Lateral Transfer Devices

It has been very well documented that the exposure to CNA’s and nursing professionals rank second only to industrial workers for workload intensity and is a high risk profession for low back injury. Stubbs and Buckle (1994) found that 36% of all low back pain in nurses was associated with patient/resident handling.

A good portion of this exposure is directly associated with the transferring and repositioning of patients/residents. One study found that the most common mechanism for back injury were from lifting and transferring patients.¹

The traditional means of patient/resident transfer or repositioning has been the use of the draw sheet or a plastic bag. Neither of these devices “are recommended for lateral transfers due to high compressive and shear forces, high physical demand on key joints and high applied force relative to patient mass.” 90% of the population has sufficient strength to perform the task. 65% of the population has the necessary hip strength. However 0% of the population would have sufficient strength in the shoulder, knee or ankle.²

In the Lloyd-Baptiste study, the key factors identified as affecting spinal loading included:

1. Caregiver’s stance
2. Posture
3. Co-efficient of friction as determined by the type of material
4. Relative height of surfaces (1.5” difference for downhill transfer)
5. Location of the handles at the start of transfer
6. Angle of pull (should be 30 degrees)
7. Extendable pull straps (the most significant bariatric to reducing flexion of the spine)
8. Weight of patient (mechanical aids should be considered for bariatric patients)
9. Number of straps used

While these devices may not be the total answer to elimination of injuries associated with lateral transfers or repositioning, they do have the potential to make a significant impact on injury frequency and forces encountered by caregivers.

There are a variety of lateral transfer aids available. The Safe patient handling and mobility website offers a wide variety of resources available for finding the right lateral transfer aid for your facility. This can be found at http://www.visn8.va.gov/patientsafetycenter/safePtHandling/default.asp.

² Lloyd J., Baptiste A., Biomechnical evaluation of friction reducing devices for lateral patient transfers. 2001