Evaluating a high specification foam mattress in a nursing home setting

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Introduction and Aims

With the correct interventions in place pressure ulcers are recognised as being largely preventable in the majority of cases. When these wounds do occur they can contribute significantly to health and social care costs.¹

Pressure ulcer prevention is a key priority across all primary and secondary healthcare settings and the long-term care required by many nursing home residents often results in an increased risk of pressure ulcer development.

The National Institute for Health and Care Excellence (NICE) Clinical Guideline 179 recommends a high-specification foam mattress for adults assessed as being at high risk of developing a pressure ulcer in primary and community care settings.²

Our current standard mattress is a high specification foam. The aim of this evaluation was to consider an alternative high specification foam mattress and to establish both user acceptance and clinical progress of the residents using this new product. In addition, residents’ views were also captured.

Method

Five POLYFLOAT™ Dormira high specification foam mattresses from Talley were placed in a 57 bedded nursing home which was part of a national nursing home group. Mattresses were provided to patients who were identified by the senior nurse manager as being at an elevated risk of pressure related tissue injury.

The POLYFLOAT Dormira mattress (Figure 1) provides reactive (static) therapy and consists of a castellated foam surface layer which allows the patient to be partially immersed and enveloped into the mattress. This effectively increases the surface area over which the patient’s body weight is distributed and results in a reduction in pressure on the skin.
Patient demographics recorded included age, sex, relevant co-morbidities, history of previous pressure damage, nutritional status and patient mobility.

Patients pressure ulcer risk level, nutritional status and mobility were re-assessed regularly throughout the evaluation.

User acceptance and residents’ views on the new product were determined by structured questionnaires using Likert scales. Questionnaires covered aspects of the product such as ease of use, protecting patient’s pressure areas, comfort etc.

Results
Two patients completed the evaluation;

**Patient 1**
- Male - 71 years
- Waterlow score: 12
- Time on mattress: 25 days

**Patient 2**
- Female - 89 years
- Waterlow score: 7
- Time on mattress: 175 days

During the evaluation the general health of patient 1 deteriorated with his nutritional status becoming poor, resulting in an increased pressure ulcer risk (Waterlow score 18). Despite this, both patients remained free from any pressure related skin damage during the evaluation.

Both patients were comfortable whilst on the mattress with patient two stating “the mattress is comfortable on my back” and rating her quality of sleep as ‘very good’. Staff reported that the mattresses were effective at helping to protect the patient’s pressure areas and the product was fit for purpose for the patients nursed upon them.

Discussion
A good quality, high specification foam mattress is often sufficient to meet the needs of the majority of low to moderate risk patients in any care setting. These patients often have a degree of independence when repositioning in bed and therefore the use of a quality foam mattress effectively acts as a ‘safety net’ for the provider.

The POLYFLOAT Dormira high specification foam mattress enables providers to meet the requirements set out by NICE whilst simultaneously using a product that evaluates well with both staff and patients.

Conclusion
Whilst the small sample size currently precludes any generalisation of these results to a wider population, this evaluation demonstrates that for these patients the mattress was appropriate for their pressure ulcer risk level and when used as part of a care bundle it can help to reduce the risk of pressure ulcers in patients at an elevated risk of these wounds.

The importance of patients remaining free from pressure related skin damage is essential, the use of a good quality high specification foam support surface is a valuable tool in achieving this.

References