



Description of Infection Control Prevention Program in the Internal Room of Aloe Saboe Hospital, Gorontalo City

Sabirin B Syukur¹, Rini Asnawati¹, Moh. Sudirman Mustapa¹, Siti Rahma Binol¹,
Nurdawati Lajambu¹, Ni'ma Chusnul Chatimah¹, Nolva Laiya¹

¹Muhammadiyah University of Gorontalo, Indonesia

*Corresponding Author: Sabirin B Syukur



Article Info

Article history:

Received 18 March 2022
Received in revised form 9
April 2022
Accepted 18 April 2022

Keywords:

Infection Prevention
Control
Hais

Abstract

Infection Prevention and Control (PPI) is an effort to prevent and minimize the occurrence of infections in patients, staff, visitors and the community around health care facilities. Nosocomial infection control is an activity of planning, implementing, monitoring, and fostering with the aim of reducing the incidence of nosocomial infections. The purpose of this study was to determine the description of infection prevention and control in the internal room of the Prof. Dr. Aloe Saboe Gorontalo City. This study used a qualitative descriptive research method with a sample of 15 respondents obtained using random sampling technique. The results showed that the infection prevention and control program in the internal room had not been fully implemented, seen from 15 participants there were 3 people who did not practice handwashing properly where the 3 respondents did not apply the 6 steps of hand washing according to the SOP, there was 1 person who did not using PPE in the procedure, overall able to apply coughing and sneezing etiquette, there was 1 person who did not apply safe injection practices in the procedure. overall able to apply Decontamination of equipment after completion of actions.

Introduction

Infection prevention and control measures absolutely must be implemented in the hospital, including in the operating room. Preventing infection in surgery is a complex process that begins in the operating room with preparing and maintaining a safe environment for surgery. The infection prevention process that doesn't go well can cause infection, so the healing process will be hampered. Infection Prevention and Control (PPI) is an effort to prevent and minimize the occurrence of infections in patients, staff, visitors and the community around health care facilities. (3) Nosocomial infection control is an activity of planning, implementing, monitoring, and fostering with the aim of reducing the incidence nosocomial infection.

Infectious diseases related to health services or Health Care Associated Infections (HAIs) are one of the health problems in various countries in the world (WHO, 2016). In the Asian Pacific Economic Committee (APEC) or Global Health Security Agenda (GHS) forum, HAIs became the agenda discussed, this situation shows that HAIs have a direct impact on the country's economic burden (APEC, 2013). The incidence of HAIs is also associated with high rates of morbidity and mortality in hospitals. 37,000 deaths were recorded 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 et al., 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. Fernandez (2016), 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. Aloe Saboe Gorontalo City".

Methods

This research was conducted in the Internal Room of Prof. Hospital. Dr. Aloe Saboe. The time of the research was carried out in February 2021. The research approach used in the preparation of this proposal is qualitative, namely a research approach that produces descriptive data in the form of speech, writing, and observable behavior from the person (subject) itself. Qualitative method is a particular tradition in science which is fundamentally dependent on observing humans in their own area and dealing with these people in their language and in their terminology. This study aims to get an in-depth picture of infection prevention and control in the internal room of Aloe Saboe Hospital, Gorontalo City.

The sample is part of the number and characteristics possessed by the population (Sugiyono, 2016). The sampling technique used in this research is Random Sampling with the accidental sampling method, where every respondent encountered becomes a sample. The sample obtained in this study amounted to 10 respondents.

Results and Discussion

Univariate Analysis

Distribution of Respondents by Gender

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

Gender	Amount	%
Man	2	13.3
Woman	13	86.7
Total	15	100.0

Source: Processed primary data (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 Aloe Saboe Hospital

Age	Amount	%
< 25 Years	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 Aloe Saboe Hospital

Length of working	Amount	%
< 1 Year	2	13.3
1–2 Years	2	13.3
>2 Years	11	73.3
Total	15	100.0

Source: Processed Priimary Data (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 Aloe Saboe Hospital

Education	Amount	%
DIII	5	33.3
S1+Ners	10	66.6
Total	15	100.0

Source: Processed Primary Data (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 S1+Ners education level.

Bivariate Analysis

Infection prevention and control program (PPI) Aloe 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:

“...Improvements 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 Aloe 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

Hand wash 6 steps	Amount	%
Do	12	80
Do not do	3	20
Total	15	100.0

Source: Processed Primary Data (2022)

In the table above, it can be seen that from 15 respondents, 12 respondents always did 6 steps of hand washing according to SOP procedures, 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 to wash your hands	Amount	%
Do	15	100
Do not do	-	-
Total	15	100.0

Source: Processed Primary Data (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 act of using PPE

Use of PPE	Amount	%
Do	14	93.3
Do not do	1	6.7
Total	15	100.0

Source: Processed Primary Data (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

Cough and sneeze etiquette	Amount	%
Do	15	100
Do not do		-
Total	15	100.0

Source: Processed primary data (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. Infection prevention and control programs are seen from safe injecting practices

Safe injection practice	Amount	%
Do	14	93.3
Do not do	1	6.7
Total	15	100.0

Source: Processed Primary Data (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	Amount	%
Do	15	100
Do not do	-	-
Total	15	100.0

Source: Processed Primary Data (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 decontamination of equipment, overall respondents were able to apply this by cleaning and sterilizing tools 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 Meneguetti et al. (2019) and Ling (2018), where the results of her research explain that The implementation of hand washing with the six steps of hand washing is still available officers who do not do well and correctly, because in doing wash your hands there are still officers who don't take off jewelry like they still do using a ring, so when washing hands rub back and between the fingers of the right hand and vice versa, rubbing both the palms of the hands and between the fingers, rub the fingers on the inside of both hands interlocking is not implemented properly. the ring on the health worker will hinder the process to eliminate the existing microorganisms hands when performing 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, hand washing moments, there are some moments that are not done by nurses, such as before contact with patients,

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's (2018) washing points, the results of the study show the results of observations in research This found as many as 53.3% of nurses in the HCU room often do not use proper personal protective equipment, such as changing handsoons when doing patient-to-patient action other.

According to Meneguetti et al. (2019) and Ling (2018), provision of personal protective equipment facilities needs to be done to prevent the transmission of microorganisms from patients to staff, The most important PPE facility is 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.

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) wherethe results of the study show that respondents know that preventing Covid-19 by implementing new habit adaptations, namely by implementing health protocols in every action and activity is 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 research conducted by La Ode Alifarik (2015), where in the results of his research it was found that out of 24 respondents who had good knowledge, more nurses had good behavior in safe injections as many as 15 respondents (62.5%) and less by 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 Research shows that The results of the study found that all health workers at the Tana Health Center wangko always do steps decontamination and sterilization steps before reuse of medical devices Decontamination is action very effective prevention for minimize the risk of transmitting the virus to health care workers and actions sterilization is a useful process to remove or kill all microorganisms from medical devices.

Limitations of the 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 in finding supporting journals and theories to strengthen research results.

Conclusion

Based on the results of the study, it can be concluded that the impact of unwanted pregnancy on adolescent psychology in the working area of the Telaga Biru Public Health Center is as follows; (1) The infection prevention and control program in the internal room has not been fully implemented, seen from 15 participants there were 3 people who did not practice hand washing properly where the 3 respondents did not apply the 6 steps of hand washing according to the SOP; (2) The infection prevention and control program in the internal room seen from the use of PPE was not optimal because of 15 participants there was 1 person who did not use PPE in the procedure; (3) The infection prevention and control program in the internal room seen from coughing and sneezing ethics was optimal because 15 participants in total were able to apply cough and sneeze etiquette; (4) The infection prevention and control program in the Internal Room seen from the safe injection practice was not optimal because of the 15 participants there was 1 person who did not apply safe injection practices in the procedure; (5) The infection prevention and control program in the internal room seen from the equipment decontamination was optimal because of the 15 participants overall they were able to apply equipment decontamination after completing the action.

References

- Meneguetti, M. G., Canini, S. R. M. D. S., Bellissimo-Rodrigues, F., & Laus, A. M. (2015). Evaluation of nosocomial infection control programs in health services. *Revista latino-americana de enfermagem*, 23, 98-105. <https://doi.org/10.1590/0104-1169.0113.2530>

- Ling, H. W. (2018). Why do Patients Still Catch Hospital Infections Despite the Practice of Infection Prevention and Control Programs?. *Acta Scientific Microbiology*, 1(4), 34-43. <https://doi.org/10.31080/ASMI.2018.01.0036>
- APEC. (2013). APEC HAI 2013 Work plan purpose : Information Submitted by : United States APEC haigh-level workshop on reducing the economic burden of HAIs.
- CDC. (2012). National and state healthcare-associated infections standardize infection ratio report. Available on: <http://www.cdc.gov/hai/national-annual-sir/index.html>
- Sapardi, V. S., Machmud, R., & Gusty, R. P. (2018). Analisis Pelaksanaan Manajemen Pencegahan Dan Pengendalian Healthcare Associated Infections Di RSI Ibnu sina. *Jurnal Endurance: Kajian Ilmiah Problema Kesehatan*, 3(2), 358-366. <http://doi.org/10.22216/jen.v3i2.3029>
- Trisnawati, N. L. (2018). Gambaran Pelaksanaan Pencegahan Infeksi Nosokomial pada Perawat di Ruang Hcu dan Rawat Inap Rumah Sakit X di Bali. *BIMIKI (Berkala Ilmiah Mahasiswa Ilmu Keperawatan Indonesia)*, 6(1), 11-19.
- Sugiyono, (2016). *Non Parametric Statistics For Research*. Bandung: CV. Alfabet.
- Sugiyono. (2016). *Research methods quantitative qualitative and R & D*. Bandung: Alfabeta
- WHO (2012). *Guidelines on Hand Hygiene in Health Care: First Global Patient Safety Challenge*. World Health Organization.
- WHO. (2016). Guidelines on Core Components of Infection Prevention and Control Programs at the National and Acute Health Care Facility Level.