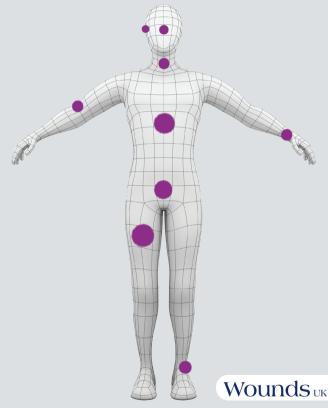


## MEDICAL DEVICE-RELATED PRESSURE ULCER PREVENTION



## **OPTIMISING DEVICE-RELATED PRESSURE ULCER PREVENTION**

Medical device	At-risk area(s) of body Risk factors		Local prevention	Application
			Primary dressing	Use appropriate size and shape option for anatomical area
Oximetry probe	ß	Ears Lack of fatty tissue Poor vascularisation Abnormal shape/lack of space behind ear Fingers Thinner skin Poor vascularisation Neuropathy	Thin, self-adherent foam dressing, with a soft silicone contact layer, that cushions and effectively absorbs and retains exudate while encouraging moist wound healing (eg Mepilex® Border Lite, Mepitel® Film)	anatomical area Apply dressing gently to vulner- able area, press- ing adhesive to surrounding anatomy (if ap- propriate), then apply device over dressing
Noninvasive positive pressure ventilation/ bilevel positive airway pressure		Forehead Thin skin Pressure from position of device Nose Thin skin Poor vascularisation	Thin, self-adherent foam dressing, with a soft silicone contact layer, with or without film backing, that cushions and absorbs and retains exudate, if present. Protection against shear, friction and moisture (eg Mepilex®, Mepilex® Lite)	Cut to shape
Tracheostomy tube		Circumference of neck Thin skin Bony prominences Bony prominences Pressure from position of patient (eg prone)	Thin, self-adherent foam dressing, with a soft silicone contact layer, with film backing, that cushions and absorbs and retains exudate, if present. Protection against shear, friction and moisture (eg Mepilex)	Cut slit midwa
Tracheostomy brace		Circumference of neck Thin skin Bony prominences Pressure from position of patient	Thin, self-adherent foam dressing, with a soft silicone contact layer, with or without film backing, that cushions and absorbs and retains exudate, if present. Protection against shear, friction and moisture (eg Mepilex, Mepilex Lite)	Cut to shape
Endotracheal tube		Lips and surrounding area Thin skin Pressure from positions of patient and device	Thin, self-adherent foam dressing, with a soft silicone contact layer, with or without film backing, that cushions and absorbs and retains exudate, if present (eg Mepilex, Mepilex Lite)	Cut to shape
Nasal cannula		Nose Thin skin Poor vascularisation Upper lip Pressure from position of device Ears Lack of fatty tissue Poor vascularisation Abnormal shape/lack of space (eg due to glasses)	Thin, self-adherent foam dressing, with a soft silicone contact layer, with or without film backing, that cushions and absorbs and retains exudate, if present. Protection against shear, friction and moisture (eg Mepilex, Mepilex Lite)	Cut to shape
Abdominal tubing/ catheters		Abdomen Fragile skin Pressure from position of device Oedema	Thin, self-adherent foam dressing, with a soft silicone contact layer, with or without film backing, that cushions and absorbs and retains exudate, if present (eg Mepilex, Mepilex Border)	Cut slit midwa
Cervical collar		Occiput Bony prominence Thin skin Pressure from position of patient (eg prone) Mandible Bony prominence Pressure from position of device	Thin, self-adherent foam dressing, with a soft silicone contact layer, that cushions and absorbs and retains exudate, if present (eg Mepilex Lite)	Cut to shape
External fixator		Multiple sites on the body Bony prominences Thin skin Poor vascularisation Pressure from position of device and patient Fragile skin Oedema	Multilayered absorbent foam dressing, with soft silicone contact layer and film backing, that cushions and absorbs and retains exudate, if present (eg Mepilex Border)	

### KEY PRINCIPLES FOR PREVENTING DEVICE-RELATED PRESSURE ULCERS

#### WHY THEY OCCUR

- Rigidity and inelasticity of devices
- Difficulties adjusting/securing devices to the body
- Difficulty safely moving/lifting devices to check skin
- Prolonged pressure in the same place
- Increased moisture and heat at the skin surface under devices

- Inability to visualise skin
- Inappropriate device size or selection
- Swelling due to oedema
- Lack of awareness of need to remove/reposition devices and provide ongoing basic skin care under devices
- Shear and friction from patient

#### WHO IS AT RISK

#### Individuals with:

- Impaired sensory perception
- Impaired ability to communicate discomfort
- Compromised vascularity
- Compromised skin integrity
- A medical device in place
- Presence of oedema
- 34.5% of hospital-acquired PUs occur in patients with medical devices<sup>1</sup>
- Patients with medical devices are 2.4 times more likely to develop PUs of any kind<sup>1</sup>
- Black JM, Cuddigan JE, Walko MA, et al (2010) Medical device related pressure ulcers in hospitalized patients. Int Wound J 7(5):358-65

#### HOW TO PREVENT DEVICE-RELATED PRESSURE DAMAGE

- Inspect the skin beneath medical devices regularly (as per local protocol)
- Consider the use of dressings that redistribute pressure and shear for body areas in contact with medical devices, to reduce the impact on affected body areas\*
- Continue to lift and/or move the medical device to examine the skin beneath it and reposition for pressure relief; be sure devices are applied/fixated appropriately
- Provide basic skin care: keep skin clean, dry and well-hydrated

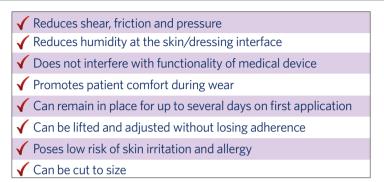
\* Use as an adjunct to local prevention protocols

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# IDEAL DRESSING QUALITIES FOR PREVENTING DEVICE-RELATED PRESSURE ULCERS



- 2. White R (2005) Evidence for atraumatic soft silicone wound dressing use. Wounds UK 1(3):104-9
- 3. Dykes PJ, Heggie R, Hill SA (2001) Effect of adhesive dressings on the stratum corneum of the skin. J Wound Care 10(2):7-10
- Call E, Pedersen J, Bill B, Oberg C (2011) Wound dressing shear test method (bench) providing results equivalent to humans. Poster presented at: Fourteenth Annual European Pressure Ulcer Advisory Panel Meeting, Oporto, Portugal: 2 September
- 5. Santamaria, N et al (2013) The border trial: A prospective randomised controlled trial of the effectiveness of multi-layer silicone dressings in preventing intensive care unit pressure ulcers. Oral presentation at: 23rd Conference of the European Wound Management Association, Copenhagen, Denmark: 17 May

#### THE POWER OF FOUR AND SAFETAC® TECHNOLOGY







2. Redistribute pressure



4. Manage microclimate

Benefits of Safetac<sup>®</sup> Technology:

- Will not strip skin cells or cause pain on removal<sup>2,3</sup>
- Will re-adhere<sup>2,3</sup>
- Absorbs shear energy, reducing the shearing effects on the skin<sup>4</sup>
- Reduces skin distortion, therefore increasing skin cell viability<sup>5</sup>