Hill-Rom®

Effect of Viscoelastic Foam Mattresses on the Development of Pressure Ulcers in Patients With Hip Fractures.¹



Abstract

This study had three objectives: to investigate whether viscoelastic foam mattresses are more effective than standard hospital mattresses in reducing the incidence of pressure ulcers in patients with hip fractures; to compare pressure ulcer severity and location and the documented nursing prevention and treatment interventions in patients using two types of mattresses; and to identify possible predictors of pressure ulcer development.

Interventions

Using a prospective randomized control design, 101 patients hospitalized for hip surgery with a mean age of 84 years were randomly assigned to either a Tempur-Med* viscoelastic foam mattress or a standard hospital mattress with an overlay (control group). No significant differences were found between the two groups in terms of gender, age, waiting time for surgery on a stretcher, and actual surgery time.

Results

Patients on the standard hospital mattress developed more severe pressure ulcers (Stage II-Stage IV) 15% incidence versus 8% incidence on the Tempur-Med, mattress. According to the nursing documentation, patients on the standard

hospital mattress received more preventive interventions, including powered mattress overlays and more frequent turning interventions, which may have reduced the difference in outcomes between the two groups.

Conclusions

Patients in the control group received more documented preventive interventions, suggesting that aggressive nursing care may have compensated for the absence of the viscoelastic mattress. Nevertheless, the researchers concluded that the results of this study support the use of the Tempur-Med* mattress as a pressure ulcer prevention tool.

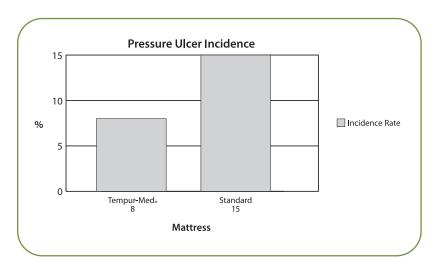
Studies were performed by Tempur-Pedic Medical.

1 Excerpted from Gunningberg, L., Lindholm, C., Carlsson, M., and Sjödén, P.O. (2000). Effect of Visco-elastic Foam Mattresses on the Development of Pressure Ulcers in Patients With Hip Fractures, Journal of Wound Care, 9(10), 455-460.

NOTE: As with any case study, the results reported should not be interpreted as a guarantee or warranty of similar results. Individual results may vary depending on the patient's physical condition. Unless otherwise specified, any economic value or savings reported is based on data provided by the facilities and observations of the individuals involved in the study.

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