

Hook-and-loop alarm belt:

A vital component in a fall-prevention toolkit

By Dawn Wicker, PT III

Co-chair of Fall Prevention Charter

Yale New Haven Hospital, New Haven, Connecticut

As told to Janet Boivin, BSN, RN

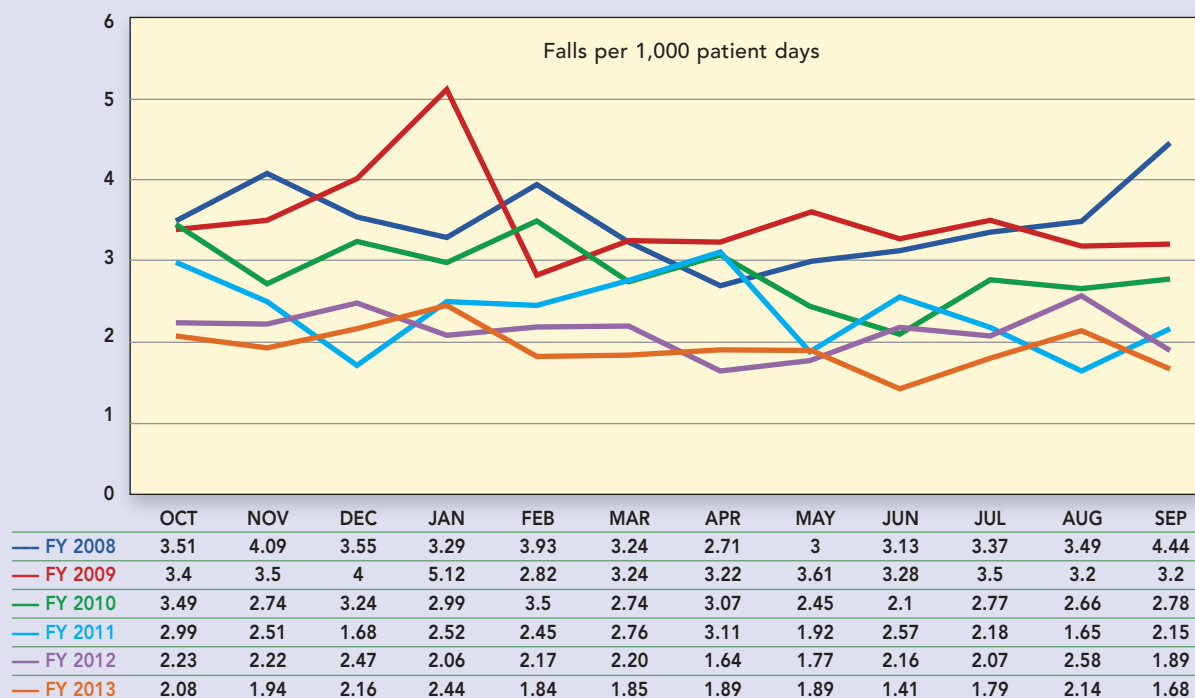
In 2012, Yale New Haven Hospital's fall-prevention charter noted a hospital-wide increase in patient falls from chairs. Simultaneously, its restraint committee was working to reduce the use of physical restraints, in part because the state's rehabilitation facilities require patients to be restraint-free for 24 hours before discharge.

The fall-prevention charter and restraint committee collaborated to test a fall-prevention product called the hook-and-loop alarm belt* for possible addition to the hospital's multilayered fall-prevention

initiatives. The value of the belt is that it doesn't restrain patients. Instead, the hook-and-loop strap lets patients remove the belt themselves, serving as a reminder rather than a physical restraint. Also, the alarm quickly alerts nursing staff that the patient's attempting to stand.

Indications for the hook-and-loop alarm belt include poor trunk control, impaired standing balance (which could cause the patient to fall immediately when unattended), impulsiveness, impaired cognition with reduced insight into limitations, frequent

Results achieved over 6 years



attempts to get up despite instructions not to do so, ineffectiveness of a regular chair alarm, and high fall-risk status.

For a patient with an abdominal wound, abdominal tubes, or any tube, device, incision, or wound in or around the waist area, the nurse should determine if the belt is the most appropriate product. It shouldn't be used for patients who are at risk for suicide, are restless when sitting, can't demonstrate how to open the belt, or tend to slide up and down.

Pilot program and hospital-wide rollout

The hook-and-loop alarm belts were piloted on the neuroscience service for 2 months. Results of staff surveys indicated the belt was effective and easy to use. The belts were rolled out hospital-wide in 2012 with the manufacturer providing staff education. All patient-care personnel were tested to determine if they knew how to use the belt alarm properly.

In 2014, the NICU used the belt consistently, along with alarm bed pads*. Although most patients were cognitively impaired, the NICU had no falls for an entire year—especially impressive as the unit was in the process of implementing an initiative to get patients up in chairs and moving as soon as possible.

Case study

The first patient to use the belt on the neurosciences intensive care unit was a 41-year-old woman with central nervous system lymphoma who was weak, forgetful, confused, and unable to stand alone. She used the belt for 5 weeks; every day, she got up without having to call for assistance—and never fell once. However, after her transfer to the oncology unit, she fell twice in less than 12 hours. That unit wasn't part of the pilot program and didn't have access to the belt. The next day, I brought a belt for the patient and gave an in-service session to the staff. The patient didn't fall again on that unit.

Outcomes: Sustained fall reduction

The hook-and-loop alarm belt fits into the safe-environment component of our fall-prevention framework. The other components are continuous education for staff, patients, and family; frontline-strategy implementation and communication; and data reporting. Analysis of our fall data demonstrates sustainability of our program, with continued reductions in fall rates over 6 years. (See *Results achieved over 6 years*.) The number of hospital-wide falls per 1,000 patient days has declined steadily, hitting a low of 1.41.

*Manufactured by Posey

Editor's note: This is one in a series of recurring case studies describing success stories in preventing falls and injuries from falls. The series is brought to you by Posey (<http://www.posey.com>). Watch for the next case study in the March issue of *American Nurse Today*.