



POTENTIAL OCCURRENCE OF DECUBITUS AND PHLEBITIS

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ABSTRACT

Pressure sores (decubitus) are wounds caused by a lack of blood vascularization in the area of the skin that gets the most pressure due to prolonged bed rest, while phlebitis is inflammation of the intima of the veins and is usually associated with pain and tenderness along the cannulated vein, erythema, warmth and scratch formation with the palpable cord. Objective: This study aims to describe the potential for decubitus and phlebitis to occur at Santa Elisabeth Hospital Medan 2023. Method: Descriptive research design using purposive sampling technique with a total of 80 respondents. The research instrument uses the Braden scale assessment form to determine the risk of pressure ulcers and the VIP Score assessment form to determine the risk of phlebitis using observation techniques in data collection. For data analysis, univariate analysis was used, the data was presented in the form of distribution and frequency tables. The results show that the risk of decubitus events is mostly low risk as many as 34 respondents (43%) and a small proportion of high risk as many as 17 respondents (21%) from 80 respondents. The risk of occurrence of phlebitis is found in the majority of the early stages of phlebitis as many as 48 respondents (60%) and in the minority there are no signs of phlebitis as many as 32 respondents (40%). Aseptic measures in carrying out medical and non-medical actions in hospitals need to be improved and for further research it is hoped that length of stay, body weight can be used as research variables in observing the occurrence of decubitus and phlebitis in hospitals.

Keywords: decubitus; phlebitis; risk

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INTRODUCTION

Hospitals are often assessed for their quality based on how nursing services are implemented in the hospital, so that medical personnel are required to have competence or can be said to be professional both implementing nurses and managing nurses are required to provide professional nursing services to patients (Budiono, 2016). Nosocomial infections tend to impact critical patients when their immune system is compromised. The risk of nosocomial infection is greatest in patients with bacteremia (blood flow) and pneumonia. Other infections that tend to occur are intra-abdominal infections, wound infections, and bacteremia associated with intravascular catheters (Smeltzer & Bare, 2013). Decubitus is damage to the layers of skin or underlying tissue, usually occurs on bony prominences. Decubitus occurs due to pressure and even friction that lasts for quite a long time without any mobilization (Potter & Perry's, 2013). The impact of decubitus is an increase in mortality rates, length of stay in hospital, psychological impacts and social impacts for patients and their families (Ebi et al., 2019). Pressure ulcers (decubitus) occur because certain parts of the body are under pressure for too long, which causes cell damage and tissue death. Lack of movement in bedrest patients is also one of the causes of decubitus. Decubitus can occur in any part of the body, but is most often found in the sacrum or tailbone and heels. Pressure ulcers also occur on other prominent

bones, including the ischium, toes, elbows, ears, ankles, nose, or other areas of the body (Potter & Perry's, 2013).

If a person's body defenses or immunity decreases, they will be more susceptible to infection. Infection as known whether the sufferer has a single disease or more than one disease, this causes easy exposure to nosocomial infections. Maintaining good hygiene is very influential in the spread of nosocomial infections. If hygiene is low, it will be easier to spread nosocomial infections, especially hand hygiene (James et al., 2008). According to Andriani (2020), One solution that can be done at the hospital is to treat phlebitis according to the SOP at the hospital. This treatment is very influential on the incidence of phlebitis, including wearing gloves, wet the plaster with alcohol and open the dressing using tweezers, clean the plaster, apply a warm compress to the area that is swollen, if there is pain or swelling in the area where the infusion is inserted, the nurse must remove the infusion and replace the infusion so that there is no infection in the infusion area, then check the IV puncture site every day, replace the entire infusion set no later than once every 3 days, clean the puncture area and surrounding areas with NaCL, smear the puncture site with iodine, and cover neatly with sterile gauze.

Pressure ulcers in hospital patients can be prevented in several ways, namely placing soft pads over bony prominences such as on the heels of the feet and elbows to reduce pressure sores on the body. Assessing the risk of pressure ulcers is also one of the prevention measures that can be taken, especially for patients with limited mobility or bed rest patients (brunner & Suddarth'sr, 2010). According to Prastiwi (2021), in preventing decubitus, the use of skin moisturizer is one of the skin treatments to prevent dry skin, One of the moisturizers that can be used is olive oil. Olive oil has an anti-inflammatory effect which can reconstruct cells in the body, provide smoothness to the skin and also contains vitamin E. Giving a massage after applying olive oil can remove swelling, relieve arthritis and muscle pain. According to Setiani et al (2021), decubitus can be prevented by reducing pressure on one side. Pressure reduction can be done by turning the patient on his left or right side every 2 hours, using a special soft pad or mattress. For prevention at home, you can change positions at least every 2-4 hours. The author is interested in researching this title to determine the potential for decubitus and the potential for phlebitis in the inpatient room. By carrying out this observation, the incidence of nosocomial infections suffered by patients will be reduced and the losses experienced by these patients will also be reduced.

METHOD

The type of research used is quantitative research with a descriptive design. The population in the study were 80 inpatients at Santa Elisabeth Hospital. Sampling in this study used non-probability sampling with a purposive sampling technique, sampling using criteria. Inclusive criteria for decubitus are patients who are treated for more than 2 days/48 hours, patients with limited mobility in bed. The inclusive criteria for phlebitis are inpatients who have been given an IV drip for more than 3 days/72 hours. The variables in this study are the potential for pressure ulcers and the potential for phlebitis. Measuring the potential for decubitus and phlebitis using the Braden scale observation sheet and VIP score. Data collection techniques were carried out using observation, using decubitus assessment forms and phlebitis assessment forms to see what the potential of each patient was. The analysis in this research is univariate. The author will present the distribution and frequency tables including decubitus data and phlebitis data, which will be grouped according to the variables and type of respondent, tabulate the data based on the variables and all respondents, present the data for each variable studied, then carry out calculations. to answer the problem formulation.

RESULTS

Tabel 1.
Distribution of respondents based on demographic data

Characteristics	f	%
Age		
21-30	1	1.0
31-40	6	8.0
41-50	5	6.0
51-60	13	16.0
61-70	24	30.0
71-80	23	29.0
81-90	8	10.0
Religion		
Protestan	51	64.0
Katolik	18	22.0
Islam	10	13.0
Hindu	1	1.0
Gender		
Man	34	42.0
Woman	46	58.0
Culture		
Batak Toba	47	59.0
Batak Karo	11	14.0
B. Simalungun	10	10.0
Batak Dairi	1	1.0
Jawa	3	4.0
Padang	2	3.0
Minang	2	3.0
Nias	2	3.0
Tionghoa	1	1.0
India	1	1.0
Last education		
No school	1	1.0
elementary school	11	14.0
Junior High School	11	14.0
Senior High School	34	42.0
Diploma	11	14.0
Bachelor	12	15.0

Table 1. Age characteristics, it is known that the majority are in the 61-70 year age range with 24 respondents (30%) and a small portion are in the 21-30 year age range with 1 respondent (1%). The majority of respondents in the Protestant religion were 51 (64%) and the largest number of minority respondents in the Hindu religion was 1 respondent (1%). Data was obtained from 80 respondents, the majority of whom were female, 46 respondents (58%) and the minority male, 34 respondents (42%). The majority respondents from the Toba Batak tribe were 47 (59%) and the minority respondents from the Dairi Batak, Chinese and Indian tribes were 1 respondent each (1%). Most of the respondents had a high school education, 34 (42%) and a small number of respondents had no school, 1 (1%).

Tabel 2.
Distribution of respondents based on the potential for pressure ulcers

Potential for Decubitus	f	%
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Very High Risk	0	0
High Risk	17	21.0
Medium Risk	29	36.0
Low Risk	34	43.0

Table 2 above, it was found that the majority were low risk, 34 respondents (43%) and a small portion were high risk, 17 respondents (21%).

Tabel 3.
Distribution of respondents based on the potential for phlebitis

Potential for Decubitus	f	%
No signs of phlebitis	32	40.0
Initial Stage of phlebitis	48	60.0
Early Thrombophlebitis	0	0
Advanced Stages of Thrombophlebitis	0	0

Table 3, it was found that the majority were in the early stage of phlebitis as many as 48 respondents (60%) and the minority were in the early stage of phlebitis as many as 32 respondents (40%).

DISCUSSION

Potential for Decubitus

Based on table 2, it is known that the majority are at low risk as many as 34 respondents (43%) and a small portion are at high risk as many as 17 respondents (21%). The author assumes that decubitus is a pressure ulcer caused by prolonged pressure without mobilization, but it is not only prolonged pressure that is the causal factor but there is also sensory perception, humidity, activity, mobilization, friction and nutrition. Decreased mobility will increase the risk of decubitus, reduced ability to move or move causing the sufferer to be unable to change position or shift. The occurrence of decubitus in patients on prolonged bed rest causes damage or death of skin tissue. The risk of decubitus is higher due to inability to mobilize and several other factors. With increasing age, a person's physiological function will decrease and the body will become more susceptible to disease. This results in the risk of developing pressure ulcers, either high risk or low risk. In the results of the research above, it was found that low risk respondents were more numerous than high risk respondents, because most respondents were able to mobilize in bed so the risk of developing pressure ulcers was found to be small in this study.

The researcher's assumptions above are supported by research Syakura et al (2021), stated that the risk of pressure ulcers was higher due to limited mobilization and those who needed help. Not only mobilization but prolonged pressure is the cause of this pressure ulcer. Mobility disorders occur due to pathological changes in the musculoskeletal system which have physical and psychosocial impacts. Research by Jauhar et al (2019) and Irianto et al (2019), stated that nurses' actions have a role in preventing decubitus, such as teaching families how to change positions or mobilize to reduce the occurrence of decubitus/long-term pressure sores in areas of protruding bones. Supported by Krisnawati et al (2022), which states that older age has a greater risk. In old age, there are changes in tissue vascularization, including changes in skin elasticity, resulting in a risk of damage to skin integrity. Alimansur & Santoso (2019) research, stated that decreased mobility will increase the risk of decubitus and immobilization is one of the causes of decubitus. Immobilization combined with decreased consciousness will influence the emergence of problems in terms of fine motor skills, nutritional problems, thereby accelerating the occurrence of pressure ulcers. Meliza et al., (2020) research, stated that regular mobilization coupled with massage using olive oil had a significant effect on reducing the risk of pressure ulcers in patients. Sharshour et al., (2023) research, The application of quality nursing care to immobilized patients has a significant

influence in preventing pressure ulcers and the application of quality nursing care can prevent patients from suffering from pressure ulcers.

Potential for phlebitis

Based on table 3, it is known that the majority experienced early stage phlebitis, 48 respondents (60%), and a small percentage did not show signs of phlebitis, 32 respondents (40%). The author assumes that the respondents experienced the initial stages of phlebitis due to infection which was influenced by the length of treatment and aseptic measures in carrying out medical and non-medical procedures on patients in hospital. The length of time the intravenous catheter is installed and aseptic measures influence the incidence of phlebitis. The longer the treatment period, the more infection will appear through infusions and through medical and non-medical procedures that allow bacteria to enter easily and cause infection. The location of the infusion also influences the occurrence of phlebitis, especially if the infusion is placed in the dominant hand or wrist, which results in discomfort for the patient in moving his hand, especially if the patient is restless and moves a lot. When the patient moves the hand with the IV a lot, it will cause the intravenous (IV) catheter to shift, resulting in a blockage, causing interference and ultimately phlebitis.

The incidence of phlebitis is also influenced by age, where older people are more susceptible to phlebitis because the condition of the patient's veins tends to be fragile, inelastic and easily disappears (collapses). Age is also a trigger factor for thrombi and hypercoagulation, thereby increasing the risk of phlebitis. Apart from the factors above, the potential for phlebitis occurs because the family does not agree to replace the IV catheter because the patient is going home. The researchers' assumptions above are supported by research by Amaliah et al (2023), which states that the patient's length of stay influences the incidence of phlebitis. Prolonged infusions influence the occurrence of phlebitis, this is because installing an infusion means inserting a foreign object into the body, this can increase the risk of infection. In this study there is also data that says that the patient's age influences the incidence of phlebitis. This is related to the condition of elderly veins which tend to be brittle, inelastic and easily disappear (collapse), apart from that the patient's age also triggers thrombi and hypercoagulation, thereby increasing the risk of phlebitis. In Demur's research (2021), it was stated that the longer the IV is in place, the longer the intravenous catheter will be in the IV, if it continues without replacement it will increase the risk of phlebitis.

Supported by Watung (2019), states that patient comfort can cause phlebitis, if the infusion is placed in the dominant hand or wrist, this will cause discomfort and as a result lead to shifting of the intravenous catheter, leakage and even blockages which cause interference and ultimately the occurrence of phlebitis. Research by Prahmawati et al., (2023), that the choice of location for infusion also influences the risk of phlebitis, installing an infusion in the metacarpal has a greater risk of developing phlebitis than in the cephalic vein. If the intravenous insertion site is in the metacarpal, it is often used for activities. When the extremity is moved, the attached catheter moves and causes trauma to the vein wall, so the risk of injury or phlebitis is greater. This is also in line with Langingi et al., (2022) research, which states that installing IVs in parts of the extremities that are frequently used for activities has a greater risk of phlebitis.

Research by Suprayoga et al (2019), states that the incidence of phlebitis is preceded by the presence of a thrombus in the vein wall, where this thrombus will increase with age. Age is considered a risk factor for thrombus. It is estimated that hypercoagulable states increase in direct proportion to age. In old age, veins become brittle, inelastic and easily disappear

(collapse) and this can cause phlebitis. Rosita et al., (2023) research, One of the factors that influences phlebitis is age. As age increases, various changes in body function will occur. One of these physical changes is a decrease in the body's immune system. In the elderly, veins can become weaker and tense with age. Long-term hospitalization causes patients to exclusively perform ADLs in bed, affects the immobility of intravenous catheters, causes blockage of blood in blood vessels and causes phlebitis.

CONCLUSION

Based on the results of research with a sample size of 80 respondents regarding the potential for decubitus and phlebitis at Santa Elisabeth Hospital Medan in 2023, it was concluded that the potential for decubitus to occur at Santa Elisabeth Hospital in Medan in 2023 had a low risk for 34 respondents (43%) out of 80 respondents. The potential for phlebitis to occur at Santa Elisabeth Hospital in Medan in 2023 has a risk, namely the initial stage of phlebitis for 48 respondents (60%) out of 80 respondents. Suggestions for further research include body weight and length of stay as research variables to see the incidence of decubitus and phlebitis in hospitals.

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