

# Aderma™ range: a flexible way to prevent pressure ulcers

The Aderma range of products is a simple to use, inexpensive addition to any pressure ulcer prevention policy. The flexibility of the products mean that they can be used on anatomical locations where mattresses will have no impact on preventing pressure damage, such as beneath an oxygen mask, or between the digits. The products can also be used in locations where pressure ulcer prevention mattresses are difficult to use, such as accident and emergency departments and operating theatres. The product range is well liked by both patients and staff and provides a cost-effective solution to managing the risk of pressure damage across all care settings.

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## KEY WORDS

Aderma™  
Pressure ulcers  
Specialist mattresses  
Clinical practice

Pressure ulcer occurrence continues to challenge clinicians. Despite the introduction of increasingly sophisticated equipment and routine screening for the risk of pressure damage, approximately one in every five patients continue to develop pressure damage (European Pressure Ulcer Advisory Panel [EPUAP], 2002). This may relate to many different factors, including changes in the complexity of patients, increased survival with multiple disease pathologies, and also in some cases, to the complexity of equipment and inconsistencies in risk assessment.

The PRESSURE trial (Nixon et al, 2006) identified an alarming number of times that equipment malfunction was due to simple user error (for example, the plug being removed or switched off

and cardiac resuscitation systems not being replaced).

Vanderwee et al (2007) carried out a large, randomised, controlled trial in which two groups of patients were assessed for pressure ulcer risk using the Braden score. In one arm, preventative equipment was provided if the Braden score indicated that this was appropriate, while in the other arm, although the score indicated the need for intervention with pressure-relieving equipment, this was ignored and preventative action was only implemented when non-blanching erythema was identified. The results showed that not only was there no difference in pressure ulcer occurrence between the two groups, but that there were significant cost-savings achieved when the Braden score was ignored as preventative equipment was put into

place much less frequently. This suggests that if non-blanching erythema could be avoided, less severe pressure damage would occur, and also that if equipment was more 'fail safe', there would be less opportunity for errors or malfunction.

## The Aderma™ range

The Aderma™ range of products (FPD Medical Ltd) provide a simple, flexible approach to preventing early pressure damage (Table 1). The product, which is available in a range of shapes and sizes, is made from a unique polymer gel, similar to fatty tissue, which distributes pressure while protecting and padding bony prominences. The flat square shape has been available for many years under its previous name of Dermal Pads, but the new additions to the range of sacral, heel and strip pads (Figure 1)

Table 1

Range of products shapes and sizes

Product	Size in cm
Heel	Universal
Sacrum	Universal
Strips	50x2.5x0.3; 30x5x0.3
Squares	10x10x0.3; 10x10x1.2



Figure 1. Product range.

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considerably increases the number of areas where the product can be used.

Aderma products have a modified surface which transfers frictional forces away from the skin and the three-way elasticity of the material allows the product to change shape with the natural movement of the body. Aderma is designed to be used next to the skin for maximum benefit and should not be used directly on open wounds as it is not sterile. The product is hardwearing and long-lasting and can be used repeatedly on the same patient. It can be cleaned in plain soap and water or Chlor Clean solution should it become soiled.

As the product is not adhesive it encourages regular removal and inspection of the skin — a basic tenet of pressure ulcer prevention (EPUAP/ National Pressure Ulcer Advisory Panel



Figure 2. Toe severely displaced, pressure damage occurring underneath on the top of the other toes.



Figure 3. Prominent iliac crest.



Figure 4. Sacrum on shoulder.

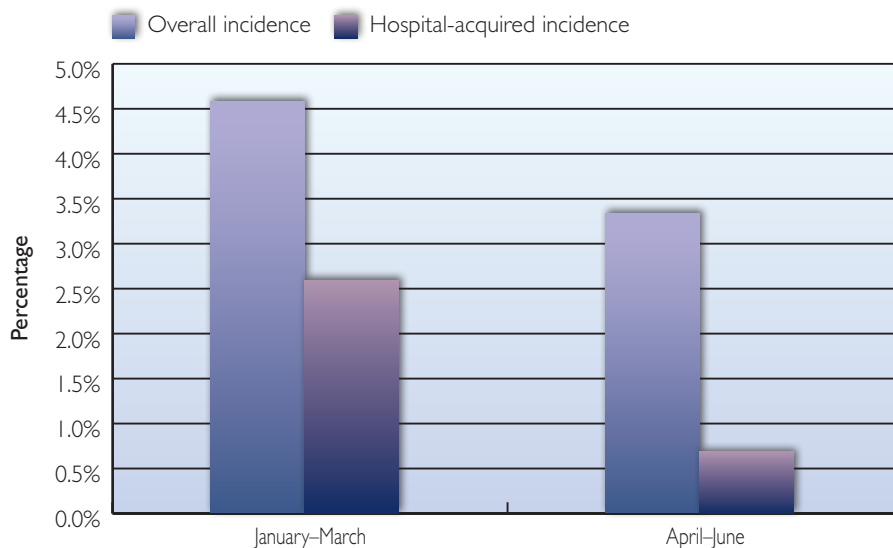


Figure 5. Pressure ulcer incidence.

[NPUAP], 2009). The material also rehydrates the skin by occlusion — particularly useful on dry cracked heels — but has been designed to allow some circulation of air to prevent maceration from occurring.

The flat square (available in two thicknesses, 0.3cm and 1.2cm) is useful for patients with contractures and can be comfortably fitted between opposing parts of the body, for example, hands where the fingers are so contracted that the nails are digging in and wounding the palm. Less frequent occurrences, such as gross spasticity or deformity, for example, where digits can be displaced, are also suitable for using this product. The benefits being that the product is slim enough to insert without having to force open the contracture and cause pain, but is dense enough to redistribute the pressure (Figure 2).

The sacral product is a unique shape designed by healthcare professionals which aims to give protection to both ischia and the coccyx. The product is retained in situ with the patient's own underwear or net pants. If the patient is immobile, it is possible to simply place the pad underneath them. While primarily designed for the sacral area, the curved shape means it is also useful on other curvatures, for example, over a particularly bony iliac crest (Figure 3) or across the top of back/base of neck

where it protects vulnerable spinal processes, as well as protruberant clavicles/shoulder blades (Figure 4).

The heel shape is designed to be retained within a specially shaped retention sock. The size and shape of the heel product ensure that the Achilles tendon is also protected. The density of the product tapers towards the edges increasing patient comfort, while the thicker area directly over the heel margin gives maximum protection. The shape can also be used on elbows or thin, bony knees.

A three-month evaluation of the heel and sacral products was carried out in a large acute hospital as part of a 'No Avoidable Pressure Ulcers' strategy (Leonard and Ormond, 2008). The product was introduced to four clinical areas (two elderly medicine wards, one orthopaedic and one general surgery), selected for their particularly high incidence (2.5%) of hospital-acquired pressure ulcers. Following training on the product, Aderma™ was added to the existing pressure ulcer policy. An 87% overall reduction in hospital-acquired pressure ulcers was seen during the three-month study period (Figure 5), and those ulcers that developed were of less severe grades with no grade 3 or 4 ulcers (EPUAP, 1999) being recorded (Figures 6 and 7). General feedback from the staff identified that the product was easy to use and seen as a simple but effective way of protecting vulnerable

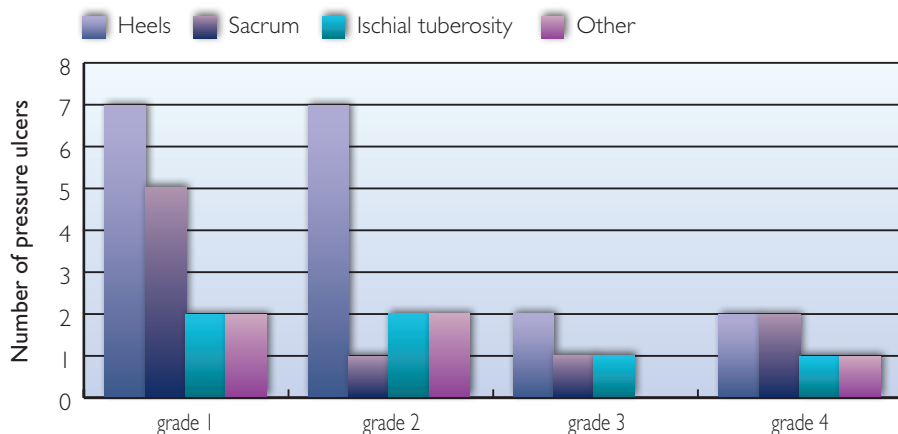


Figure 6. Site of pressure damage (January-March).

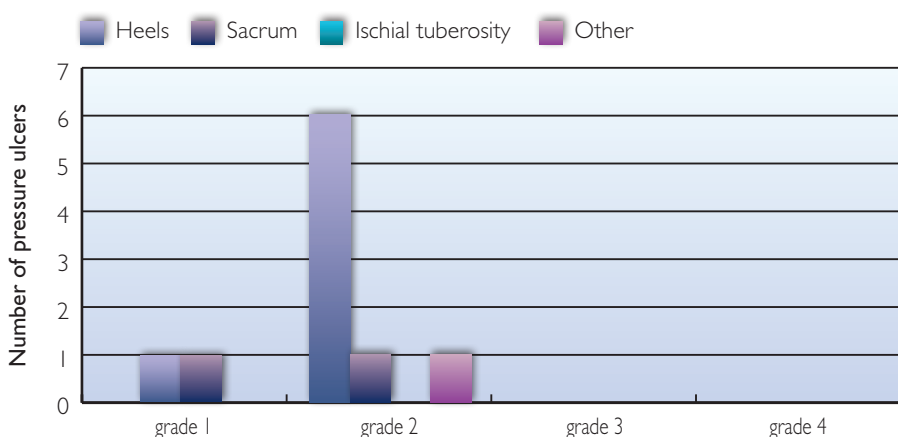


Figure 7. Site of pressure damage (April-June).



Figure 8. Strip and pot.

areas. The authors concluded that the product 'was extremely effective in reducing the incidence of pressure ulcers, enhancing the safety of patients when they are admitted to hospital'. Following on from the evaluation, use of the products was implemented across the trust, including the accident and emergency and theatre departments, areas where it has traditionally been difficult to implement specialist mattress use because of the particular demands of those departments, i.e. rapid turnover

in emergency rooms and the inability to use alternating pressure in theatre as the patient has to be still.

The most recent addition to the range is the 'strip' product — a 2.5cm wide x 50cm long strip. This is useful for 'tricky' areas where most mattresses have no impact. Being 50cm in length means that an appropriate length can be cut for where it is required. The strip is provided in a robust pot which can be named and kept with the patient with pieces being cut off as needed (Figure 8). This has been particularly useful beneath oxygen masks, either across the bridge of the nose or to protect the ears from the retaining elastic. Similarly, it is useful around the plastic wings of tracheostomies or under tape. It can equally be used between digits, down a bony spine or prominent tibial crest.

This product has benefits in clinical practice. While it in no way replaces the use of specialist mattresses and cushions,

### Key points

- ▶▶ The incidence of pressure ulcers remains high.
- ▶▶ Heel ulcers are becoming increasingly more common.
- ▶▶ Identifying the early stages of damage and implementing speedy targeted action can cause significant reductions in occurrence.
- ▶▶ Simple, inexpensive products can make a significant difference to patient outcomes.

it can be used for specific problem areas, for example, across the bridge of a nose, where a patient may be reluctant to use equipment or, indeed, where a mattress has no impact, such as between the knees.

Aderma is simple to use, inexpensive and has been seen to have immediate benefits for practice. Its use, particularly on heels which are becoming high profile problem areas, can have significant benefits for both patients and the care provider. **WUK**

### References

EPUAP (2002) Summary report on the prevalence of pressure ulcers. *EPUAP Review 4(2)*. Available online at: [www.epuap.org/review4\\_2/page8.html](http://www.epuap.org/review4_2/page8.html)

European Pressure Ulcer Advisory Panel and National Pressure Ulcer Advisory Panel (2009) *Prevention and treatment of pressure ulcers: quick reference guide*. National Pressure Ulcer Advisory Panel, Washington DC

Nixon J, Nelson EA, Cranny G, et al (2006) Pressure relieving support surfaces: a randomised evaluation. *Health Technology Assessment 10(2)*: 1-163

Leonard S, Ormond K (2008) *An Evaluation of Shaped Dermal Pad and Their Influence on the Incidence of Pressure Ulcers in an Acute Foundation Trust*. Poster presentation, Wounds UK Conference, Harrogate

Vanderwee K, Grypdonck M, Defloor T (2007) Non-blanchable erythema as an indicator for the need for pressure ulcer prevention: a randomized controlled trial. *J Clin Nurs 16(2)*: 325-35