess the hemodynamic status of the patient to determine if patient can tolerate the prone position
- ✓ Obtain a bed specifically designed for prone positioning or one with high quality pressure redistribution & shear reduction features
  - If you do not have a bed specifically designed for Proning, ensure a suitable bed mattress & consider obtaining extra padding if needed.
    - *Consider using: gel/foam positioners, pillows, positioning devices, fluid bags, etc.*
      - Consider density of foam, height, angle of the face, & ETT positioning when selecting an appropriate device
- ✓ Assess the patient's neurological status. Ensure deep sedation & adequate paralysis if indicated (per orders)
- ✓ Ensure that an OG/NG tube is in place & placement has been confirmed
- ✓ Turn off enteral tube feedings for 1 hour
- ✓ Provide eye care & apply eye lubricant; tape eyelids in a horizontal if eyes cannot remain closed
- ✓ Perform wound care & dressing changes if needed. Remove foley securement device.
- ✓ Ensure all central & arterial lines are securely fastened & are sutured into place
- ✓ Empty foley catheter & ileostomy/colostomy drainage bag
- ✓ Apply prophylactic foam dressings to all pressure points and under medical devices
- ✓ Disconnect non-essential equipment & non-continuous IV lines
  - Continue dialysis/pressor/paralytic infusions. *Do not disconnect arterial line from pressure monitoring set.*
- ✓ Suction oral cavity & ensure the tongue is inside patient's mouth
- ✓ Bring all needed supplies to bedside to aid in the pronation/supination
- ✓ Ensure intubation supplies as well as videolaryngoscopy, an Airway Exchange Catheter, & a Bougie are all immediately available outside the patient's room
- ✓ **Respiratory Therapist:**
  - Confirm ETT location with chest X-RAY if needed. Note the depth of ETT location.
  - Remove ETT securement device, apply foam dressings to bilateral cheeks, & secure ETT with adhesive tape
  - Pre-oxygenate at 100% FiO2 for 10 minutes prior to the turn
- ✓ **Ensure appropriate & adequate personal is at bedside for procedure, including:**
  - Designated provider with intubation skills
  - A Respiratory therapist
  - At least 3 additional staff members to assist with positioning & turning, including the patient's primary RN

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Turning the Patient Manually to Prone

- **Complete a proning Pre-Procedure Huddle!**
  - Confirm airway equipment is present, establish team roles & responsibilities, and complete safety checks
  - Review emergency contingency plans for: *accidental extubation or ETT dislodgement, rapid supination plan in the event of cardiac arrest or hemodynamic instability, loss of arterial or central line, etc. (based on the patient)*
- Position at least 4 staff members appropriately on either side of the bed depending on the size & complexity of the patient, with RT at the head of the bed, & designated physician at bedside involved in the positioning
  - **Alert:** Respiratory Therapist at the head of the bed is responsible for monitoring the ETT, mechanical ventilator tubing, & invasive lines. **This person completes all counts!**
- Remove the headboard from the bed & place the mattress pump on maximal inflation
- Ensure a large draw sheet is underneath patient
- Position two MaxiSlide sheets underneath the patient's draw sheet (by the unfolding technique or turning patient)
- Adjust all patient tubing & invasive monitoring lines to prevent dislodgment, kinking, disconnection, or contact with the patient's body
  - Lines inserted in the upper torso are aligned with either shoulder, & the excess tubing is placed at the head of the bed, with the exception of chest tubes
  - Chest tubes & lines or tubes placed in the lower torso are aligned with either leg & extended off the end of the bed
- Tuck patient's arms slightly under the buttock
- Lower the side rails of the bed
- Remove anterior chest wall ECG leads, leaving the SpO2 on for continuous monitoring
- Place a chux/s over patient
- If patient is not on a prone bed with built in supports, apply at least one pillow on patient's chest & one on the pelvis
- Apply a large sheet over the patient & tightly roll all sheets together on both sides of the patient

1. **FIRST STEP: On the first count of 3 by the RT, slide the patient AWAY from the ventilator in preparation for the prone turn. Everyone pause.**
   - *The individuals closest to the patient maintain body contact with the bed at all times serving as a side rail to ensure a safe environment.*

2. **SECOND STEP: On the next count of 3, turn the patient on their side looking TOWARDS the ventilator. Pause to recheck airway & lines.**

3. **THIRD STEP: Once the airway & lines are confirmed, on a 3 count, continue to roll the patient into a prone**

Immediately After Proning

- RT to confirm ETT depth & ventilator values, validating no changes
- Reconnect ECG & all monitoring cables. Reconnect lines & tubes, ensuring sterility is maintained
- Repeat zeroing of hemodynamic transducers once prone
- Remove slide sheets, replace headboard, raise side rails, and release maximal inflation
- Position head & arms in a comfortable swimming position that allows visualization of ETT & ensuring to offload pressure areas. Ensure the eyes have no pressure on the orbits.
  - *Do not use ring or donut-shaped positioning devices*
  - *Consider the density of foam & the height, angle of the face, & ETT positioning when selecting an appropriate device*
- Support the patient's ankles & feet with a pillow. Position the patient's elbows to prevent ulnar nerve compression
- Position bed in reverse Trendelenburg as tolerated
- Assess patient's tolerance to the procedure

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NURSING PRONE THERAPY GUIDELINES

Patient Monitoring & Care While in Prone

- Assess the patient's response to the supine position by assessing vital signs, oxygen saturation, ETCO2 if applicable, arterial blood gases, PaO2/FiO2 ratios, etc.
- Obtain an ABG/lactic acid 30 minutes after position change & at a minimum of every 4 hours (or as ordered)
- Shift the patient's head at least every 2 hours to prevent facial breakdown
- Alternate the position of the arms & direction of the head, in a manner that is similar to that of a freestyle swimmer, every 2-4 hours with RT at bedside to secure airway
  - *Shoulders should be relaxed and "dropped" below chest; avoid "shrugging" positions as this can lead to frozen shoulder/brachial plexus injury*
- Reposition the patient in such a way that optimal offloading of all bony prominences & maximal redistribution of pressure is achieved. Regularly rotate/reposition devices if possible and avoid direct contact on the skin.
- You should be able to slide a hand under the patient's abdomen. *This may be difficult if they are very obese.*
- Ongoing skin assessment and pressure reliefs of medical devices & pressure points
- Assess gastric tube placement per policy. Resume tube feeding as ordered & maintain as tolerated.
- Provide frequent oral care & suctioning of the airway as needed
- Maintain eye care, ensuring eyes are moist & lids are closed at all times to prevent corneal abrasions
- Ensure the tongue is in the mouth
- Maintain the patient in prone position for a minimum of 16 consecutive hours per protocol.
- Notify provider if unable to meet goals of ARDSNet Protocol and a PH < 7.2 or PaO2 < 55

Returning the Patient to the Supine Position

- **Complete a proning Pre-Procedure Huddle!**
  - Confirm airway equipment is present, establish team roles & responsibilities, and complete safety checks
  - Review emergency contingency plans for*: accidental extubation or ETT dislodgement, rapid supination plan in the event of cardiac arrest or hemodynamic instability, loss of arterial or central line, etc. (based on the patient)*
- Position at least 4 staff members appropriately on either side of the bed depending on the size & complexity of the patient, with RT at the head of the bed, & designated physician at bedside involved in the positioning
  - **Alert:** Respiratory Therapist at the head of the bed is responsible for monitoring the ETT, mechanical ventilator tubing, & invasive lines. **This person completes all counts!**
- Remove the headboard from the bed & place the mattress pump on maximal inflation
- Straighten the patient's arms alongside their body & tuck the hand that's opposite the ventilator underneath patient
- Position two MaxiSlide sheets underneath the patient's draw sheet (by the unfolding technique or turning patient)
- Adjust all patient tubing & invasive monitoring lines to prevent dislodgment, kinking, disconnection, or contact with the patient's body
  - Lines inserted in the upper torso are aligned with either shoulder, & the excess tubing is placed at the head of the bed, with the exception of chest tubes
  - Chest tubes & lines or tubes placed in the lower torso are aligned with either leg & extended off the end of the bed
- Position patient's head looking towards the ventilator
- Remove posterior chest wall ECG leads, leaving the SpO2 on for continuous monitoring
- Lower the side rails
- Place a chux & apply a large sheet over the patient, tightly roll all sheets together on both sides of the patient

WVU Medicine Adult ICU
NURSING PRONE THERAPY GUIDELINES

1. **FIRST STEP: On the first count of 3 by the RT, slide the patient TOWARDS the ventilator in preparation for the turn to supine. Everyone pause.**
   - *The individuals closest to the patient maintain body contact with the bed at all times serving as a side rail to ensure a safe environment.*
2. **SECOND STEP: On the next count of 3, turn the patient on their side looking TOWARDS the ventilator. Pause to recheck airway & lines.**
3. **THIRD STEP: Once the airway & lines are confirmed, on a 3 count, continue to roll the patient into supine**

Immediately After Supination

- RT to confirm ETT depth & ventilator values, validating no changes
- Reconnect ECG & all monitoring cables. Reconnect lines & tubes, ensuring sterility is maintained
- Repeat leveling & zeroing of hemodynamic transducers
- Slide patient up in bed if needed
- Remove all slide sheets
- Replace headboard, raise side rails, and release maximal inflation
- Raise the patient's HOB ≥ 30 degrees as tolerated
- Suction the oral cavity & inline suction through the ETT if required
- Assess patient's tolerance to the procedure
- Assess all pressure points and skin under preventative dressings
- ETT will be re-taped prior to each prone therapy, with RN at bedside with RT to assess skin
- Ensure mobile chest XRAY after supination

Patient Monitoring & Care While in Supine Position

- Assess the patient's response to the supine position by assessing vital signs, oxygen saturation, ETCO2 if applicable, arterial blood gases, PaO2/FiO2 ratios, etc.
- Maintain the patient in supine position for a maximum of 4 hours if prone therapy is continued
- Obtain an ABG/lactic acid 30 minutes after position change & every 4 hours while supine (or as ordered)
- Notify provider if unable to meet goals of ARDSNet Protocol and a PH < 7.2 or PaO2 < 55
- Maintain head of bed elevation with regular position changes
- RT to change ETT tape after each return to supine positioning, assessing for skin breakdown

Relative Policies

- WVUH Safe Patient Mobility IV.188 or your hospital mobility policy

Additional Guidelines/Best Practices

- WVU Medicine Prone Pressure Injury Prevention Guide
- National Pressure Injury Advisory Panel (NPIAP) Pressure injury Prevention Tips for Prone Positioning
- Follow manufacturer instructions when using beds, positioning devices, prophylactic dressings and other products

References

- Lippincott Procedures. (2020). Prone Positioning. Retrieved from https://procedures.lww.com/lnp/view.do?pId=6068323
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