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**Question:**

Are critical care patients with unstable conditions and decreased mobility compared to a stable mobile patient at an increased risk for pressure injury?

**Summary:**

"Pressure injuries are localized lesions to the skin and/or underlying tissues due to pressure or pressure combined with shear." (Labeau et al., 2021) The most common locations are the sacrum and the heels but can develop on any bony prominence on the body. The Braden Scale is a useful tool to identify high-risk patients that are at greater risk for developing pressure injuries characterized by being bedridden, malnourished, incontinent, and with limited ability to react to or sense pain. Intensive Care Unit (ICU) patients encounter more risk factors that raise the potential substantially for pressure injuries. According to the research provided by *Intensive Care Medicine*, patients in ICUs are predisposed to more risk factors which include, age, length of stay, diabetes, mechanical ventilation, vasopressor support, hypotension, and cardiovascular disease. There is an increasing number of patients admitted to ICU that are older and have chronic comorbidities, nutritional deficiencies, immobility, and aging skin. Patients who are on mechanical ventilation are at risk for obvious reasons. They are sedated to be comfortable during recovery, restrained to avoid injury due to self-extubation, and incontinent causing frequently moist skin. The longer length of stay provides more opportunities for pressure injuries to occur. These risk factors listed by the article are intrinsic or unmodifiable which means that pressure injuries can be unavoidable in critically ill patients. Stage I pressure injuries are considered reversible if caught early. With diligent care and intervention can be prevented from progressing into Stage II and so on. Foam dressings can be applied prophylactically to the bony prominence on the body and devices like prevalon boots can be ordered by the nurse to decrease the constant pressure. Another factor discussed is being in a low or middle-low-income economy ICU. These facilities may lack the resources to provide proactive intervention. (Labeau et al., 2021) The other factors listed are associated with low perfusion to the body which leads to tissue ischemia and risk for poor healing. Vasopressor agents are common medications that ICU patients are required to be on continuously for life support and many instances are on more than one agent. According to the article by *Wound Management & Prevention*, studies were found that indicated that the pharmacodynamics of vasopressor agents can contribute to altered tissue tolerance. (Cox, 2017) The article by *International Wound Journal* also discusses the financial burden it imposes on the health care systems. The average cost varies per pressure injury because a stage I pressure injury requires less intense intervention than a stage 3 or 4. Possible interventions required are debridement, excision, wound healing, radiology, and associated operative and laboratory costs. The article states, "Our analysis suggests that a hospital-acquired pressure injury could cost $10,708 per patient on average, exceeding a total of approximately $26.8 billion in the United States annually based on 2.5 million reported cases." (Padula & Delarmente, 2019) Because it is a "hospital-acquired" pressure injury the cost falls on the health care facility. Hospitals usually take these cost amounts from the unit where the pressure injury occurred, and it is deducted from the unit staff pay. For example, potential bonuses that were used as incentives.

**Conclusion:**

In conclusion, after reading extensive research about pressure injuries in adult critical care patients, there is in fact a higher risk for critical care patients with unstable conditions and decreased mobility than stable mobile patients. Critical care patients are exposed to more risk factors such as longer lengths of stay, mechanical ventilation, and vasopressor agents to counteract hypotension and some cardiovascular diseases. Many hospitalized patients are older and have comorbidities such as diabetes and cardiovascular disease, but once placed in an ICU setting can encounter the other risk factors previously listed. These are nonmodifiable factors and many times unavoidable. Opportunities to prevent or decrease the possibility of pressure injuries should be taken as much as possible such as frequent turning, foam dressings, and cushioned boots. Early intervention will decrease the overall cost, physically for the patient and finically for the health care facility.

**Work Cited:**

**Primary Article**

Labeau, S. O., Afonso, E., Benbenishty, J., Blackwood, B., Boulanger, C., Brett, S. J., Calvino-Gunther, S., Chaboyer, W., Coyer, F., Deschepper, M., François, G., Honore, P. M., Jankovic, R., Khanna, A. K., Llaurado-Serra, M., Lin, F., Rose, L., Rubulotta, F., Saager, L., Williams, G., Blot, S. I. (2021). Prevalence, associated factors and outcomes of pressure injuries in Adult Intensive Care Unit Patients: The DECUBICUS study. *Intensive Care Medicine*, *47*, 161-169. https://doi.org/10.1007/s00134-020-06327-5

**Secondary Article**

Cox, J. (2017). Pressure injury risk factors in adult critical care patients: a review of the literature. *Wound Management & Prevention, 63*(11). https://www.hmpgloballearningnetwork.com/site/wmp/article/pressure-injury-risk-factors-adult-critical-care-patients-review-literature

**Tertiary Article**

Padula, W. V., & Delarmente, B. A. (2019). The National cost of hospital acquired pressure injuries in the United States. *International Wound Journal*, *16*(3), 634–640. https://doi.org/10.1111/iwj.13071