An Economical Way to Prevent HEEL ULCERS in Surgical Patients

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The development of heel pressure ulcers is a major concern in the orthopedic hip surgical population. It is essential for organizations to provide high quality care but also be mindful of the economic impact.

Methods

A prospective 17-month study was conducted in a Chicago hospital to determine if the incidence of heel pressure ulcers could be reduced by using a polyester filled heel protector which is covered with a cotton fabric (Product A).

Product A allows the heel to off-load, but is considerably less expensive than Product B which is a foam heel protector.

This study examined a total of 80 patients. Fifty-two orthopedic hip surgical patients were examined to determine our incidence of heel wounds. Standard prevention practices were employed. A second group of 28 patients were then examined to determine if the use of Product A was effective in reducing heel pressure ulcers.

Direct heel assessments were performed prior to hip surgery and again on post-op day three by a WOCN (wound ostomy continence nurse) or a WCC (wound care certified). Those patients with pre-existing heel wounds were omitted from the study.

Practice innovations consisted of the standard use of Product A which was implemented on each post surgical hip patient post-op. Product A was applied once the patient returned to the surgical unit. Prior to the practice innovation, prevention practices consisted of the use of Product B.



Results

Prior to our use of Product A, our heel incidence rate in orthopedic hip surgical patients was 15.4% out of 52 patients examined. Of those 52 patients, eight heel ulcers developed. Post implementation of Product A, 28 patients were examined with one heel ulcer occurrence. Our rate dropped to 3.6%. Our cost of the product was considerably less than Product B.

PATIENT DEMOGRAPHICS		AGE	GENDER	PROCEDURE	BRADEN	PEDAL PULSES ABSENT	Stage 1	Stage 2	Stage 3	WOUND ON SURGICAL SIDE
Product B	52	Sub-Total					8	0	1	
Age Range	48-98	Product B								
BMI Range	17-40	91	F	Right Hemi Arthroplasty	17	No	\checkmark			Yes
Braden Range	12-22	88	F	Right ORIF Hip	21	No	\checkmark			No
Males	12	91	F	Left Total Hip Arthroplasty	19	Yes	\checkmark			Yes
Females	40	76	Μ	Right ORIF Hip	14	Yes	\checkmark			Yes
Product A	28	86	F	Right ORIF Hip	14	No	\checkmark			No
Age Range	45-92	92	F	ORIF Left Hip	19	No	\checkmark			Yes
BMI Range	14.5-35	86	F	Left Hemi Hip Arthroplasty	15	Yes	\checkmark			Yes
Braden Range	12-23	98	F	Left ORIF Hip	21	No			\checkmark	Yes
Males	8	Product A								
Females	20	97	F	Right ORIF Femur	17	No	\checkmark			No



Product A - Posey[®] Heel Pillow, Posey Company Product B - Heelift[®] Suspension Boot, DM Systems

Campbell, K.E., Woodbury, G., Houghton, P. Heel pressure ulcers in orthopedic patients: A prospective study of incidence and risk factors in an acute care hospital. OWM 2010:44-54 Fowler, E., Scott-Williams, S., McGuire, J. Practice recommendations for preventing heel pressure ulcers. OWM 2008:54:42-8 Walsh, J., Plonczynski, D. Evaluation of a protocol for prevention of facility-acquired heel pressure ulcers. JWOCN (2007)178-83 Heelift[®] is a registered trademark of DM Systems.

