

# CAN SUPPORT SURFACES WITH INTEGRATED HEEL ZONES HELP COMBAT HEEL PRESSURE ULCERS?

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## Introduction

Pressure Ulcers on the heels have become increasingly prevalent with many studies indicating that they are becoming the most common area for pressure ulcer development. Wrightington, Wigan and Leigh NHS Foundation Trust (WW&L NHSFT) implement a robust pressure assessment tool, which has meant nursing teams are often able to intervene early to avoid potential skin breakdown events before they occur. However 2 wards were having problems with patient heels that were becoming quite red and at risk of breaking down, mainly due to the nature of the surgery they have and also undergoing blocks during surgery and lack of mobility after surgery.

NICE guidelines\* recommend that to prevent heel ulceration patients who are identified as being 'At Risk' should have their heels floated. WW&L NHSFT investigated available innovations in support surfaces to evaluate that could ensure the floating of patient heels when required with minimal use of add-ons (such as gutter splints) and without compromising valuable staff time

## Method

A pressure care mattress (Dyna-Form® Static Air HZ, Direct Healthcare Services) with in-built heel zone to float the heels was installed as the standard support surface across 2 Wards, comprising 56 beds in total in October 2016

The Dyna-Form® Static Air HZ, developed in conjunction with the Welsh Wound Innovation Centre, was chosen for the following reasons:

- ✓ Dyna-Form® Static Air HZ is specifically designed for patients considered to be at 'Very High Risk' of pressure ulcer development.
- ✓ Dyna-Form® Static Air HZ is a mattress replacement system that combines the benefits of effective air displacement technology with modern foams for a new standard of innovative pressure ulcer prevention and management.
- ✓ A new and unique 'air only' Intelligent Heel Zone and specially designed U-Core effectively offload pressure on the particularly vulnerable heel area.

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## Results

- ✓ **DECREASE IN DISCOLOURED HEELS**
- ✓ **IMPROVED PATIENT EXPERIENCE**
- ✓ **NO BLISTERS ON HEELS**
- ✓ **SIGNIFICANT COST SAVING**

The new heel zone mattresses have been in place for approximately 10 months during which time we have observed a decrease in the amount of problems we have with discoloured heels. We have had no blisters on heels.

We have also observed a decrease in the number of patients requiring to be transferred onto higher specification rental mattresses, which is a significant cost saving. This reduction in turn also saves a great deal of nursing time not having to obtain, inflate and transfer patients on to rental mattresses, and results in improved patient experience through not having to be transferred on to a rental mattress.

Prior to installing the new mattress we tended to use a great deal of gutter splints to elevate the heels. It has been noted by the ward staff that the use of gutter splints has significantly reduced since installation of the new support surface. Gutter splints could not be tolerated by all patients, hence another aspect to a significantly improved patient experience.

“ A positive move forward in the standard of care delivery ”



Dyna-Form® Static Air HZ



## Discussion

Innovation has resulted in major advances in support surface technology. New generation standard support surfaces can now support NHS Trusts and their nursing teams maximise operational effectiveness whilst improving patient outcomes and experience.

## Conclusion

Feedback from ward staff indicates there has been an overall improvement in pressure areas with evidence of a marked decrease in red heels and sacrum following the installation of the new mattresses. Feedback also indicates there have been no complaints from patients. Staff find the mattresses easy to maintain and clean and over both wards they have only had to condemn one mattress due to the cover being stained. They have not found any mattresses that any fluids or bodily fluids have gone through the mattress cover and stained the inner of the mattress which again is a cost saving of having to replace the whole mattress.

In conclusion, the nursing teams feel that using a standard support surface pre-equipped with heel protection has been a positive move forward in the standard of care delivery.

## References

\*NICE 2014 and NPUAP et al 2014