



Society of Gastroenterology Nurses and Associates, Inc.

POSITION STATEMENT

Ergonomics in the Gastroenterology Setting

Disclaimer

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Definitions

For the purpose of this document, SGNA has adopted the following definitions:

Culture of Safety has “core values and behaviors resulting from a collective and sustained commitment by organizational leadership, managers, and healthcare workers to emphasize safety over competing goals” (American Nurses Association (ANA), 2013).

Ergonomics refers to the study of the physical and cognitive demands of a task in relation to an individual’s capacity to perform it (Shergill, McQuaid, & Remple, 2009).

High-risk tasks refers to “patient handling and mobility tasks characterized by biomechanical and postural stressors imposed on the healthcare workers” (ANA, 2013).

Musculoskeletal Disorder (MSD) refers to an injury to the muscle, tendons, joints or cartilage that is caused or exacerbated by sudden exertion or prolonged exposure to physical factors such as repetition, force, vibration or awkward posture (ANA, 2013).

Safe Patient Handling and Mobility (SPHM) program is “a formal, systematized program for reducing the risk of injuries and MSDs for healthcare workers, fostering a culture of safety while improving the quality of care and reducing the risk of physical injury to health care recipients” (ANA, 2013).

Background

Healthcare workers suffer a significant number of musculoskeletal injuries when compared to other occupations. According to the Bureau of Labor Statistics, the rate of non-fatal musculoskeletal disorders resulting in days away from work among registered nurses was 58.4 per 10,000 in 2012. Nursing assistants had the second highest number of musculoskeletal disorders and registered nurses had the fifth highest number of musculoskeletal disorders among all occupations listed (Bureau of Labor Statistics, 2013). Such injuries often force nurses out of the profession because they can no longer do the required work (Dawson & Harrington, 2012; Price, Sanderson, & Talarek, 2013; Rogers, Buckheit, & Ostendorf, 2013).

Musculoskeletal injuries result when the physical requirements of the job are greater than the physical capabilities of the worker (Rogers et al., 2013). Reports of injuries to gastroenterology nurses include: head injuries and lacerations from bumping into monitors; head, back, and extremity injury after tripping over wires, cords, and tubes (e.g., to deliver oxygen); neck and back injuries from repositioning or moving patients; injuries from falls on slippery floors without non-skid tiles; finger, hand, and wrist injuries from repetitive movements; neck, back, and shoulder pain from the heavy lead aprons worn during endoscopic retrograde cholangiopancreatography (ERCP); and injuries from falls when attempting to ambulate patients

who were weak following endoscopic procedures or sedation (Cappell, 2010; Cappell, 2011; Drysdale, 2011; Drysdale, 2013; Murty, 2010).

Lifting and moving patients and maintaining awkward positions can injure the spine. Overuse injuries of the upper extremities include excessive forces (e.g., applying abdominal pressure, injecting contrast media), repetitive hand activities, awkward postures, and vibration (Shergill et al., 2009). Endoscopy procedures may involve one or more of these factors, especially during complex procedures that require the nurses and associates to use repetitive motion such as those used during ERCP. The risk of injury rises when healthcare workers have inadequate rest time to recover from the stresses and strains on the musculoskeletal system.

Musculoskeletal injuries not only affect the individual but the occurrence of these incidences can increase costs. In 2012, registered nurses lost an average of eight days away from work for musculoskeletal injuries (Bureau of Labor Statistics, 2013). In addition to workers' compensation costs, musculoskeletal injuries lead to less direct costs such as loss of nurses from the workforce, early retirement, preventable disability, and nurse turnover (Hodgson, Matz, & Nelson, 2013).

Technology should be used to minimize the physical effects of workplace physical stressors on workers (Black, Shah, Busch, Metcalfe, & Lim, 2011). Although manual lifting was once considered acceptable, numerous studies have shown that even when using proper body mechanics, workers experience a musculoskeletal injury when the load is excessive (ANA, 2013). The National Institute for Occupational Safety and Health specifies that the 51 pound weight limit for most workers is far too much for healthcare workers, who must manage weights that are not static and cannot be held close to the body (ANA, 2013). The ANA (2013) recommends that manual weight lifting be limited to 35 pounds and mechanical lifts, safety lift belts, and other technology be used for moving patients.

Ergonomic principles should be considered when designing the patient care environment. For example, the room size must be adequate with large enough doorways to easily accommodate gurneys, have safe placement of electrical outlets, and be free of clutter. Monitors should be padded and placed at an appropriate height to prevent neck strain. Beds, carts, and other equipment should be adjustable in height to ensure that the work surface is ergonomically safe. Two piece, lightweight lead aprons should be used during fluoroscopy procedures (Cappell, 2011).

The staffing schedule should be organized to provide adequate rest for the musculoskeletal system to recover. Rotating work assignments prevents individuals from engaging in long periods of static and repetitive muscle activity to reduce the risk of musculoskeletal injury.

Over the past decade, new technology and best practices have emerged to support evidence-based patient handling that is safer for both the caregiver and the patient. Ergonomic principles are used in the workplace to provide the safest and most efficient care to patients while maintaining the safety of the healthcare worker (Shergill et al., 2009). At this time, 10 states have enacted safe patient handling legislation to protect nurses and other healthcare workers (Dawson & Harrington, 2012). The American Nurses Association (2013), the Occupational Safety and Health Administration (OSHA, 2009), and the Veteran's Health Administration (Hodgson et al., 2013) have actively disseminated evidence-based information to decrease musculoskeletal injuries in the workplace.

Position

SGNA supports an ergonomically safe environment for the health care team in the gastroenterology setting. Therefore, SGNA recommends that each gastroenterology patient care setting develop a plan to reduce risk and provide an ergonomically safe environment. The plan should consider all activities involved in the care of patients including direct contact with patients, use of equipment for patient care, activities conducted during procedures involving patients, the reprocessing and storage of all equipment and supplies, and environmental layout.

The ANA's Safe Patient Handling and Mobility Standards (SPHMS) provide a model for designing, supporting and maintaining an ergonomically safe environment (ANA, 2013). SGNA encourages gastroenterology patient care settings to refer to the ANA's SPHMS as they develop their plan. A brief description of each ANA standard follows. The standard itself is in bold below.

1. **Establish a culture of safety** that includes collective and sustained commitment from administration, employees, and ancillary serves. A culture of safety includes:
 - a. A non-punitive environment where accidents, hazards, and near misses are openly and readily reported without fear of retaliation.
 - b. A system where workers recognize and communicate their own limitations and can refuse to perform activities that place them or their patients at risk for injury.
 - c. Safe staffing communication and collaboration among everyone involved (e.g., management, physicians, nurses, technicians, ancillary services).
 - d. Healthcare workers who actively commit to a culture of safety, are involved in the creation and maintenance of an ergonomically safe environment, and take responsibility for communicating potential and actual hazards.
2. **Implement and sustain a safe patient handling and mobility program** by using the following strategies:
 - a. Designate an institutional committee composed of a group of stakeholders who develop, implement, and evaluate the safe patient handling and mobility program. The committee will receive and evaluate data and make changes for improvement.
 - b. Provide a comprehensive assessment of the work environment. Develop a written program that is based on the ANA Safe Patient Handling and Mobility Standards, but specific for the endoscopy/gastroenterology unit.
 - c. Allocate funding to support the program.
 - d. Identify activities that place the healthcare worker at risk for injury.
 - e. Reduce physical requirements of high-risk tasks (e.g. rotate staff to minimize repetitive motion injuries, using lift equipment to transfer patients).
3. **Incorporate ergonomic design principles to provide a safe environment of care**, using the following approach.
 - a. Consider ergonomic principles when constructing or remodeling the jobsite.
 - b. Solicit input about ergonomics from people with a variety of perspectives.
4. **Select, install, and maintain safe patient handling and mobility technology** that meets ergonomics standards (e.g., safety lift belts, mechanical lifts, monitors at appropriate levels, two piece lead aprons, adjustable beds), is adequate to meet the needs of the organization, and has been tested and evaluated by the people who will be using it. The technology and any accessories must be readily available for use.

5. **Establish a system for education, training, and maintenance.** Hands-on training is essential for ensuring that all technology is used correctly and with confidence. The healthcare worker must demonstrate competency before using the technology in an actual patient care situation, and be retrained annually. This training should be provided during scheduled work hours.
6. **Integrate patient centered safe patient handling and mobility assessment, plan of care, and use of technology.** Ergonomic safety will be integrated into all aspects of patient centered care. The plan of care will include the appropriate technology for the individual patient and situation.
7. **Include SPHMS in reasonable accommodation and post injury return to work.** Activities include facilitating the employment of disabled workers early return to work following injury and collecting data about health care worker injuries that will be used to prevent future injuries.
8. **Establish a comprehensive evaluation system.** Develop a quality improvement plan and remediation of deficiencies.

SGNA supports further evidence based research on ergonomics in the gastroenterology setting. SGNA also recognizes the responsibility of the individual for maintaining personal wellness.

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Recommended Reading

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