

Therapeutic Use of Safe Patient-Handling Equipment: Safeguarding Healthcare Workers While Supporting the Rehabilitative Process

There is a growing movement in health care that advocates the use of mechanical assistive devices for various patient care tasks that involve lifting, reaching, pushing, and pulling. Nurses, nursing assistants, and other direct care workers experience high rates of job-related musculoskeletal injury. These injuries cause pain, disability, and lost work time for the employee, not to mention expense to the employer.

In a white paper published December 1, 2004, a work group comprised of representatives from the American Physical Therapy Association (APTA), the Association of Rehabilitation Nurses (ARN), and the Veterans Health Administration (VHA) recognized three equally important safety goals:

- maximize patient safety
- maximize caregiver safety
- maximize patient functional independence.

The American Occupational Therapy Association has since joined the work group and endorses these goals as well.

Nurses in various settings, including operating rooms and long-term-care facilities, have heeded the call and are increasingly using assistive devices such as mechanical lifts and sliding sheets to help in the positioning and movement of patients. However, many professionals in rehabilitation settings have been reluctant to adopt these new technologies. Rehabilitation nurses and therapists frequently assert that the use of patient-movement equipment inhibits active participation by the patient, impeding the rehabilitative process and fostering dependence. It appears that rehabilitation professionals believe that safeguarding caregivers and maximizing patient independence are mutually exclusive goals.

The previously mentioned white paper calls for research, policies, and procedures for the therapeutic use of patient-handling equipment. However, to date, little research has been done in this area. Two recently published articles (Whipple, 2007; Rockefeller, 2008) address therapeutic uses of patient-handling equipment.

This Safe Patient Handling Toolkit represents an effort to change the way rehabilitation nurses and therapists think about patient-handling equipment. Rather than viewing patient-handling technologies as passive tools for patients, we view patient-handling equipment as an adjunct to the rehabilitative process. A well-executed transfer in which the patient participates as fully as possible, and is assisted by a mechanical aid to maintain appropriate posture and utilize appropriate movement techniques, can have greater therapeutic benefit than an unsafely performed maximal assist transfer by a caregiver or a totally dependent manual lift by one or more caregivers. Caregiver safety does not have to be sacrificed to ensure patient functional gain.

The goal of this Web page is to identify therapeutic ways to use existing patient-handling equipment to progress patients toward functional goals. For example, performing a sit-to-stand transfer represents a therapeutic goal for many patients. We have identified ways in which one type of sit-to-stand assist, a behind-the-back sling assist, can be used to provide a variety of therapeutic benefits. These benefits include trunk, hip, knee, and ankle strengthening and improved dynamic balance. Cognitive benefits include improved motor planning and task sequencing as patient participation is repeated and reinforced. These guidelines represent a first attempt at developing guidelines for the therapeutic use of patient-handling equipment. Other guidelines are under development for ceiling track and portable sling lifts, bed mobility equipment, and lateral transfer devices.

Achievement of Functional Goals Using Safe Patient-Handling Equipment

Several equipment companies have expressed interest in exploring therapeutic uses for their patient-handling devices. Rehabilitation clinicians need to be involved as equipment companies develop such uses. We need to actively partner with vendors to ensure that functional movement patterns are encouraged and that clear guidelines are developed regarding indications and contraindications of various types of equipment, based on patient characteristics and functional goals.

Nurses and therapists must work closely with equipment companies to explore functional, therapeutic uses of existing equipment. A key goal of this work will be to stimulate research into how this equipment can most effectively be used to further independence. Clinicians must also advocate for equipment modifications that might enhance therapeutic benefits. For example, existing sit-to-stand devices assume that the patient starts from a sitting position; however, many patients require assistance to move from supine to sitting. Clinicians must work with equipment companies to make these types of modifications. Further advocacy should also support the development of new equipment that furthers the achievement of functional goals.

Figures 5-1 and 5-2 represent samples of how therapeutic use of equipment can be used as part of a care plan for achieving functional goals. In addition, the session slides for “**Therapeutic Use of Assistive Technology: A Clinical Perspective**” presented by Stephanie Radawiec, PT DPT, at the 2007 ARN Annual Educational Conference provide an overview of assistive technology.

References

- Rockefeller, K. (2008). Using technology to promote safe patient handling and rehabilitation. *Rehabilitation Nursing*, 33(1), 3–9.
- Whipple, K. (2007). Therapeutic use of assistive technology: A clinical perspective. *Rehabilitaton Nursing*, 32(2), 48–50.