

POSITIVE OUTCOMES FOR PATIENTS, STAFF AND HEALTH BOARD WHEN BEDS ARE PRE-EQUIPPED WITH A DYNAMIC SURFACE – DYNA-FORM® STATIC AIR HZ

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Introduction

Organisations rent pressure relieving surfaces that play an integral part in preventing pressure damage. Over the past decade pressure relieving surfaces have become sophisticated, less complicated and individual costs reduced. The success of these surfaces cannot be argued; however it could be argued that it would be more beneficial to patients, staff and the organisation if beds were pre-equipped with a pressure relieving surface.

The opening of a new hospital provided an opportunity to explore this option. The rationale being:

- Instant provision of pressure relieving surface to vulnerable patients.
- Within the pre-existing rental contractual arrangements it could take up to four hours to receive a mattress and another 30 minutes to transfer the patient, however having a high-specification mattress provides instant therapy.

Efficient and effective use of resources

It takes two nurses, 30 minutes each to inflate and transfer a patient onto a therapeutic mattress. This equates to one hour of nursing time as a minimum, this time will increase if the patient is unable to assist or if there is additional equipment e.g. intravenous line, urinary catheter etc. Using a bed pre-equipped with a pressure relieving surface should also have positive outcomes in terms of moving and handling: a rental mattress weighs around 20kg which requires to be lifted on and off a bed, and patients require to be transferred on and off mattresses.

It was decided that 118 receiving beds would be pre-equipped with Dyna-Form Static Air HZ – A New Generation of Static Support Surface, developed in conjunction with the Welsh Wound Innovation Centre.

The mattress was selected 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 the best of 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. With patient compliance enhanced through the high levels of comfort offered and requiring no powered pump the system is ideal in community and palliative care settings whilst the clinical benefits and ease of use make it equally suitable in the acute ward environment. Incorporating air and foam and air only cells in the unique low pressure heel zone, a patented valve system allows Reactive Airflow System (RAS™) technology to adjust to the patient's body weight and movement.

Dyna-Form Static Air HZ pressure maps 20% better than a high specification foam mattress and has a higher maximum weight capacity of up to 40 stone / 254kg. All component parts are interchangeable and replaceable, maximizing product life, reducing dynamic mattress usage and offering a very cost effective solution to pressure care management.

The vapour permeable, multi way stretch fabric cover incorporates high frequency welded seams and deep flap zip protection conforming to the strictest infection control policies.

Results

The mattresses have been in place for 12 weeks. Senior charge nurses, staff nurses, health care assistants and patients were interviewed to determine whether this approach was proving beneficial in terms of patient and staff benefit.

100% of staff interviewed commented positively and do not want to revert back to the rental system.



The benefits derived included:

TIME SAVING
100 hours of nursing time over 12 months*

INSTANT PRESSURE RELIEF
Less skin marking

RENTAL COSTS DRASTICALLY REDUCED
£5k over 12 months*

REDUCED MOVING AND HANDLING OF PATIENTS AND EQUIPMENT

INCREASED PATIENT COMFORT AND COMPLIANCE

* Over 118 beds only



Discussion & Conclusion

The trailing of equipping all beds with a pressure relieving mattress has proved beneficial in a very short space of time and the benefits in terms of cost effectiveness will increase as time increases. With time pressure on nurses becoming more evident, this simple approach appears to have huge positive impacts in terms of efficient and effective use of resources and patient safety. Already staff have verbalized that they would not wish to return to the previous rental system and suggested that it would be a 'nightmare' if this were to happen.

In a very short period of time, the utilization of a high specification mattress on all in-patient beds has proved beneficial for patients, staff and the organisation.