

EVALUATION OF THE DYNA-FORM STATIC AIR HZ IN A CARDIOTHORACIC UNIT

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Background

Despite the implementation of a multi-faceted prevention strategy a small but consistent number of pressure ulcers continue to occur within patients being admitted for cardiac surgery. Over the previous 12 months 24 pressure ulcers occurred of which 9 were heel pressure ulcers (10 sacral and 5 device related).

Staff were utilising a range of pressure redistributing equipment including heel boots and alternating pressure mattresses (APAMs). The usage of APAMs was consistently exceeding the Health Board contracted number by 30 per month and costs were rising.

It was decided to review a new high specification foam mattress which had built in heel protection within the coronary care units, which comprised the coronary care ward and coronary high dependency unit.

Following confirmation of appropriate governance procedures, all mattresses in the coronary care ward and coronary high dependency unit were replaced with the new Dyna-Form Static Air-HZ mattress (see figure 1).

Training was provided for staff in each area on how to use the mattress and champions identified to support the data capture. Ongoing support for the data capture was provided by the Tissue Viability Nurse, the company representative and the research team from the Welsh Wound Innovation Centre.



Figure 1: The Dyna - Form Static Air HZ (Direct Healthcare Services)

Methodology

A two page form previously used to evaluate the same product was amended to allow for multiple patient journeys – the patient is admitted to the ward, goes to theatre, from theatre to Cardiac ICU, then to Cardiac HDU and then back to the ward (see figure 2). The only change that occurred to practice was that the mattresses were replaced with the Dyna-Form Static Air HZ apart from in the Intensive Care area.

Figure 2: The amended evaluation form

Preliminary Data – 4 months

383 patients have been through the unit and therefore nursed on the new mattress, no new hospital acquired pressure ulcers have been identified.

Only 1 patient has required an alternating pressure mattress compared to 11 in the previous 4 months.

Completion of the paperwork has been sporadic due to the high demands on clinical time and the way data is captured is under review, however this reflects the realities of daily practice and we hope illustrates that the equipment is being used in a real world scenario rather within the controlled confines of a clinical trial – giving it greater generalisability.

From the data that has been completed (see table 1) it appears that there have been no changes in the patient population during the period of the audit that could account for either the reduction in occurrence of pressure ulcers or the reduction in use of alternating mattresses. It appears therefore that the Dyna-Form Static Air HZ is meeting the 2 main objectives of the study, reducing the occurrence of pressure ulcers and reducing spend.

	Minimum All (M:F)	Maximum All (M : F)	Mean All
Age	50 (54:50)	84 (81: 84)	69.1
Risk score	5 (5:7)	30 (30:25)	13.9

Table 1: Patient Data