

# Collaborative evaluation of a pressure redistribution pad in reducing device related pressure damage in critical care units across two health boards

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## Background

The critical care units in Abertawe Bro Morgannwg University Health Board (48 beds) and Hywel Dda Health Board (16 beds) had zero tolerance to avoidable healthcare acquired pressure ulcers (AHCAPUs); robust scrutiny of all AHCAPUs; and both had implemented many successful improvement measures with respect of reducing pressure damage.

However, device related pressure ulcers (DRPUs) (Fig. 1) remained a common occurrence, with 8-10 AHCAPUs occurring monthly (2017). Different types/ methods of pressure redistribution devices had been trialled with no significant reduction in DRPUs.



Figure 1. Example of a medical device which can result in a DRPU

## Management Approach

The two Health Boards collaborated in a joint evaluation of a pressure redistributing pad (Fig. 3 Dermis Plus, Frontier Medical) which appeared thinner and offered increased flexibility to mould into and under medical devices.

Over a one month period, patients with medical devices received a redistributing pad, sized and cut to mould the device. These were issued to those with: cervical hard collars; facial respiratory masks; oxygen nasal specs; tracheotomy devices; nasogastric tubing (Fig. 2). Individuals with existing skin damage were excluded.



Figure 2. Examples of medical devices used in conjunction with Dermis Plus.

## Outcomes

The results were collected over a one month period from 40 patients with a variety of devices. During this period no DRPUs occurred in either Health Board. Staff feedback was positive reporting: ease of use; adaptability; easy to clean. There were no incidences of patients requesting removal from the evaluation and no devices were excluded because the product would not conform. There were no instances of other skin damage reported which had been seen previously such as skin stripping; moisture capture or other skin irritation.



Figure 3. Dermis Plus Pressure Redistribution Pads

## Conclusion

The authors acknowledge that using pressure redistribution pads in the prevention of DRPUs is not new approach. However, previous evaluations had not given the clinicians confidence in their effectiveness due to the inflexibility of products and requirement to stock numerous sizes. The effectiveness of this evaluation has led to a change in practice in prevention of DRPUs in this very high risk patient group and as a result planned implementation in other areas.