

Clinical Evaluation of the DanMedicaSouth Treat-Eezi Bed Pad

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1) EXECUTIVE SUMMARY:

- The Treat-Eezi bed pad was evaluated on 6 Subjects in a Care Home environment over a 4 week period, in order to examine its effect on comfort and contribution to the prevention of pressure damage. The average age of the Subjects was 86 years, with the oldest Subject being 95 years and the youngest 70 years.
- The Waterlow Score Range was 16 – 19, with the average Waterlow Score being 17. Therefore all Subjects were in the “High Risk” category. All of the Subjects reported that the bed pad was comfortable and Care Home staff reported that the bed pad was easy to use and move from bed to chair when needed. Staff also commented that the bed pad could also be used as a very effective slide sheet when trying to move subjects across the bed. Comments were made that the bed pad was cooler than the previous mattress overlay (Repose) they were on and more comfortable generally and so were getting an improved sleep.
In terms of infection control, the staff commented on the ease of laundering the bed pad as it could be machine washed. However, it was noticed that the bed pads began to lose form towards the end of the study period. The outer cover which was firmly attached to the under layer when first used became detached and was prone to wrinkling.
Staff thought the bed pad would be better as a full bed length as it currently offers no protection to heels which are prone to pressure damage. Also if the bed pad could have some sort of bands at each corner to loop over underlying mattress it would help keep it in position better. Comments were also made about the benefits of producing the bed pads in a range of surface area sizes as some subjects had very narrow/small seats that they would sit on and it was sometimes awkward to fold the existing bed pad small enough to fit.
- Five of the Subjects had no signs of existing pressure damage prior to the use of the Bed Pad on their scapulae, spine, sacrum, buttocks or hips. Use of the Treat-Eezi bed pad appeared to result in the continued good health of these areas. One subject had a grade 2 pressure ulcer in the left sacral area and this healed over the study period.

2) INTRODUCTION:

Preventing pressure damage is difficult, due to the large number of potential aetiological factors involved, although it is recognised that the largest single causative factor is unrelieved pressure. Concomitant to this are other predisposing factors which may be intrinsic or extrinsic. These include, intrinsically malnutrition, incontinence, altered level of consciousness and altered level of sensation, and extrinsically, friction and shear forces. Many of these factors are often involved simultaneously, and for those patients who are confined to bed for prolonged periods, appropriate pressure redistributing equipment needs to be considered.

3) TREAT-EEZI BED PAD:

The Treat-Eezi bed pad is a pressure relieving pad marketed by DanMedica South, which is designed to reduce the potential for development of pressure damage in people who are known to be at risk. The bed pad is marketed as an effective system which offers 24hr protection as it can be easily transferred between bed and chair.

4) AIM OF STUDY:

To evaluate the clinical efficacy of the Treat-Eezi bed pad on a small group of Care Home Subjects, when used in conjunction with their existing bed mattress and chair.

5) METHODOLOGY:

The six Subjects for the study were residents in a Care Home. Five of the subjects had no existing pressure damage. One of the subjects had a grade 2 pressure ulcer in the left sacral area.

Prior to the evaluation, the Subjects had been identified by Care Home staff as being at high risk of pressure damage.

Subject profile

Initially, all subjects were on a standard static foam mattress with a Repose mattress overlay.

Most subjects were independent in terms of repositioning in chair and bed, with some just needing minimal assistance.

4 of the Subjects were doubly incontinent and 2 Subjects were incontinent of urine.

The Subjects were visited prior to the commencement of the evaluation, in order to collect baseline data.

Day 0

The skin of each subject was examined for signs of pressure damage.

Photographs were taken of the 'at risk' areas – scapulae, spine, sacrum, buttocks and heels.

A High Definition Ultrasound Scan was taken of each Subject's at risk areas.

Subjects were asked to rate the comfort of their existing mattress overlay (Repose) on a scale of 1 – 10 (10 being most comfortable).

The subjects then had their original mattress overlay removed from the bed and replaced by a Treat-Eezi bed pad.

Day 7, 14, 21, 28

The above methodology was repeated, with the exception that the bed pad remained on the bed or chair throughout the period of evaluation. Therefore none of the Subjects used their old mattress overlay during the period of the Study. Also, the ultrasound scan was only repeated at day 28 (Ultrasound data and results in separate report).

Staff were also asked for comments about the Treat-Eezi bed pad.

6) RESULTS:

The skin on all of the Subjects showed no visual sign of pressure damage or deterioration. The grade 2 pressure ulcer in the left sacral area of subject BG healed over the course of the study.


Using our comfort scale the subjects reported their comfort level on their existing mattress overlay at the start of the study as being on average 4.5 (range 3 – 5). When transferred to the Treat-Eezi bed pads the subject average comfort score went up to 8.2 (range 8 – 9).


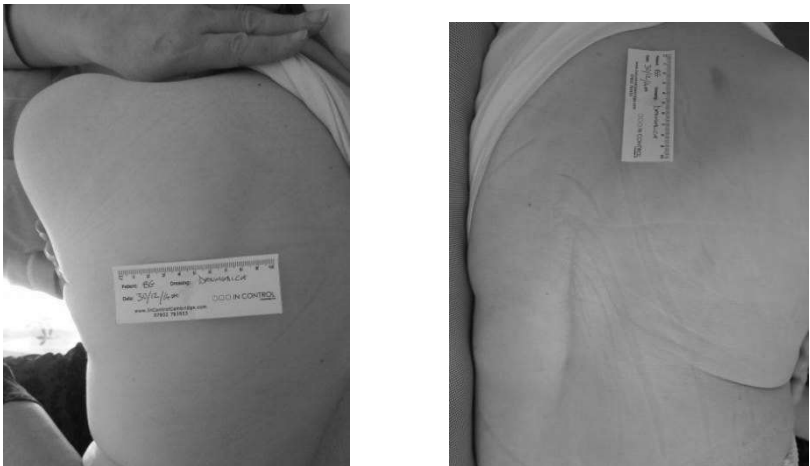
Staff made a range of comments which are mentioned in this report

The individual case studies, with photographs, are presented from page 5 onwards.

7) CONCLUSION:

The results of these case studies were positive. All of the Subjects had exhibited no evidence of pressure damage during the initial assessment on Day 0 apart from one having a grade 2 pressure ulcer in the left sacral region. All of the Subjects` skin maintained this healthy profile throughout the study and the subject with the pressure ulcer healed. Comments about comfort were very positive. Staff also made very good constructive comments about further improvements which could make this an even better product.

Subject 1: (BG)	
Age:	77 years
Gender:	Female
Waterlow Score:	18 (high risk)
MUST Nutritional Score:	0 (low risk)
Medical history:	Angina, Alzheimer's
Continence:	Doubly incontinent.
Transfers:	Standing transfers with the assistance of care staff
Mobility status:	Walks with assistance of care staff and a Zimmer
Repositioning status:	Independent
Length of time sitting:	Approx. 8hrs during the day in a high seat armchair. Regime is 4hrs sitting then 4hrs bed, then 4hrs sitting etc.
Existing mattress:	Standard divan bed and foam mattress. Repose mattress overlay
Other relevant information	Subject had a grade 2 sacral pressure ulcer in the left sacral area. Approx. 2 months in duration.
Day 0 Observations	<ol style="list-style-type: none"> 1. Apart from grade 2 PU in left sacral area no other damage present at initial assessment. 2. Current mattress overlay comfort score – 5
Day 0 Photographs	

Day 7 Observations	<ol style="list-style-type: none"> 1. Apart from PU in left sacral area no other damage present. PU has improved. 2. Treat-Eezi bed pad comfort score – 8 3. Staff comment – Subject seems more settled on the bed pad than the previous overlay and slept better.
Day 7 Photographs	
Day 14 Observations	<ol style="list-style-type: none"> 1. Apart from PU in left sacral area no other damage present. PU continuing to improve 2. Treat-Eezi bed pad comfort score – 8 3. Staff comment – Bed pad easy to use and move from bed to chair. Full length bed pad would be good so heels get protected.
Day 14 Photographs	





**Day 21
Observations**

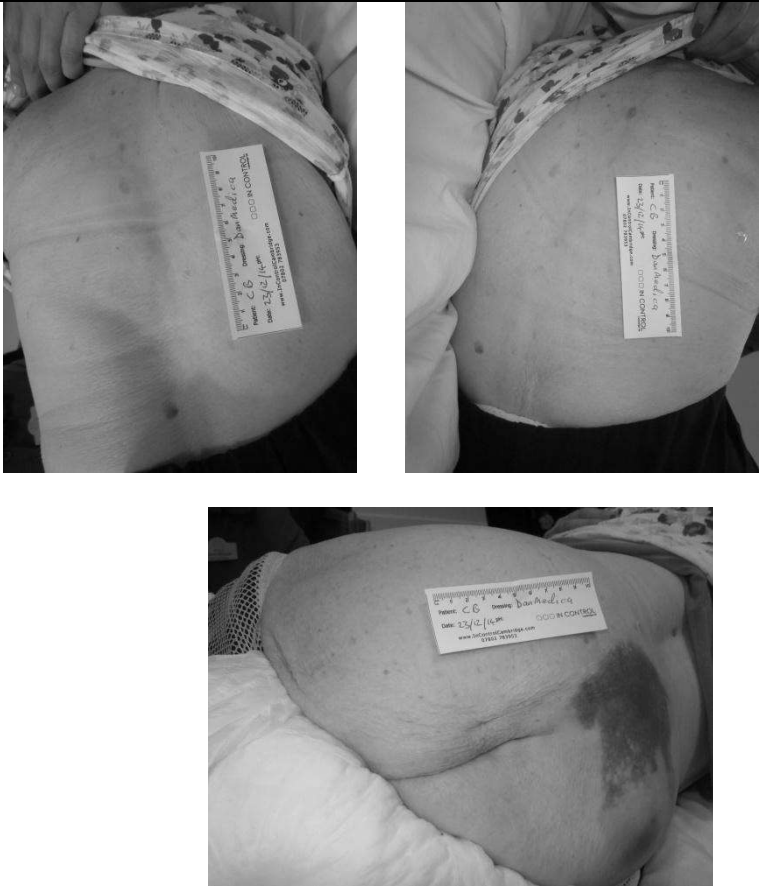

1. Apart from PU in left sacral area no other damage present. PU continuing to improve
2. Treat-Eezi bed pad comfort score – 8..
3. Staff comment – Same as Day 7 and 14 comments.

**Day 21
Photographs**



Day 28 Observations	<ol style="list-style-type: none"> 1. Left sacral PU healed. No other signs of pressure damage. 2. Treat-Eezi bed pad comfort score – 8. 3. Staff comment – Same as Day 7, 14 and 21 comments.
Day 28 Photographs	

Subject 2: (CB)	
Age:	91 years
Gender:	Female
Waterlow Score:	16 (High risk)
MUST Nutritional Score:	0 (low risk)
Medical history:	Osteoporosis, diabetes.
Continence:	Urinary incontinence
Transfers:	Standing transfers with the assistance of care staff
Mobility status:	Walks with assistance of care staff and a Zimmer
Repositioning status:	Independent
Length of time sitting:	Approx. 8hrs during the day in a high seat armchair. Regime is 4hrs sitting then 4hrs bed, then 4hrs sitting etc.
Existing mattress:	Standard divan bed and foam mattress. Repose mattress overlay
Other relevant information	N/A
Day 0 Observations	<ol style="list-style-type: none"> 1. No skin damage present at initial assessment. 2. Substantial bruising in lower back due to previous fall. 3. Current mattress overlay score – 4
Day 0 Photographs	

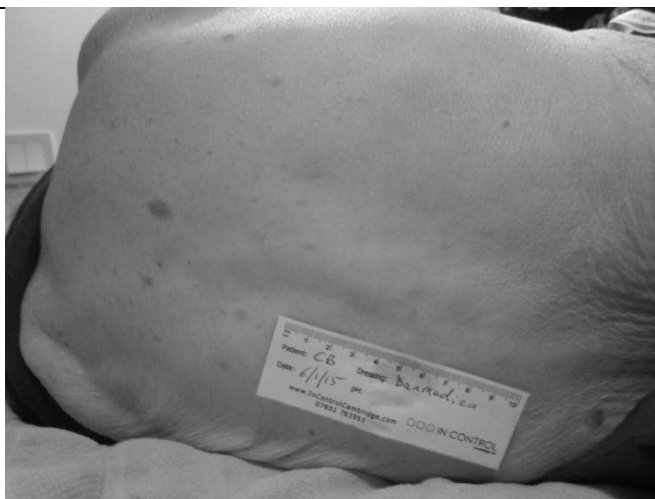
Day 7 Observations	<ol style="list-style-type: none"> 1. No sign of pressure injuries 2. Bruising of lower back improving 3. Treat-Eezi bed pad comfort score – 8. 4. Staff comment – Absorbance of sweat is good. Sleeping better.
Day 7 Photographs	
Day 14 Observations	<ol style="list-style-type: none"> 1. No sign of pressure injuries 2. Bruising of lower back improving 3. Treat-Eezi bed pad comfort score – 8. 4. Staff comment – Same as day 7
Day 14 Photographs	




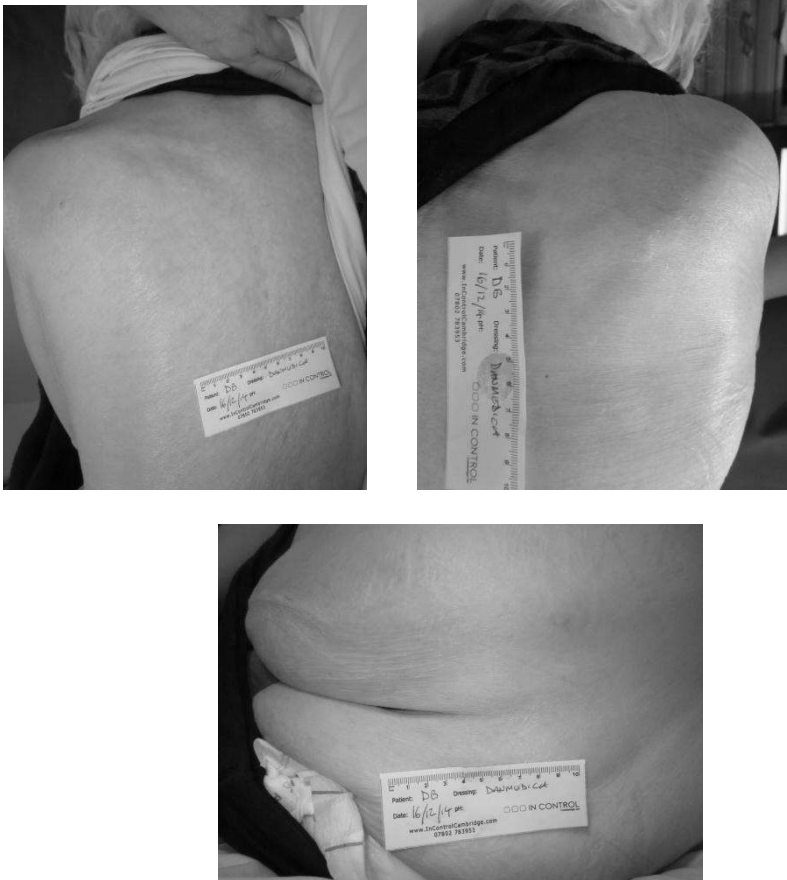
**Day 21
Observations**

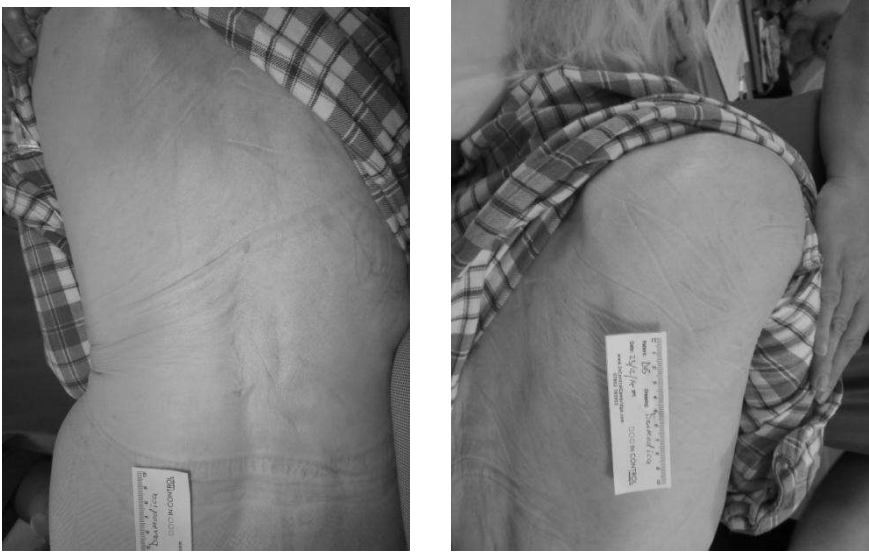


1. No sign of pressure injuries
2. Bruising of lower back improving
3. Treat-Eezi bed pad comfort score – 8.
4. Staff comment – Same as day 7 and 14

**Day 21
Photographs**



Day 28 Observations	<ol style="list-style-type: none"> 1. No sign of pressure injuries 2. Bruising of lower back almost resolved 3. Treat-Eezi bed pad comfort score – 8. 4. Staff comment – Same as day 7 and 14
Day 28 Photographs	

Subject 3: (DB)	
Age:	87 years
Gender:	Female
Waterlow Score:	16 (High risk)
MUST Nutritional Score:	0 (low risk)
Medical history:	Hypertension
Continence:	Urinary incontinence
Transfers:	Standing transfers with the assistance of care staff
Mobility status:	Walks with assistance of care staff and a Zimmer
Repositioning status:	Independent
Length of time sitting:	Approx. 8hrs during the day in a high seat armchair. Regime is 4hrs sitting then 4hrs bed, then 4hrs sitting etc.
Existing mattress:	Standard divan bed and foam mattress. Repose mattress overlay
Other relevant information	N/A
Day 0 Observations	<ol style="list-style-type: none"> 1. No skin damage present at initial assessment. 2. Current mattress overlay score – 3
Day 0 Photographs	

Day 7 Observations	<ol style="list-style-type: none"> 1. No sign of pressure injuries 2. Treat-Eezi bed pad comfort score – 9 3. Staff comment – Subject finds bed pad cooler and more comfortable. Doesn't sweat so much.
Day 7 Photographs	 
Day 14 Observations	<ol style="list-style-type: none"> 1. No sign of pressure injuries 2. Treat-Eezi bed pad comfort score – 9 3. Staff comments – Sleeping longer. Pad also acts as an effective slide sheet.
Day 14 Photographs	





**Day 21
Observations**



1. No sign of pressure injuries
2. Treat-Eezi bed pad comfort score – 9
3. Staff comment – same as day 7 and 14 comment.

**Day 21
Photographs**



Day 28 Observations	<ol style="list-style-type: none"> 1. No sign of pressure injuries 2. Treat-Eezi bed pad comfort score – 9 3. Staff comment – same as day 7,14 and 21 comment.
Day 28 Photographs	

Subject 4: (HW)	
Age:	70 years
Gender:	Male
Waterlow Score:	19 (High risk)
MUST Nutritional Score:	0 (low risk)
Medical history:	COPD, Parkinsons.
Continence:	Doubly incontinent.
Transfers:	Assisted by carers to do standing transfer
Mobility status:	Walks with assistance of care staff and a Zimmer
Repositioning status:	Independent
Length of time sitting:	Approx. 8hrs during the day in a high seat armchair. Regime is 4hrs sitting then 4hrs bed, then 4hrs sitting etc.
Existing mattress:	Standard divan bed and foam mattress. Repose mattress overlay
Other relevant information	N/A
Day 0 Observations	1. No sign of pressure injuries present at initial assessment. 2. Current mattress overlay score – 4
Day 0 Photographs	

Day 7 Observations	<ol style="list-style-type: none"> 1. No sign of pressure injuries 2. Treat-Eezi bed pad comfort score – 8 3. Staff comment – Subject finds bed pad comfortable and likes it on chair. Easy to keep clean.
Day 7 Photographs	
Day 14 Observations	<ol style="list-style-type: none"> 1. No sign of pressure injuries 2. Treat-Eezi bed pad comfort score – 8 3. Staff comment – As per day 7 comment.
Day 14 Photographs	





**Day 21
Observations**

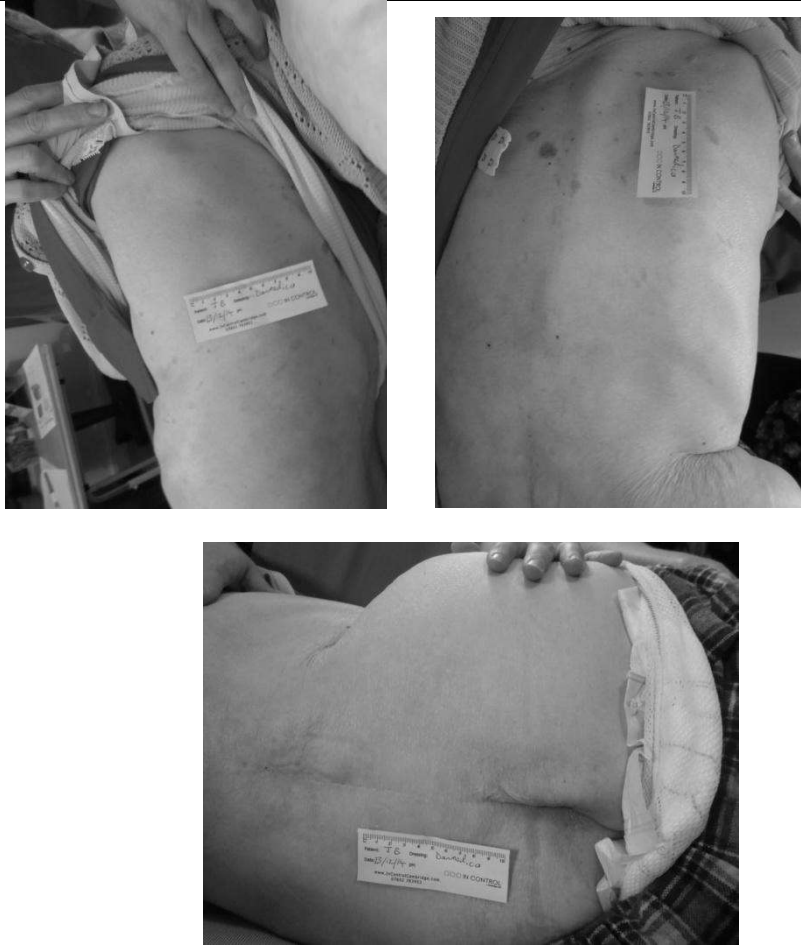
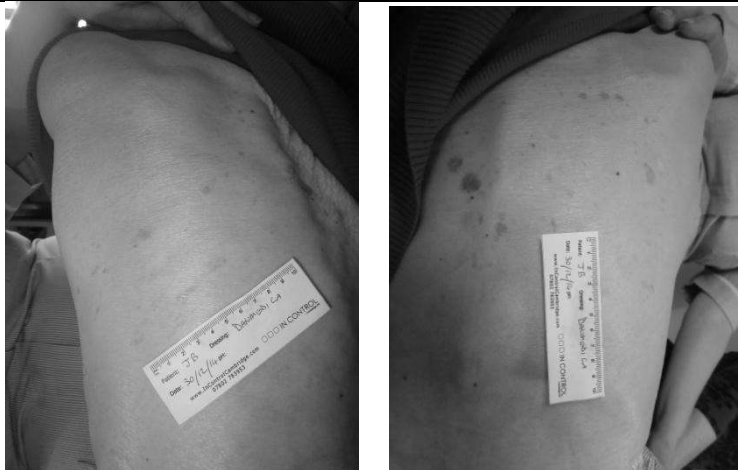
1. No sign of pressure injuries
2. Treat-Eezi bed pad comfort score – 8
3. Staff comment – As per day 7 and 14 comment.

**Day 21
Photographs**



Day 28 Observations	<ol style="list-style-type: none"> 1. No sign of pressure injuries 2. Treat-Eezi bed pad comfort score – 8 3. Staff comment – As per day 7, 14 and 21 comment.
Day 28 Photographs	

Subject 5: (JB)	
Age:	94 years
Gender:	Female
Waterlow Score:	17 (High risk)
MUST Nutritional Score:	0 (low risk)
Medical history:	Ischaemic heart disease
Continence:	Doubly incontinent.
Transfers:	Standing transfers with the assistance of care staff
Mobility status:	Walks with assistance of care staff and a Zimmer
Repositioning status:	Independent
Length of time sitting:	Approx. 8hrs during the day in a high seat armchair. Regime is 4hrs sitting then 4hrs bed, then 4hrs sitting etc.
Existing mattress:	Standard divan bed and foam mattress. Repose mattress overlay
Other relevant information	N/A
Day 0 Observations	<ol style="list-style-type: none"> 1. No sign of pressure injuries present at initial assessment. 2. Current mattress overlay score – 5
Day 0 Photographs	 <p>The photographs show the back and buttocks of a patient. Each photo includes a ruler for scale and a label with patient information. The top left photo shows the upper back and shoulder area. The top right photo shows the upper back and shoulder area from a slightly different angle. The bottom photo shows the buttocks and lower back area.</p>

Day 7 Observations	<ol style="list-style-type: none"> 1. No sign of pressure injuries 2. Treat-Eezi bed pad comfort score – 8 3. Staff comment – Easy to use and move between bed and chair. Subject sleeps well.
Day 7 Photographs	
Day 14 Observations	<ol style="list-style-type: none"> 1. No sign of pressure injuries 2. Treat-Eezi bed pad comfort score – 8 3. Staff comment – As per day 7 comments.
Day 14 Photographs	

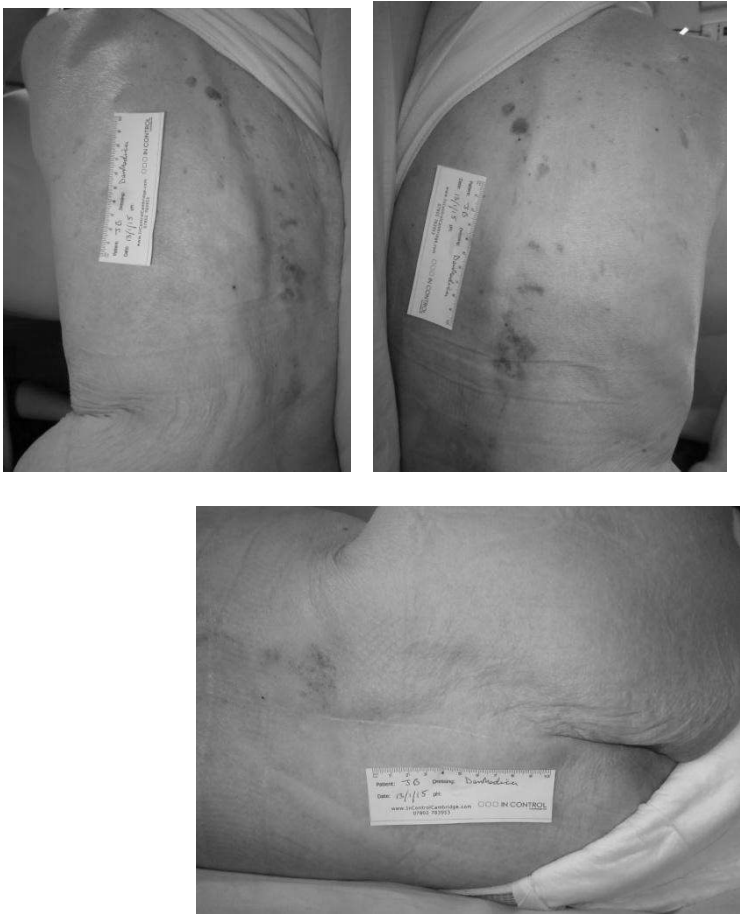



**Day 21
Observations**

1. No sign of pressure injuries
2. Treat-Eezi bed pad comfort score – 8
3. Staff comment – As per day 7 and 14 comments.

**Day 21
Photographs**



Day 28 Observations	<ol style="list-style-type: none"> 1. No sign of pressure injuries. Some bruising on back due to fall. 2. Treat-Eezi bed pad comfort score – 8 3. Staff comment – As per day 7/ 14 and 21.
Day 28 Photographs	

Subject 6: (JM)	
Age:	95 years
Gender:	Female
Waterlow Score:	16 (High risk)
MUST Nutritional Score:	0 (low risk)
Medical history:	Ischaemic heart disease
Continence:	Doubly incontinent.
Transfers:	Standing transfers with the assistance of care staff
Mobility status:	Walks with assistance of care staff and a Zimmer
Repositioning status:	Independent
Length of time sitting:	Approx. 8hrs during the day in a high seat armchair. Regime is 4hrs sitting then 4hrs bed, then 4hrs sitting etc.
Existing mattress:	Standard divan bed and foam mattress. Repose mattress overlay
Other relevant information	N/A
Day 0 Observations	<ol style="list-style-type: none"> 1. No sign of pressure injuries present at initial assessment. 2. Current mattress overlay score – 5
Day 0 Photographs	



**Day 7
Observations**

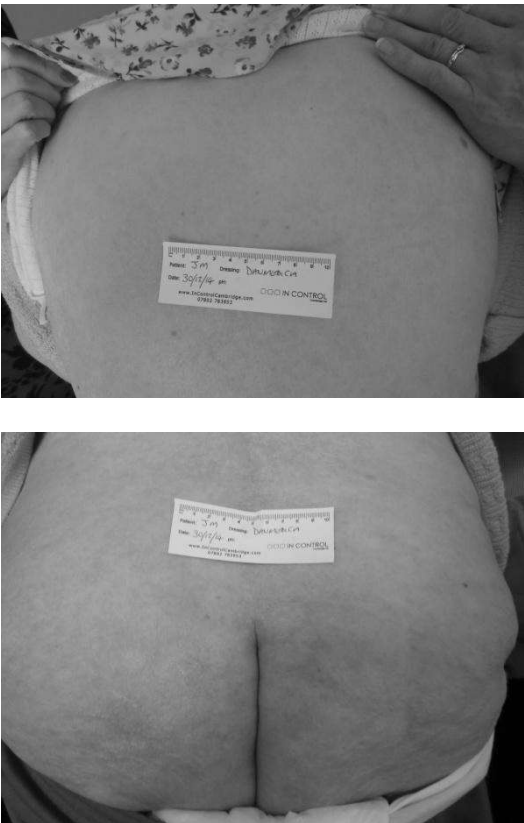

1. No sign of pressure injuries
 2. Treat-Eezi bed pad comfort score – 8
- Staff comment – Easy to use and move between bed and chair.
Easy to clean when soiled. Subject sleeps well.

**Day 7
Photographs**



**Day 14
Observations**

1. No sign of pressure injuries
2. Treat-Eezi bed pad comfort score – 8
3. Staff comment – As per day 7 comments.

<p>Day 14 Photographs</p>	
<p>Day 21 Observations</p>	<ol style="list-style-type: none"> 1. No sign of pressure injuries 2. Treat-Eezi bed pad comfort score – 8 3. Staff comment – As per day 7 and 14 comments.
<p>Day 21 Photographs</p>	

Day 28 Observations	<ol style="list-style-type: none"> 1. No sign of pressure injuries. Some bruising on back due to fall. 2. Treat-Eezi bed pad comfort score – 8 3. Staff comment – As per day 7/ 14 and 21.
Day 28 Photographs	