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Description Of Risk Factors For Nosocomial Infection In Post-Operative Wounds In Banten Province Hospital Surgery Rooms, 2023

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ABSTRACT

Nosocomial infections are microorganisms that enter the human body which are caused by various factors including gender, age, comorbidities, length of treatment, whether or not the patient is crowded in the room which causes nosocomial infections in post-operative wounds at the Banten Provincial Hospital in 2023. The high rate of nosocomial infections in hospitals throughout the world is 7.1% per year or 190 million patients are treated annually. Meanwhile, in Indonesia itself, data on nosocomial infections can be seen from surveillance data carried out by the Indonesian government ministry of health in 2015. Data on nosocomial infections was quite high, namely 6 - 16% with an average of 9.8% of post-operative patients experiencing nosocomial infections. while being treated. The aim of this research is to determine the incidence and description of risk factors for nosocomial infections in post-operative wounds at Banten Hospital in 2023. The research method used is descriptive research with observation techniques, random sampling. The incidence of nosocomial infections is influenced by gender, age, comorbidities, length of stay, whether or not the patient's room is crowded which causes nosocomial infections.

Introduction

In health service institutions, namely hospitals, there is an infection that can attack a patient with treatment of approximately 72 hours, where the infectious disease has not been found when the patient enters, this infection is called a nosocomial infection or in other words called healthcare associated infections (HAIs). Places that are full of risk of sources of infection with high numbers of microorganisms are hospitals (Caroline, 2016).

Nosocomial comes from Greek, from the words nesos which means disease and komeo which means to care. Nasokomion which means place of care/hospital. So nosocomial infection can be interpreted as an acquired infection or an infection that occurs in a hospital. Nosocomial infections or also called hospital infections are infections that occur in hospitals by germs that originate from the hospital. This infection occurs at least 3 x 24 hours after starting treatment. Nosocomial infections occur in sufferers, health workers, and also everyone who comes to the hospital, which is currently one of the causes of increasing morbidity and mortality in hospitals, so that it has become a new health problem, both in the country developing and developed countries.

The high rate of nosocomial infections in hospitals throughout the world is 7.1% per year or 190 million patients are treated annually. According to WHO in 2016, the incidence of nosocomial infections in patients in Europe is around 4 - 4.5 million patients each year, while in the United States the incidence of patients with nosocomial infections is estimated at around 1.7 million patients. This incidence rate represents 4.5% for 99,000 deaths. Meanwhile, in Indonesia itself, data on nosocomial infections can be seen from surveillance data carried out by the Indonesian government ministry of health in 2015. It was found that data on nosocomial

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infections was quite high, namely 6 - 16% with an average of 9.8% of post-operative patients experiencing nosocomial infections during being cared for (Depkes, 2015).

Nosocomial infections greatly affect overall health conditions which can lead to morbidity, mortality, prolonged treatment and greater cost burdens which ultimately give rise to a bad image of the hospital. Nosocomial infections are the result of transmission of previously uninfected pathogenic organisms originating from hospitals. In general, the general factors that influence the occurrence of nosocomial infections are endogenous factors (age, sex, immune comorbidities and local conditions) and exogenous factors (length of time the patient was treated, the group treated by medical equipment and the environment). Nowadays, patients undergoing surgical procedures are increasing. Surgery is any treatment action that uses invasive methods by opening or exposing the part of the body to be treated (Rahmayati, 2017). In developing countries, including Indonesia, nosocomial infections of post-operative wounds (ILO) are still very high, according to the results of research conducted in two large cities in Indonesia, it was found to be around 30% - 60%. WHO states that the standard of hospitalization for the incidence of nosocomial infections is around 1.5% (Yunizar, 2013). The risk of decreased immunity in the patient's body and the increase in medical procedures as invasive techniques which results in an increase in nosocomial infections, the termination of drug-resistant bacteria which results in an increase in the patient population which makes hospitals full, where the practice of controlling nosocomial infections accelerates transmission.

Yunizar, at.all (2013), in a study entitled "Risk factors for nosocomial infections in clean surgical wounds in the Surgical Treatment Room at Yukum Medical Center Hospital, Lampung Regency". It was explained that the occurrence of nosocomial infections was obtained from the results of interaction tests which showed that age and comorbidities caused nosocomial infections in postoperative wounds. This is in line with the results of Maharani's research (2018), which states that there is an influence of age, surgical wound infections, and complications on the length of stay for post-appendectomy patients at Dr. Hospital. H. Abdul Moeloek, Bandar Lampung City, 2018. Based on the results obtained in this study, it can be concluded that surgical wound infections increase the length of stay, increase the burden of direct care costs, increase the number of outpatient visits and increase the burden of direct outpatient costs.

Prevention of nosocomial infections is carried out, especially through the participation of medics, paramedics and all hospital personnel in aseptic work methods, good waste disposal, and eradication of disease vectors. The most common nosocomial infection is surgical wound infection (ILO). Wound care is a nurse's daily task where the nurse is one of the spearheads of providing care, in this case playing a role in preventing nosocomial infections. Nurses must have a sufficient level of education and knowledge, this is important in shaping nurses' actions in providing services to patients, especially in terms of measures to prevent nosocomial infections. Based on the above background and considering the importance of preventing nosocomial infections, the author is encouraged to conduct further research on: description of risk factors for nosocomial infections in post-operative patients in the Banten Provincial Hospital Operating Room in 2023.

Methods

This research uses descriptive methods and observational data collection through questionnaires (question and answer) on patients who have undergone post-operation in the surgical room of Banten provincial hospital in 2023 for approximately 10 consecutive days to obtain accurate results. This research was conducted in the operating room of the Garuda building, 5th floor, Banten provincial hospital in 2023. This research was carried out in 2023. The population in this study was all patients who had undergone post-operation in the operating room of the Banten provincial hospital in 2023. The sample used in This descriptive

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research consists of patients who have undergone surgery or post-operation in the operating room of the Banten provincial hospital in 2023. Data collection uses questionnaires, interviews, observation, documentation and tests

Results

Research data collection was carried out for 7 consecutive days in order to obtain accurate results, this research began on May 3 to May 11 2023 at the Banten Provincial Hospital in 2023. By using secondary data, the data obtained from this research obtained by observing and giving questionnaires to respondents and the results of the respondents in this study were in accordance with the desired target population. In this research data, the respondents used were respondents who had undergone post-operative procedures and carried out invasive procedures in the surgical room of the Garuda building, 5th floor, Banten Province General Hospital in 2023. With a population of 33 respondents.

A. Analisis univariate

Univariate analysis is an analysis that can explain or describe a variable being studied, where this data displays each characteristic of the variable being studied. In this analysis, the function is to simplify data or summarize observational data so that the data is also graphic. Basically, this analysis aims to summarize the data into a middle size or variable size and then compare the description between one group of subjects and another group of subjects. Univariate analysis was carried out to determine the distribution of the independent and dependent variables, namely the occurrence of nosocomial infections in post-operative wounds and the independent variables were gender, age, comorbidities, length of treatment, whether the room was crowded or not, while the dependent variable was the presence or absence of nosocomial infections in the wound. post operation. This analysis aims to provide an overview of the factors that cause nosocomial infections in postoperative wounds with the frequency and performance of the independent and dependent variables.Berdasarkan jenis kelamin

The characteristics of respondents based on gender can be seen in the following table:

Table 1 Description of Respondent Characteristics Based on Gender in Banten Provincial Hospitals in 2023

No	Gender	Amount	
		Frequency	Percent
1	Man	14	42,4
2	Woman	19	57,6
	Total	33	100

In the table above, the number of people at risk of post-operative wound infection was 19 (57.6) women, while 14 (42.4) men were at risk for a total of 33 (100%) respondents in the Garuda surgical room, 5th floor of the Banten Provincial Hospital in Period 2023. Most of the respondents affected by nosocomial infections were female, namely 19 people, because women's immunity to viruses/bacteria is weaker compared to men's which is stronger Fella Sulfa (2014); in Septiani Esti Wigati (2015).Berdasarkan umur

The characteristics of respondents based on age who were affected by nosocomial infections in postoperative wounds can be seen in the following table:

Table 2 Descriptions of Characteristics Based on Age in Banten Provincial Hospitals in 2023

No	Age	Frequency	Percent
1	< 20 Tahun	3	9,1
2	>20 Tahun	30	90,9

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Total	33	100

Based on the table above, it can be seen that the risk of nosocomial infections in post-operative wounds is more common in the elderly with a total of 30 respondents with a total of (90.9) while those aged less than 20 years are less likely to suffer from nosocomial infections with a total of 3 respondents amounting to (9 .1%), contracted a nosocomial infection at the Banten Provincial Hospital, Garuda surgical room, 5th floor.

1. Based on length of treatment

   The characteristics of respondents based on length of treatment who were affected by nosocomial infections in post-operative wounds can be seen in the table below:

Table 3 Characteristics of Respondents Based on Length of Treatment at Banten Provincial Hospitals in 2023

No	Length of treatment	Frequency	Percent
1	< 5 Hari	12	36,4
2	>5 Hari	21	63,6
	Total	33	100

Based on the table above, the number of people affected by nosocomial infections in post-operative wounds from the length of treatment was >5 days with a total of 21 (63.6%) while those treated for less than % of days were 12 (36.4%) fewer than those who longer treatment at the Banten Provincial Hospital in the operating room of the Garuda building, 5th floor, in 2023.

2. Characteristics based on comorbidities

   The characteristics of respondents based on other diseases affected by nosocomial infections in postoperative wounds can be seen in the table below:

   Table 4 Description of respondents' characteristics based on comorbidities at Banten Provincial Hospitals in 2023.

No	Comorbidities	Frequency	Percent
1	No disease	23	69,7
2	DM	8	24,2
3	Hypertension	2	6,1
	Total	33	100

Based on the table above, the number of people affected by comorbidities was women who had other diseases, DM, with 8 (24.2%) respondents, while those who did not have other diseases were 23 (69.7%) respondents and 2 (6.1%) had hypertension. %) respondents at the Banten Provincial Hospital in the operating room of the Garuda building, 5th floor in 2023.

3. Characteristics based on whether the room is dense or not

   The various types of responders based on whether or not the space is congested which causes nosocomial infections in postoperative wounds can be seen in the following table:

   Table 5 Characteristics of Respondents Based on Whether or Not Rooms Are Crowded in Banten Provincial Hospitals in 2023.

No	Whether the room is crowded or not	Frequency	Percent
1	<5 patient	18	54,5

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2	>5 patient	15	45,5
	Total	33	100

Based on the table above, the results showed that there were more nosocomial infections in rooms with crowded patients with a total of 18 (54.5%) respondents, while in non-crowded rooms there were 15 (45.5) respondents. In the Banten Provincial General Hospital, the surgical room building Garuda 5th floor in 2023.

4. Characteristics of respondents affected by nosocomial infections
   The characteristics of respondents affected by nosocomial infections can be seen in the table below:

Table6. Description of the characteristics of respondents who were infected at the Banten Provincial Hospital in 2023.

No	Infection	Frequency	Percent
1	There is	18	54,5
2	There isn't any	15	45,5
	Total	33	100

Based on the table above, the number of respondents who were infected was 18 (54.5%) while those who were not infected were 15 (45.5%) at the Banten Provincial Hospital in 2023 in the operating room on the 5th floor of the Garuda building.

B. Analisis Crostabbs

Crostabbs analysis is an analysis that can explain or describe a variable being studied, where this data displays a cross tabulation or contiguity table which shows the simultaneous distribution and testing of two or more variables. In this analysis, a cross table is used to find out between rows and columns. The line variable is an independent variable while the column is a dependent variable and the data used is also nominal and ordinal at the same time.

Crostabbs analysis was carried out to determine the distribution of independent and dependent variables, namely the occurrence of nosocomial infections in post-operative wounds and the independent variables were gender, age, comorbidities, length of treatment, whether the room was crowded or not, while the dependent variable was the presence or absence of nosocomial infections in the wound. post operation. This analysis aims to provide an overview of the factors that cause nosocomial infections in post-operative wounds with the frequency and performance of the independent and dependent variables.Adapun hasil yang di proleh dari masing masing variabel diantara lain:

1. By gender
   The characteristics of this infection based on gender affected by nosocomial infection after surgery or post surgery can be seen in the following table:

Table 7. Characteristics of Respondents Based on Gender at RSU Banten Province in 2023

NO	Gender	Infection occurrence	
		There is	There isn't any
1	Man	8	6
2	Women	10	9
	Jumlah	18	15

Based on the table above, it can be seen that women are more susceptible to nosocomial infections with the number 10 compared to men with 8 respondents who were affected by nosocomial infections in post-operative wounds in the surgical room on the 5th floor of the Gadura building at the Banten Provincial Hospital in 2023.

2. Based on age

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The characteristics of respondents based on age who were affected by nosocomial infections in postoperative wounds can be seen in the following table:

Table 8 Characteristics Based on Age in Banten Provincial Hospitals in 2023

No	Gender			Age		Total
				< 30 Year	>30 Year	
1	Man	Infection	There is an infection	1	7	8
			Absence of infection	1	15	16
		Total		2	12	14
2	Women	Infection	There is an infection	0	10	10
			Absence of infection	1	8	9
		Total		1	18	19
3	Infection	There is an infection		1	17	18
		Absence of infection		2	13	15
		Total		3	30	33

Based on the table above, it can be seen that the risk of nosocomial infection in post-operative wounds is more common in the elderly, especially women who are elderly, as many as 18 respondents, while men as many as 12 respondents are affected by nosocomial infections at the Banten Provincial Hospital, Garuda surgical room, 5th floor, because it is increasingly If the body's immune system is weak, it will be easier for viruses or pathogenic bacteria to infect the body, especially parts of the body that have wounds.

3. Based on length of treatment

The types of respondents based on length of treatment who were affected by nosocomial infections in post-operative wounds can be seen in the table below:

Table 9 Characteristics of Respondents Based on Length of Treatment

No	Gender			Length of treatment		Total
				< 5 Day	>5 Day	
1	Man	Infection	There is an infection	3	5	8
			Absence of infection	3	3	6
		Total		6	8	14
2	Women	Infection	There is an infection	4	6	10
			Absence of infection	2	7	9
		Total		6	13	19
3	Infection	There is an infection		7	11	18
		Absence of infection		5	10	15
		Total		12	21	33

Based on the table above, the number of people affected by nosocomial infections in post-operative wounds from the length of treatment was 6 respondents in women, slightly more than

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men, 5 respondents who were affected by nosocomial infections in post-operative wounds at the Banten Provincial Hospital in the operating room building. Garuda 5th floor in 2023.

4. Characteristics based on comorbidities

The various types of respondents based on other diseases affected by nosocomial infections in postoperative wounds can be seen in the table below:

Table 10 characteristics of respondents based on comorbidities at Banten Provincial Hospitals in 2023.

No	Jenis kelamin			Penyakit penyerta			Total
				Tidak ada	DM	Hipertensi	
1	Man	Infection	There is	7	1	0	8
			There isn't any	6	0	0	6
		Total		13	1	0	14
2	Women	Infection	There is	3	5	2	10
			There isn't any	7	2	0	9
		Total		10	7	2	19
3	Total	Infection	There is	10	6	2	18
			There isn't any	13	2	0	19
		Total		23	8	2	33

Based on the table above, the number of people affected by comorbidities were women who had other diseases, DM, with 5 people, while there was 1 male respondent who had comorbidities with a history of DM who had a nosocomial infection in the post-operative wound at the Banten Provincial General Hospital in the Garuda building surgery room. 5th floor in 2023.

5. Characteristics based on whether the room is dense or not

The various types of responders based on whether or not the space is congested which causes nosocomial infections in postoperative wounds can be seen in the following table:

Table 11 Characteristics of Respondents Based on Whether or Not Rooms Are Crowded in Banten Provincial Hospitals in 2023.

NO	Gender			Whether the room is crowded or not		Total
				<5 Patient	>5 Patient	
1	Man	infection	There is any	8	0	8
			There isn't any	0	6	6
		Total		8	6	14
2	Women	Infection	There is any	10	0	10
			There isn't any	0	9	9
		Total		10	9	19
3	Total	Infection	There is any	18	0	18
			There isn't any	0	15	15
		Total		18	15	33

Based on the table above, the results show that those affected by nosocomial infections, whether or not in the room, were more male respondents with 18 more

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than female, 15 respondents at the Banten Provincial Hospital, Surgery Room, Garuda building, 5th floor in 2023.

Discussion

This research was conducted for 7 days starting from 3 to 11 May 2023 at the Banten Provincial Hospital in the operating room of the Garuda building on the 5th floor. The results of univariate analysis of the characteristics of the respondents (gender, age, comorbidities, length of treatment, solid or not dense) whether there is infection or not in the postoperative wound. In this research, the sample used was relatively small and did not match what was desired, which caused several variables not to be described specifically.

Patients who are post-operative and then undergo inpatient invasive treatment are more susceptible to nosocomial infections for various reasons. They tend to be more susceptible to infection due to their underlying comorbidities, but their risk is compounded by invasive procedures, when the patient's immunity is compromised, microorganisms that are not normally pathogenic will cause disease. Apart from that, the hospital environment can also trigger antibiotic resistance against pathogenic microorganisms, making it difficult to treat infections because pathogenic bacteria are drug resistant (Emori, 1993).

1. Characteristics by gender

   Based on research conducted by Fella sulfa (2014), it was found that more women were affected by nosocomial infections compared to men because women's immune systems were more susceptible to disease compared to men's immune systems. However, in the results of this study, the population obtained reached the desired target with a sample population of 33 respondents with an average of women being more exposed to nosocomial infections than men - women with a total of 10 respondents compared to men who only numbered 8 people, and that 9 respondents were not infected, female respondents, while 6 male respondents were not infected. Female respondents are most likely to suffer from nosocomial infections because women's immune systems/antibodies are more easily attacked by pathogenic bacteria than men. Some of the respondents had comorbidities and were over 30 years old, causing a higher risk of nosocomial infections in postoperative wounds.

2. Characteristics by age

   Age can influence the occurrence of nosocomial infections in post-operative wounds. The results showed that respondents who were affected by nosocomial infections were more elderly women because older people tend to be more susceptible to infections and are also susceptible to various diseases because their immune system is increasingly decreasing and some the five senses have begun to diminish (Fitriani Dewi, DKK. 2003). Characteristics of respondents based on age were in the age group >20 years with 17 respondents affected by nosocomial infections. Age is an individual's age which is calculated from the time he is born until his birthday. Age can also be interpreted as a unit of time that measures the time of existence of an object or creature, both living and dead. Increasing age can affect health by decreasing the structure and function of organs. (Gunarsa. 2014). Older people are usually more susceptible to infection than young people, this is all due to decreased atrophy of the thymus, whose function decreases. (Baratawidjaja and Rengganis. 2009)

   In this study, the results obtained were that those aged over 30 years were more likely to be exposed to nosocomial infections with 10 female respondents while 7 male

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respondents, due to decreased immunity in the body which causes young people to be exposed to pathogenic bacteria which cause infections in post-operative wounds.

3. Characteristics of respondents by length of treatment

   Length of treatment is one of the factors that causes nosocomial infections in post-operative wounds, due to the presence of comorbidities, age and the quality of hospital services provided to patients that are better than nursing care or medical treatment. (Setiawan and Sulastri. 2008). Based on the table above, the results show that respondents were infected due to the length of treatment, 11 respondents who were infected, most of the respondents were women, 6 respondents were more likely to have nosocomial infections compared to men, only 5 respondents were affected by nosocomial infections. Due to the length of treatment carried out in the hospital after surgery or post-surgery which causes nosocomial infections. Length of treatment shows how many days the patient is hospitalized in one treatment period (Indradi. 2010). The longer a person is hospitalized, the greater the possibility of contracting a nosocomial infection because patients who are in a weak condition are exposed to pathogenic bacteria in hospitals that are less healthy (Darmadi, 2008). According to Pewira, (2011) the length of hospital stay is related to the main diagnosis that appears in the patient or the diagnosis of comorbidities suffered or complications that occur after post-operative procedures are carried out during the treatment period.

   The length of the treatment process will cause nosocomial infections to occur more quickly because this occurs in the process of caring for a person using medical equipment and treatment for a long time which is influenced by hygiene and environmental factors where he is being treated. (Kurniasari and Yudha, 2011).

   According to the Ministry of Health, in 2013, length of treatment became an indicator of medical services provided by hospitals to patients (quality of patient care). The estimated length of stay undertaken by the patient has also been estimated beforehand and has been adjusted to the type of diagnosis and cases of other illnesses they suffer from (Fallasufa O, 2014). So this can cause nosocomial infections in postoperative wounds.

4. Characteristics of respondents based on comorbidities

   Based on comorbidities, one of the main factors that causes nosocomial infections in post-operative wounds is diabetes mellitus, and makes the length of treatment carried out in hospital take longer. This is influenced by the lack of good integrated management education about DM from health workers. . (Darsong, DKK. 2014). One of the comorbidities in patients is diabetes mellitus and hypertension, which play a role in weakening the body's immune condition, making it easier for other infections to appear in wounds. The entry of pathogenic bacteria or microorganisms into a weakened patient's body can affect the body's physiology, causing new infections which are then known as nosocomial infections. (Nihi, 2011). In this study, of the 33 respondents, several had comorbidities including diabetes mellitus and hypertension. With the number of respondents who had diabetes mellitus as a comorbidity of 5 female respondents and 1 male respondent, apart from diabetes comorbidities, another comorbid disease was hypertension with 2 female respondents while the male respondents had no history of other diseases with 6 respondents.

5. Characteristics of whether or not the patient room is crowded

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The results of research that has been carried out regarding whether or not the patient is crowded in the room, there are 18 respondents who were tested for nsocomial infection based on whether the patient was not crowded in the room in the post-operative wound. This is in accordance with the results of research conducted by (Rosdiana Yosi, DKK. 2012), based on whether or not the room is crowded which causes nosocomial infections to occur in post-operative wounds, nosocomial infections can occur in nursing service settings (rooms, rooms, wards) frequency and incidence occurs more often in treatment rooms or in nursing wards compared to treatment rooms because the more patients there are, the easier it is for disease transmission from one patient to another to occur. In the research, the number of respondents used was 33 samples, it was found that the factors that influence the occurrence of nosocomial infections were gender in women because women have less strong immune systems compared to men, this is in accordance with research conducted according to Fella Sulfa (2014) et.al. Septiani Esti Wigati (2015). Another factor that causes nosocomial infections to occur in this study is the length of treatment after post-operative procedures, data obtained was >5 days, there were 11 respondents who were affected, while 10 respondents were not affected by nosocomial infections, due to the length of treatment, the condition of patients who were weak were easily attacked by pathogenic bacteria. those in hospitals easily enter the body and cause nosocomial infections in post-operative wounds. This is in accordance with research conducted by Indradi (2010) et.al. Septiani Esti Wigati (2015). Accompanied by the presence of comorbidities in the form of diabetes mellitus and hypertension, it makes patients more susceptible to nosocomial infections. In this study, data on the presence of comorbidities such as diabetes mellitus were 8 respondents, while hypertension was 2 respondents, due to the presence of comorbidities in the form of diabetes mellitus and hypertension, making the care services better. carried out longer and causes new infections known as nosocomial infections in post-operative wounds. This is in accordance with research conducted by Darsong (2014), Nihi (2011). et. al. Septiani Esti Wigati.

Conclusion

Based on research that was carried out in the Garuda Building Surgery Room, 5th Floor, Banten Provincial Hospital in 2023. With a population of 40 respondents, data collection was carried out by observation and sampling data was obtained with a population of 33 respondents who had carried out post surgery, it can be concluded that the incidence of nosocomial infections is influenced by gender, age, comorbidities, length of treatment, whether or not the patient's room is crowded which causes nosocomial infections.

The observation data obtained was that > 20 years old were more susceptible to infection in post-operative wounds, while those < 20 years old were not infected. Infections were more common in women with 10 respondents, while 7 male respondents were affected by nosocomial infections.

Apart from gender, length of treatment, whether the room is crowded or not, one of the factors that can trigger nosocomial infections in wounds is comorbidities. The data obtained in the research included 9 DM and 2 respondents who had hypertension.

References

Aziz alimul hidayat (2017). Metodologi penelitian keperawatan dan kesehatan. Jakarta: salemba medika.

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E-ISSN 2715-6249
DOI: https://doi.org/10.54832/phj.v6i1.793

Caroline, Waworuntu, 2016. Infeksi Nosokomial.N muhaMedika : Yogyakarta

Clara Laurenza Rampas, Odi Pinontoan, Sri Septianto Maddusa, pemeriksaan angka kuman di ruang rawat inap rumah sakit umum GMIM Pancaran aksih Manado, Jurnal Kesmas vol.8, No.1 January 2019.

Devi Fitriyastanti, M. Sulcan, Sayono Beberapa faktor yang terkait dengan kejadian infeksi nosokomial luka post operasi di RSUD Kota Semarang, jurnal unimus, 2003.

Dr. Darmad. (2008). Infeksi nosokomial.

Laras Satoayu, Racmanida Nuzrina, Nanda Aula Nurmana (2020) Aplikasi SPSS untuk analisis data kesehatan bonus analisis data dengan SEM. Cetakan ke-1.

Nursalam (2020). Metodologi penelitian ilmu keperawatan pendekatan praktis, edisi 5. Jakarta: selena medika.

Panjaitan netty dan rosmauli. Faktor resiko infeksi nosokomial pada perawat di ruang rawat inap RSU HKBP Balige, JKH, vol. 2, No.1, july 2021.

Rosaliya yosi, suryani maria dan sobirin. (2012). Faktor – faktor yang mempengaruhi terjadinya infeksi nosokomial pada pasien luka post operasi di RSUD tugurejo semarang.

Septiani Esti Wigati, Syaifudin M.Kep Hubungan lama perawatan dengan infeksi nosokomial pada pasien di ruang rawat inap RSUD wonosari gunungkidul, Program Studi Ilmu Keperawatan STIKES Aisyiyah Yogyakarta. 2015.

Sholikhan dan Amyati (2022). Biostasistik : sebuah aplikasi SPSS dalam nidang kesehatan dan kedokteran. Cetakan 1, jejak pustaka.

Susaanto Prio Hastono (2006). Analisis data, jurnal Fakultas Kesehatan Masyarakat Universitas Indonesia.

Yunizar david, mardihusodo juwono sugeng dan abidin zaenal. Faktor – faktor risiko infeksi nosokomial pada luka operasi bersih di ruang perawatan bedah rs yukum medical center kabupaten lampung tengah provinsi lampung. Jurnal dunia kesmas volume 2. Nomor 2. April 2013.