EMBRACING INNOVATION TO REDUCE HOSPITAL ACQUIRED PRESSURE ULCERS

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Introduction

The elimination of hospital acquired pressure ulcers (HAPU) is a high priority for BHNHSFT and a key component of the Quality Strategy 2014 – 17. The reduction of HAPUs is also related to the local CQUIN target.

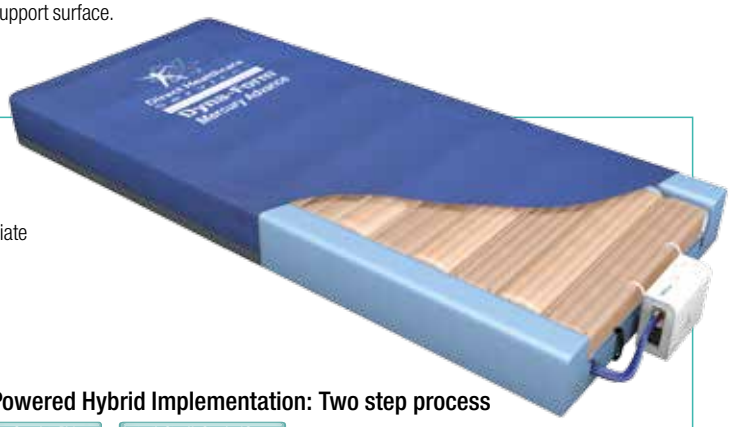
The Tissue Viability service recognised that while the Trust was reacting to and treating pressure damage, more focus was required on prevention. In addition, the traditional approach of using static mattresses as a standard support surface alongside dynamic mattresses that could be swapped in when required was creating multiple issues.

With the need for more focus on prevention accepted it was determined that an updated approach to equipment provision was needed. Therefore the Trust explored how utilising recent product innovation in pressure care products could support this priority and re-focus the PU strategy from being 'reactive' to 'preventative'.

Methods

A review of equipment provision concluded that the traditional approach of foam standard support surfaces supplemented with rented dynamic mattresses was not the optimum solution to help the Trust reduce PU incidence and control costs.

The Trust did not own enough dynamic mattresses therefore was burdened with increasing costs for the hire of additional dynamic products. There was also a time delay between a Risk Assessment concluding that a patient required to be stepped up to a dynamic surface and being put on the appropriate support surface. Decontamination of surfaces was conducted off-site and this could further add to delays in getting patients on the appropriate support surface.



Issues with 'traditional' approach of static support surfaces supplemented with dynamic surfaces

- Time delay from completing a patient risk assessment to ensuring patients were on the appropriate support surface.
- Increasing cost burden of hiring dynamic systems.
- Increasing costs of nursing time when using the step up / step down approach.
- Decontamination process of dynamic surfaces handled off-site added to equipment delays.

Traditional Approach: Multiple step process

Complete Risk Assessment → Request Dynamic Mattress → Arrival on Ward → Set up and switch on Dynamic Mattress → Transfer Patient onto Dynamic Surface with Moving & Handling

Powered Hybrid Implementation: Two step process

Complete Risk Assessment → Instantly Step Up Standard Support surface to provide pressure relief

Powered Hybrid mattresses offer a more innovative approach with the ability to instantly step up or step down patient care, comprising a high specification static foam surface that can also operate as a dynamic surface. The powered hybrid surface provides the ability to instantly put patients on the right support surface, eliminating the time delays and moving and handling issues associated with requesting a dynamic surface

Following an objective investigation and evaluation of alternative hybrid products available, it was decided to trial a system that had clinical evidence of being used in the successful treatment of a Category IV pressure ulcer[1].

The Trust proceeded to trial the powered hybrid solution on the 28 bedded care of the elderly ward. A 6-week trial period was completed with the following results / observations:

We used an evaluation comprising of 28 questions with the answers scored out of 5. 11 feedback forms were received and averaged as a percentage. The following is a sample of 6 questions and their answers.

	Score out of 5	Percentage
How easy was it to use the mattress?	4.5	91%
How easy was it to clean the mattress?	4.7	94%
How effective did you find the pressure settings in preventing/treating pressure ulcers?	4.4	89%
Do you feel this mattress can meet your clinical requirements of your patient needs?	4.5	91%
How comfortable did the patient find the mattress?	4.2	84%
How effective did you find the mattress at releasing nursing time efficiencies?	4.5	91%

Following a successful 6 week trial period the Trust commenced with a two phased implementation of the powered hybrid across the 450 hospital beds. The positive results seen immediately in the first phase of the roll out to the medical black accelerated the second phase being put in place in the surgical block.

In addition a full time Tissue Viability Education Nurse was recruited on a one year funded fixed post to enable greater HAPU education alongside training of how to utilise the new equipment.

Results

The adoption of a powered hybrid has effectively supported PU reduction efforts.

Comparing April – December 2014 vs April – December 2015 the hospital has achieved:

- **67% reduction in Category II PUs (141 vs 47).**
- **25% reduction in Category III PUs (36 vs 27*).**

*18 of the 27 Category III PUs deemed unavoidable following RCA.

In addition there has been extremely positive feedback from the introduction of the powered hybrids, with respect to the speed of 'stepping up' care when required and improved patient compliance.

Discussion

Alongside more focused education, the decision to embrace available product innovation and implement a powered hybrid mattress has supported the Trust in adopting a 'preventative approach', in turn significantly lowering HAPUs. The powered hybrid mattress solution has helped this to be achieved by providing the capability to instantly transform every bed to a dynamic surface when needed, thus reducing the harm caused by delaying getting patients onto the appropriate support surface.

Clinical Significance

The innovation of hybrid mattress solutions can help significantly reduce HAPUs, helping us to deliver harm free patient care and empowering healthcare professionals to deliver optimum care more quickly.

Intelligent® Pressure Care Management | Making a Measurable Difference

Reference:

1. Mason (2013) Pressure Ulcer Prevention with the Dyna-Form Mercury Advance Mattress, Wounds UK Vol 9, No 1