

# Safe Patient Handling & Mobility Bariatric Care Case Study

***Hill-Rom helps a West Coast Hospital avoid an estimated \$300,000 cost for a single patient.***

## Facility

A leading west coast provider of medical and surgical services.

## Background

The United States has seen a dramatic increase in obesity rates over the past 20 years. The Centers for Disease Control and Prevention approximate 34% of adults and 17% of children and adolescents are obese.<sup>1</sup> The number of hospital admissions related to obesity has tripled, reaching a record high of 2.8 million in 2009. Of those patients admitted, an estimated 10% were considered morbidly obese.<sup>2</sup> Nearly \$117 billion is spent on health and health-related issues due to obesity.<sup>2</sup>

The increase in obese patients became a reality for this facility that was under prepared to provide safe care and handling for a patient in the hospital's intensive care unit. This case study illustrates the challenges of caring for obese patients and the need for solutions, which Hill-Rom helped them discover.

## Situation

Patient, Ms. C, was admitted to the ICU suffering from acute respiratory distress, fluid overload, psoriatic arthritis, venous stasis ulcers and generalized body pain. Her weight at admission was recorded at 814 pounds and she was completely dependent for all care and mobility, requiring up to 8 caregivers for all of her physical and mobility needs. The hospital did not have a floor lift to accommodate her weight and were concerned about safely managing her care. Furthermore, the bariatric bed provided could only accommodate up to 660 pounds and did not provide the support or pressure relief Ms. C needed. In addition to the patient's increased anxiety and fear of treatment, the staff felt overwhelmed caring for Ms. C and from their risk of injury with the rising number of obese patients.

On day five of her admission, Ms. C was transferred from the ICU to the medical-surgical unit for an expected 18 week stay. Ms. C recognized that the hospital did not have the equipment on hand to help her move safely and voiced concern of the possibility of falling, pain associated with moving and her difficulty breathing. The staff was becoming increasingly concerned about the patient's safety and their

own when moving her without the properly designed equipment. Along with these concerns, administration was also concerned about the discharge plan for Ms. C, which included an estimated 8 weeks of rehabilitation to gain the mobility to return home—an important issue for her family. Ms. C had simple goals for her treatment; she wanted to be able to use a bedside commode for her toileting needs and be independent enough to return home before Christmas. One nursing facility agreed to accept Ms. C for treatment but only if the hospital would agree to pay the rehabilitation costs not included in her coverage—an estimated \$800 per day.

## Clinical Outcomes

The facility recognized that improvements were needed with their equipment and processes in order to provide Ms. C and future patients with safe care. In partnership with Hill-Rom's rental and safe patient handling teams, the hospital transferred Ms. C to a Hill-Rom® Excel Care® ES bed in conjunction with the FreeSpan™ Traverse Lift System designed to safely move and ambulate patients weighing up to 1,000 pounds.

Using Liko® products and materials from the Safe Transfers and Movement™ Program, Hill-Rom Safe Patient Handling Directors trained the lift team, nursing and therapy staff on the proper use of the equipment. With the appropriate equipment and proper training, the staff grew more confident in their ability to manage their patient and just two to three caregivers were needed compared to the original eight.

With the appropriate care, Ms. C's weight dropped more than 270 pounds in 6 weeks and she was able to transfer on her own with supervision. Using the ambulation slings and accessories with the FreeSpan™ Traverse System, the therapy staff helped her achieve her rehabilitation goals. Ms. C was discharged after 6 weeks, earlier than the anticipated 18 weeks, and before Christmas.

## Financial Success

Hill-Rom® Safe Patient Handling Directors implemented evidence-based processes from the Safe Transfers and Movement™ Program with appropriate products and bariatric rental beds to help the hospital avoid unnecessary costs (Fig 1.):

- Reduced hospital length of stay from planned
- Reduced staffing needs
- Avoided potential staff injuries and patient falls and hospital-acquired pressure ulcers
- Eliminating the need for a long stay in a skilled nursing facility (SNF)

Key Indicator	Cost Estimation	Cost
Hospital length of stay	84 fewer days (12 weeks) @ \$1,650 per day	\$138,600
Additional staffing <sup>4</sup>		\$52,431
CNA	84 fewer days @ \$230.88 per day = \$19,394 (2 CNAs per day @ \$115.44 per CNA)	
Licensed staff	84 fewer days @ \$393.30 per day = \$33,037 (5 fewer staff for 15 hours/day of assistance)	
Staff injury	Average cost per injury avoided <sup>5</sup>	\$9,184
Patient fall	One avoided patient fall with serious injury @ national average cost <sup>6</sup>	\$14,794
Hospital-acquired pressure ulcer	One avoided HAPU @ national average cost <sup>7</sup>	\$43,180
SNF length of stay	56 fewer days (8 weeks) @ \$800 per day	\$44,800
<b>Estimated Total Costs Avoided</b>		<b>\$302,989</b>

**Figure 1.** Total estimated avoided costs by implementing the Safe Transfers and Movement Program™ with appropriate products and training.

## Conclusions

This case study illustrates the effects that the right tools, trained staff and collaboration with a team of safe patient handling and mobility specialists can have on the clinical and financial outcomes of care for bariatric patients: better health, shorter lengths of stay and lower costs for both patients and healthcare facilities.

After the success with the FreeSpan™ Traverse Lift System and materials from The Safe Transfers and Movement Program, the facility purchased two systems as well as sling equipment for its adult respiratory and diabetes unit with future plans to install a bariatric overhead lift in the ICU.

Hill-Rom reserves the right to make changes without notice in design, specifications and models. The only warranty Hill-Rom makes is the express written warranty extended on the sale or rental of its products.

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## Learn More

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Safe patient handling products  
[www.hill-rom.com/SafePatientHandling](http://www.hill-rom.com/SafePatientHandling)

Bariatric patient products:  
[www.hill-rom.com/bariatrics](http://www.hill-rom.com/bariatrics)

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