

# COVID-19 Response: Proning Clinical Guidance

**Version 5– Apr 28, 2020**

CSG Care Delivery

# Updates & Versioning

Version	Date/Time	Summary of Updates
1	3/17/2020 @ 1800	Initial document created.
2	4/9/20 @ 0800	Edits and Inclusion of the formulary for skin protection
3	4/28/20	Inclusion of Manual Proning in the non-critical patient
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**Intended for:**

- Hospital Leadership
- Nursing – Critical Care (lead)
- Nursing – Medical-Surgical (assist)
- Respiratory Therapy
- Licensed personnel (PT, OT, Patient Care Tech) (assist)
- Non-licensed personnel (assist)
- Add PCU/MS staff as primary

**Purpose:** To provide clinical guidance regarding both manual and device-assisted (bed) proning therapy.

**Scope:** This document is for all adult, intensive-care level patients who may benefit from proning therapy, including persons under investigation (PUI) and COVID-19 confirmed patients.

**Considerations:**

When an emergency response is activated, such as during contingency and crisis scenarios, persons who might have specific management roles in the ICU under normal conditions may not be available when an emergency response is activated. This may include leading (for critical care nurses) or supporting efforts to prone patients by either manual or device-assisted means. The purpose of this document is to provide education and resources for contingency and crisis level scenarios in which nursing staff (critical care/non-critical care) and non-nursing staff may need to lead and/or assist with proning therapy.

# Manual Proning

## Clinical Guidance:

- Manual proning is recommended for the early treatment of ARDS patients. Patient proning has specific indications, contraindications, and safety information. Ideally, clinicians should participate in manual proning education before performing this skill.
- Considerations prior to proning:
  - Consider risk/benefit and any outlined facility protocol regarding inclusion/exclusion criteria.
  - A Physician order is required for proning.
  - Ensure placement of any necessary vascular access, tubes or drains prior to placing the patient in a prone position (i.e. central venous catheters, urethral catheters, arterial catheters, chest tubes, and feeding tubes).
    - Assemble core team for proning maneuver – This should include a minimum of 3 team members with one of those team members being a respiratory therapist:
      - The respiratory therapist should be positioned at the patient's head and serve as a team lead for the proning maneuver.

- Emergency airway and resuscitative equipment should be available at the bedside before proning maneuver.
- Remove any unnecessary lines, drains, dressings, or equipment prior to proning maneuver.

### **Team-Based Manual Proning – Process Steps:**

- Identify prone maneuver leader (i.e. respiratory therapist at the top of the bed).
- Position respiratory therapist at head of the bed. RT is responsible for maintaining ETT placement and patent airway.
- Tuck patient's arms under their side.
- Move the patients ECG electrodes from anterior chest wall to the side and posterior back.
- Move all the lines and drains to run out of the head or bottom of bed.
- Place flat sheet on top of the patient.
- Place 3-4 pillows along the patient's body, reaching from chest to shins.
- Place flat sheet on top of pillows/patient.
- Roll the sheets (under and over the patient) together in a downward motion to tightly wrap the patient.
- Slide the patient to edge of the bed (away from ventilator).
- Rotate the patient and slowly turn toward vent until the patient is in the prone position.
- Assess lines and tubes for dislodgement/kinks/patient air entry.

- Position arms in modified swimmers crawl position so the patient's face is in the direction of the raised arm. The other arm should remain straight with the palm facing up.
  - Ensure the shoulder is not hyperextended.
  - Shoulders should be kept in the neutral position with the elbow bent at a 90 degree angle allowing the hand to rest at the head area in order to prevent brachial plexus injury.
- Ensure pillows/gel pads are under shins and toes are off bed.
- Reattach disconnected lines/cables.
- Place bed in reverse Trendelenburg.
- Reassess ETT cuff pressures, tidal volumes, O2 saturation, BP, HR, and general patient condition.
- Obese Patients: Special considerations
  - Rotation teams should increase to a minimum of four but adjust to the needs of the patient.
  - Utilize pillows or wedges to support pelvic and upper chest area in order to prevent pressure points in the abdominal area.
- Pregnant Patients: Special Considerations
  - Pregnancy is not a contraindication to the use of proning, following joint decision-making with input from obstetrics and / or maternal/fetal medicine
  - Past 26-28 weeks of gestation, pillows and wedges should be utilized to minimize pressure on the abdomen.

## Manual Proning in non-critical patient (Med-Surg)

The emerging practice of proning in the conscious non-critical patient allows for adaptation of the need for early proning in the Covid-19 patient population, possibly preventing escalation to mechanical ventilation. This practice focuses on the ED and Medical Surgical adult patient population.

Respiratory Therapy should be notified and present upon initiation of proning therapy. The main risk of awake proning is the delay of intubation if the patient continues to deteriorate. Such a delayed intubation could increase the risk of peri-intubation desaturation. In order to avoid this, close monitoring, including continuous pulse oximetry should be used with prompt intubation if the patient were continuing to decline.

### **Consider prone position if patient is able to:**

- Communicate and co-operate with procedure.
- Rotate to front and adjust position independently.
- No anticipated airway issues.

### Exclusions:

Patients that are unable to independently prone position themselves.

Patients that are unable to tolerate the prone position.

Patients with Impaired airway.

Patients at high risk for aspiration

### **Absolute Contraindications:**

Respiratory distress (RR  $\geq$  35, PaCO<sub>2</sub>  $\geq$  6.5, accessory muscle use)

Immediate need for intubation

Hemodynamic instability (SBP < 90mmHg) or arrhythmia

Agitation or altered mental status

Unstable spine/thoracic injury/recent abdominal surgery

**Relative Contraindications:**

Facial injury - Neurological issues (e.g. frequent seizures)

Morbid obesity

Pregnancy (2/3rd trimesters)

Pressure sores / ulcer

**Do not administer sedation prior for proning therapy.**

**Timed Position Changes:**

If patient fulfills criteria for proning ask the patient to switch positions as follows. Monitor oxygen saturations 15 minutes after each position change to ensure oxygen saturation has not decreased.

- 30 minutes to 2 hours lying fully prone (bed flat)
- 30 minutes to 2 hours lying on right side (bed flat)
- 30 minutes to 2 hours sitting up (30-60 degrees) by adjusting HOB
- 30 minutes to 2 hours lying on left side (bed flat)
- 30 minutes to 2 hours lying prone again
- Continue to repeat the cycle...

**For deteriorating oxygen saturations:**

- Ensure oxygen is connected to patient
- Increase inspired oxygen and call Respiratory Therapy to assess
- Change patients position
- Consider return to supine position
- Escalate to critical care if appropriate

**Discontinue if:**

- No improvement with change of position
- Patient unable to tolerate position
- RR  $\geq$  35, looks tired, using accessory muscles

If patient is continuing to have desaturation or increased work of breathing, notify physician.



# Respiratory Therapy Care

- Respiratory therapists play a key role in proning therapy for the ARDS. Proning therapy has demonstrated to enhance oxygenation and lung recruitment in mechanically ventilated patients. Patient proning has specific indications, contraindications, and safety information. Ideally, clinicians should participate in manual proning education prior to performing this skill.
- [TCMC Manual Proning Video](#) -Centennial Medical Center Manual Proning Video
- [SATL Manual Proning Video](#)- South Atlantic Division Manual Proning Video

## Considerations:

**If patient is PUI/COVID+ perform maneuver in a negative pressure room if available, if unavailable, perform in a single room with the door closed. Ensure all clinicians on the team wear appropriate PPE for aerosol generating procedures**

The role of the Respiratory Therapist at the head of the bed is to preserve endotracheal tube and serve as lead, positioning at the patients head to direct motion and timing for the manual/device rotation of the patient.

- Prior to performing prone maneuver – Verify placement and depth of ETT.
- Ensure that tube holder being used will not cause undue pressure injury.
- Ensure emergency equipment is available on the unit.
- Check and secure all connections to ventilator circuit and endotracheal tube to minimize potential for break in circuit.
- Pre-oxygenate the patient. During procedure, increase FiO<sub>2</sub> to 100%. Note the mode, tidal volume, minute ventilation and peak/plateau airway pressures prior to turn (compare to readings after turn complete).

- Always turn patient in direction of mechanical ventilator:
- Turn patient's head so it is facing away from ventilator. Remove head pillow.
- Loop remaining ventilator tubing above patient's head.
- Remind staff that the person at the head of bed (RT) will count out before turning. If staff begins to move patient without count, RT will speak up to redirect staff to wait for the person at the head of bed to count prior to turns.
- Staff person at head of the bed (RT) ensures all other staff ready to turn and uses a 3 count. Cadence to roll patient into prone position using sheets. Staff person (RT) at head of bed, supports head during turn, while ensuring that all tubes and lines are secure.
- Once maneuver is complete, ensure ETT is in proper place without kinks.
- Note the mode, tidal volume, minute ventilation and peak/plateau airway pressures
- Coordinate any other position/turning needs with nurse.
- When returning patient back to supine, use the same principles above for technique.

### **Protection of Airway and ETT:**

- Monitor endotracheal tube for obstruction during rotation of patient and proning therapy.
- Evaluate ETT for esophageal ulceration, adjusting tube placement per facility protocol.
- Ensure endotracheal tube securement device is not causing pressure, skin irritation, or breakdown.
- Evaluate peak pressures during proning therapy. Elevation in peak pressures could indicate a bent, fold or obstructed ETT.
- Ensure able to suction the ETT following rotation and positioning of the patient.

### **Mechanical Ventilation**

- Continue ventilator monitoring per standard of care.
- Document patient position with each assessment.
- Continue daily assessment for weaning readiness.

## Nursing Care

### Skin Care:

- Perform skin assessment per facility policy. Areas of specific risk include: face, shoulders and iliac crest, skin areas touching side packs, shins, and feet and knees. Document skin assessment prior to initiating prone therapy. **Notify WOCN if available prior to initiation of proning therapy.**
  - Proned patients are at high risk for skin ulceration, pressure injury and decubitus. Careful attention to the assessment and prevention of pressure injury must be maintained throughout proning therapy. Frequent adjustment of pressure points and positioning will be necessary at a minimum of every two hours. In the event a WOCN is not available consider the following:
    - Ensure the patient is not lying on IV tubing, connectors, feeding tubing, equipment tubing or lines.
    - Ensure nasal tubing or devices are not causing pressure points to or contorting nasal cartridge.
    - Ensure that there is not excessive pressure on the breast area. Utilize positioning and devices to relieve pressure points.
    - Ensure that there is not pressure on the penis and/or genitalia area.

**Facial Protection:**

- Hydrocolloid dressings may protect body areas at risk for friction and injury.
- Foam dressings may protect body areas and pressure injuries at risk for shear injury.
- Utilize foam/gel pads as available for positioning and support to areas of increased risk.
- Apply wet 4x4 gauze to protruding tongue.
- Ensure eyes and lips are visible.
- Utilization of a face prone pillow is preferred.

**Shoulder and Iliac Crest:**

- Adjust support padding as needed.
- Maintain deep angle of rotation to minimize localized pressure issues.

**Feet:**

- Avoid direct pressure on knees and toes.
- Elevate heels when supine.
- Continue sequential compression device (SCD) use during prone therapy, as ordered.
- Assess SCD tubing for contact with skin.
- Feet/toes: hyperextending or tip toes leads to pressure ulcers.

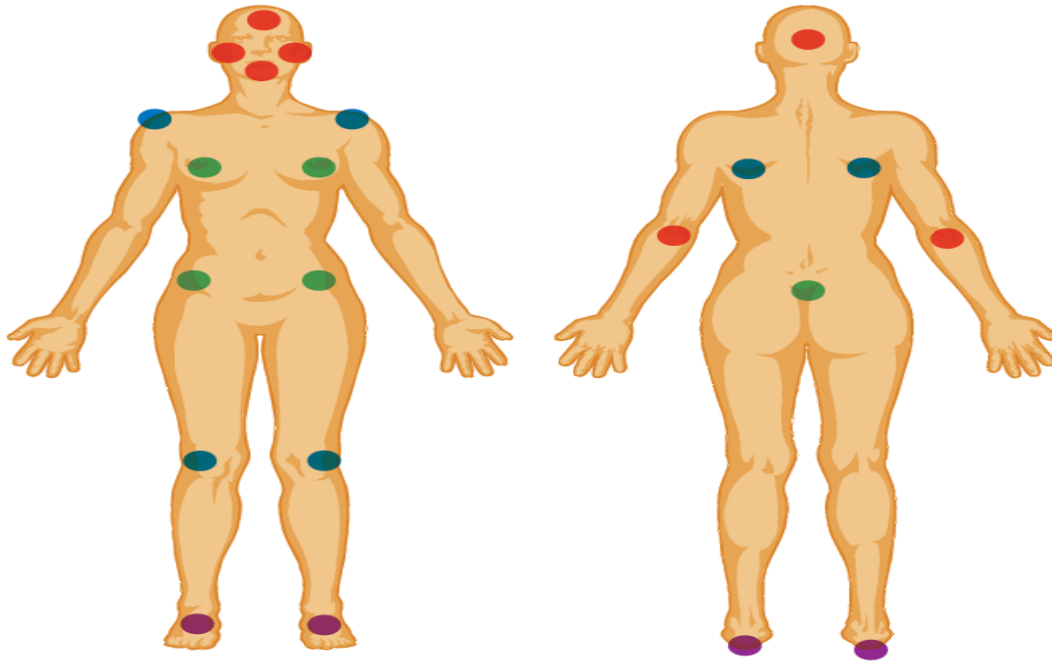
**Eyes:**

- Ensure eyes are visible
- Lubricate eyes to prevent corneal abrasions.

- Eyes, including orbits and bony structure, are clear of padding. (Padding against the orbit or on the immediate bone structure can cause pressure leading to blindness).
- Do not cover or tape eyes closed.
- Ensure face padding is adjusted to avoid direct pressure on eyes.
- Bathing – When prone, bathe the posterior side of the patient when possible.

### Guidance on Protective Dressings During Proning:

SIN	DESCRIPTION	MANUFACTURER	CATALOG NUMBER	PUOM	USAGE GUIDANCE
3135008	Headrest, position, 5 inch comfort foam, dual slot	SOULE MEDICAL	CF1005 DH	CA	Headrest with ETT slot to facilitate head turning while prone
	Adult Eye Protection	Curaplex	301AFG100	CA	Eyes
163579	Mepilex Border 4X4	MOLNLYCKE	295300	CA	Cheeks, elbows
209927	Mepilex lite 4X4	MOLNLYCKE	284190	CA	Typically under devices-
1432593	Allevyn Life 4X4	Smith&Nephew	66801067	CA	cheeks, elbows
163579	Mepilex Border 4X4	MOLNLYCKE	295300	CA	Occiput
1432593	Allevyn Life 4X4	SMITH&NEPHEW	66801067	CA	Occiput
984463	Mepilex border sacrum 8.7 X 9.8	MOLNLYCKE	282455	CA	Sacrum
773393	Allevyn Life small sacrum	SMITH&NEPHEW	66801306	CA	Sacrum
353491	Allevyn Life large sacrum	SMITH&NEPHEW	66801307	CA	Sacrum
984462	Mepilex border sacrum 6.3X7.9	MOLNLYCKE	282055	CA	Pectorals
984462	Mepilex border sacrum 6.3X7.9	MOLNLYCKE	282055	CA	Ischial crest when prone
673458	Allevyn Life 6X6	SMITH&NEPHEW	66801069	CA	Knees, anterior shoulder when prone
353491	Allevyn Life Large sacrum	Smith&Nephew	66801307	CA	Mid Back
163579	Mepilex Border 4X4	MOLNLYCKE	295300	CA	Cheeks, elbows, top of foot
1432593	Allevyn Life 4X4	SMITH&NEPHEW	66801067	CA	Top of foot
353491	Allevyn Life large sacrum	SMITH&NEPHEW	66801307	CA	Sacrum
353490	Allevyn Life Heel	SMITH&NEPHEW	66801304	CA	Chest, heels



### Preventative Dressing Checklist

- Perform skin assessment and risk assessment prior to application of dressings or proning
  - Considerations
    - Current skin breakdown/wound
    - Skin Turgor and frailty
- Thoroughly cleanse skin and ensure all areas are dry
- Apply preventative dressings as indicated by skin assessment
- Date Time and initial the dressings
- Assessment of skin should be completed Q 2 hours while in prone position
- Change dressings every 3 days and/or PRN
- After prone Positioning discontinued remove dressings

### Management of Edema:

- Elevate head of bed at all times when possible.
- Consider using cold packs over face when supine – Never apply ice directly to face.

- Evaluate ETT securement often – Ensure correct placement; chart ETT from teeth or gum line due to lip edema; ETT should be supported with securement device (tape is a last line measure). If tape is used, allow room for swelling when taping.

#### **Linens:**

- Sheet, towel, washcloth, gown, or breathable pads that wick away moisture are recommended.

#### **EKG Leads:**

- EKG leads remaining on the anterior side of the body increases risk of skin breakdown.
- Whenever possible, place leads on the posterior side of the patient.
- Change lead detection type on monitor to match current lead placement.

#### **Performing Range of Motion:**

- Perform the following every two hours (or per facility policy):
  - When prone and perform passive range of motion (ROM).
  - Bend patient's knees and change pressure points.

#### **IV Management:**

- Consider use of IV extensions.
- Assess the security of all lines prior to proning maneuver.
- Assess IV dressings and placement.
- Label IV lines/drips for safe, efficient access.
- Move all lines and drains to run out the head or bottom of bed.

### **Arterial Line Management:**

- Ensure transducer is placed free from pressure or contact with skin, allowing for optimal and accurate pressure monitoring and management.
- Assess arterial line and site for potential pressure points.
- If transducer will not extend to needed length for prone positioning, add extension.
  - Consideration: Extension tubing adds dead space to arterial line and can dampen the arterial wave form.

### **For Labile Blood Pressure:**

- Ensure correct placement of transducer.
- Verify BP with manual cuff.
- Adjust rotation if patient does not tolerate rotation to one side.

### **Tube Feeding:**

- Post pyloric feeding is preferred but not required for use in the prone position.
- Considerations:
  - Assess for proper placement prior to feeding.
  - Assess for Signs/Symptoms of feeding intolerance during prone therapy.
  - Follow hospital policy regarding pausing feedings prior to taking patient out of reverse Trendelenburg in both prone and supine positions.

### **Chest Tubes:**

- Consider need for extension on chest tube set.
- Place chest tube chamber on foot end of the bed.



- Ensure chest tubes and tubing remain free from rotation bed or positioning equipment.
- Use foam to wrap chest tube tubing to reduce risk of compression on tubing and pressure points on the patient.

### **Interventions & Treatments:**

- Considerations:
  - Care decisions should be considered and executed with multidisciplinary team input.
  - Bundle procedures together that should be performed when the patient is supine.
  - Prone the patient according the prescribed (provider ordered) length of time.

### **Respiratory Care/ETT suctioning:**

- Breathing treatments and other respiratory care may be accomplished when the patient is in prone position.
- Ensure Ballard device is securely positioned to prevent contact with skin.
- Ensure oral cavity is suctioned per facility protocol/standard of care.
- Follow the hospital protocol/standard of care for ETT suctioning.

### **Dialysis:**

- All types of dialysis may be performed while the patient is in prone position (SLED, CRRT).
- Route tubing to reduce the risk for dislodgement.
- Monitor lines closely.
- Consider use of extra pads to reduce pressure changes on lines.

- Femoral access is not a preferred access route; but may be leveraged as a last resort by threading tubing to improve visibility and reduce pressure.

#### **CPR:**

- Rotate the patient surface (if on a proning bed) from the supine position towards the ventilator to reduce the risk of extubation.
- Place backboard under patient following facility policy.
- Utilize at least three people to support the surface and patient for emergent rotation.
- Once clinical stabilization has occurred, follow all applicable steps for securing patient and re-engaging therapy.

#### **Neuromuscular Blockade/Sedation:**

- Use of neuromuscular blockade should be administered per facility protocol for prone positioned patients.
- Assessment of prone patients using neuromuscular blockades requires train of four (TOF) evaluation (ulnar nerve for ease of access). BIS monitoring is desired to monitor level of sedation when neuromuscular blockade is underway.

#### **Patient Transport:**

- Prior to any transport, rotate patient back to the supine position.
- Minimize transport of patients undergoing prone therapy.
- Utilize a minimum of two caregivers when transporting units.

#### **Heating/Cooling Blanket:**

- Place heating and cooling blankets (or pads) on patient's posterior side for reduction of skin breakdown.
- Tubing from cooling and heating blankets should be routed through the head or foot of bed to prevent dislodgement.

**CT/C Arm Use:**

- CT/C arm may be used with prone patients.
- Consideration for CT/C arm use should be made on a case by case basis.

**Manual Proning Education & Resources:**

**Centennial Medical Center Proning Video:** [CMC Proning Video](#)

**South Atlantic Division Proning Video:** [SATL Proning Video](#)

**Centennial Medical Center Proning Checklist:**



TCMC Proning  
Checklist.pdf

**Centennial Medical Center Proning Protocol:**



Prone Position  
Protocol 2018.pdf

# Device-Assisted Proning – RotoProne:

## Clinical Guidance:

- Arjo products have specific indications, contraindications, safety information and instructions for use. Please consult product labeling and instructions for use (IFUs). Arjo recommends clinicians participate in device in-service and training before use.
- Considerations prior to proning:
  - Consider risk/benefit and any outlined facility protocol regarding inclusion/exclusion criteria.
  - Ensure placement of any necessary vascular access, tubes or drains prior to placing the patient in a prone position (i.e. central venous catheters, urethral catheters, arterial catheters, chest tubes, and feeding tubes).
  - Emergency airway and resuscitative equipment should be available at the bedside before proning maneuver.
  - Remove any unnecessary lines, drains, dressings, or equipment prior to proning maneuver.

## Skin Care:

- Perform skin assessment per facility policy. Areas of specific risk include: face, shoulders and iliac crest, skin areas touching side packs, shins, and feet and knees. Document skin assessment prior to initiating prone therapy. **Notify WOCN if available prior to initiation of proning therapy.**
- Hydrocolloid dressings may protect body areas at risk for friction and injury.
- Foam dressings may protect body areas and pressure injuries at risk for shear injury.
  - Proned patients are at high risk for skin ulceration, pressure injury and decubitus. Careful attention to the assessment and prevention of pressure injury must be maintained throughout proning therapy. Frequent adjustment of pressure points and positioning will be necessary at a minimum of every two hours.
    - Ensure the patient is not lying on IV tubing, connectors, feeding tubing, equipment tubing or lines.
    - Ensure that there is not excessive pressure on the breast area. Utilize positioning and devices to relieve pressure points.
    - Ensure that there is not pressure on the penis and/or genitalia area.

**Facial Protection:**

- Ensure head packs and face pack are only lightly touching the face.
- Ensure the eyes and lips are visible through the face pack at all times.
- Place cool packs on face while in supine position.
- Place the patient in a full reverse Trendelenburg (-11°) position.
- Change face pack pads every 72 hours, or more often with excessive secretion drainage.

- Apply wet 4x4 gauze pads to protruding tongue. Ensure nasal tubing or devices are not causing pressure points to or contorting nasal cartridge.

### **Shoulder and Iliac Crest:**

- Open all possible back hatches.
- Adjust support padding as needed.
- Maintain deep angle of rotation to minimize localized pressure issues.
- Consider applying appropriate dressing to tops of shoulders if no gap between shoulders and head pack.

### **Feet:**

- Adjust proning packs to avoid direct pressure on knees and toes.
- Ensure abductor is not pinching lower extremity skin.
- Elevate heels when supine.
- Continue sequential compression device (SCD) use during prone therapy, as ordered.
- Assess SCD tubing for contact with skin.
- Feet/toes: hyperextending or tip toes leads to pressure ulcers.

### **Eyes:**

- Ensure eyes are visible at all times.
- Lubricate eyes to prevent corneal abrasions.
- Ensure eyes, including orbits and bony structure, are clear of padding. (Padding against the orbit or on the immediate bone structure can cause pressure leading to blindness).

- Do not cover or tape eyes closed.
- Ensure face mask padding is adjusted to avoid direct pressure on eyes.
- Bathing – When prone, bathe with hatches open, bathing the posterior side of the patient when possible. Use PARK feature and lock pin.

### **Management of Edema:**

- Elevate head of bed at all times when possible.
- Consider using cold packs over face when supine – Never apply ice directly to face.
- Evaluate ETT securement often – Ensure correct placement; chart ETT from teeth or gum line due to lip edema; ETT should be supported with securement device (tape is a last line measure). If tape is used, allow room for swelling when taping.

### **Microclimate Issues:**

- Patients may have microclimate issues at the surface of skin because of vasopressors and temperature.
- Keep hatches open when patient is stable.
- Assess skin per facility policy and as often as possible.

### **Linens:**

- Using linen on patient's increases risk for skin breakdown.
- Sheet, towel, washcloth, gown, or breathable pads that wick away moisture are recommended.

- Only consider using linens prior to returning to the supine position, to assist in repositioning the patient. Linen may be left under the patient once transferred and removed once patient is prone.

### **EKG Leads:**

- EKG leads left on the anterior side of the body increases risk for skin breakdown.
- Consider placing leads on the posterior side of the patient.
- Change lead detection type on monitor to match current lead placement.

### **Performing Range of Motion:**

- Perform the following every two hours (or per facility policy):
  - Unbuckle arm slings when prone and perform passive range of motion (ROM).
  - Open lower hatch to bend patient's knees and change pressure points.

### **Invasive Line Management:**

- IV management.
- Consider use of IV extensions.
- Assess the security of all lines prior to implementation of rotation.
- Assess IV dressings and placement.
- Label IV lines/drips for faster access.
- Move all lines and drains to run out of the top or bottom of bed.

### **Arterial Line Management:**



- Ensure transducer is placed free from equipment or devices used to place the patient in a prone position allowing for more accurate pressure management.
- Assess arterial line for potential pressure points.
- Add extension if transducer will not extend to needed length for prone positioning.
- Consideration: extension tubing adds dead space to arterial line and can dampen wave form.

**For Labile Blood Pressure:**

- Ensure correct placement of transducer.
- Verify BP with manual cuff.
- Adjust rotation settings if patient does not tolerate rotation to one side.

**Tube Feeding:**

- Post pyloric feeding is preferred but not required for use in the prone position.
- Please be certain to:
  - Assess for proper placement prior to feeding.
  - Assess for Signs/Symptoms of feeding intolerance during therapy.
  - Follow hospital policy regarding holding feedings prior to taking patient out of reverse Trendelenburg in prone or supine.

**Chest Tubes:**

- Consider need for extension on chest tube set.
- Store chest tube chamber on accessory rack on foot end of the bed.
- Chest tube tubing should be routed to be free of rotation bed or positioning equipment.

- Use foam to wrap chest tube tubing to reduce risk of compression on tubing and pressure points on the patient.

### **Interventions & Treatments:**

- Considerations:
  - Care decisions should be performed with multidisciplinary team direction.
  - Bundle procedures together that need to be done supine.
  - Follow physician orders in regards to length of time supine.

### **Respiratory Care/ETT Suctioning:**

- In-line breathing treatments and other respiratory care can be done with patient in prone position.
- Ensure Ballard device is securely positioned to prevent entrapment in head loop of the device.
- Ensure oral cavity is suctioned per facility protocol.
- Follow hospital protocol for ETT suctioning.

### **Dialysis:**

- All types of dialysis may be performed while the patient is in the prone position (SLED, CRRT).
- Route tubing to reduce the risk for dislodgement.
- Monitor lines closely.
- Consider use of extra pads to reduce pressure changes on lines.

- Femoral access is not preferred access route; but as a last resort may be utilized by threading tubing to improve visibility and reduce pressure.

#### **CPR:**

- Rotate the patient surface from the supine position towards the ventilator to reduce the risk of extubation.
- Place backboard under patient following facility policy.
- Patient rotation surfaces can be rotated with or without power to the supine position using emergency release procedure outlined in manufacturers recommendations.
- If using manual supine/prone option, have at least three people to support the surface and patient for emergent rotation.
- Once clinical stabilization has occurred, follow all applicable steps for securing patient and re-engaging therapy.

#### **Neuromuscular Blockade/Sedation:**

- Use of neuromuscular blockade should be administered per facility protocol for prone positioned patients.
- Assessment of prone patients using neuromuscular blockades requires train of four evaluation- Ulnar nerve for ease of access. BIS monitoring is desired to monitor level of sedation when neuromuscular blockade is underway.
- Consideration for sedation based upon comfort level, vital signs, patient toleration, and facility protocol.

#### **Patient Transport:**

- Rotation beds are not intended to be used for transporting purposes; patients requiring transport must be transferred to an alternate bed or stretcher.
- Utilize a minimum of two caregivers when transporting units.

### **Heating/Cooling Blanket:**

- Place heating and cooling blankets or pads on patient's posterior side for reduction of skin breakdown.
- Tubing from cooling and heating blankets should be routed through the top or bottom of the bed to prevent dislodgement.

### **CT/C Arm Use:**

- CT/C arm can be used with rotation beds/and or prone patients.
- Consideration for CT/C arm use must be made on a case by case basis in the patient's room.
- Manipulation of the rotation bed should only be attempted by staff experienced with the equipment use.

### **Device-Assisted Proning Education & Resources – RotoProne:**

**Arjo RotoProne Education Video:** [Arjo RotoProne Overview Video](#)

**\*Arjo's LINC line (clinical support line for customers) is available 24 hours a day, 7 days a week.**

**The LINC number is located at the foot of each Rotoprone bed.**

### **Arjo RotoProne Instructions for Use (IFUs) – RotoProne Therapy System User Manual:**



## Arjo RotoProne Competency Checklist:



Rotoprone  
Competency checkli:

## Arjo Nursing Considerations Power Point:



Nursing  
Considerations rebrar

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