

# Patient Handling Injuries and Challenges for Perioperative Nurses

## Introduction

888 Nurses were surveyed at the 2019 AORN Global Surgical Conference and Expo in Nashville, TN to gather information about perioperative staff injury, current Safe Patient Handling and Movement (SPHM) practices and challenges that are prevalent in the OR.

## Background

According to the Bureau of Labor Statistics, nursing continues to be one of the most hazardous professions in private industry. In 2016, 45.6% of all injuries and illnesses for RNs were due to overexertion and bodily reaction. The incidence rate for these injuries was 28.9 cases per 10,000 full-time workers, which is “greater than the rate of back injuries for all occupations.”<sup>1</sup>

The OR offers no exception, as musculoskeletal injuries account for an estimated half of all nonfatal occupational injuries experienced by perioperative nurses.<sup>2</sup> One study conducted found that OR nurses reported lumbar pain more than in any other department.<sup>3</sup> As explained in AORN’s 2019 Guidelines for Perioperative Practice, “perioperative registered nurses (RNs)...are routinely faced with a wide array of occupational hazards in the perioperative setting that place them at risk for work-related musculoskeletal disorders (MSDs).”<sup>4</sup> Factors that compound the increased risk of the environment include the increasing size of patients (approximately one third of all patients are obese) and the patient’s inability to assist with transferring or positioning when anesthetized.<sup>4</sup>

## Results

80% (712 people) of the nurses surveyed at the AORN conference reported that they or a coworker had been injured while moving or positioning a patient. The majority of those respondents (35%) said their injury was from lateral transfers pre- or post-op, followed by

prone positioning (23%) and lateral turning (18%). 44% of all respondents reported working in pain presently or in the past.

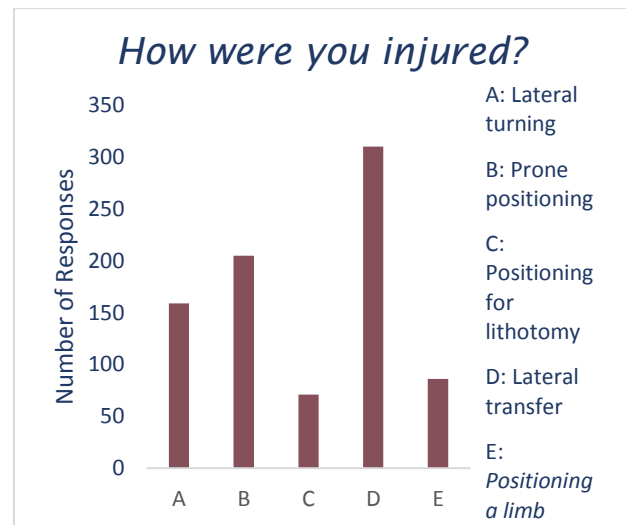


Figure 1

When asked what products are currently used to move and/or position patients, most respondents (71%) answered that they use multiple products. The most prevalent tools were: roller board or slide board (748 of 888), followed by draw sheet (517 of 888), then air-assisted device (428 of 888) and finally slide sheet (280 of 888).

The presence of an established policy for SPHM can significantly increase the rate and consistency of equipment usage.

*“Policies and procedures assist in the development of patient safety, perioperative team member safety, quality assessment, and performance improvement activities. Policies and procedures serve as operational guidelines used to minimize patients’ and perioperative team members’ risk for injury and standardize practice. Policies and procedures establish authority, responsibility and accountability within the practice setting. Developing policies and procedures that guide and support patient care, treatment and services is a regulatory requirement.”<sup>4</sup>*

The survey showed that 66% have a SPHM policy for their OR. Of those with a policy, 80% replied that the policy is not always followed. According to respondents, the top three reasons for noncompliance are: lack of time/need for room turnover (343 of 888), lack of staff (316 of 888) and equipment not being available (211 of 888) (Fig. 2). Further questioning revealed that 86% of all respondents do not have enough staff at all times to perform the necessary patient handling tasks and 32% say they cannot use SPHM equipment because it is not compatible with ortho/uro/cysto tables.

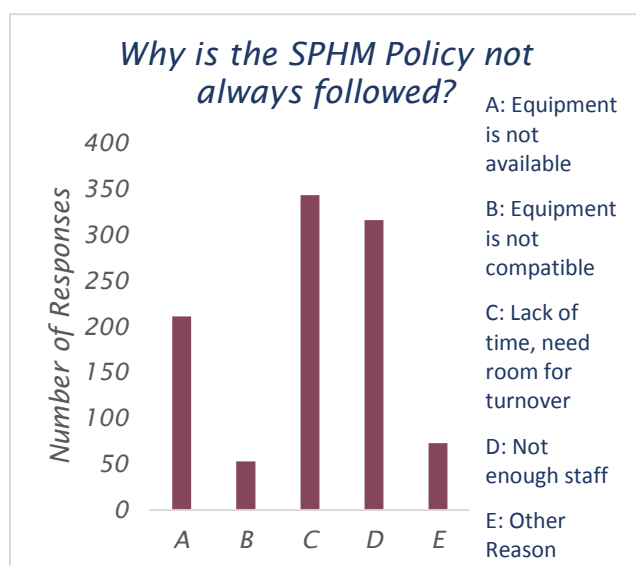


Figure 2

Further challenges of the interviewed AORN attendees were explored with an open-ended question asking which patient group or procedures are of greatest

concern. The top concerns in order of prevalence were: “bariatric” or “overweight” patients, procedures on spine/ortho/Jackson/Hana tables, prone flipping and OB/GYN cases. A common factor among these cases is the high risk of injury involved with the associated patient handling tasks, as well as the relative lack of compatible assistive devices in the case of the latter three concerns. AORN Guide author Mary Ogg confirms the challenge of product compatibility, as well as promising product developments: “The most challenging aspect to implementation continues to be the lack of safe patient handling equipment designed specifically for the perioperative environment. This equipment continues to improve for moving, lifting and mobilizing...some of that is adaptable to the OR such as air-assisted devices.”<sup>5</sup>

### Summary

The survey results support current healthcare industry rates of injury, cause of injury and tendency to continue working while in pain. The prevalence of MSD risk factors combined with high exposure rates designate the OR as a department where facilities should focus efforts to improve adherence to SPHM policies and procedures. To address the challenges (identified in this survey) that impede following the established policy and procedures, OR personnel may improve compliance by incorporating assistive devices that require fewer staff members to safely utilize, accommodate specialty OR equipment and tables, and feature multifunctional uses to improve OR efficiency and keep up with room turnover.

Using the **HoverMatt® Air Transfer System** can significantly improve safety and efficiency in the perioperative environment. This air-assisted device reduces the force used to transfer and position patients by 80-90%<sup>6,7</sup>, meaning only 2-3 caregivers are needed to safely and easily move a patient. Safe to stay underneath the patient during the entire procedure, the HoverMatt provides a simple and effective method for transfers, turning and prone positioning. Half-Matt and Split-Leg Matt models are designed to accommodate the unique configurations of OR specialty tables, while extensive testing ensures the HoverMatt’s compatibility with OR devices to allow for streamlined and efficient patient care.

1. Dressner, Michelle A. and Samuel P. Kissinger. "Occupational injuries and illnesses among registered nurses." Monthly Labor Review, U.S. Bureau of Labor Statistics, November 2018, <https://doi.org/10.21916/mlr.2018.27.1>. 2. "Advances in OR Safe Patient Handling on the Horizon." Published September 11, 2019. <https://www.aorn.org/about-aorn/aorn-newsroom/periop-today-newsletter/2019/2019-articles/or-safe-patient-handling>. Accessed 5/6/20. 3. Chiou, S. T., Chiang, J. H., Huang, N., Wu, C. H., & Chien, L. Y. Health issues among nurses in Taiwanese hospitals: National survey. International Journal of Nursing Studies, 50(10), 1377-1384. 4. 2019 Guidelines for Perioperative Practice. AORN, 2019, p. 826. 5. Hauk, Lisa. "Guideline First Look: Guideline for safe patient handling and movement." AORN Journal, June 2018 vol. 107, no. 6, p. 10-12. 6. Meittunen, E., McCormack, H., Sobczak, S. "Evaluation of patient transfer tasks using multiple data sources." Journal of Healthcare Safety, Compliance and Infection Control. Vol. 4, Number 1, Jan 2000. 7. Internal data on file.