

# Penrose Hospital reduces patient falls and increases staff satisfaction with Stryker stretchers

## Situation

The Centers for Medicare and Medicaid Services (CMS), The Joint Commission and the Institute of Medicine have implemented guidelines and penalties surrounding patient falls. The Joint Commission led the way by including fall prevention in their National Patient Safety goals.<sup>1</sup> CMS recently identified patient falls as a preventable occurrence called a "never event."<sup>2</sup> Preventing costly never events improves both the quality of care and the financial health of hospitals.

**Prevention is one of the fundamental factors to a hospital's success, clinically and financially. Stryker is committed to contributing to the prevention goals of our customers.**

Patient falls can result in injuries, poor patient and staff satisfaction, and additional unreimbursed costs from increased length of stay due to injury and lawsuits. On average, a patient fall can cost a hospital \$24,000.<sup>3</sup> Falls are a leading cause of death for the elderly population (65 and older),<sup>4</sup> and hospitalized patients are at an increased risk due to their medical condition and the nature of the hospital setting.

Penrose Hospital's busy emergency department in Colorado Springs, CO sees an average of 3,883 patients per month. The general population is primarily geriatric, but also includes the chemically impaired, patients with dementia and psychiatric patients. The emergency department experienced 43 falls in 2011 and 2012, two of which resulted in increased length of stay. Their sister hospital, St. Francis Medical Center, which sees an average of 3,683 patients per month, experienced 37 falls in that same time frame. The staff reported that patients were crawling over the siderails or out through the foot-end of the stretcher.<sup>5</sup>

Keeping patients safe while in the emergency department is a priority with the Penrose Hospital staff. An alternative solution was needed to reduce the risk of patient falls and keep patients inside their stretcher while in the emergency department.

## Technology

As an industry leader in patient handling equipment for more than 70 years, Stryker Medical designs products with patient and caregiver safety in mind, and recognizes that patient falls are a major concern in the hospital environment. Acknowledging this need, Stryker was first to market with the Chaperone® Stretcher Exit System.

Using load cell technology, the Chaperone Stretcher Exit System tracks the patient's center of gravity, and allows facilities to set one of two zones to alert caregivers to a potential movement off of the stretcher.

**Zone 1** is the larger default zone, which allows patients more movement before an alert is sent. This zone is primarily for patients at a high risk for exiting the stretcher without assistance.

**Zone 2** is more restrictive than Zone 1 and is primarily used for high fall risk patients. If the patient's center of gravity moves outside the preset boundary, an alert will sound.

## Penrose-St. Francis Health Services



**Prime Series Stretchers with Chaperone® Stretcher Exit System. The outer zone indicates Zone 1. The smaller zone is Zone 2.**

## Making a Change

Penrose Hospital Emergency Department utilized Stryker's Prime Big Wheel Electric Stretcher, equipped with the Chaperone Stretcher Exit System, during a brief, yet intensive, trial period and immediately saw the potential for a reduction in patient falls and increased patient and staff satisfaction. These short-term benefits prompted them to make a long-term investment by making Prime Big Wheel Electric Stretchers with Chaperone the standard of care in their emergency department.

The department's staff was enthusiastic and discussed ways that these features could help keep their patients safe. When the Prime Big Wheel Electric Stretchers arrived, all staff members were educated on their revised patient fall prevention protocol, and received training on how to operate the Chaperone Stretcher Exit System. A key element of the Penrose Hospital admission process includes assessing emergency department patients for fall risk using the Hendrich Fall Risk Model. On a 20 point scale, patients with a score of 5 or higher are considered high risk. For these patients, the new protocol indicates that the Chaperone Stretcher Exit Alarm should be activated.

Environmental Services played a critical role in the successful implementation of the Chaperone Stretcher Exit System. They quickly adopted the practice of zeroing out the scale when preparing the room for the next patient.

## Results

In the 6 months following the implementation of Stryker's Prime Big Wheel Electric Stretchers, in conjunction with Penrose Hospital's revised patient fall prevention protocol, **the emergency department experienced no falls.**

St. Francis Medical Center, Penrose Hospital's sister facility, did not implement Prime Big Wheel Electric with Chaperone in their emergency department at the same time, and saw no change in their patient fall rates over the previous 2 years.

In addition to reducing patient falls, Penrose Hospital also saw improvement in another key metric after implementing the Prime Big Wheel Electric Stretchers. The hospital measures Emergency Department Staff Partnership scores through the Press Ganey Employee Survey. This score is calculated based on a combination of overall staff satisfaction and engagement. According to the survey completed in May 2013, the facility's **Staff Partnership scores increased by 10%**. Of the 20 questions asked, the largest differences in mean score from the prior year were the questions related to equipment and workspace.

*"I have the equipment I need to do my job well"*

mean change of **+18.4**; 89.3% of total ED staff participants answered favorably

*"Physical conditions (light, heat, space, appearance) in my area are good"*

mean change of **+20.7**; 95.8% of total ED staff participants answered favorably

*"This organization effectively reduces conditions that pose risks to patient safety"*

mean change of **+12.2**; 93.7% of total ED staff participants answered favorably

These sentiments were confirmed by the ED staff during staff interviews. When commenting on the performance of the Stryker Big Wheel Electric Stretchers, staff members were most enthusiastic about the Electric Lift, Patient Comfort Controls and the Chaperone Stretcher Exit System.

## Conclusion

Penrose Hospital successfully eliminated patient falls in their emergency department by implementing Stryker's Prime Big Wheel Electric Stretcher with the Chaperone Stretcher Exit System as the standard of care, and also educating staff to be more aware of fall risks through competent and consistent use of a fall risk tool.

Reducing falls requires a comprehensive strategy. Caregivers need continuous education and awareness surrounding the risk of patient falls, combined with the right tools and equipment to do their job effectively.

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## References

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