

PROTOCOL FOR:     Positioning

- POLICY:
1. Assessment of risk factors related to the patient and the surgical and anesthetic procedures will be incorporated into the plan for positioning.
  2. Skin integrity will be assessed prior to positioning and at the conclusion of the procedure(s), with special focus on pressure points associated with the desired position.
  3. Positioning will be done in a way that provides optimal surgical exposure and anesthetic access yet minimizes compromise to the following systems:
    - musculoskeletal
    - circulatory
    - respiratory
    - neurological
    - integumentary
  4. An adequate number of staff will be available for positioning to maintain the safety of staff and patients.
  5. A safety strap will be used through the procedure whenever possible; at a minimum, it should be used through induction of and emergence from anesthesia.
  6. The dignity of the patient will be maintained during the positioning process.
  7. Thermoregulation will be maintained during the positioning process.
  8. Manufacturer's instructions will be followed when using specialized positioning devices.
  9. Admit Day of Surgery patients will be placed on a hospital bed upon completion of the surgical procedure whenever possible, with their head at the correct end of the bed and a pad/drawsheet under their body.

DESIRED PATIENT  
OUTCOME:

1. The patient will have no injury related to transfer or transport.
2. The patient will have no injury related to positioning, as evidenced by:
  - minimal musculoskeletal compromise
  - no circulatory compromise
  - adequate gas exchange
  - no nerve damage
  - no pressure, friction, or shear injury to skin
3. The patient will have his/her right to privacy maintained.
4. The patient will be at or returning to normothermia at the conclusion of the immediate postoperative period.

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CLINICAL  
ASSESSMENT:

1. Preoperative assessment for positioning needs will be made before transferring the patient to the OR bed for the following:
  - neuropathies
  - preexisting conditions and diseases
  - physical limitations
  - age
  - height and weight
  - skin condition
  - nutritional status
  - procedure type and position
2. During positioning, the surgical team will monitor patient body alignment and tissue integrity.
3. After positioning, the surgical team will evaluate the patient's body systems for any compromise in integrity:
  - positions that can limit rib cage and abdominal expansion;
  - factors leading to nerve damage, including members of the surgical team leaning on the patient, twisting or stretching of extremities;
  - hyperextension of joints
  - pooling of prep solutions that may cause chemical burns.
4. Postoperative assessment will be documented.

PROCEDURE FOR: Positioning

<u>Action</u>	<u>Points of Emphasis</u>
1. Prepare OR bed appropriately, pending patient assessment and plan for procedure/ positioning.	1. Obtain appropriate positioning aids to support patient properly; e.g., extensions, toboggans, gel pads, lumbar support, stirrups, etc. Alter OR bed as needed; e.g., C-arm extension, etc.
2. Before initiating movement of patient, confirm that patient stretcher/ bed and OR bed are locked.	2. Pregnancy, patient's with history of lumbar pain
3. At a minimum two staff will be available for positioning, with one at the head of the bed and one on the open side of the OR bed.	3. Use roller and more staff, as necessary, when positioning incapacitated patients.
4. Assist the patient in getting centered on the OR bed.	

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Action

Points of Emphasis

5. Place safety strap over thighs, repositioning as necessary following induction of anesthesia.
6. Apply anti-embolism stockings prior to induction of general anesthesia.
7. Assure that patient does not lie on wrinkled linen.
8. Inspect patient for proper musculo-skeletal alignment once positioning is complete.

5. Make sure at least a layer of blanket rests between the patient and strap.

Supine Position

1. Prepare OR bed appropriately, pending patient assessment and plan for procedure / positioning.
2. Before initiating movement of patient, confirm that patient stretcher / bed and OR bed are locked.
3. At a minimum two staff will be available for positioning, with one at the head of the bed and one on the open side of the OR bed.
4. Assist the patient in getting centered on the OR bed.
5. Place safety strap over thighs, repositioning as necessary following induction of anesthesia.
6. Provide support for arms, either using arm boards or tucking them with draw sheet or toboggans.
7. Pad occiput, heels, and sacrum for vulnerable patients and for lengthy procedures.
8. Shoulder roll of appropriate size may be placed for selected neck procedures.

1. Obtain appropriate positioning aids to support patient properly; e.g., extensions, toboggans, gel pads, lumbar support, stirrups, etc. Alter OR bed as needed; e.g., C-arm extension, etc.
2. Pregnancy, patient's with history of lumbar pain
3. Use roller and more staff, as necessary, when positioning incapacitated patients.
5. Make sure at least a layer of blanket rests between the patient and strap.
6. When using arm boards, arms should be placed at  $\leq 90^\circ$  angle; palms up is preferred to palms down to relieve ulnar nerve pressure. When tucking arms at side, palms should face inward and pad bony prominences to prevent radial or ulnar nerve damage.
7. Gel pad overlays add extra reduction of pressure.

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9. Place lumbar support for patients with history of lumbosacral pain.
10. Place a small roll under pregnant patient's right side.
11. Pad perineal post and foot holder well when using fracture table.
10. Relief of pressure on the vena cava is critical in pregnancy.

Lithotomy Position

1. Center the patient on the OR bed and over the hollow in the perineal section.
2. Place stirrups at a level and angle which supports proper alignment of joints, prevents peroneal / popliteal nerve damage, and distributes pressure evenly.
3. Once anesthesiology has cleared movement of the patient, two people will lift the legs simultaneously and place them in stirrups.
4. Assure that the patient's hands and fingers are clear whenever lowering and raising the foot portion of the OR bed.
5. Following the procedure, two people will lower the legs slowly and simultaneously.
2. The peroneal nerve is most likely to be damaged when using candy cane stirrups; the popliteal nerve is most likely to suffer damage with other types of stirrups.
3. Avoid extreme hip abduction and flexion when positioning patients with hip prostheses.
5. Hypotension may occur as legs are lowered.

Lateral Position

1. When using bean bag, place it so cutout falls direct beneath head and neck of patient. Also, pad head and foot sections of OR bed to a height equal to the bean bag.
- 2.
3. Using a minimum of 4 staff, move patient's shoulders and hips simultaneously to place them on their side.
4. Deflate bean bag as desired.
1. If using kidney rest, assure that the iliac crest rests above the device, rather than the patient's waist.

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5. Flex the lower leg; place pillows between the knees and feet.
6. Place axillary roll of appropriate size.
7. Pad bony prominences, including the ankles, lower lateral knee, hip, and shoulders.
8. Extend the lower arm with palm up on padded arm board, with elbow slightly flexed and lower shoulder slightly forward; place upper arm with palm down on padded neuro arm rest.
9. Use wide cloth tape to secure patient's hips to base of OR bed.
5. Axillary roll prevents compression of scapular - brachial plexus and enhances chest expansion.
9. Do not allow adhesive portion of tape to contact patient's skin. Tape not needed when using hip positioning devices.

Prone Position

1. Obtain or prepare chest rolls which allow for adequate chest expansion and which extend from the scapulae to the iliac crests.
2. Using a minimum of 4 staff, slowly and smoothly roll the patient to the OR bed.
3. Place chest rolls lengthwise on both sides of the thorax.
4. Pad head to protect eyes and ears.
5. Make certain breasts and genitalia fall between the rolls.
6. Place padding to flex knees and prevent pressure on feet and toes.
7. Place arms palms down on padded arm boards directed toward head, or tuck arms at side, palms facing inward.
8. *For the jackknife (Kroske) position, use extra pillows under arms and knees.*
9. *For the prone sitting position of the Andrews frame, assure patient's torso is placed on frame at a right angle to thighs and that knees are properly padded with gel overlays.*
2. Bed must always remain outside the OR in event of ET tube dislodgment or Code Blue.
7. Rotate arms through normal ROM when using arm boards.
9. Proper angle allows equal weight distribution, eliminates vena caval compression, minimizes epidural bleeding.

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Sitting Position

1. Determine if Doppler is needed by anesthesiologist and obtain as needed.
2. Upon permission from anesthesiologist, the OR bed is slowly moved into sitting position.
3. If headrest is to be used, placement proceeds following reconfiguration of OR bed.
4. Place adequate padding under the knees and heels to maintain flexion of the thighs and elevation of the legs.
5. If desired, arms may be secured across chest or lap with tape or kling dressing; pad elbows as needed.
6. Evaluate proximity of neck to chest; pad as needed.
1. negative venous pressure in the patient's head and neck may predispose to air emboli should a venous sinus be opened during neurosurgical procedures.
2. Vital signs are monitored to detect adverse effects of position changes.
6. Two finger breadths is desirable to avoid carotid artery pressure.

APPROVAL:           Nursing Standards Committee

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