

**The National Association of Orthopaedic Nurses (NAON) Algorithms for Safe Patient Handling and Movement in the Orthopaedic Setting**

*Background*

In 2003, the ANA launched the Handle with Care<sup>®</sup> campaign to prevent back and MSD injuries among health care workers. Orthopaedic nurses and the health care team are routinely faced with a wide array of occupational hazards while caring for patients with orthopaedic issues in a variety of settings that places them at risk for work-related musculoskeletal disorders (MSDs) (DeCastro, 2004; Nelson & Baptiste, 2004).

In 2006, the NAON Safe Patient Handling and Movement Task Force was developed to identify high risk tasks involved in caring for orthopaedic patients and to develop evidence-based and practical ergonomic methods for safe patient handling of orthopaedic patients to prevent injuries for nurses, patients, and healthcare personnel. Members of the task force included interdisciplinary representatives of NAON, James A Haley Veterans Hospital Patient Safety Center, NIOSH, and ANA.

*Overview of the Algorithms*

The following Algorithms developed by the task force offer solutions to safely performing the orthopaedic tasks with high risk for MSDs. These were based on principles of ergonomics and scientific evidence. The generic algorithms developed by the Patient Safety Center of Inquiry (Tampa, FL), Veterans Health Administration and Department of Defense (Patient Care Ergonomics Resource Guide, 2005) provided a foundation for the orthopaedic specialty algorithms.

The four algorithms and one clinical tool are briefly described below. An algorithm is defined as a tool that proceeds through sequenced decision steps leading to delineation of a patient care ergonomic solution that includes recommendations for specific technologies and minimum number of caregivers needed to perform the task safely. The clinical tool consists of tables of recommended weight limits for lifting and holding limbs. The algorithms are designed to assist health care employees in selecting the safest equipment and techniques based on specific patient characteristics. These guidelines were prepared based on scientific and professional information. Users of this guideline should periodically review this material to ensure the advice herein is consistent with current reasonable clinical practice. As with any guideline, this content provides general direction; professional judgment is needed to assure safety of patients and caregivers.

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**TASKFORCE MEMBERS:**

**National Association of Orthopaedic Nurses (NAON):**

Cynthia M. Gonzalez, MSN, RN, OCNS-C, APN ~ Chair

Peggy Doheny, PhD, RN, CNS, ONC, CNE

Cynthia M. Howe MSN, RN, ONC  
Miki Patterson, PhD, NP, ONC  
Carol A. Sedlak, PhD, RN, CNS, ONC, CNE

**National Association for Occupational Safety and Health (NIOSH):**  
Thomas R. Waters, PhD, CPE

**James A. Haley Veterans' Hospital Patient Safety Center:**  
Audrey Nelson, PhD, RN, FAAN  
Andrea S. Baptiste, MA (OT), CIE  
Valerie Kelleher  
John Lloyd, PhD, CPE  
Mary W. Matz, MSPH

**American Nurses Association:**  
Nancy Hughes MS, RN

**Diligent Services:**  
Stephanie Radawiec, MHS, PT

**Guldmann, Inc.:**  
Patricia Mehan, PT, MPH, CCS

### *References*

De Castro, A.B. (2004). Handle With Care<sup>®</sup>: The American Nurses Association's Campaign to Address Work-Related Musculoskeletal Disorders. *Online Journal of Issues in Nursing*. Vol. #9 No. #3, retrieved from <http://www.nursingworld.org/MainMenuCategories/ANAMarketplace/ANAPeriodicals/OJIN/TableofContents/Volume92004/Number3September30/HandleWithCare.aspx>

Nelson, A., & Baptiste, A. (2004). Evidence-Based Practices for Safe Patient Handling and Movement. *Online Journal of Issues in Nursing*. Vol. #9 No. #3. Retrieved from <http://www.nursingworld.org/MainMenuCategories/ANAMarketplace/ANAPeriodicals/OJIN/TableofContents/Volume92004/Number3September30/EvidenceBasedPractices.aspx>

Patient Care Ergonomics Resource Guide: Safe patient handling and movement.

[www.visn8.med.va.gov/visn8/patientsafetycenter/safePtHandling/default.asp](http://www.visn8.med.va.gov/visn8/patientsafetycenter/safePtHandling/default.asp)

Developed by the Patient Safety Center of Inquiry (Tampa, FL), Veterans Health Administration and Department of Defense *October 2001 (rev 8/31/05)*

Patient Care Ergonomics Resource Guide

[Ergo Guide, Part 1 \(revised 8/31/05, PDF\)](#)

[Ergo Guide, Part 2 \(revised 8/31/05, PDF\)](#)