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Overview of the Infection Control Prevention Program in the Internal Room of Aloei Saboe Hospital, Gorontalo City

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Abstract. *Infection Prevention and Control (PPI) is an endeavor to prevent and reduce the incidence of infections among patients, employees, visitors, and members of the community in health care institutions. In order to reduce the occurrence of nosocomial infections, nosocomial infection control involves planning, implementing, monitoring, and encouraging. This study's objective was to characterize infection prevention and control in the interior chamber of Prof. Dr. Aloei Saboe Gorontalo City. This study employed a qualitative descriptive research approach with a random sample of 15 participants. The results indicated that the infection prevention and control program in the internal room had not been fully implemented, as 3 of the 15 participants did not practice proper handwashing (i.e., they did not follow the 6 steps outlined in the standard operating procedure), 1 participant did not use PPE during the procedure, but was able to apply coughing and sneezing etiquette, and 1 participant did not follow safe injection practices. Decontamination of equipment following completion of actions.*

Keywords: *Infection Prevention, Control, Hais*

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INTRODUCTION

Even in the operating room, infection control procedures must be in place to prevent and control the spread of disease. Creating a safe surgical environment is the first step in preventing infection during surgery, but it's not the only one. As a result of an infection prevention procedure that fails, the healing process is hindered. A primary goal of PPI is to prevent and decrease the spread of diseases among patients, employees, visitors, and members of the general public in and around health care institutions. The goal of nosocomial infection control is to reduce the occurrence of nosocomial infection through planning, implementation, monitoring, and encouragement.

One of the ways to prevent and stop the spread of illness in health care institutions is to break or destroy the chain of infection transmission, which includes six components (infectious agent, reservoir, portal of exit, transmission route, portal of entrance, viable host) It is possible to prevent nosocomial infections by monitoring risk variables and patient features, so that medical staff in a healthcare institution can predict which patients are at danger of developing deadly illnesses.

Health care-associated infections (HAIs) are a major public health issue in many nations across the world, including the United States (WHO, 2016). APEC or the Global Health Security Agenda (GHSA) are forums where HAIs are discussed, and this illustrates that HAIs have a direct influence on the country's economic burdens (APEC, 2013). The incidence of HAIs is also associated with high rates of morbidity and mortality in hospitals. There were 37,000 deaths in Europe and 99,000 deaths in the United States due to HAIs, 18.5% in Latin America, 23.6% in Asia and 29.3% in Africa (WHO, 2016). In 2016 the World Health Organization (WHO) reported that the incidence of HAIs reached 19.1%. In Europe 4.5 million patients experience HAIs annually and in the United States 1.7 million HAIs occur annually. The Centers for Disease Control and Prevention's (CDC) from 50 countries also show a high incidence of HAIs in several rooms, such as in the treatment room (45%), in the Neonatal Intensive Care Unit (NICU) (8%), and in the Intensive Room.

Care Unit (ICU) (41%) (CDC, 2012). The incidence of HAIs in Indonesia reaches 15.74%, much worse than developed countries which range from 4.8 to 15.5% (Sapardi, 2018). HAIs are one of the benchmarks for assessing the quality of hospital services. Assessment of HAIs is carried out on several indicators such as ventilator associated pneumonia (VAP), bloodstream infection (IAD), urinary tract infection (UTI) and surgical site infection (IDO). cause UTIs, surgical procedures can lead to SSI, intubation and use of a ventilator can lead to VAP, venous and arterial cannulae can lead to IAD, phlebitis (Kemenkes, 2017). Phlebitis is one of the indicators of HAIs that often occurs as a result of intravenous therapy.

The incidence of phlebitis reaches 20-65% due to intravenous therapy. While at the Regional General Hospital (RSUD) Prof.Dr. Hi. Aloe Saboe, Gorontalo province, West Java, the incidence of phlebitis caused by the installation of intravenous therapy in 2012 was 7.51%, that number was higher than the standard rate determined by the Infusion Nurse Society (INS) which was <5%.Based on this, the researchers are interested in conducting research on "Overview of infection prevention and control in the internal room of Prof. Hospital. Dr. Aloei Saboe Gorontalo City".

METHODS

Prof. Hospital Dr. Aloei Saboe's Internal Room was the site of this investigation. The study was conducted in February of 2021 at the most recent available data. This proposal was developed using a qualitative research technique, which collects data through interviews, observations, and other means directly from the topic. An important aspect of the qualitative technique is the observation of humans in their natural environment and engaging with them using language and terminology they understand. The goal of this investigation is to gain a comprehensive picture of infection control and prevention at the Aloei Saboe Hospital's internal chamber in Gorontalo City. A sample is a subset of the population's total number and features (Sugiyono, 2016). Random Sampling with the accidental sampling method is the sampling methodology employed in this study, in which every responder contacted is a sample. Ten people participated in this research as a sample.

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RESULTS AND DISCUSSION

Univariate Analysis

Distribution of Respondents by Gender

Table 1. Distribution of Respondents by Gender in the Internal Room of Aloei Saboe Hospital

Gender	Total	%
Man	2	13,3
Woman	13	86,7
Total	15	100,0

Source: Primary data processing (2022)

In the table above, it can be seen that of the 15 respondents there were 13 women or 86.7% and 2 people or 13.3% men.

Distribution of Respondents by Age

Table 2. Distribution of Respondents by Age in the Internal Room of Aloei Saboe Hospital

Age	Total	%
< 25 years old	1	6,7
25 - 30 Years	13	86,7
>30 Years	1	6,7
Total	15	100,0

Source: Processed primary data (2022)

In the table above, it can be seen that of the 15 respondents, aged <25 years, 1 person or 6.7%, aged 25-30 years, there were 13 people or 86.7%, while those aged >30 years were 1 person or 6. 7%

Distribution of Respondents Based on Length of Work

Table 3. Distribution of Respondents by Length of Work in the Internal Room of Aloei Saboe Hospital

Length of Work	Total	%
< 1 Year	2	13,3
1–2 Years	2	13,3
>2 Years	11	73,3
Total	15	100,0

Source: Primary data processing (2022)

In the table above, it can be seen that of the 15 respondents who have worked <1 year as many as 2 people or 13.3%, respondents who have worked 1-2 years are 2 respondents or 13.3%, while the remaining 11 respondents or 73.3% have a length of service > 2 years.

Distribution of Respondents Based on Education Level

Table 4. Distribution of Respondents by Level of Education in the Internal Room of Aloei Saboe Hospital

Education	Sum	%
DIII	5	33,3
S1+Ners	10	66,6
Total	15	100,0

Source: Primary data processing (2022)

In the table above, it can be seen that from 15 respondents there were 5 respondents who had a DIII education level or 33.3% and 10 respondents or 66.6% of respondents who had an undergraduate education level + Nurses.

Bivariate Analysis

Infection prevention and control program (PPI) Aloei Saboe Hospital, Gorontalo City

From the results of interviews and observations regarding the infection prevention and control program, it can be seen that from 5 participants stated that there was a psychological impact on him. The following is an excerpt from the informant's statement.

The psychological impact felt by Mrs. E (SMA) was very large, this was illustrated by the explanation she delivered, namely:

> *"mprovements in the implementation of the PPI Program have been carried out since 2016 with details of activities including efforts to reduce the risk of infection for patients in all service areas, risk of infection in health workers, hais surveillance activities, out brake investigation system for infectious diseases, making ICRA, conducting ICRA buildings , monitoring and evaluation of sterilization in CSSD, ENT Polyclinic, Dental Poly, Monitoring the implementation of infectious waste disposal, PPI mortuary, isolation room, laundry room, monitoring rational use of antibiotics with DPJP and pharmacy, conducting committee meetings, PPI team meetings and coordination meetings with quality and patient safety committee" (P1).*

This is supported by a statement submitted by the Head of the Internal Room where the statement is as follows:

> *"...For infection prevention and control in the internal room, there are socialization activities for new employees and students who are interns in this room. The materials that are usually presented are the basic concepts of infection and isolation precautions. There are also surveillance activities regarding Hais in inpatients in rooms including the Internal Room..." (P1).*

From the statements of the informants above, it shows that the PPI program has been designed and has been implemented properly.

From the results of observations made by researchers on implementing nurses in the internal room of Aloei Saboe Hospital, Gorontalo City, the following results were obtained:

Hand Hygiene Practice

Table 5. The infection prevention and control program is seen from the 6 steps of hand washing

Handwashing 6 steps	Sum	%
Do	12	80
Not doing	3	20
Total	15	100,0

Source: Primary data processing (2022)

In the table above, it can be seen that from 15 respondents 12 respondents always carried out hand washing in 6 steps according to the SOP procedure while the remaining 3 respondents did not wash their hands according to SOP standards.

Table 6. The infection prevention and control program is seen from the 5 moments of washing hands

5 moments of hand washing	Sum	%
Do	15	100
Not doing	-	-
Total	15	100,0

Source: Primary data processing (2022)

In the table above, it can be seen that from 15 respondents overall respondents or 100% took 5 moments of hand washing.

From the results of observations made by researchers regarding the act of washing hands, it can be seen that the nurse's compliance in carrying out hand washing is quite good, but not overall applying hand washing procedures correctly according to the 6-step hand washing SOP.

Use of PPE

Table 7. The infection prevention and control program is seen from the use of PPE

Use of PPE	Sum	%
Do	14	93,3
Not doing	1	6,7
Total	15	100,0

Source: Primary data processing (2022)

In the table above, it can be seen that from 15 respondents, 14 respondents used PPE, while the remaining 1 person did not use PPE.

From the results of observations made by researchers regarding the use of PPE, it was found that there were still nurses who did not use PPE in the procedure, in accordance with the results of monitoring that the nurse did not use gloves when carrying out procedures and in contact with patients.

Cough and Sneeze Etiquette

Table 8. The infection prevention and control program is seen from the 6 steps of hand washing

Ethics of coughing and sneezing	Sum	%
Do	15	100
Not doing		-
Total	15	100,0

Source: Primary data processing (2022)

In the table above, it can be seen that from 15 respondents overall respondents or 100% apply cough and sneeze etiquette.

From the results of observations made by researchers regarding coughing and sneezing etiquette, overall respondents were able to apply coughing and sneezing etiquette well.

Safe Injection Practice

Table 9. The infection prevention and control program is seen from the safe injecting practices

Safe injecting practices	Sum	%
Do	14	93,3
Not doing	1	6,7
Total	15	100,0

Source: Primary data processing (2022)

In the table above, it can be seen that from 15 respondents, 14 respondents took safe injection practices while the remaining 1 person did not apply safe injection practices.

From the observations made by researchers regarding safe injection practices, it was found that there were still nurses who did not apply safe injection practice procedures where the nurse did not use gloves when injecting.

Equipment Decontamination

Table 10. The infection prevention and control program is seen from the act of decontaminating equipment

Equipment Decontamination	Sum	%
Do	15	100
Not doing	-	-
Total	15	100,0

Source: Primary data processing (2022)

In the table above, it can be seen that from 15 respondents overall respondents or 100% carried out equipment decontamination actions.

From the results of observations made by researchers regarding the decontamination of equipment, overall respondents were able to apply this by cleaning and sterilizing the equipment after completing the action.

Interpretation and Discussion Results

The results have been identified which are representative of the core picture of the infection prevention and control program in the Internal Room. The four themes are hand washing, use of PPE, cough and sneeze etiquette, safe injection practices, and equipment decontamination. Each theme will be described based on the research objectives.

Handwashing Measures

Based on research conducted by researchers from the results of observations, it was found that from 15 participants there were 3 people who did not practice hand washing. This is in line with research conducted by Agustina (2019), where the results of her research explain that the implementation of hand washing with six steps of hand washing there are still officers who do not do it properly and correctly, because in doing hand washing there are still officers who do not release their hands. jewelry is like still wearing a ring, so when washing hands rubbing the back and between the fingers of the right hand and vice versa, rubbing the palms of the hands and between the fingers, rubbing the fingers on the inside of the two hands interlocking is not done well. the ring on the health worker will hinder the process of eliminating microorganisms on hands when doing hand hygiene.

The same thing was also explained in a study by Trisnawati (2018) where the results showed that the results of observations in the HCU Hospital in Bali showed 93.3% of nurses were not optimal in carrying out the six steps of washing hands. The results of observations regarding the steps of washing hands also showed that 66.7% of nurses did not do the steps of washing hands such as rubbing the backs of the upper fingers with the palms of the hands, the position of the fingers as connecting, rubbing the left thumb with the palm of the right hand in a rotating manner. done alternately and rub the fingertips of the right hand on the palm of the left hand by rotating which is done alternately. Meanwhile, at point five of hand washing, there are several moments that are not carried out by nurses, such as before contact with patients, before carrying out procedures and after contact with the patient's environment.

Use of PPE

Based on research conducted by researchers from the results of observations it was found that from 15 participants there was 1 person who did not use PPE in the procedure of action. This is in line with research conducted by In addition to Trisnawati (2018) washing points where the results of the study show the results of observations in this study found as many as 53.3% of nurses in the HCU Room often did not use personal protective equipment properly, such as changing handscoons when doing action from one patient to another.

According to Agustina (2019) Provision of personal protective equipment facilities needs to be done to prevent the transmission of microorganisms from patients to officers, the most important PPE facilities are gloves. Gloves are the most important physical barrier to prevent infection. Gloves should be changed between each patient-to-patient contact to avoid cross-contamination.

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Cough and Sneeze etiquette

Based on research conducted by researchers from the results of observations, it was found that from 15 participants overall were able to apply coughing and sneezing etiquette. This is in line with research conducted by Elsa Aulia Rizal (2021) where the results showed that respondents knew that the prevention of Covid-19 by implementing new habit adaptations, namely by implementing health protocols in every action and activity was correct, as many as 133 respondents (100%).

Safe Injecting Practices

Based on research conducted by researchers from the results of observations it was found that from 15 participants there was 1 person who did not use PPE in the procedure of action. This is in line with the research conducted by La Ode Alifarik (2015), where in the results of his research it was found that from 24 respondents who had good knowledge, more nurses had good behavior in safe injections as many as 15 respondents (62.5%) and less as many as 9 respondents (37.5%). Then from 21 respondents who have less knowledge, more nurses have less behavior in safe injection as many as 17 respondents (81.0%) and good as many as 4 respondents (19.0%).

Equipment Decontamination

Based on research conducted by researchers from the results of observations, it was found that from 15 participants overall were able to apply coughing and sneezing etiquette. This is in line with research conducted by Iram Barida Maisya (2017), which in the study showed that the results of the study showed that all health workers at the Tana Wangko Health Center always took steps of decontamination and sterilization before reuse of medical devices. Decontamination is a very effective preventive measure to minimize the risk of transmitting the virus to health care workers and sterilization is a useful process to eliminate or kill all microorganisms from medical equipment.

Limitations of Research

The research was conducted with qualitative methods and used primary data obtained through in-depth interviews with respondents. Limitations in this study include the subjectivity of the researcher. This research is very dependent on the interpretation of the implied meaning in the interview so that the tendency to be wrong is still there. To reduce errors, re-checking is carried out by paying attention to the existing verbatim, and readjusting the results of interviews that have been recorded through a voice recorder. Researchers also have difficulty finding journals and supporting theories to strengthen research results.

CONCLUSION

In the Telaga Biru Public Health Center's working region, teenage psychology is affected by unplanned pregnancies in the following ways; (1) When 15 participants were asked to wash their hands, 3 of them failed to follow the six stages of hand-washing according to the standard operating procedure; (2) There is one person out of 15 who does not apply PPE during the method of action, which means the infection prevention and control program implemented in the internal room is not appropriate; (3) Coughing and sneezing etiquette in the interior room was applied by 15 participants, indicating that the infection prevention and control program was successful; (4) However, only one participant out of 15 used safe injection techniques, and hence the infection prevention and control program for this room was not as effective as it might be; (5) After finishing

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the activity, all 15 participants were able to perform equipment decontamination, indicating that infection prevention and control was carried out at an ideal level in the internal room.

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