

A High HEEL Initiative

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DUBLIN ACADEMIC MEDICAL CENTRE



Irish Hip Fracture Standards



IHFS 1:
Be admitted to an orthopaedic ward within 4 hours



IHFS 2:
Receive surgery within 48 hours



Pressure
Ulcers
to Zero

IHFS 3:
Not develop a pressure ulcer



IHFS 4:
Be seen by a geriatrician or advanced nurse practitioner



IHFS 5:
Receive a bone health assessment



IHFS 6:
Receive a specialist falls assessment



IHFS 7:
Be mobilised by day after surgery by a physiotherapist



Focus of this presentation

IHFS 3 – Pressure Ulcers to Zero

- Upon review of our internal quality systems and 2020 NOCA data we saw a **concerning increase** in post-operative patients developing heel pressure ulcers
- Pressure ulcers are associated with severe pain, **poorer patient outcomes**, increased length of stay and have increasing monetary implications
- They are **largely avoidable** and are due to a failure to risk assess, implement appropriate prevention strategies and revision of those strategies
- HFGC set an aim to reduce the incidence of heel pressure sores to **zero**

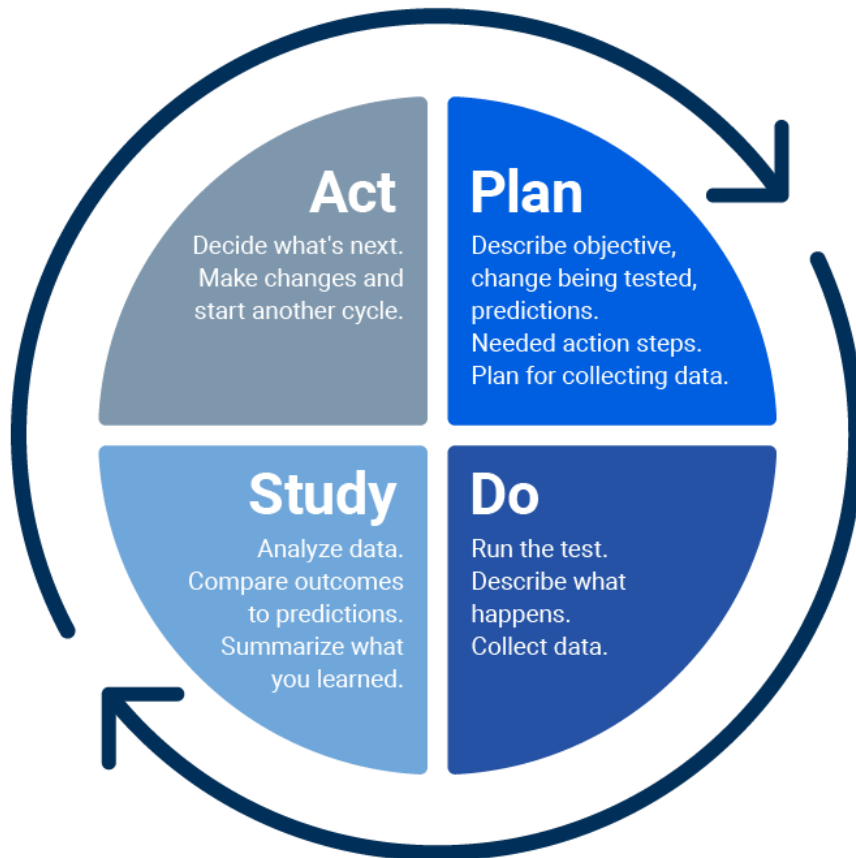


Heel Pressure Ulcers

Creating a Sense of Urgency



PDSA CYCLE



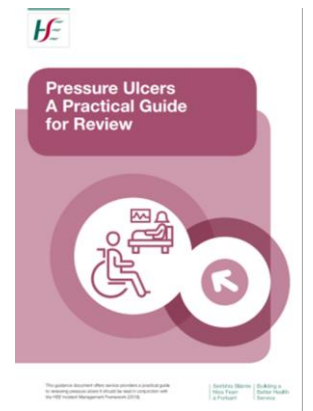
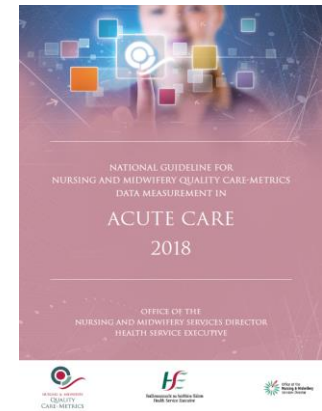
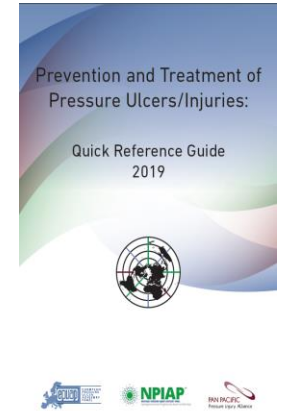
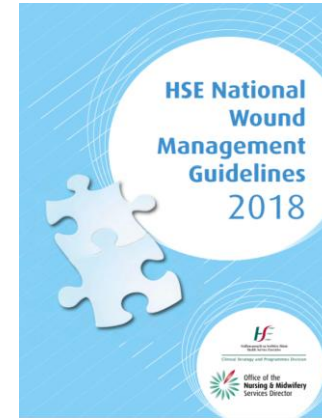
FORM ACTIVE SUB-GROUP



- TVN invited onto the local HFGC
- Focused sub-group created with Ortho-Geriatric ANP, TVN and CNM on Orthopaedic Ward
- Regular progress review and update meetings held
- SSKIN document learnings incorporated
- Evolution of the HEEL Intervention

Background

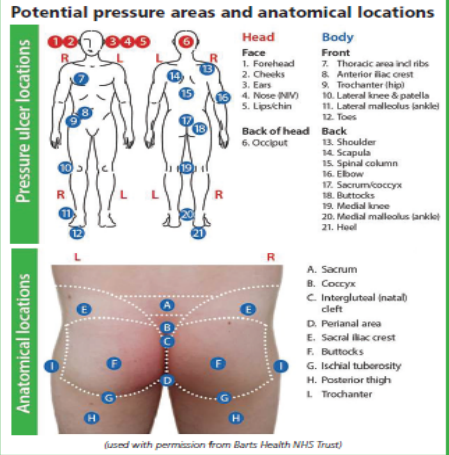
- HSE Wound Care Guidelines 2019
- Hospital Pressure Ulcer Prevalence Audit
- HSE Inspection 2019
- Part A form - Incident Management Framework
- Nursing Quality Forum-“share the learning”
- SSKIN Chart 2020
- Quality Care Metrics 2021



HEEL Assessment

SSKIN Bundle Assessment <i>(to be completed weekly or if condition changes)</i>			
SKIN INSPECTION			
Pressure ulcer present: Y <input type="checkbox"/> N <input type="checkbox"/>			
Document the anatomical site(s) AND state the stage of the pressure ulcer(s) at each site: Stage I, II, III, IV SDTI (Suspected Deep Tissue Injury)			
Anatomical site and stage:	Date identified:		
Is this pressure ulcer hospital acquired? Y <input type="checkbox"/> N <input type="checkbox"/>			
Risk Management Occurrence Form completed: Y <input type="checkbox"/> N <input type="checkbox"/>			
Clinical photography completed: Y <input type="checkbox"/> N <input type="checkbox"/>			
TVN referral sent: Y <input type="checkbox"/> N <input type="checkbox"/> Date: ___/___/___			
Wound assessment chart (PO865) commenced: Y <input type="checkbox"/> N <input type="checkbox"/>			
SUPPORT SURFACE			
Mattress	Hybrid Power <input type="checkbox"/> Pump Attached Y <input type="checkbox"/> N <input type="checkbox"/>	Artemis <input type="checkbox"/> Athena <input type="checkbox"/> Other: _____	
Cushion	Gel Cushion Y <input type="checkbox"/> N <input type="checkbox"/>	Heel Off Loading	Heel Lift Boot Y <input type="checkbox"/> N <input type="checkbox"/> Pillows Y <input type="checkbox"/> N <input type="checkbox"/>
Other: _____			
KEEP MOVING			
Level of assistance	None <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> More than 2 <input type="checkbox"/>	Physiotherapy Referral	Y <input type="checkbox"/> N <input type="checkbox"/> Date: ___/___/___
Repositioning frequency	2 hourly <input type="checkbox"/> 3 hourly <input type="checkbox"/> 4 hourly <input type="checkbox"/>	Occupational therapy Referral	Y <input type="checkbox"/> N <input type="checkbox"/> Date: ___/___/___
Other: _____			
INCONTINENCE / INCREASED MOISTURE			
Is the patient incontinent?	Y <input type="checkbox"/> N <input type="checkbox"/> Occasional <input type="checkbox"/>	Signs of Moisture Associated Skin Damage (MASD)	Y <input type="checkbox"/> N <input type="checkbox"/>
NUTRITION			
MST Score completed:	Y <input type="checkbox"/> N <input type="checkbox"/> Date: ___/___/___	Assistance required at meal times	Y <input type="checkbox"/> N <input type="checkbox"/>
Referral	Dietitian Y <input type="checkbox"/> N <input type="checkbox"/> Date: ___/___/___	Speech and Language Therapist	Y <input type="checkbox"/> N <input type="checkbox"/> Date: ___/___/___
COMMUNICATION			
Pressure area risk / occurrence communicated to:	Patient <input type="checkbox"/> Family / Carer <input type="checkbox"/> Staff <input type="checkbox"/> Team <input type="checkbox"/> N/A <input type="checkbox"/> Other: _____		
Pressure ulcer information leaflet given:	Patient <input type="checkbox"/> Family / Carer <input type="checkbox"/>		
ASSESSMENT COMPLETED BY			
Print Name	Signature	Date: ___/___/___	Time: ___:___ hrs
Initials:	Grade:	NMBI PIN:	WARD:

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H

Hello, Can I please check your heels?

E

Examine, check for signs of pressure

E

Elevate, heels longitudinally on pillow

L

Lift, air cushioned boot protector

Air boot



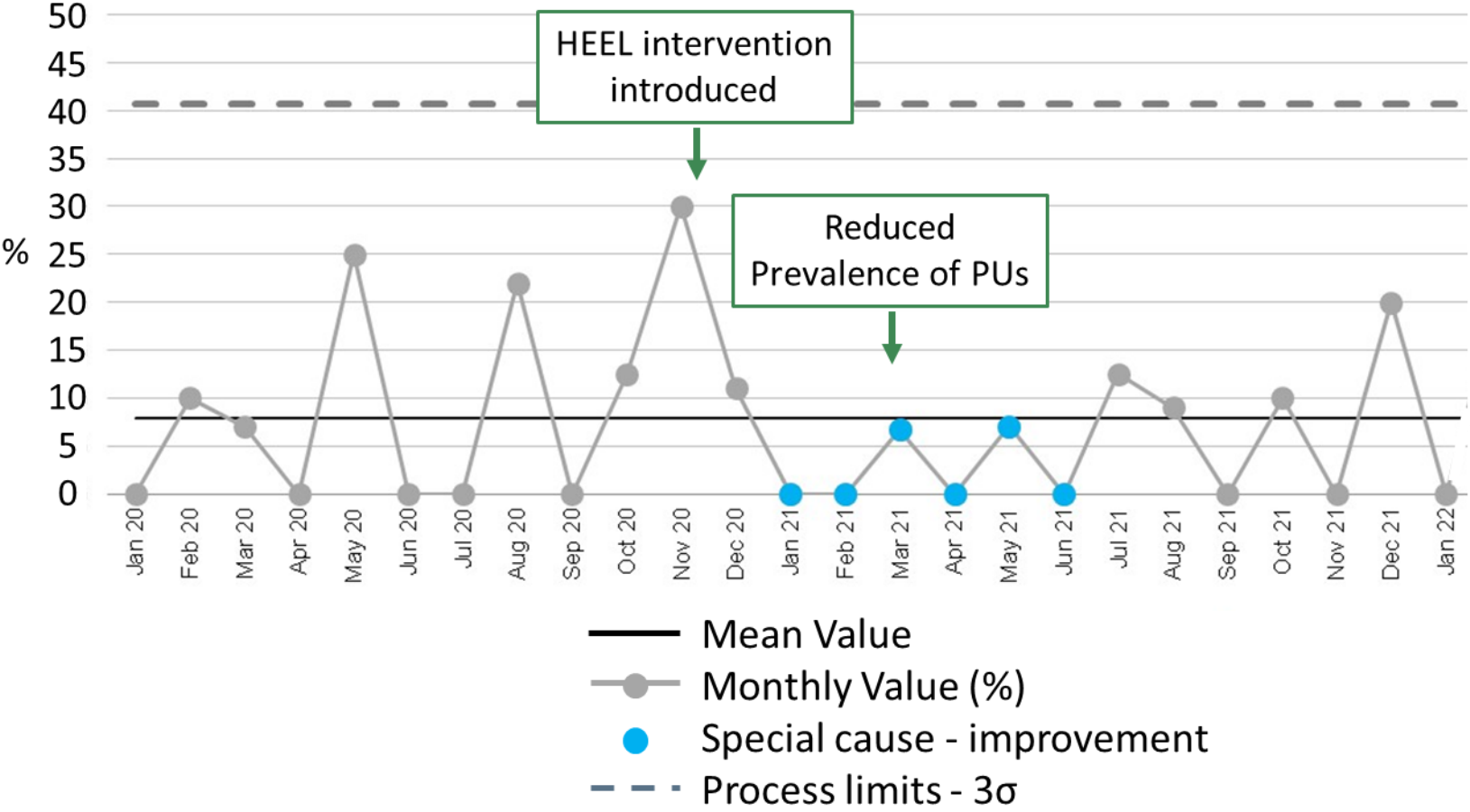
If heels at risk, off loading must be implemented regardless of mattress



SSKIN Bundle Assessment

Effect of HEEL Intervention

Hip Fracture % Hosp Acquired Grade 2 Pressure Ulcers -Hip Fracture Pathway starting 01/01/20



Boot applied when deemed necessary

MDT Engagement



- Multidisciplinary approach essential
 - Early mobilisation (IHFS 7) Day 1 Post operatively
- A teal icon of a person with a stethoscope around their neck, representing a healthcare professional.
- Routine dietetic review for each patient-Snack bags
 - Ward tissue viability link nurse, CNM, ANP, care assistants, allied health professionals-education
- A blue icon showing five hands of different colors (shades of blue) reaching towards the center, symbolizing teamwork and collaboration.
- TVN- clinical presence and visibility brings change
 - Regular meetings with subgroup to evaluate progress and impact of HEEL intervention
- A green icon showing three stylized human figures sitting at a table, representing a meeting or committee.
- Expected sustained reduction in prevalence of heel pressure ulcers due to these actions taken

The Patient's Experience

- Motivating the patient to become an active participant in their paradigm of care-SSKIN
- Strategies to overcome the covid-related lack of visitors which had prevented the opportunity to mobilise and advocate for patients
- Visualisation strategies used
- Improved patient experience and outcomes



Cost Benefit Analysis

- Heel ulcers prolong hospitalisation-lead to osteomyelitis/sepsis
- Treating one grade IV pressure ulcer costs the Irish Health Service **€119,000 (2009)**
- Nursing time accounts for 41% of these costs-easy to apply
- If purchased in packs of ten the unit price of an air-filled off-loading device was **€13**

Table 2. Treatment cost per patient per day and treatment cost per patient per episode of care, by category of ulcer and by health state

	Normal healing	With critical colonisation	With cellulitis	With osteomyelitis
Category I				
Cost per day	£42.73	—	—	—
Cost per episode*	£1213.58	—	—	—
Probability†	100%	—	—	—
Category II				
Cost per day	£46.90	£62.24	£138.05	£374.42
Cost per episode*	£4398.79	£4834.46	£5779.32	£35 849.90
Probability†	90%	5%	2.5%	2.5%
Category III				
Cost per day	£56.77	£70.70	£372.26	£374.42
Cost per episode*	£7232.93	£7727.82	£10 955.51	£38 684.04
Probability†	80%	10%	5%	5%
Category IV				
Cost per day	£56.77	£70.70	£372.26	£374.42
Cost per episode*	£8782.85	£9277.74	£12 505.42	£40 233.96
Probability†	60%	10%	15%	15%

*An episode is the length of treatment required to heal and ulcer;

† Probability is the proportion of patients with a particular category of ulcer expected to be in a particular health state;

Dealey *et al.*, 2012

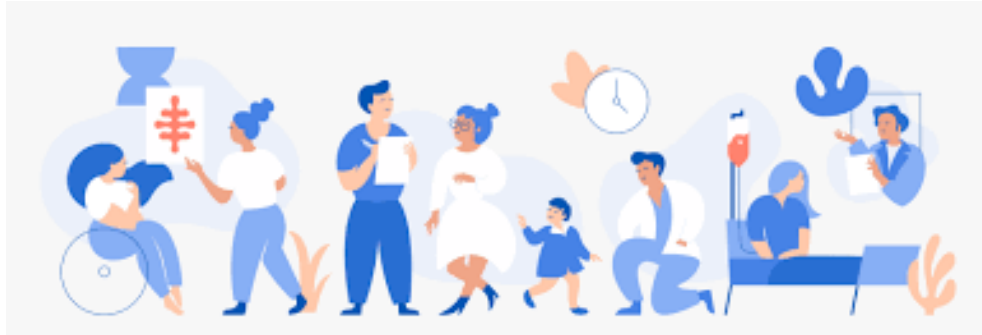
Sustainability

- Mandatory tissue viability education and training for nurses and staff-ongoing local education
- The MMUH tissue viability link nurse continues to provide feedback on this intervention
- Documentation of the SSKIN bundle assessment and HEEL offloading boot is a compulsory MMUH requirement within six hours of admission and 7/7
- HFGC will continue to use NOCA data to drive quality improvements



Acknowledgements

- Many thanks to all involved in identifying and addressing this issue, and those who have assisted with implementing the solution and preparing the report and presentations



- Many thanks to the Mater Misericordiae University Hospital and NOCA

