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The Implementation of Repositioning Interventions to Prevent Pressure Ulcers in ICU Patients at Pandan Arang Regional Hospital, Boyolali

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ABSTRACT

Background: Decubitus ulcers are tissue damage caused by prolonged pressure without position changes. To prevent this, both pharmacological and non-pharmacological interventions can be applied, including the use of anti-decubitus mattresses, massage, and repositioning or mobilization. Repositioning helps reduce pressure and friction on the skin, thus preventing pressure ulcers. **Objective:** To determine the effect of repositioning in preventing pressure ulcers in patients receiving care in the Intensive Care Unit (ICU) of Pandan Arang Regional Hospital Boyolali. **Method:** This study used a descriptive case study design. The intervention was conducted over four consecutive days, with repositioning performed three times daily for 15 minutes every two hours. The risk of pressure ulcers was assessed using the Braden Scale before and after the intervention. **Results:** After repositioning, the Braden score of Mr. J increased from 12 (high risk) to 14 (moderate risk), and Mrs. S from 13 (moderate risk) to 16 (low risk), indicating a decreased risk of pressure ulcers. **Conclusion:** There was a noticeable reduction in pressure ulcer risk in bedridden patients following repositioning. Therefore, repositioning can be considered an effective non-pharmacological technique to prevent pressure ulcers.

Keywords: Pressure Ulcers, Bedridden, Position Changes

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1. INTRODUCTION

Bed rest is a clinical condition in which an individual is required to remain in bed for an extended period, often nearly 24 hours a day, with restricted physical activity. This intervention aims to reduce the physiological workload and preserve the function of organ systems. Bed rest may also occur as a result of the patient's inability to perform voluntary movements or daily activities. Prolonged immobility during bed rest poses significant risks, including the development of skin integrity impairments. Continuous pressure,

particularly over bony prominences, can lead to tissue ischemia, resulting in skin irritation and the formation of pressure ulcers or decubitus ulcers (Purwantini et al., 2024; Uba et al., 2025).

Decubitus ulcers, or pressure sores, are localized tissue injuries resulting from excessive and prolonged external pressure due to sustained immobility or lack of position changes over time. These ulcers commonly develop on skin areas overlying bony prominences, such as the sacrum, hips, back, elbows, and heels. This condition is frequently observed in individuals with limited mobility or neurological impairments, including those affected by stroke, traumatic injuries, diabetes, or coma (Siagian, 2021).

In 2015, the World Health Organization (WHO) estimated that approximately 17 million patients worldwide experienced prolonged bed rest, with around 600,000 cases of pressure ulcers reported annually, often leading to significant morbidity and mortality. According to the National Pressure Ulcer Advisory Panel (NPUAP), the incidence of pressure ulcers varies across healthcare settings: from 0.4% to 38% in acute care, 2.2% to 23.9% in long-term care, and 0.1% to 17% in home care.

The prevalence of pressure ulcers is estimated at approximately 25% in the United States, 10.5% in Europe, 6.7% to 42.7% in the United Kingdom, and around 33% in Indonesia. Cox and Roche (2015) noted that patients in intensive care units (ICUs) have a 12–24% higher risk of developing pressure ulcers compared to other hospitalized patients. Other studies report wide variations in prevalence, ranging from 8.1% to 44% (Dela Nuvita Sari et al., 2023).

Pressure ulcers may develop within as early as three days of continuous skin exposure to pressure. Their development is influenced by multiple factors, including decreased mobility, reduced physical activity, and impaired sensory perception factors that increase the risk of sustained pressure on the skin. Tissue tolerance is further influenced by intrinsic factors, such as poor nutritional status and low arteriolar pressure, as well as extrinsic factors, including excessive moisture and friction. Pressure ulcers occur when soft tissue is compressed between a bony prominence and an external surface for a prolonged period. This mechanical load, caused by either pressure or shear forces, impedes local blood flow, leading to ischemia, cellular death, skin damage, and ultimately the formation of open wounds. Continuous pressure—whether high intensity for a short duration or low intensity over an extended period—

disrupts capillary circulation and compromises oxygen and nutrient delivery to tissues, resulting in tissue breakdown (Manan et al., 2024).

Nurses have a vital role in the prevention of pressure ulcers. Preventive strategies can be taught to patients and their families to minimize the risk of pressure injury. A range of both pharmacological and non-pharmacological interventions can be employed to reduce the incidence of pressure ulcers in at-risk patients. Pharmacological interventions may involve the administration of antibiotics, such as ceftriaxone or ampicillin, to manage infections; however, individual allergic responses may occur. Non-pharmacological approaches include the use of pressure-relieving mattresses, back massage, massage with olive oil or virgin coconut oil, neuroperfusion massage, and regular repositioning or mobilization techniques (Mufidah & Hartutik, 2024).

Repositioning or mobilization refers to the deliberate adjustment of a patient's body position to reduce pressure and shear forces on the skin, maintain proper head alignment, and decrease the risk of pressure ulcers caused by friction (Wardani & Nugroho, 2022). This nursing intervention is typically carried out at regular intervals, every two hours, and involves systematic changes in position, including right lateral, supine, and left lateral (Riskawaty & Yulianingsih, 2022).

The primary objectives of lateral positioning are to maintain body alignment, prevent complications associated with immobility, enhance patient comfort, and minimize the risk of sustained pressure on specific areas of the body that could lead to the development of pressure ulcers (Apriani & Noorratri, 2023).

Findings from the study by Kusumah and Daniel Hasibuan (2021) indicate that the Mann-Whitney statistical test yielded a p-value of 0.001. This value is lower than the established significance level of $\alpha = 0.05$, suggesting a statistically significant effect of repositioning on the incidence of pressure ulcers among patients in the inpatient ward of Aminah Hospital, Ciledug, Tangerang.

The study conducted by Mubarrok (2023) examined the effect of mobilization on the risk of pressure ulcers in two non-hemorrhagic stroke patients, Mr. H and Mr. S, at Dr. Moewardi General Hospital. The results indicated that prior to the mobilization intervention, both patients were classified as having a moderate risk of developing pressure ulcers. After the implementation of mobilization, both patients demonstrated a reduction in risk to the low-risk category. This suggests that

mobilization effectively reduced the risk of pressure ulcers from moderate to low in both cases. Additionally, a decrease in blood pressure was observed in both patients following four consecutive days of mobilization, with a difference in reduction between Mr. H and Mr. S, in a ratio of 2:4.

In the study by Mubarrok (2023), data collection and intervention were carried out by applying right and left lateral mobilization for four consecutive days, with each session lasting 15 minutes every 2 hours, three times per day. The study, conducted on two non-hemorrhagic stroke patients (Mr. H and Mr. S) at Dr. Moewardi General Hospital, demonstrated that both patients were initially categorized as having a moderate risk of pressure ulcers. Following the mobilization intervention, their risk levels decreased to the low-risk category, indicating a reduction in pressure ulcer risk from moderate to low. In a related study, Kusumah and Daniel Hasibuan (2021) investigated the effect of repositioning in the Intensive Care Unit of Aminah Hospital, Ciledug, Tangerang, conducted from March to April 2021. The intervention group received repositioning every two hours, while the control group received standard care without scheduled repositioning. The findings revealed that regular repositioning was effective in preventing pressure ulcers, particularly among patients aged 41–60 years. Based on these two studies, it can be concluded that repositioning interventions do not necessarily require a duration of one month to be effective; meaningful reductions in pressure ulcer risk can be achieved within a shorter period.

A preliminary study conducted through interviews with nurses in the Intensive Care Unit (ICU) of Pandan Arang General Hospital, Boyolali, on January 28, 2025, revealed that four patients developed pressure ulcers during their stay in the ICU throughout the month of January. The interviews further indicated that current preventive measures against pressure ulcers in the ICU primarily rely on the use of pressure-relieving mattresses. However, only three such mattresses are available for a total of 14 beds, indicating a significant shortage. These mattresses are prioritized for patients who already show signs of skin breakdown or open wounds. Meanwhile, patients identified as being at risk for pressure ulcers are only provided with coconut oil, and its application is neither consistent nor performed daily.

In light of these findings, the author is interested in conducting a study entitled: "The Implementation of Repositioning to

Prevent Pressure Ulcers in Patients Receiving Care in the ICU of Pandan Arang General Hospital, Boyolali."

2. METHODS

This study employed a descriptive research method with a case study design. The assessment of pressure ulcer risk was carried out using the Braden Scale, both prior to and following the intervention. The research was conducted at Pandan Arang Regional Hospital Boyolali. The study period spanned from January 27, 2025, to February 22, 2025.

The implementation of repositioning to prevent pressure ulcers was conducted on two patients with decreased levels of consciousness in the Intensive Care Unit (ICU) of Pandan Arang Regional Hospital Boyolali. Patient 1 Mr. J, a 60-year-old male, presented to the Emergency Department of Pandan Arang Regional Hospital Boyolali on January 22, 2025. He was admitted to the ICU on January 25, 2025, with a diagnosis of respiratory failure, systemic hypertension, and diabetes mellitus. He also had a history of stroke approximately four years prior. An assessment conducted on January 31, 2025, revealed a generally weak condition with somnolent consciousness. The patient was intubated with an endotracheal tube connected to a ventilator, and fitted with a urinary catheter and a nasogastric tube (NGT). Right-sided motor weakness was observed. The patient's vital signs were as follows: blood pressure 98/67 mmHg, heart rate 99 beats/min, respiratory rate 20 breaths/min, and oxygen saturation (SpO_2) 100%. Laboratory results dated January 29, 2025, showed: pH 7.500 (elevated), HCO_3 30.9 mmol/L (elevated), TCO_2 32.0 mmol/L (elevated), Base Excess (BEb) 7.8 (elevated), potassium (K^+) 3.2 mmol/L (low), ionized calcium (Ca^{2+}) 1.05 mmol/L (low), and random blood glucose (RBG) 298 mg/dL. The patient received intravenous fluids (Asering) at a rate of 60 cc/hour and Novorapid insulin at 2 cc/hour.

Patient 2 Mrs. S, a 69-year-old female, presented to the Emergency Department of Pandan Arang Regional Hospital Boyolali on February 13, 2025. She was admitted to the Intensive Care Unit (ICU) on the same day with the following diagnoses: post-debridement and digital amputation, sepsis, acute kidney injury (AKI), hyperglycemia, and coronary artery disease (CAD). The patient had a medical history of heart disease and diabetes mellitus. On February 15, 2025, clinical assessment revealed a moderately ill general condition with compos mentis consciousness. The patient was on oxygen therapy via nasal cannula at 3 L/min and

had a urinary catheter in place. Mrs. S had undergone a debridement procedure on the right foot, along with digital amputations of the right fifth and fourth toes. Her vital signs were as follows: blood pressure 114/56 mmHg, heart rate 98 beats per minute, respiratory rate 26 breaths per minute, and oxygen saturation (SpO_2) 100%. Laboratory findings on February 16, 2025, were as follows: hemoglobin 8.5 g/dL (low), leukocytes 28,250/µL (elevated), eosinophils 0.90% (low), segmented neutrophils 87.30% (elevated), lymphocytes 4.50% (low), total neutrophils 24,640/µL (elevated), monocytes 2,020/µL (elevated), hematocrit 26% (low), erythrocytes 2.93 million/µL (low), blood urea 65 mg/dL (elevated), and random blood glucose (RBG) 247 mg/dL (elevated). The patient received 0.9% NaCl at a rate of 60 cc/hour, Vascon 0.2 mcg at 7.5 cc/hour, and Novorapid at 0.5 cc/hour.

In this implementation, the population consisted of patients who had been on bed rest for more than three days in the Intensive Care Unit (ICU) of Pandan Arang Regional Hospital Boyolali. Sampling was conducted by reviewing medical records and conducting assessments with the patients' families to obtain information on the patient's name, age, sex, and medical history. Following the sampling process, the researcher provided an informed consent form to the families of the participants.

The intervention implemented in this study was repositioning (turning the patient) with the aim of reducing pressure and shear forces on the patient's skin, which are known to contribute to the development of pressure ulcers. Prior to the repositioning intervention, the risk of pressure ulcer development was assessed using the Braden Scale. The repositioning intervention involved alternating the patient's position to the right and left sides. This intervention was carried out over four consecutive days, with each repositioning session lasting 15 minutes and performed every two hours, three times per day. Upon completion of the intervention period, the risk of pressure ulcer development was reassessed using the Braden Scale.

In this study, the population consisted of patients who had been on bed rest for more than three days in the Intensive Care Unit (ICU) of Pandan Arang Regional Hospital Boyolali. Sampling was conducted by collecting data from medical records and conducting interviews with the patients' families to obtain information regarding the patient's name, age, sex, and medical history. After the sampling process, informed consent forms were provided to the families of the participants.

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The intervention implemented in this study was repositioning (turning) aimed at preventing pressure and shear forces on the patient's skin, which can lead to the development of pressure ulcers. Before the repositioning intervention was carried out, the respondents' risk of developing pressure ulcers was assessed using the Braden Scale. The intervention involved alternating the patient's position to the right and left sides. The repositioning intervention was conducted over four consecutive days, with each session lasting 15 minutes, carried out every two hours, and implemented three times per day. After the intervention was completed, a reassessment of the pressure ulcer risk was conducted using the Braden Scale.

3. RESULTS

This application is a descriptive study aimed at identifying the outcomes of implementing position changes in the prevention of pressure ulcers among bedridden patients in the ICU of Pandan Arang Regional Hospital Boyolali. The sample in this study consisted of two respondents who were bedridden patients in the ICU of Pandan Arang Regional Hospital Boyolali. The implementation was carried out directly by the researcher on the respondents.

Table 1. Pressure Ulcer Risk in Bedridden Patients Before the Implementation of Position Changes

Day/Date	Patients	Score	Pressure Ulcer Risk
31/01/2025	Mr. J	12	High
15/02/2025	Mrs. S	13	Moderate

Based on Table 1, the risk of pressure ulcers before the implementation of position changes in bedridden patients showed that Mr. J had a score of 12, categorized as high risk, while Mrs. S had a score of 13, categorized as moderate risk.

Table 2. Pressure Ulcer Risk in Bedridden Patients After the Implementation of Position Changes

Day/Date	Patients	Score	Pressure Ulcer Risk
03/02/2025	Mr. J	14	Moderate
18/02/2025	Mrs. S	16	Mild

Based on Table 2, the risk of pressure ulcers after the implementation of position changes in bedridden patients showed that Mr. J had a score of 14, categorized as moderate risk, while Mrs. S had a score of 16, categorized as mild risk.

Table 3. Changes in Pressure Ulcer Risk in Bedridden Patients Before and After the Implementation of Position Changes

Day/Date	Patients	Before	Pressure Ulcer Risk	After	Pressure Ulcer Risk
31/01/2025	Mr. J	12	High	12	High
15/02/2025	Mrs. S	13	Moderate	13	Moderate
01/02/2025	Mr. J	12	High	13	Moderate
16/02/2025	Mrs. S	13	Moderate	14	Moderate
02/02/2025	Mr. J	13	Moderate	13	Moderate
17/02/2025	Mrs. S	14	Moderate	15	Mild
03/02/2025	Mr. J	13	Moderate	14	Moderate
18/02/2025	Mrs. S	15	Mild	16	Mild

Based on Table 3, on the first day before the implementation of position changes, there was no change in pressure ulcer risk for either Mr. J or Mrs. S. On the second day, there was a change in pressure ulcer risk before and after the position change intervention: Mr. J's score increased from 12 to 13, and Mrs. S's score increased from 13 to 14. On the third day, there was no change in Mr. J's pressure ulcer risk score, which remained at 13, while Mrs. S's score increased from 14 to 15. On the fourth day, Mr. J's score increased from 13 to 14, and Mrs. S's score increased from 15 to 16.

Table 3. Comprasion of Final Pressure Ulcer Risk in Bedridden Patients Before and After the Implementation of Position Changes

Day/Date	Patients	Measurement	Pressure Ulcer Risk	Description	Difference
31/01/2025	Mr. J	Before	12	High	2
03/02/2025	Mr. J	After	14	Moderate	
15/02/2025	Mrs. S	Before	13	Moderate	3
18/02/2025	Mrs. S	After	16	Mild	

Based on Table 4, the results before and after the implementation of position changes showed an increase in Mr. J's pressure ulcer risk score from 12 to 14, and in Mrs. S's score from 13 to 16. The comparison of pressure ulcer risk score increases between Mr. J and Mrs. S is 2:3.

4. DISCUSSION

Pressure ulcer risk in bedridden patients before the implementation of position changes

Based on Table 1, the risk of pressure ulcers before the implementation of position changes in both respondents showed that Mr. J had a score of 12, indicating a high-risk category, while Mrs. S had a score of 13, indicating a moderate-risk category. The risk of pressure ulcers in

both respondents was attributed to prolonged bed rest.

Patients with limited physical activity due to prolonged bed rest and impaired mobility such as those with stroke, spinal fractures, or degenerative diseases are at increased risk. Immobilization, while beneficial as part of trauma and chronic disease management, may lead to several complications if prolonged. One of the most common complications is the development of pressure ulcers or decubitus (Krisnawati et al., 2022).

Pressure ulcers, or decubitus ulcers, are localized tissue damage or wounds caused by excessive external pressure, typically occurring in patients with chronic illnesses who are bedridden for extended periods (Sari, I. G., 2023). The development of pressure ulcers is a complex and multifactorial process, influenced by both external and internal factors. These factors may occur simultaneously and are interrelated in the pathogenesis of pressure ulcers. External factors such as prolonged pressure, friction, shear forces, and moisture can lead to tissue deformation and ischemia. Meanwhile, internal factors such as malnutrition, anemia, and endothelial dysfunction can accelerate tissue damage (Agustina et al., 2025).

Several interventions can be employed to manage pressure ulcers, including ultrasound therapy, electrical stimulation, laser therapy, regular repositioning, back massage, massage using olive oil, massage with virgin coconut oil, and neuroperfusion massage (Ningsih, 2024).

This is consistent with the study by Ginting and Putri (2021), which states that patients who are unable to change positions independently are at high risk of developing pressure ulcers. Although these patients may perceive pressure, they are unable to reposition themselves to relieve it, thereby increasing the likelihood of pressure ulcer formation. This finding is supported by Juliani et al. (2022), who noted that risk factors for the development of pressure ulcers include immobilization when individuals are unable to move or remain inactive, pressure is exerted on the skin and subcutaneous tissues by surfaces such as mattresses. Other contributing factors include moisture, pressure or friction, temperature, length of hospitalization, serum albumin levels, and mobility capacity.

Based on the assessment data, Mr. J experienced weakness in his right extremities and required assistance with daily activities. Meanwhile, Mrs. S had undergone debridement surgery on her

right foot and amputation of the little toe and ring toe, also necessitating assistance with activities. These conditions resulted in limited mobility for both patients, leading to prolonged periods in bed as they were unable to get up independently. As a result, their backs became more prone to moisture and perspiration, and both patients used diapers, which contributed to increased humidity in the diaper area. This combination of factors can trigger the development of pressure ulcers.

Pressure Ulcer Risk in Bedridden Patients After the Implementation of Position Changes

Based on Table 2, the risk scores for pressure ulcers after mobilization showed that Mr. J had a score of 14 and Mrs. S had a score of 16. Following the implementation of repositioning interventions for four consecutive days, the pressure ulcer risk for both respondents fell into the moderate and low-risk categories, respectively. The repositioning intervention was applied to both respondents who met the inclusion and exclusion criteria.

Pressure ulcers are caused by impaired blood circulation to the tissues, leading to tissue damage or loss of skin integrity, as well as mechanical stress that results in localized ischemia. Soft tissues compressed between two hard surfaces—such as bone structures and the surface of a bed—are particularly vulnerable due to friction between these surfaces. A lateral (side-lying) position can help prevent pressure ulcers in areas with prominent bony structures. This is because repositioning helps reduce pressure by avoiding prolonged stress on a single position, thereby minimizing both pressure and shear forces on the skin (Herly et al., 2021).

One of the key strategies for preventing pressure ulcers is regular repositioning. This is supported by previous research, which indicates that repositioning is highly beneficial for patients with decreased consciousness or reduced physical activity. Repositioning helps improve blood circulation throughout the body, thereby reducing the risk of developing pressure ulcers (Fatmasari et al., 2022).

In the management of pressure ulcers, both pharmacological and non-pharmacological interventions can be applied. Non-pharmacological management includes repositioning the patient to the right and left lateral positions every two hours. Regular repositioning is an effective preventive measure against pressure ulcers and can be routinely implemented in patient care. Repositioning plays a significant role in

preventing the development of pressure ulcers (Setiawan et al., 2023). This is consistent with the study by Mayangsari (2020), which found that repositioning at two-hour intervals can prevent pressure ulcers in patients at mild to high risk. This intervention also contributes to reducing the risk level, for example, from moderate to low risk.

Changes in Pressure Ulcer Risk in Bedridden Patients Before and After the Implementation of Position Changes

Based on Table 3, the pressure ulcer risk scores of both respondents before and after the implementation of repositioning interventions showed no change on Day 1 for either Mr. J or Mrs. S. On Day 2, a change in pressure ulcer risk was observed: Mr. J's score increased from 12 to 13, and Mrs. S's score increased from 13 to 14. On Day 3, there was no change in Mr. J's score, which remained at 13, while Mrs. S's score increased from 14 to 15. On Day 4, both respondents showed improvement: Mr. J's score increased from 13 to 14, and Mrs. S's score increased from 15 to 16.

The duration of bed rest depends on the individual patient's health status. Patients who undergo prolonged bed rest are at risk of impaired skin integrity due to sustained pressure, skin irritation, or immobility, which may lead to the development of pressure ulcers or decubitus wounds. Decubitus is a secondary health issue that arises as a consequence of the primary health condition causing the patient to remain on prolonged bed rest (Laraswati et al., 2021).

Repositioning is an intervention performed to change the position of patients who are completely bedridden, aimed at preventing the occurrence of pressure ulcers on the skin. The primary goal of repositioning is to redistribute pressure whether the patient is in a sitting or lying position and to provide comfort. Essentially, repositioning is a standard nursing procedure implemented to reduce the risk of pressure ulcers in immobilized patients (Herly et al., 2021).

Based on my observations during the study, the initial pressure ulcer risk score was higher in Mr. J, who had been hospitalized in the ICU for 7 days, compared to Mrs. S, who had been in the ICU for only 3 days and had a lower risk score. On the third day, Mr. J did not show an increase in pressure ulcer risk score, whereas Mrs. S experienced an increase. This difference may be influenced by contributing factors, such as Mr. J's higher Geriatric Depression Scale (GDS) score compared to that of Mrs. S.

Comprasion of Final Pressure Ulcer Risk in Bedridden Patients Before and After the Implementation of Position Changes

Table 4 shows a difference in the reduction of pressure ulcer risk between the two respondents following the implementation of repositioning over four consecutive days. The difference in score improvement between Mr. J and Mrs. S was 2:3. The intervention, carried out consistently over four days, demonstrated a reduction in pressure ulcer risk for both respondents. Notably, Mrs. S showed a greater improvement in pressure ulcer risk compared to Mr. J. This outcome may have been influenced by factors such as immobility, nutritional status, and skin moisture.

A previous study conducted by Mayangsari & Yenny (2020) showed that the estimated confidence interval indicated a 95% certainty that the mean pressure ulcer risk score of respondents after the repositioning intervention ranged from 14.57 to 15.63. Further analysis revealed a significant difference in the mean pressure ulcer risk before and after the repositioning intervention (p-value < 0.05).

The reduction in pressure ulcer risk in Mr. J was less pronounced compared to Mrs. S. This was likely due to Mr. J's weaker condition and limited mobility, which contributed to increased moisture in the back area as a result of restricted movement. Moisture on the skin increases the risk of pressure ulcer formation by up to five times. Excessive moisture reduces the skin's resistance to other physical factors such as pressure and friction. Immobilized patients who are unable to maintain personal hygiene are dependent on caregivers to keep the skin dry and intact. Skin moisture can originate from wound drainage, perspiration, condensation from humidified oxygen delivery systems, vomiting, and incontinence. Bodily fluids such as urine and feces, particularly in cases of incontinence, can cause skin erosion and significantly increase the risk of pressure injuries. This in turn compromises peripheral circulation, thereby elevating the risk of pressure ulcer development (Najihah et al., 2022).

The wound healing process in pressure ulcers consists of three phases: the inflammatory phase, the proliferative phase, and the remodeling phase, all of which are influenced by nutritional intake. Suboptimal nutrition can impair collagen synthesis, immune function, and the tensile strength of regenerating tissue. Successful wound healing in patients with pressure ulcers can be evaluated by increased granulation tissue formation, reduced wound size and depth, and a decrease in

both exudate and necrotic tissue (N. Safitri et al., 2021).

5. CONCLUSION

This study aimed to describe the outcomes of repositioning interventions to prevent pressure ulcers in bedridden patients in the ICU of Pandan Arang Regional General Hospital, Boyolali. Based on the analysis and discussion presented, the conclusions that can be drawn from this study are: The pressure ulcer risk score in bedridden patients before the implementation of repositioning was 12 (categorized as high risk) for Mr. J and 13 (moderate risk) for Mrs. S; After the implementation of repositioning, the pressure ulcer risk score increased to 14 (moderate risk) for Mr. J and 16 (low risk) for Mrs. S; The progression of pressure ulcer risk scores before and after repositioning showed a reduction in risk: from high to moderate in Mr. J, and from moderate to low in Mrs. S. There was a difference in the reduction of pressure ulcer risk between the two respondents after four consecutive days of repositioning. The improvement ratio between Mr. J and Mrs. S was 2:3.

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AUTHOR CONTRIBUTIONS

Substantial contributions to the conception, data collection, analysis, manuscript writing, and revision: Almar'ah Uswatun Khasanah.

CONFLICT OF INTEREST

The authors declared no potential conflicts of interest with respect to the publication of this article.

DATA AVAILABILITY STATEMENT

The data are not publicly available due to privacy or ethical restrictions.

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