Meagan Britt
February 5, 2022
PICOT Assignment

Question:

In the patient care setting, could pressure ulcers be reduced/prevented with repositioning the patient every 1-2 hours in comparison to using medical devices that assist in prevention of pressure ulcers but have the risk of retaining moisture increasing the incidents of injury?

Summary:

Prevention of further harm to the patient in a hospital setting is a top priority to us not only as nurses but also as an organization. MDRIs are recognized as significant and complex health problems among hospitalized patients. Underestimated true scale of the problem is evident because the systematic clinical evaluation of MDRPI occurrence is not part of routine skin assessment among intensive care patients. (Saleh et al., 2023). Superficial skin damage seems to be primarily caused by excessive shear strain/stress exposures, deeper PUs/PIs predominantly result from high pressures in combination with shear at the surface over bony prominences, or under stiff medical devices. Therefore, primary PU/PI prevention should aim for minimizing deformations by either reducing the peak strain/stress values in tissues or decreasing the exposure time. (Gefen et al., 2022). Nonmodifiable risk factors such as age and history of pressure injuries may tip the scale toward pressure injury development despite the best preventive interventions. Unavoidable pressure injuries may occur when the magnitude and severity of the risk factors are extremely high and preventive measures are either contraindicated or inadequate given the risk. Although new technology is available to provide quantitative assessment of turning and patient mobility, currently this technology is not widespread or integrated into most acute care settings. (Pittman et al., 2019).

Conclusion:

In conclusion, PU/PI prevention should aim for minimizing deformations by either reducing the peak strain/stress values in tissues (eg, through the use of an appropriate pressure redistribution support surface) or decreasing the continuous exposure time of tissues to the sustained strain/stress state (eg, through repositioning). Early detection of initial tissue damage through regular skin assessment is a strategy to prevent possible progression. (Gefen et al., 2022). The NPUAP defined “unavoidable” pressure injuries as those that develop even when the provider (1) evaluated the individual’s clinical condition and pressure injury risk factors; (2) defined and implemented interventions that were consistent with individual needs, goals, and recognized standards of practice; (3) monitored and evaluated the impact of the interventions; and (4) revised the approaches as appropriate. (Pittman et al., 2019). Overall, this comes down to risk vs benefit, if we can provide proper repositioning for our patients without the use of medical assistive devices that could overall decrease the number of incidents in the hospital, but if the providers deem one of the devices as a priority the patient, then we need to stay on top of our skin assessments and frequently reposition.

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Works Cited:

Primary Article:
Saleh, MYN, Ibrahim, EIM. Prevalence, severity, and characteristics of medical device related pressure injuries in adult intensive care patients: A prospective observational study. *Int Wound J*. 2023; 20(1): 109- 119. doi:10.1111/iwj.13845

Secondary Article:
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Tertiary Article:
Joyce Pittman, Terrie Beeson, Jill Dillon, Ziyi Yang, Janet Cuddigan; Hospital-Acquired Pressure Injuries in Critical and Progressive Care: Avoidable Versus Unavoidable. *Am J Crit Care* 1 September 2019; 28 (5): 338–350. doi: https://doi.org/10.4037/ajcc2019264