

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

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#### 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.

PLEASE LEAVE THIS FORM IN PATIENT KARDEX. WHEN COMPLETED LEAVE IN RED/YELLOW FILE ON NURSES' STATION	PLEASE LEAVE THIS FORM IN PATIENT KARDEX. WHEN COMPLETED LEAVE IN RED/YELLOW FILE ON NURSES' STATION	
Section 1: Please complete on admission to the unit	Section 3	
Date of admission:	End of evaluation of mattress	
Patient data:	*Date	
'Age:         'Gender:         M         F         'Height (lim):         'Weight (kg):           Patient ID:	How many days was the mattress in use?	
Diagnosis:	Reason for completion of evaluation – please tick	
	Patient Patient Patient requires Patient died Other piease state	
Start of Evaluation of mattress	ulschargen hansenen soor specification matrices	
Waterlow Pressure Ulcer Risk Score	Status Pressure Lilcer	
	No pressure ulcers developed New pressure ulcer developed	
Existing pressure ulcer:	Existing pressure ulcer improved Existing pressure ulcer deteriorated	
Are there already any existing pressure ulcers: YES NO	If new pressure ulcer developed, please add grade and localisation:	
If yes, please add grade and location and healing response	Grade (EPUAP) D / NC / I	
Grade (EPUAP) Healing yes/ho /static /	- Grader	
Grade I Grade I	Grade II	
Grade II	Grade III Si	
Grade III	Grade IV	
Grade IV	D= Deteriorated NC= No Change I = Improved R L L R	
RIIR		
Section 2 in Cardiac ITU	*Please check your response (1 = No/ Poor 5 = Yes / Excellent) :	
Date and Time Patient put on air mattress	1 2 3 4 6 know	
(if applicable)	How easy was mattress to use?	
Date and Time patient returned to HZ (if applicable)	In your opinion were patient turning times reduced during treatment?	
(		

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 I patient has required an alternating pressure mattress compared to II 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.

		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 I: Patient Data

### 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)

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