

Using cost-savings as a viable explanation for purchasing enhanced replacement mattresses* in a county long-term care facility.

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[Non-Powered Pressure Redistribution Mattress*]



Introduction

Cost is a big factor for a long term care (LTC) facility in selection of a replacement mattress surface. Prevention of skin issues commonly associated with pressure in bed bound and immobile residents is a main goal and, therefore, a primary concern especially in a LTC.

Objective

To evaluate a foam pressure redistribution mattress* for possible facility wide purchase.

Method

A quality improvement project was initiated to identify if the selection of a pressure redistribution replacement mattress, which would conform to any surface to maximize the patient contact area, would aid in the prevention of pressure ulcers. Three residents (who have been bed bound since admission, have multiple co-morbidities and have previously experienced Stage I, Stage II and Stage III pressure ulcers) were selected to trial a foam based pressure redistribution mattress.* Selected residents remained on PEG nutrition, wore adult briefs, were changed when moist and were repositioned q 4 hours per facility protocol.

Concerns

Since cost was a concern for the facility, selection of a clinically effective mattress was essential. An additional concern was possible “bottoming out” of individual residents with many co-morbidities and fragile condition. At risk residents would have likely experienced breakdown on a generic hospital mattress.

Results

The selected residents who were placed on the pressure redistribution surface* experienced no pressure ulcers during the entire 12 months of the trial. Residents reported optimal comfort and clinical staff noticed a reduction of shear.

Conclusions

At 24 months, these same residents remain on the selected surface* and have not experienced skin issues or pressure ulcers. In addition to the benefit to the residents, the cost savings from no pressure ulcers reduced the expenditures of the facility based on \$100,000 to treat one Stage IV pressure ulcer.

*Sizewise NP12™ Mattress

Project Participants

Resident One:

Female, DOB 6-21-1918, dementia, failure to thrive, fell at home prior to admission, fractured hip and ankle, bed bound.

Resident Two:

Female, DOB 4-18-21, obese, Alzheimer's dementia, peripheral vascular disease, degenerative joint disease, CVA, rigid contractures, bed bound.

Resident Three:

Male, DOB 9-3-38, obese, tibia and fibula fractures, cerebral degeneration paraplegia, progressive paresis, bed bound. Admitted with sacral ulcer stage 4, gangrene right 5th toe s/p amputation.

Definitions

Bottoming Out: An effective pressure redistribution support surface will allow the body to sink into it and the pressure between the person's body and the surface is distributed over a wide area however “bottoming out” is when the body is sinking in so far that it rests against or upon the hard bed deck underneath.

Immobile Resident: Dependent, frail, unable to move on own.

Pressure Redistribution: The ability of a support surface to distribute load over the contact areas of the human body.¹

Support Surface: “A specialized device for pressure redistribution designed for management of tissue loads, micro-climate, and /or other therapeutic functions.”¹

Non-Powered: Any support surface not requiring or using external sources of energy for operation.¹

Mattress: A support surface designed to be placed directly on the existing bed frame.¹

References

¹ National Pressure Ulcer Advisory Panel (NPUAP), Terms and Definitions Related to Support Surfaces, Ver. 01/29/2007
Centers for Medicare and Medicaid Services, Joint Commission National Patient Safety Goals. <http://www.thi.org>



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