

Clinical evaluation of a visco-elastic foam mattress in a nursing home environment

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Introduction and Aims

Pressure ulcers are a care quality indicator and represent one of the four avoidable harms set out by the department of health and monitored via the NHS safety thermometer. ¹

Pressure ulcer prevention is a major focus for all healthcare providers from acute care facilities to nursing homes.



FIGURE 1.
POLYFLOAT Suprema
mattress

Within the nursing home population, residents frequently present with an increased risk of pressure ulceration and it is estimated that pressure ulcers may occur in 20% of people in nursing and residential homes. ²

Therefore, providing a suitable support surface as part of a pressure ulcer prevention care bundle is an essential element of resident care within nursing homes.

This evaluation involved the POLYFLOAT™ Suprema visco-elastic foam mattress from Talley (Figure 1). The mattress provides reactive therapy and the visco-elastic properties help patients to immerse into the mattress, and become enveloped into the top foam layer. This reduces the pressure applied to their skin and the risk of pressure related tissue injury.

The aims for this mattress evaluation were to report:

- clinical progress of patients
- user acceptance and residents views/feedback on the mattress



Method

Following a decision by the care home manager the POLYFLOAT Suprema visco-elastic foam mattress was chosen for evaluation. The nursing home offers residential, nursing and dementia care.

Patient demographics including age, sex, risk level (Waterlow score) and relevant co-morbidities were reported at the start of the evaluation with risk level, patient mobility and nutritional status monitored throughout the work.

Patients were allocated the visco-elastic mattress if they were deemed at an elevated risk of pressure ulcer related skin damage and / or had a history of previous pressure related tissue damage.

User acceptance and residents' views were captured using a structured questionnaire which utilised Likert scales for all responses.

Results

Five residents completed the mattress evaluation (1 male and 4 females). Residents mean age was 86 (range 80 to 91 years). Waterlow risk scores were 9 (low risk), 12 (at risk), with two scoring 17 (high risk) and one scoring 24 (very high risk).

During the evaluation two patients were transferred to an active therapy mattress due to the changes in their clinical condition and one patient died. Two patients remained on

the POLYFLOAT Suprema mattress following the evaluation.

None of the patients developed pressure related skin damage during the evaluation and mean duration on the mattress was 96 days.

Patient feedback stated that the mattress was comfortable, sleep quality was good and they would use it again. Staff reported that the mattress was effective at pressure redistribution and managing skin integrity.

Discussion

The POLYFLOAT Suprema evaluated well within the nursing home environment. It was used for a range of independent patients at varying pressure ulcer risk levels, all of which remained free from pressure related skin damage during their time on the mattress.

From a clinical perspective it is potentially naïve to expect a reactive support surface to be suitable for all patients all of the time. Therefore stepping patients up from a foam mattress to an active therapy mattress (such as the QUATTRO® Plus) in response to increasing pressure ulcer risk represents good practice from the nursing home care staff and is a reflection of real world clinical care.

Nursing homes, like many other areas of healthcare, work within tight financial controls therefore targeting the right products at the right patients and at the right time is essential in optimising cost effective patient care.

Conclusion

With a clear focus for healthcare providers to prevent pressure ulcers it is essential that products are clinically effective and ideally well-liked by staff and patients.

The POLYFLOAT Suprema visco-elastic support surface used during this evaluation assisted with the prevention of pressure ulcers in a range of patients at an elevated risk of pressure related tissue injury. In addition the mattress was well received by both patients and staff.

References

1. Department of Health (2012) Delivering the NHS Safety Thermometer CQUIN 2012/13.
2. Clark, M., Bours, G and Defloor, T (2002) Summary report on prevalence of pressure ulcers. EPAUP Review 4 (2): pp 49-57.



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