VALLEYCARE
OLIVE VIEW-UCLA MEDICAL CENTER/HEALTH CENTERS
ANGIOGRAPHY SUITE/CARDIOLOGY DIVISION
POLICY & PROCEDURE
PACEMAKER/AICD IMPLANTATION

NUMBER: 1922
VERSION: 1

SUBJECT/TITLE: **PATIENT POSITIONING FOR PACEMAKER/DEVICE IMPLANTATATION IN THE CARDIOLOGY ANGIOGRAPHY SUITE**

MD ORDER: **Yes ( ) No (X)**

PURPOSE: The maintenance of a physiologic and anatomically safe environment for the patient is the goal of intraoperative positioning. Proper positioning of the surgical patient is necessary to achieve optimum exposure during the operative procedure. Of equal importance is maintenance of the patient's airway and access to monitoring devices and intravenous lines by the anesthesiologist.

DEPARTMENTS: Cardiology, Nursing, and Anesthesia.

POLICY:

I. GENERAL CONSIDERATIONS:

When positioning a patient, the Cardiology Team must take into consideration:

A. The surgical procedure.
B. The surgeon's preference.
C. The anesthesiologist's needs.
D. The patient's privacy (as an individual).
E. The physiological effects of positioning on the normal, awake patient, on disease states, and on the anesthetized patient.
F. Knowledge of anatomical structures (i.e., neuromuscular, skeletal, circulatory, respiratory and integumentary systems).

II. TEAM MEMBERS:

Proper positioning of the surgical patient is a shared responsibility of the cardiology team. Each member should know and understand the interdependent responsibilities. All are patient advocates and are aware of the significance of preserving the privacy of the patient by avoiding overexposure. All are aware of the effects of positioning on the neuromuscular, skeletal, circulatory, respiratory and integumentary systems.

A. SURGEON

Determines which position is the most advantageous for optimal operative exposure and can best be tolerated by the patient. This is usually supine with both arms tucked.

A. ANESTHESIOLOGIST

Monitors and maintains the physiological functions of the patient and the requirements for anesthesia. Coordinates and executes implementation of the cardiologist's request for intraoperative position changes. Indicates to the other team members when initiation of positioning is safe for the patient.

Observes patient frequently intraoperative for possible pressure on known sites of compression neuropathy and for inappropriate skin/eye pressure. Takes appropriate actions; informs other team members of the problems; relieves excessive pressure.

B. NURSE

Uses the principles of physics and knowledge of anatomy and physiology in the movement of the patient's body parts. Provides for the proper padding and protection of vital anatomic structures. Engages in an ongoing assessment of the patient's position throughout the intraoperative period. Communicates and coordinates with other team members to maintain a safe environment for the patient, and to have sufficient personnel for safe movement of the patient.

III. STANDARDS

A. Perioperative assessment for positioning needs should be made before transferring the patient to the procedure bed.
   1. Assessment should include, but is not limited to:
      a. Preoperative neuropathies, preexisting conditions, and/or disease.
      b. Physical limitations.
      c. Age.
      d. Height and weight.
      e. Skin condition.
      f. Nutritional status
      g. Procedure type and position
      h. Anticipated length of procedure.

B. Positioning devices should be readily available, clean, and in proper working order before placing the patient on the procedure table.
   1. Equipment is used and maintained according to the manufacturer's written instructions.
   2. Specific positioning devices should be provided for patient safety for each surgical position and its variations. These may include, but are not limited to:
      a. Support for head, arms, shoulders, chest iliac crest, and lumbar area.
      b. Padding for pressure points (i.e., head, elbows, knees, ankles, heels, and sacral area).
      c. Securing devices (i.e., safety belts, tape, kidney rests, and bean bags).
      d. Procedure bed and equipment (i.e., headrests/holders, overhead arm supports, and footboards).

   3. Personnel should be familiar with the equipment to help prevent patient injury from improper application and/or use.
   4. All equipment should be tested before use to help ensure patient safety and to minimize anesthesia and operative time.

C. Safety considerations are important for, but are not limited to, the following positions:
   1. Supine.

D. During positioning, the perioperative nurse should monitor patient body alignment and tissue integrity.

   1. The number of personnel and/or devices should be adequate to safely transfer and/or position the patient.
   2. Positioning should be achieved without prolonged or unnecessary exposure of the patient.

E. After positioning the patient, the perioperative nurse should evaluate the patient's body alignment and tissue integrity.
   1. Evaluation should include, but not limited to, the following systems:
      a. Respiratory.
      b. Circulatory.
      c. Neurological.
      d. Musculoskeletal.
      e. Integumentary.

2. After repositioning or any movement of the patient, procedure bed, or devices that attach to the procedure bed, the patient should be reassessed for body alignment and tissue integrity.
3. If anticipated length of procedure is longer than three hours, assessment and reassessment should be ongoing and repeated as often as necessary.
4. If personnel changes occur, any unusual situations or events should be communicated (report given) to the relief staff.
5. Documentation should reflect the assessment and evaluation. This must include:
   a. General condition of patient.
   b. Patient position.
   c. Positioning devices used.
   d. Tissue integrity.
   e. Assessment and reassessment of signs of adequate skin circulation
   f. Signature of perioperative nurse.
   g. Report given to relief staff.

F. Policies and procedures related to positioning are reviewed annually, revised as necessary, and are available within the practice setting. These policies include, but are not limited to:
   1. Assessment and evaluation criteria and documentation.
   2. Anatomical and physiological considerations.
   3. Safety interventions.
   4. Documentation of patient position/reposition devices, and personnel positioning the patient.
   5. Positioning device maintenance.

IV. ROUTINE POSITIONS

A. Examples include supine.
B. Standard anatomic and physiologic alignment precautions are taken so as not to compromise the neurovascular circulatory systems.
C. Any pressure points (bony prominences are to be padded).
D. A safety strap is firmly applied to avoid pressure on the neurovascular system and to avoid respiratory compromise.
E. Specific Situations:
   1. SUPINE: Arms should be tucked to the side or placed on an arm board palms up avoiding hyperextension (>90º abduction) of the brachial plexus. The feet should not be crossed. The elbows and head are padded. Safety strap is across the thighs.

V. COMPLIANCE

A. The cardiac catheterization lab-circulating nurse is the designated timekeeper.
B. If a physiologic and/or anatomically unsafe environment develops, or if three hours has lapsed, the circulating nurse must immediately inform the anesthesiologist and the surgeon of the situation and the need to rectify it. If there is no response, the chain of command through the charge nurse, supervisor, division chief, or department chairman should be initiated.
C. Repeated failure to recognize an unsafe environment or to respond to requests to alleviate or rectify such environment will result in disciplinary or corrective action.

References:

DHS Policy No. 328: Intraoperative Monitoring of Patient Positioning in Anesthesia and Surgery, Martin & Warner (Eds), WB Saunders, 1997; and AORN 2008 Standards, Recommended Practices and Guidelines

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