Recommended Practices for Positioning the Patient in the Perioperative Practice Setting

The following recommended practices for positioning the patient in the perioperative practice setting were developed by the AORN Recommended Practices Committee and have been approved by the AORN Board of Directors. They were presented as proposed recommendations for comments by members and others. They are effective January 1, 2008.

These recommended practices are intended as achievable recommendations representing what is believed to be an optimal level of practice. Policies and procedures will reflect variations in practice settings and/or clinical situations that determine the degree to which the recommended practices can be implemented.

AORN recognizes the various settings in which perioperative registered nurses practice. These recommended practices are intended as guidelines adaptable to various practice settings. These practice settings include traditional operating rooms, ambulatory surgery centers, physicians' offices, cardiac catheterization laboratories, endoscopy suites, radiology departments, and all other areas where surgery may be performed.

References to nursing interventions (I) used in the Perioperative Nursing Data Set (PNDS) are noted in parentheses when a recommended practice corresponds to a PNDS intervention.[1] The reader is referred to the PNDS for further explanation of nursing diagnoses, interventions, and outcomes.

Purpose

These recommended practices provide guidelines for positioning the patient in the perioperative setting. They are not intended to cover aspects of perioperative patient care addressed in other recommended practices. Prevention of positioning injury requires anticipation of the positioning equipment necessary based on the patient's identified needs and the planned operative or invasive procedure, application of the principles of body mechanics and ergonomics, ongoing assessment throughout the perioperative period, and coordination with the entire perioperative team.[1] Attention should be given to patient comfort and safety, as well as to assessing circulatory, respiratory, integumentary, musculoskeletal, and neurological structures. Working as a member of the team, the perioperative registered nurse can minimize the risk of perioperative complications related to positioning.

Recommendation I

Personnel who purchase positioning equipment should make decisions based on the health care organization's patient population, current research findings, and the equipment design safety features required to minimize risks to patients and personnel.

The technology used to create mattresses, padding, and other positioning equipment continues to evolve, and it is important for perioperative registered nurses to be aware of products and current research to support their product selection.

The primary safety feature consideration for positioning equipment is that it redistribute pressure, especially at bony prominences on the patient's body. The National Pressure Ulcer Advisory Panel Support Surface Standards Initiative defines a support surface as "a specialized device for pressure redistribution designed for management of tissue loads, micro-climate, and/or other therapeutic functions (ie, any mattresses, integrated bed system, mattress replacement, overlay, or seat cushion, or seat cushion overlay)."[2]

Although physiologic blood and lymphatic flow rates vary among individuals, capillary pressures may increase to as much as 150 mm Hg during prolonged, unrelieved pressure without position change.[3]

The traditional procedure bed mattress usually is constructed of one to two inches of foam covered with a vinyl or nylon fabric. Research studies have found that foam overlays or replacement pads, which represent most OR and procedure bed mattresses, do not have effective pressure-reduction capabilities.[4] Studies comparing the pressure-reducing abilities of standard foam procedure bed mattresses to gel mattresses (ie, visco-elastic polymer) have found gel mattresses to be more effective.[4,5] One research study reported that polyether mattresses generate a lower capillary interface pressure when the patient was in the supine position than gel mattresses or foam mattresses.[6] Another study found that foam and gel mattresses are effective for preventing skin changes, but visco-elastic overlays are effective for preventing both skin changes and pressure sore formation.[7]

Clinical support surfaces (ie, padding) function differently for persons of different height and weight.[8] A performance improvement study reported that supplemental padding on the procedure bed mattress or the use of other positioning devices may not reduce