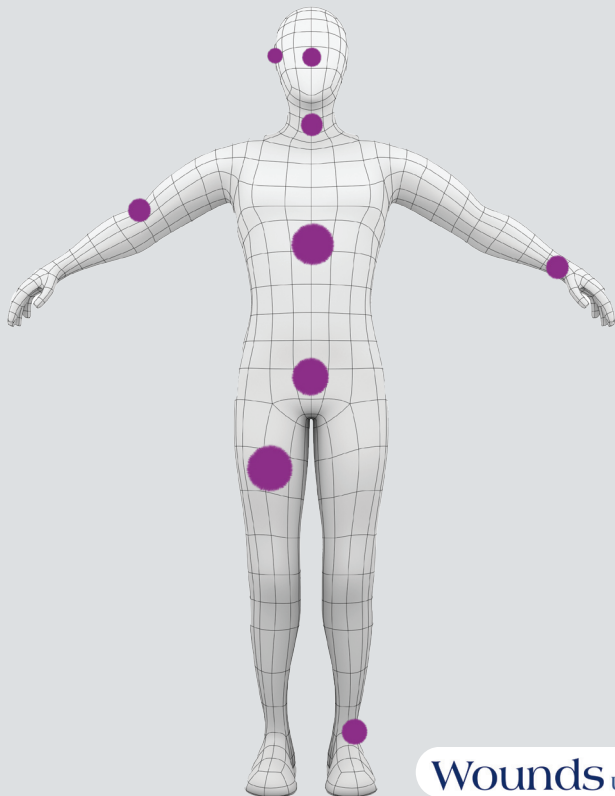




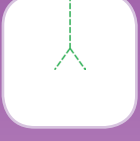

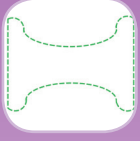

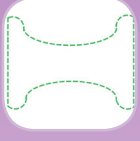

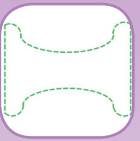
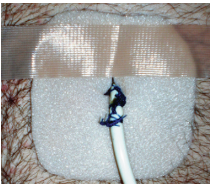
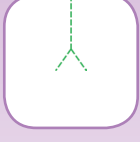
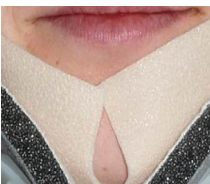
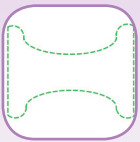



MEDICAL DEVICE-RELATED PRESSURE ULCER PREVENTION



OPTIMISING DEVICE-RELATED PRESSURE ULCER PREVENTION

Medical device	At-risk area(s) of body Risk factors	Local prevention Primary dressing	Application
Oximetry probe	 <p>Ears</p> <ul style="list-style-type: none"> Lack of fatty tissue Poor vascularisation Abnormal shape/lack of space behind ear <p>Fingers</p> <ul style="list-style-type: none"> 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)	<ul style="list-style-type: none"> Use appropriate size and shape option for anatomical area Apply dressing gently to vulnerable area, pressing adhesive to surrounding anatomy (if appropriate), then apply device over dressing
Noninvasive positive pressure ventilation/ bilevel positive airway pressure	 <p>Forehead</p> <ul style="list-style-type: none"> Thin skin Pressure from position of device <p>Nose</p> <ul style="list-style-type: none"> 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)	<p>Cut to shape</p> 
Tracheostomy tube	 <p>Circumference of neck</p> <ul style="list-style-type: none"> 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)	<p>Cut slit midway</p> 
Tracheostomy brace	 <p>Circumference of neck</p> <ul style="list-style-type: none"> 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)	<p>Cut to shape</p> 
Endotracheal tube	 <p>Lips and surrounding area</p> <ul style="list-style-type: none"> 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)	<p>Cut to shape</p> 
Nasal cannula	 <p>Nose</p> <ul style="list-style-type: none"> Thin skin Poor vascularisation <p>Upper lip</p> <ul style="list-style-type: none"> Pressure from position of device <p>Ears</p> <ul style="list-style-type: none"> 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)	<p>Cut to shape</p> 
Abdominal tubing/ catheters	 <p>Abdomen</p> <ul style="list-style-type: none"> 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)	<p>Cut slit midway</p> 
Cervical collar	 <p>Occiput</p> <ul style="list-style-type: none"> Bony prominence Thin skin Pressure from position of patient (eg prone) <p>Mandible</p> <ul style="list-style-type: none"> 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)	<p>Cut to shape</p> 
External fixator	 <p>Multiple sites on the body</p> <ul style="list-style-type: none"> 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 devices¹
- Patients with medical devices are 2.4 times more likely to develop PUs of any kind¹

1. 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

IDEAL DRESSING QUALITIES FOR PREVENTING DEVICE-RELATED PRESSURE ULCERS

- ✓ Reduces shear, friction and pressure
- ✓ Reduces humidity at the skin/dressing interface
- ✓ Does not interfere with functionality of medical device
- ✓ Promotes patient comfort during wear
- ✓ Can remain in place for up to several days on first application
- ✓ Can be lifted and adjusted without losing adherence
- ✓ Poses low risk of skin irritation and allergy
- ✓ Can be cut to size

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
4. 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



1. Redistribute shear



2. Redistribute pressure



3. Reduce friction



4. Manage microclimate

Benefits of Safetac®

Technology:

- Will not strip skin cells or cause pain on removal^{2,3}
- Will re-adhere^{2,3}
- Absorbs shear energy, reducing the shearing effects on the skin⁴
- Reduces skin distortion, therefore increasing skin cell viability⁵