

# Evaluation of the Mercury Advance Hybrid Mattress at Minster Grange Care Home in the NHS Vale of York CCG

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## Introduction

The prevention of avoidable pressure ulcers in the community is one of the biggest challenges that care organisations face - a challenge which currently costs the NHS and care organisations in the UK around £6.5 billion per year (NHS England, 2017). Most pressure ulcers are avoidable if simple knowledge is provided and preventative best practice is followed (NHS England, 2017).

The Minster Grange Care Home is an 83 bed care home with nursing, providing care for Physically Frail, Dementia, Younger Physically Disabled residents, Respite Stays and End of Life Palliative Care.

In July 2017 Minster Grange Care Home engaged with the NHS Vale of York CCG to participate in the pressure ulcer prevention programme 'React to Red'. As part of this work pressure relieving equipment was reviewed and the home manager looked to colleagues in both the local NHS Trust and nationally to explore an alternative to the traditional alternating air mattress surface that would be appropriate to the needs of residents in the care home setting. It was agreed that the Dyna-Form® Mercury Advance hybrid mattress, which was currently being used in the acute setting, would also be evaluated in the community setting.

The evaluation aimed to assess effectiveness of the Dyna-Form® Mercury Advance hybrid mattress in the care home setting with a range of residents who had nursing needs. The evaluation aimed to consider a wide range of factors to deliver clinical, financial and operational advantages.

## Method

In December 2017, 32 Dyna-Form® Mercury Advance hybrid mattresses were introduced to the home. Education on the system was provided to both clinical and facilities management staff and, where appropriate, with residents. This coupled with the key learning from the

React to Red training raised awareness of the importance of skin integrity. Intelligent Air cushions were provided for those residents who were able to sit out in chairs.

## Results

During the period of trial from December 2017 to June 2018, the care home had zero incidences of avoidable pressure ulcers. This was attributed to effective equipment provision and staff training.

In the first month, 3 incidences were reported and the Senior Quality Lead performed Root Cause Analysis, however, these were found to be a bruise, a moisture lesion and skin breakdown in a resident at the end of life. Although this may have been deemed to be an inappropriate reporting in 2 of the cases, it demonstrates a much-increased awareness of skin damage following the React to Red Training.

Key areas in which the care home saw further benefits, include:

- ✓ The mattress continued to provide a stable pressure relieving surface whilst the care home experienced a power cut for over 2 hours during the trial. This was seen as significantly important in a care home without a back-up generator.
- ✓ Electricity consumption within the care home was also seen to be reduced, providing a further cost benefit.
- ✓ The care home no longer required rented dynamic mattresses, so have seen significant cost savings in this area.
- ✓ The Dyna-Form® Mercury Advance is used in both the local acute and community settings, allowing patients to use the same equipment and instilling confidence across the whole health economy.

- ✓ Manual handling for staff was made safer as there was a reduced need to swap residents from one surface to another when care was stepped up or down.
- ✓ Residents reported easier transfer out of their bed due to the foam U-Core giving a stable surface.



## Discussion

This was a small, focussed evaluation but significant in that it demonstrated the appropriateness of the Dyna-Form® Mercury Advance hybrid in the care home setting. Surface selection is acknowledged as only one element in promoting skin integrity and in conjunction with the React to Red programme it was an ideal opportunity in time to explore the use of the hybrid mattress in the care home environment. Product selection as part of an individual's care plan must be made carefully alongside consideration of cost effective solutions.

## Conclusion

In this evaluation the Mercury Advance hybrid performed as well, and with extra benefits and flexibility, to the traditional alternating air mattresses. Due to the flexibility of the product it would seem logical that these findings could be transferable to other care homes.