

Implementing Silicone-Based Adhesive Remover to Prevent Medical Adhesive-Related Skin Injury in Critical Care

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Introduction:

In a level one trauma center in the Midwest, there is a high incidence of medical adhesive-related skin injuries (MARSIs). Lifesaving technologies require the use of strong adhesives for securement. This adhesive reduces the risk of accidental dislodgement which can result in patient harm or even death. Protecting the skin from MARSIs is not the primary focus in a critical care unit. However, literature recommends a simple intervention using a silicone-based adhesive remover to prevent MARSIs.

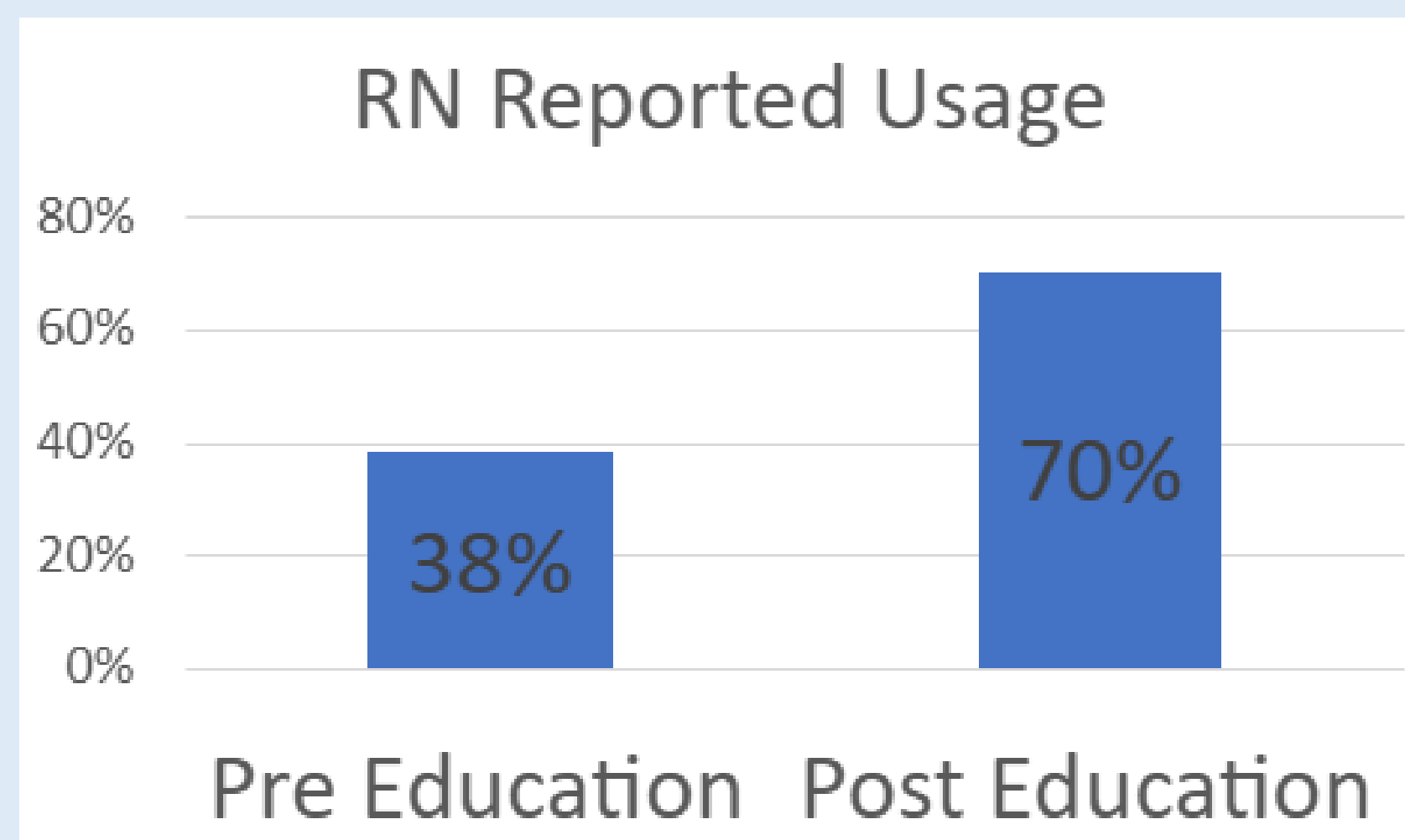
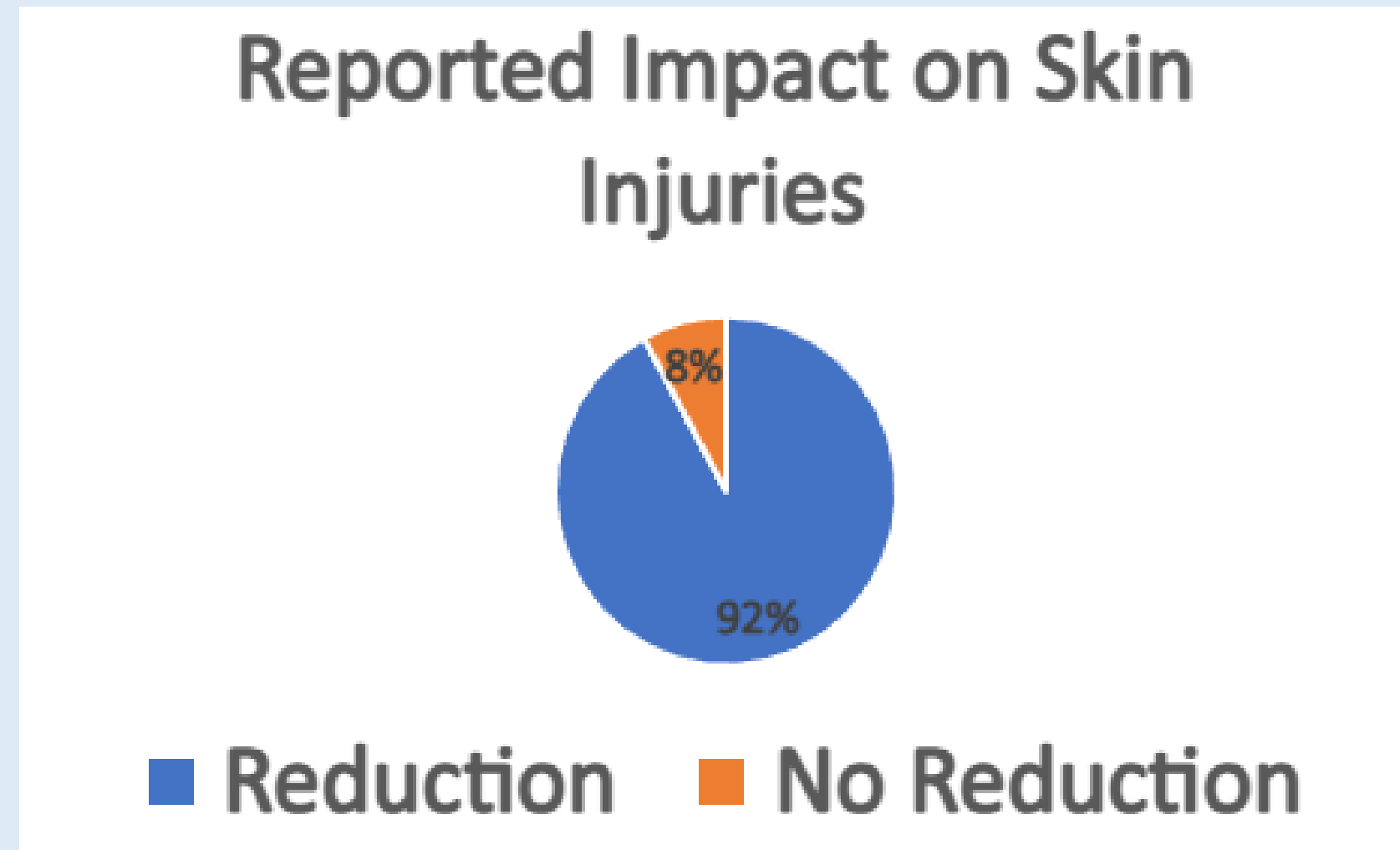
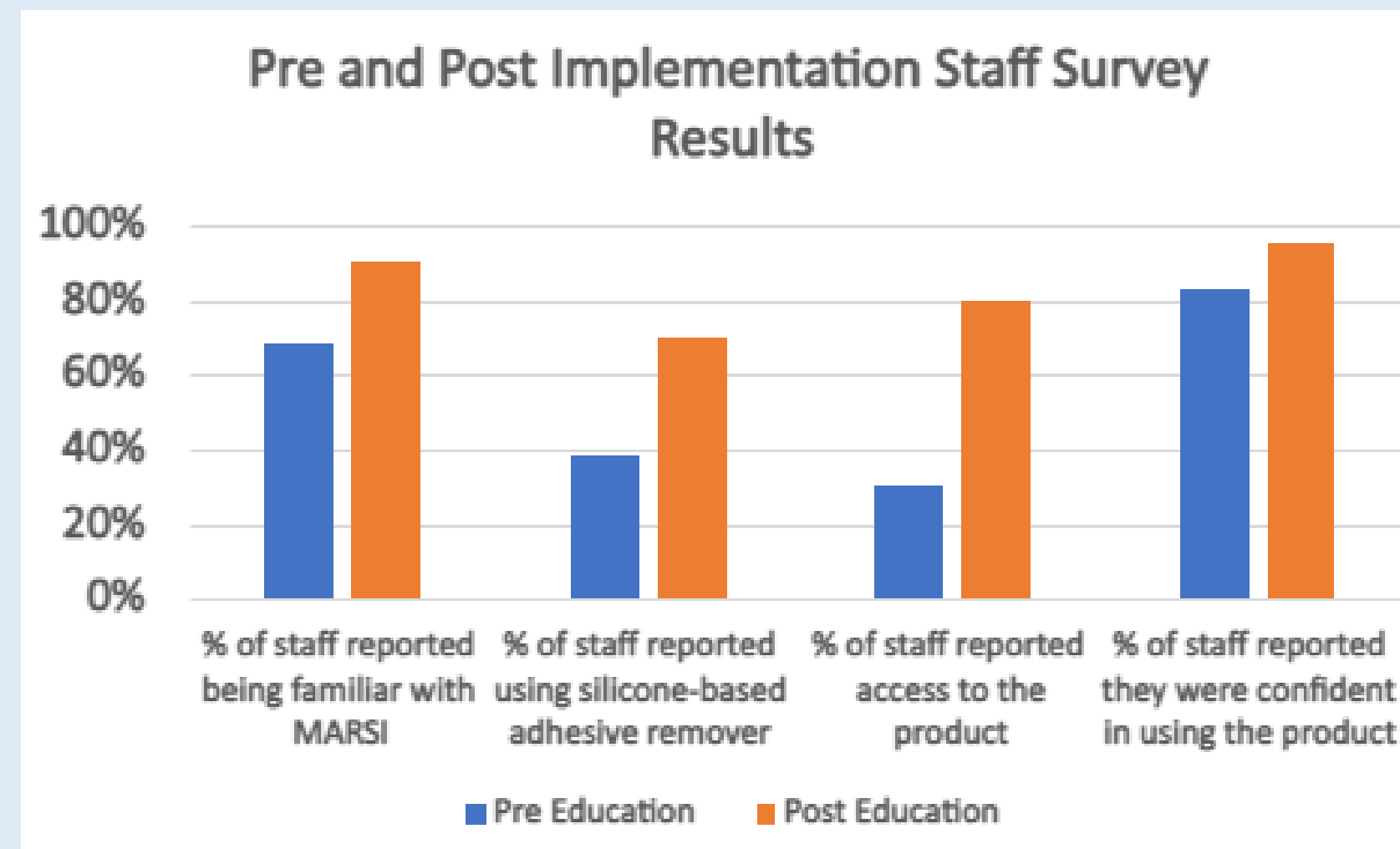
Aim:

To increase staff awareness of MARSIs and promote the use of a large wipe containing 6ml of silicone-based adhesive remover to reduce the incidence of MARSIs.

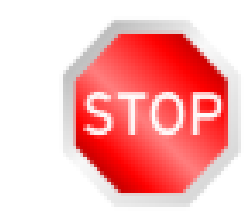
Method:

A pre-intervention survey was conducted with nurses and nurse technicians from the surgical and cardiothoracic intensive care units to gather a baseline understanding of how staff use silicone-based adhesive removers. This survey data was used to create education tailored to the responses. The WOC nurses rounded over an 8-week period to provide education on how and when to use silicone-based adhesive removers. The silicone-based adhesive remover was stocked at bedside in all rooms for ease of use. A post-intervention survey evaluated knowledge and product use.

We would like to acknowledge the support and cooperation of the nursing staff and leadership in the surgical and cardiothoracic critical care units, as well as valuable input from our clinical nurse specialist and WOC manager.



A brief, unit-friendly slogan was used during rounding to reinforce appropriate adhesive removal.

 **DRIP — DON'T RIP!**

Protect Your Patients from MARSIs (Medical Adhesive-Related Skin Injury)

Conclusion:

- Staff unfamiliarity with MARSIs decreased from 32% to 10% following education.
- Reported use of silicone-based adhesive remover increased from 38% to 70% post-intervention.
- Staff knowledge and confidence improved after targeted education.
- 92% of respondents perceived a reduction in skin injuries, despite a lack of discrete EMR data.
- Lack of EMR documentation for skin tears limited objective measurement of MARSIs outcomes.
- Future EMR enhancements should include discrete documentation MARSIs to better capture incidence and guide prevention efforts.

1. Barton A, Broadhurst D, Hitchcock J, et al. Medical adhesive-related skin injury at 10 years. *Journal of Wound Ostomy and Continence Nursing*. 2024;51(5S):S2-S8. doi: 10.1097