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# Nurse Actions In Preventing Nosocomial Infections In Post Surgical Wounds In RB2 A and RB2 B RSUP H. Adam Malik Medan

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#### Abstract

Infection is the leading cause of death worldwide that can cause extreme pain and cause serious injury to cells or tissues. Nosocomial infections acquired or occurring in hospitals are related to the provision of health services in health care facilities and nurse actions are needed to prevent nosocomial infections by washing hands, using protective equipment, managing medical devices, disinfecting action sites, performing wound care and closure and waste management. . The design of this research is simple descriptive with the research sample being 44 nurses who work in RB 2A and 2B RSUP H. Adam Malik Medan. The sampling technique used is Total Sampling. The results of this study indicate that the characteristics of the respondents have worked for more than three years, namely 34 respondents (77.3%) with the education level of the most respondents being D3, namely 21 respondents (47.7%) and earning more than Rp. 1,500,000 there are 32 respondents (72.2%). The results showed that the actions of nurses in preventing nosocomial infections in post-surgical wounds were in the good category, namely 44 people (100%). For further research, it is recommended to conduct research on other factors that influence the occurrence of infection and the role of professional nurses in infection control as well as the nutritional needs of patients. 000 there are 32 respondents (72.2%). The results showed that the actions of nurses in preventing nosocomial infections in post-surgical wounds were in the good category, namely 44 people (100%). For further research, it is recommended to conduct research on other factors that influence the occurrence of infection and the role of professional nurses in infection control as well as the nutritional needs of patients. 000 there are 32 respondents (72.2%). The results showed that the actions of nurses in preventing nosocomial infections in postsurgical wounds were in the good category, namely 44 people (100%). For further research, it is recommended to conduct research on other factors that influence the occurrence of infection and the role of professional nurses in infection control as well as the nutritional needs of patients.

Keywords: Nurse Action, Prevention of Nosocomial Infections.

### INTRODUCTION

Surgery is an attempt by doctors to treat difficult conditions or those that cannot be cured with simple medications (Potter & Perry, 2002). Surgery can cause injury to body tissues that is done intentionally and requires treatment to prevent infection. Surgical wounds are wounds with a very small chance of infection because they are carried out in sterile conditions. The operating room has an important role in preventing infection because it is estimated that 90% of wound infections occur during surgery (Gruendemann & Fernsebner, 2006). However, often during wound care in surgical patients in hospitals, surgical infections occur where the infection often cannot heal spontaneously and can lead to complications in the form of suppuration, necrosis.

Surgical infection is a form of nosocomial infection that often occurs in hospitals that attack clients who are in the nursing care process because the hospital is the most likely place for clients to get infections because of the large population of microorganisms with strains that are resistant to antibiotics. Therefore, it is necessary to know about the mechanism of the spread of nosocomial infection which is broadly through two ways:way, namely directly and indirectly with the causative factors are the health workers themselves, surgical equipment, the surrounding environment and visitors (Darmadi, 2008).

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Nosocomial infections in addition to increasing pain in clients also burden health care costs significantly, the length of the treatment period, increasing disability, increased medical costs and a prolonged healing period add to the client's expenses more and more and it all sometimes has to be borne by the client which ultimately worsens the client's situation. In addition to being a physical burden, nosocomial infection itself becomes a mental burden and can also affect the client's psychology. For this reason, it needs to be protected and kept away from the possibility of infection through hospital policies and also improving health services (Smeltzer & Bare, 2002).

Factors that cause nosocomial infections are due to surgical wounds that experience dehiscence or infection whose main causes are bleeding (imperfect hemostasis), wound infection, stitches that are not closed properly and surgical technique that is not good or not sterile. Other factors that can also influence are poor general condition (hypoalbuminemia), carcinomatis, and advanced age. The hallmark of infection is the discharge of serosanguinolen fluid from the wound which indicates an infection already exists in the muscle layer, which is treated with immediate wound surgery by an experienced surgeon (Sjamsuhidajat, 2004).

In Indonesia, the incidence of nosocomial infections in hospitalized patients in surgical wards is in the range of 5.8%-6% and the rate of nosocomial infections in surgical wounds is 2.3%-18.3% (Hermawan, 2007). The percentage of incidence of nosocomial infection in RSUD dr. Pirngadi Medan in 2006 was 32.16% which included 10% infection caused by the use of intravenous needles, 10.16% due to blood transfusion, and 12% surgical wounds (Nasution, 2008).. Nasution (2011) quotes from Sukartik (2009) which states thatbased on the results of a survey at Rumkit Putri Hijau through medical record data the number of nosocomial infections in 2009 in the ICU room was around 20% and based on data on service quality indicators, data obtained from the Dr Pirngadi Regional General Hospital, Medan City in 2007 for nosocomial infections was 2.63% which consisted of infections caused by the use of infusion needles of 1.8%, due to bed rest (decubitus) 0.2% and the surgical wound infection rate of 0.6%, blood transfusions of 0.03%. Meanwhile, the nosocomial infection rate in 2008 in the ICU was 40%. In addition, it is also known that nosocomial infections in theat Dr.Sardjito Hospital in 2007 the incidence of nosocomial infections reached 5.9% from the operating room, while at Adam Malik Hospital the prevalence rate of nosocomial infections in postoperative clean surgical wounds was 5.6% (Jeyamohan, 2010).

For this reason, nursing actions taken by nurses are very decisive in reducing nosocomial infections that occur in hospitals, namely by controlling the growth and proliferation of pathogenic microbes. While prevention can be done through changes in the behavior and habits of officers so as not to increase the risk of clients being infected (Darmadi, 2008). From the description above, it can be concluded that nurses must apply nursing actions hygienically. Therefore, nurses are required to be responsible for maintaining the safety of clients in hospitals through the prevention of accidental injury or other trauma and through preventing the spread of infection (Eryando, Allenidekania, Handayani, 2004).

A number of The way that nurses can do in effective prevention of nosocomial infections is by requiring nurses to remain aware of disease transmission by controlling it. To prevent transmission of microorganisms, nurses do not have direct contact with clients, contaminated equipment and dirty objects (Kozier, 2010).

The most important basic technique in preventing and controlling the transmission of postoperative nosocomial infections is by washing hands before performing the procedure, using sterile gloves and equipment and using sterile technique before the procedure is performed.

Based on the description above, the researcher is interested in examining how nurses act in preventing nosocomial infections in post-surgical wounds at H. Adam Malik Hospital Medan as a research reference.

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## RESEARCH METHODS

The design of this study used a simple descriptive design that aims to describe the actions taken by nurses in preventing nosocomial infections in postoperative wounds in RB2 A and RB2 B RSUP. H Adam Malik.

The population in this study were nurses who cared for RB2 A and RB2 B RSUP H. Adam Malik Medan, amounting to 44 people. The sampling technique used is Total Sampling where the number of members in the population is less than 100, the researcher takes the population as a research sample, namely taking all members in the population so that the study is carried out on the entire population in RB2 A and RB2 B RSUP. H. Adam Malik (Arikunto, 2010).

The research location is a very important component in supporting the implementation of research and must be in accordance with the objectives to be achieved in this research. The research locations used were RB2 A and RB2 B RSUP H. Adam Malik Medan. The reason for choosing the location is because the hospital is a Type A hospital which is a teaching hospital as well as a referral hospital for all regions, especially the North Sumatra region. That's why researchers are interested in carrying out research at H. Adam Malik Hospital Medan and with an adequate number of patients as well as operating room nurses so as to allow researchers to obtain samples in accordance with the number and time specified which in this study were carried out in RB2 A and RB2 B.

## RESULTS AND DISCUSSION

Frequency distribution of the percentage of nurse action categories in preventing nosocomial infections in post-surgical wounds in RB 2A and 2B rooms at H. Adam Malik Hospital Medan (n=44)

Table. 1		
Respondent's	Frequency	Percent
Handwashing	(respondent)	(%)
Description		
Well	44	100
Enough	0	0
Not enough	0	0

Based on dataThe results of the study were obtained from nurses who worked in RB 2A and 2B rooms at RSUP. H. Adam Malik Medan obtained data that about 43 respondents (97.7%) stated that they always wash their hands before and after using an antiseptic. This is in accordance with the statement of Rasyid (2000) that aseptic procedures at the time of intervention are an absolute requirement to prevent infection as well as Kozier (2010) which states that hand washing is a very important action in all settings including hospitals because washing hands is one of the most effective measures to prevent and control the risk of infection with microorganisms. Furthermore, based on the results of the study that 42 respondents (95, 5%) stated that they always clean equipment before disinfection and sterilize equipment before use for wound care. According to Kozier (2010), cleaning equipment after use is a way to inhibit the growth of microorganisms and by carrying out disinfection can provide a bactericidal and bacteriostatic pharmacodynamic effect that prevents the growth and development of bacteria and the last stage is sterilization which is a process to destroy all microorganisms including spores and viruses that are infected. This can be done by moist heat, gas, boiling water and radiation methods.

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Although the results of the research on the actions of nurses in the overall good category, there are several actions that must be improved and implemented to control the increase in infection such as: washing hands when switching from one patient to another when providing wound care as many as 28 people (63,6%) stated that they always wash their hands. Washing hands will free hands from germs and prevent cross-contamination and allow maximum avoidance of pathogenic infections, reduce infection events, and maintain skin texture and integrity appropriately (Kusyati, 2010).

The nurse's next action is the nurse's statement about using protective equipment such as gloves, goggles, masks, protective clothing if necessary so as not to be exposed to infection from patient wounds whose frequency is only 24 people (54.5%) who say they always do it while respondents' answers to the use of gloves Only 28 people (63.6%) stated that they always used sterile gloves before treatment. The use of gloves is one of the effective ways to reduce the spread of microorganisms while the isolation precautions against the risk of exposure to infection can be done by using gloves, masks, protective glasses and protective clothing/dresses (Kozier, 2010).

Smeltzer & Bare (2002) stated that the basis for cleaning the wound is carried out by paying attention to the principle when cleaning it, namely, cleaning from a slightly contaminated area, namely the area inside the wound to the outside of the wound area because the wound is believed to be slightly contaminated than the surrounding skin. This is in accordance with the statement of the respondents as many as 25 people (56.8%) stated that they always carried out wound care from the inside to the outside of the wound.

Based on the results of the study, it was found that the actions of nurses in preventing nosocomial infections in post-surgical wounds in RB 2A and 2B rooms, totaling 44 people as a whole were in the category of distribution and a good percentage and this indicates that the nurses of the RSUP. H. Adam Malik Medan in general has been able to prevent nosocomial infections, especially in the living roomin rooms RB2 A and RB2 B, but nurses still have to increase efforts to prevent nosocomial infections in order to provide good quality nursing care. This is in accordance with the results of Dharshini Jeyamohan's research conducted in 2010 that the result is that of the total post-surgical patients in the clean surgical wound class, there were as many as 534 people, only 30 patients with clean surgical wound classes who suffered from nosocomial infections, so that patients who did not suffer from nosocomial infections were as many as 504 people with an estimated prevalence rate of patients with nosocomial infections as much as 5.6% and the prevalence for those who do not suffer from nosocomial infections as much as 94.4%.

## **CONCLUSION**

The results showed that the characteristics of the majority of respondents in the age group of respondents were in the range of 41-50 years as many as 18 respondents 41%). Most respondents based on gender are women with 41 respondents (93.2%), the religion that is most widely adopted is Protestant Christianity and the majority have worked for more than three years, namely 34 respondents (77.3%). Based on the level of education, the data obtained that the education of the most respondents is D3, namely 21 respondents (47.7%), based on the income obtained 32 respondents (72.2%) have an income of more than Rp. 1,500,000 and for the actions of nurses in preventing nosocomial infections in post-surgical wounds in the good category, namely 44 people (100%).

Based on this research, it is known that the nurses who are in the Rb 2A and 2B wards of Haji Adam Malik General Hospital Medan all have very good abilities to prevent nosocomial infections, especially in the Rb 2A and 2B rooms.

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