Taking the Pressure off Heels: A Cardiac Unit's Journey to Reduce Heel Pressure Ulcers

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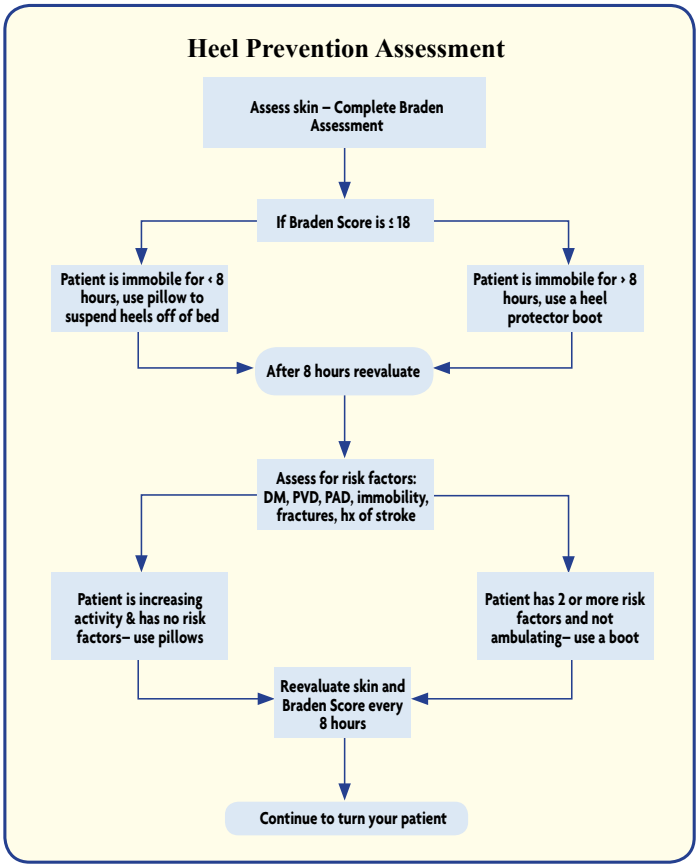
Introduction: The Centers for Medicare and Medicaid Services (CMS) classifies pressure ulcers as a preventable Hospital-Acquired Condition (HAC).[1] Heels are the second most common anatomical location for pressure ulcers[2] and the prevalence of heel ulcers per care setting is 23.7% of acute care ulcers, 22.5% of LTAC ulcers and 22.9% of LTC ulcers.[3] The development of a single pressure ulcer in U.S. hospitals can increase a patient's length of stay five-fold and increase hospital charges by $2,000–11,000.[4] The cost of treating a pressure ulcer is far more costly than prevention strategies, so developing a comprehensive heel prevention protocol is imperative in any care setting.

Background: A 200 bed acute care facility piloted a new heel pressure ulcer prevention program on a 24-bed cardiac step down unit. At this facility, the wound care team conducts quarterly National Database of Nursing Quality Indicators (NDNQI) prevalence surveys and in Q1 2011, this unit had 8 nosocomial heel pressure ulcers. Historically, heel pressure ulcers have been an issue on this unit and getting the staff to acknowledge the problem was a challenge. For pressure ulcer prevention, the unit was using an inflated heel floatation device* that did not adequately offload the heels. The staff also had no standard policy to guide their decision making process on when to use products to offload the heels on patients at risk for heel pressure ulcers.

Methods: In June 2012, the wound care nurse implemented a heel pressure ulcer prevention program on the cardiac step down unit. The program included the development of a heel ulcer prevention algorithm; extensive education of nursing staff; selection of a new heel floatation device**; training on the new heel floatation device; stocking heel flotation devices directly on the unit; weekly rounding by the wound care nurse and quarterly prevalence surveys to evaluate results.



Device: A fabric boot with a microfiber filling and nylon shell** was chosen to be the heel protective device for this initiative as it fulfills the National Pressure Ulcer Advisory Panel Guideline for prevention of heel pressure ulcers.[5] These guidelines state that "heel protection devices should elevate the heel completely (offload them) in such a way without putting pressure on the Achilles tendon." The product chosen is designed to float the heels above the bed surface, which completely off loads the heel. The product also has an Ortho-Wick™ inner-liner and a breathable outer fabric that reduces heat and moisture, therefore improving patient compliance and comfort.

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Results: During the 6 months after implementing the program, NDNQI results for the 4th quarter saw the rate of heel ulcers reduced to zero. It was found that the new heel floatation device** offloaded the heel and was also more comfortable for the patients. The staff stated that the new device kept the heel completely off-loaded from the bed surface and stayed secure on the foot while the patient was in bed. The staff stated that the product was easy to apply on the patient, the patients didn't complain of the product being too hot and it didn't develop any odor that the inflated heel floatation device did after extended use.

Conclusion: The key to the success of this program was the cooperation of all of the staff and management throughout the facility. By implementing this heel pressure ulcer prevention program, the staff on the unit was more confident and better equipped to identify risk factors for heel pressure ulcers. They were also able to apply the appropriate interventions to prevent heel pressure ulcers from occurring and therefore able to improve patient care. The next step is to implement the program throughout the facility.

* Foot WAFFLE® by EHOB
** PRO-heeLx® by Posey

References:

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