



Implementation Analysis of Nosocomial Infection Prevention in the Central Surgery Room of Panyabungan Hospital

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Abstract

The purpose of the study was to analyze the implementation of prevention and control of nosocomial infections in the central operating room of Panyabungan Hospital, Mandailing Natal Regency. The research design used qualitative research methods through in-depth interviews accompanied by direct observation (observation). Hospital PPI (Infection Prevention and Control) Committee, IPCN Hospital, Central Operating Room Doctors and Central Operating Room Nurses amount 2 people. The results of the study showed that the number of personnel was sufficient, there was no special budget for PPI (Infection Prevention and Control), infrastructure was not adequate, the policy was complete, the implementation of hand hygiene was not in accordance with the 5 moments and 6 steps of washing hands, the use of PPE was carried out accordingly, Cough and sneeze etiquette has been done properly and safe injection practices have been done, implementation of prevention and control of nosocomial infections. The conclusion of this study is that the implementation of prevention and control of nosocomial infections was not all in accordance with the standards. It is suggested to IPCN and IPCLN in order to increase supervision of officers in doing prevention and control of nosocomial infections in the Central Surgery Room of Panyabungan Hospital, Mandailing Natal Regency in accordance with SOPs, especially in the implementation of hand hygiene, use of PPE, coughing and sneezing etiquette, and injecting practices.

Introduction

The hospital is a very complex organization and is a very important component in efforts to improve the health status of the community. The hospital is one of the health service facilities that provide complete health services to the community as a goal to improve public health. According to the Regulation of the Ministry of Health of the Republic of Indonesia No. 659 of 2009 concerning hospitals that hospitals are complete individual health service facilities that provide inpatient, outpatient, and emergency services. health workers. Hospitals can be a source of infection if medical procedures are not carried out in accordance with procedures (Al'amri, 2017).

In 2017 the Minister of Health of Indonesia issued a policy to prevent infection in hospitals and other health facilities as stipulated in the Decree of the Minister of Health of the Republic of Indonesia Number: 27/Menkes/III/2017, concerning Guidelines for Infection Prevention and Control in Hospitals and Health Facilities. Decree of the Minister of Health Number 129 of 2008 concerning Minimum Service Standards for Hospitals in setting standards for the

incidence of nosocomial infections in hospitals $\leq 1,5\%$ (Riani & Syafriani, 2019). Procedures for infection prevention and control measures absolutely must be applied in hospitals, including operating rooms. The operating room is a special unit in the hospital where surgery is performed. Preventing infection after surgery is a complex process that begins in the operating room by preparing and maintaining a safe environment for surgery (Masloman et al., 2015).

Global data on HAIs is still very limited, but referring to the WHO report based on a review of the literature from various national or multicenter studies in 1995-2010, it was found that the overall prevalence of HAIs in the world ranges from 3.5% - 12%, where the prevalence HAIs in developed countries reached 7.6% while the prevalence in developing countries was found to be higher, reaching 10.1% with a variation of 5.7% to 19.1%. In developed countries, the United States estimates 1.7 million infections (9.3 infections per 1,000 patient days or 4.5 per 100 patients admitted) in hospitals in the United States and accounted for more than 98,000 patient deaths in 2002 (Allegranzi & Nejad, 2011). The European Center for Disease Control and Prevention (ECDC) in WHO (2015) reports the prevalence in Europe is 7.1% on average (Madjid & Wibowo, 2017).

Data on nosocomial infections in Indonesia itself can be seen from surveillance data conducted by the Ministry of Health of the Republic of Indonesia at 10 RSU Pendidikan, the number of nosocomial infections is quite high, namely 6-16% with an average of 9.8%. The results of a point prevalence survey from 11 hospitals in DKI Jakarta conducted by Perdalina Jaya and Prof. Infectious Disease Hospital. Dr. Sulianti Saroso Jakarta in 2003 found the nosocomial infection rate for ILO (Operational Wound Infection) 18.9%, UTI (Urine Tract Infection) 15.1%, IADP (Primary Drainage Infection) 26.4%, pneumonia 23.8% (Akib et al., 2008).

The number of HAIs in Panyabungan Hospital in July-September 2018 is phlebitis and SSI. The phlebitis rate for July-September 2018 is 1.3%. The highest incidence of phlebitis occurred in July, namely 1.4%. This is due to the lack of caring behavior of nurses towards patient care. And decreased to 1.2% which is the lowest incidence in September. Meanwhile, the IDO rate in July-September 2018 was 0.1% which was found in the operating room and delivery room. The highest incidence of SSI occurred in July 0.3%. This is due to the lack of preoperative hospital facilities as evidenced in the application of the IDO bundle, such as the shaving process that does not use an e-clipper and the patient does not bathe using chlorhexidine. And the lowest was in September, where there was no incidence of SSI. The incidence of UTI was not found. While for HAP/VAP, IADP there is no data because during the third quarter (July-September) there is no use of these tools.

Based on the above background, researchers are interested in researching and analyzing the implementation of prevention and control of nosocomial infections in the operating room of the Panyabungan Hospital, Mandaling Natal Regency in 2021.

Methods

The type of research used is qualitative research. This study uses a descriptive approach which aims to find out clearly and more deeply about the implementation of prevention and control of nosocomial infections in the Central Surgery Room of the Panyabungan Regional General Hospital, Mandaling Natal Regency. The selection of informants was carried out using the purposive sampling technique of the PPI (Infection Prevention and Control) Committee at the Panyabungan Regional General Hospital, Mandaling Natal Regency.

In this study, researchers conducted direct interviews with informants, besides that researchers also made direct observations on activities in the Central Surgery Room and reviewed documents. The instruments used in this study include interview guidelines, observation sheets, stationery, laptops, cameras and recording devices (mobile phones).

Data analysis is presented in the form of a text (content analysis). Data analysis techniques used in this study in order to discuss the formulated problems used qualitative analysis techniques. To ensure the degree of trustworthiness of the data collected, the source and method triangulation method was used.

To obtain in-depth, accurate and open data, in-depth interviews were conducted with key informants on the prevention and control of nosocomial infections in the Central Surgery Room. Document review is a technique of collecting data through recording of documents. The documents referred to are nosocomial infection prevention and control budget data, guidelines for prevention and control of nosocomial infections in the Central Surgery Room, as well as other documents related to the process of preventing and controlling nosocomial infections in the Central Surgery Room of the Panyabungan Regional General Hospital, Mandaling Natal Regency. Observation is an activity carried out on an object or informant or collecting data through visual observation using the five senses. In this study, the object to be observed is the facilities and infrastructure as well as the SOP for the prevention and control of nosocomial infections in the Central Surgery Room of the Panyabungan Regional General Hospital, Mandaling Natal Regency.

Results and Discussion

Input Components

The Panyabungan Regional General Hospital, Mandaling Natal Regency, only has 1 IPCN in charge of infection prevention and control in hospitals, while all heads of the room are IPCLN, which is an extension of the PPI (Infection Prevention and Control) Committee to control the implementation of the PPI (Infection Prevention and Control).) in every room. According to the PPI (Infection Prevention and Control) Committee and doctors in the operating room, the availability of personnel for the prevention and control of nosocomial infections in the operating room is still lacking, but according to the operating room staff and nurses, it is sufficient and all officers must carry out the prevention and control of nosocomial infections. This is in accordance with the following interviews:

Clustered Data 1

"If that energy seems to be lacking, yes, we are here not only in the operating room, the entire room also lacks energy, especially in the operating room, it still lacks energy"

"In terms of personnel, all personnel must carry out infection prevention and control, including doctors, nutritionists, pharmacists, must carry out infection prevention and control. So all those who are in contact with patients must carry out PPI (Infection Prevention and Control)"

"Those who carry out all officers to prevent nosocomial infections are all personnel, they have had enough"

"The ones in the operating room are lacking"

The results of the study indicate that the availability of manpower is sufficient and is in accordance with the required characteristics. The hospital has provided education/training to officers. The results of this study are in line with research conducted by Vivi et al. (2018) regarding the analysis of the implementation of management of prevention and control of associated infections at RSI Ibnu Sina Padang.

Based on the Minister of Health Regulation Number 27 of 2017 concerning Guidelines for Infection Prevention and Control in Health Service Facilities, it is stated that to be able to prevent and control infection, education and training are needed both for all human resources

in health care facilities as well as visitors and patient families, in the form of communication, information, and education as well as PPI (Infection Prevention and Control) training.

Education/Training

Officers must be given education/training related to the implementation of prevention and control of nosocomial infections, so that officers know what causes and what the impact is if they don't implement it and what to do, therefore the Panyabungan Regional General Hospital, Mandaling Natal Regency, has provided training to officers according to the results of interviews as follows:

Clustured Data 2

"If it's for training, maybe the room doctor knows about training. But if every nurse here, there is basic life support training, that seems to be all, but for the skills specifically for operating room nurses, it might be more to the room who knows how many human resources have been trained or not."

"In house training, it's only for a few hours, the speaker is IPCN, but it's done for 2 days. If the IPCLN already has a certificate carried out by an outsider. So, on average, all IPCLNs have been certified basic PPI (Infection Prevention and Control) carried out by TOT from outside. But those in the operating room have a basic PPI (Infection Prevention and Control), there are several people who are carried out by the outside TOT who are the same as IPCN, all of whom have and have certificates"

"If we are in the hospital, 50% of the employees have been certified PPI (Infection Prevention and Control) on a basic basis, but those who have not been certified we have given socialization, education, in each of our supervision to every room, so the follow-up in the future is that all officers must go forward in providing prevention and in infection prevention and control"

Officer Performance

The implementation of prevention and control of nosocomial infections is closely related to the behavior of individual officers, some apply, some do not depend on the behavior of each officer, such as the following interview:

Clustered Data 3

"That behavior is also difficult to change, but if you really meet him in person, you can immediately be reprimanded."

"Because PPI (Infection Prevention and Control) is related to behavior change, yes, so if you say it's not completely done, only 50% are willing to do it"

"If you look at the implementation, it just depends on an urgent situation, sometimes they forget to wash their hands, for example, when an emergency patient touches a patient, they often forget. Haa, there are certain situations."

Obstacles

There are several obstacles in implementing the prevention and control of nosocomial infections, ranging from individual behavior to inadequate facilities, as shown in the following interview results:

Clustured Data 4

"Every room should have a place to wash hands, especially the sink, not just handrub"

"If the obstacle is from their own behavior from each individual, then the second obstacle is the infrastructure and support from the management"

"Sometimes the availability of PPE is limited, then when it comes to washing your hands, there is a handrub"

Based on observations, the availability of personnel for the implementation of prevention and control of nosocomial infections in the central operating room of the Panyabungan Regional General Hospital, Mandaling Natal Regency, is sufficient because the total number of nurses in the ICU is 16 people and is divided into 3 shifts. Some officers forgot to do it, and the obstacle was because the behavior of the officers themselves was supported by a lack of facilities. Then, to check that the nursing staff documents are in accordance with the required characteristics, it is proven by having a basic Life Support Certificate (BHD), they have also been given basic PPI (Infection Prevention and Control) training by the hospital and there are several people who have attended training from outside the hospital, the performance of officers can be seen from the fact that there are still some components with low compliance rates.

Fund

Nosocomial infection prevention and control does not yet have a specific budget, but it is combined with other activities in the hospital, except for basic PPI (Infection Prevention and Control) training. Based on interviews with informants, the following are the sources and allocation of funds in the implementation of PPI (Infection Prevention and Control):

Clustered Data 5

"There is no special budget for PPI (Infection Prevention and Control). The PPI (Infection Prevention and Control) budget is in every activity in the hospital"

The results showed that there was no special budget for the implementation of prevention and control of nosocomial infections in the central operating room of the Panyabungan Regional General Hospital, Mandaling Natal Regency, but the special budget for PPI (Infection Prevention and Control) was only for PPI (Infection Prevention and Control) training and training. base. The budget for the procurement of consumables, procurement of hand washing facilities, and other procurements is combined with other activities in the hospital.

The results of this study are in line with research by Vivi SS, et al. (2018) regarding the analysis of the implementation of management of prevention and control of healthcare associated infections at RSI Ibnu Sina which stated that to support efforts to prevent and control HAIs, no specific funds were available but were combined or equated with other funds (Grant & Massey, 1999). In addition, this study is also in line with the results of Yayang KA, et al (2019) regarding the analysis of the implementation of the management committee for the prevention and control of healthcare associated infections at the Tugurejo REGIONAL GENERAL HOSPITAL, Central Java Province stating that the PPI (Infection Prevention and Control) committee does not have a special budget. because it includes BLUD (Grant & Massey, 1999)

Obstacles

In the budgeting process, various obstacles were found, such as when in debt, the use of PPE was stopped and coordination was difficult because the person in charge of procuring the budget for activities was different. This is in accordance with the following interview results:

Clustured Data 6

"Because of the special budget there are no obstacles, sometimes the availability of PPE is lacking so that the existing PPE is used modestly"

"Because the budget for activities is fragmented and the people in charge are different, sometimes the coordination is difficult so sometimes it is sufficient, sometimes it is not"

Based on the document review, there is no specific budget for the implementation of prevention and control of nosocomial infections in the central operating room of the Panyabungan Regional General Hospital, Mandaling Natal Regency, but the budget is combined with other activities in the hospital, which are held specifically for PPI (Infection Prevention and Control) only. for basic PPI (Infection Prevention and Control) training.

Facilities and infrastructure

The results showed that there was no sink as a means and infrastructure for the prevention and control of nosocomial infections in the central operating room of the Panyabungan Regional General Hospital, Mandaling Natal Regency, so officers had to wash their hands to the bathroom, but handrub and other facilities were available.

The results of this study are in line with Zulkarnain's research (2018) regarding the analysis of the relationship between nurses' behavior towards prevention of nosocomial infection (phelibitis) in the internal care room of the Bima regional general hospital which states that there are several things that make nurses behave less, among others, due to the lack of supporting facilities. nursing services such as a sink exist but the water does not flow properly.

Policy

Policies related to the prevention and control of nosocomial infections are already available, but have not been fully socialized and their implementation is still not optimal. This is in accordance with the following interview results:

Data Clustured 7

"The SOP should be isolated and then disseminated. SOPs are only limited to SOPs, later on in implementation, not all evaluations may be from management because of busyness or what is still lacking, so sometimes there are follow ups, sometimes there are not"

"The policies at the PPI (Infection Prevention and Control) are complete, all of them are the individuals who carry it out, what if we have done the socialization, we are educating again, we are re-educating again, we are supervising again, we are auditing again, from the results of the audit later which one needs to be done. such improvements, yes on average it is in behavior that is difficult to change"

Based on the document review regarding the policy for the implementation of prevention and control of nosocomial infections in the central operating room of the Panyabungan Regional General Hospital, Mandaling Natal Regency, SOPs are available for all activities that are used for all rooms in the hospital.

The results showed that there were policies related to the implementation of prevention and control of nosocomial infections in the central operating room of the Panyabungan Regional General Hospital, Mandaling Natal Regency, such as SOPs and guide books. The PPI (Infection Prevention and Control) committee has carried out socialization, education, re-education, and supervision and then audited. The results of this study are in line with research by Vivi SS, et al. (2018) regarding the analysis of the implementation of management of prevention and control of healthcare associated infections at RSI Ibnu Sina which stated that the efforts that had been made by participants in the implementation of prevention and control of HAIs were educating and conducting socialization.

One of the reasons why not all officers have implemented policies, namely management support is still low as evidenced by the absence of rewards for officers who have complied with

the nosocomial PPI (Infection Prevention and Control), as well as sanctions for officers who have not complied with the PPI (Infection Prevention and Control). nosocomial. The results of this study are in line with the results of Riani, et al (2019) regarding the relationship between motivation and nurse compliance in carrying out hand hygiene as a preventive measure for nosocomial infections in the AH hospital inpatient room. in five moments is the absence of rewards from the hospital for obedient nurses, or punishment for nurses who do not comply with hand hygiene.

Process Components

The process of implementing the prevention and control of nosocomial infections in the central operating room through four of the eleven components of standard precautions that must be implemented and adhered to by health workers, namely using Personal Protective Equipment (PPE), performing coughing and sneezing etiquette steps, as well as practicing appropriate injections safe.

Personal protective equipment or PPE is equipment used by officers to protect themselves from physical, chemical, biological/infectious materials. PPE consists of gloves, masks, protective gowns, google and face shields, protective hats, and protective shoes. The results of the interview explained that the availability of PPE is sufficient but sometimes there are obstacles and compliance with proper use is still lacking, such as the following:

Data Clustured 8

"As for PPE, it's already available, but for proper use, it's probably still lacking"

"PPE has been used, but the appropriate PPE is still not optimal if the compliance with the use of PPE in accordance with the action is 60%"

"It is in accordance with the patient's indications according to the PPE that I use"

Based on observations, officers have used PPE when handling patients to prevent nosocomial infections in the central operating room, but there are some uses of PPE that are not in accordance with the action.

The results of the qualitative research state that the availability of PPE already exists, but sometimes there is a delay in its distribution to the room. If this happens, the nurse's solution is to borrow from another room or ask the pharmacy. Nurses in the central operating room of the Panyabungan Regional General Hospital, Mandaling Natal Regency, have used PPE in treating patients, but their use is not optimal.

The results of the quantitative study showed that 100% of the nurses on duty used gloves, 100% of the masks, and 100% of the protective gowns. Using google and face shields as much as 0%, using protective hats as much as 0%, and using protective shoes as much as 92%.

The steps when coughing and sneezing are covering the nose and mouth with a tissue or handkerchief or upper arm, throwing the tissue into the infectious trash and then washing hands. Transmission of the virus from coughs and sneezes that are transmitted through airborne and droplets can be prevented by using a mask. The results of the interview show that the average officer uses a mask, as follows:

Data Clustured 9

"Cough and sneeze, people are diligent in wearing masks. It's just that for the patient's family, there may not be education every week. The ideal is that in the polyclinic or the pulmonary patients behind it, they should still be educated"

"If the etiquette of stones and sneezes in the operating room is 100% because the operating room is very sterile"

"There are coughs and sneezes. But they generally wear masks."

Based on observations, officers have used masks during office hours to prevent nosocomial infections in the central operating room, some have covered their mouths with their upper arms, and some have not practiced coughing and sneezing etiquette.

The results of the qualitative study stated that nurses in the central operating room of the Panyabungan Regional General Hospital, Mandaling Natal Regency, were diligent in using masks during office hours, so that when they coughed/sneezed they did not transmit the virus to others because wearing a mask is one of the preventions of infection. The results of the quantitative study showed that 50% of the duty nurses covered their nose and mouth with tissue/handkerchief/upper arm, while 0% of the duty nurses who disposed of the tissues into the infectious trash and washed their hands.

The results of this study are in line with the research of Sutianik et al (2017) regarding the application of standard precautions as an effort to prevent biological hazards in nursing staff stating that health workers at the Tugurejo Regional General Hospital Semarang wear masks when coughing/flu, if not using masks then health workers Cover your nose and mouth with a tissue or the inside of your elbow (Grant & Massey, 1999).

The results of the interview show that 100% safe injecting practices have been carried out, as follows:

Data Clustured 10

"Using one needle for one person, the waste is disposed of into sharps waste. There is a safety box we provide. There are those who obey and throw them away. But there are also those who don't want to, they are ignored. That's for PPI (Infection Prevention and Control), it has been used and immediately thrown away, there are still needle sticks, especially practicing students here who are most often affected "

"It's 100% that we're here only to dispose of sharp object waste, sometimes what isn't actually the safety box is already available, it's just that sometimes this officer is really cramped, the safety box has just been replaced, it should have been replaced 2/3 right"

Based on observations, officers have practiced safe injections to prevent nosocomial infections in the central operating room by using one syringe and one needle at a time and then throwing it into the safety box.

The results of the qualitative study stated that the nurses in the central operating room of the Panyabungan Regional General Hospital, Mandaling Natal Regency, already used one syringe and one syringe per person, then the waste was disposed of into the safety box, but the problem was when the safety box ran out. Then there are nurses who do not throw needles into the safety box and there are nurses who get stuck with needles, including practical students. The results of the quantitative study showed that the nurses who used disposable sterile syringes and needles for each injection were 100%.

The results of this study are in line with the research of Sutianik R, et al (2017) regarding the application of standard precautions as an effort to prevent biological hazards in nursing staff stating that overall at the Tugurejo Regional General Hospital Semarang, the principles in handling sharp object instruments are in accordance with the standards used. nurses always use gloves when dealing with needles (injection syringes) or knives, and use each needle and syringe only once and do not remove the needle after use (Grant & Massey, 1999)

Output Components

Implementation of Nosocomial Infection Prevention and Control in the Central Surgical Room

The implementation of prevention and control of nosocomial infections in the central operating room of the Panyabungan Regional General Hospital, Mandaling Natal Regency has not run optimally, especially for reporting, according to the results of the following interviews:

Data CLustured 11

"Trying as best as possible. At a minimum, if there is no infrastructure, yes, behavior changes, from cough etiquette, it's clear that hand washing is behavior, all PPE is behavior, that's what we try to do as much as possible. But yes, it's still someone else who scores well or not"

"First of all, if the infection prevention and control is not maximized, yes, if the reporting is not maximized, but if the implementation is actually using bundles, bundles is the prevention of each infection, if there is infection, are there any rules for prevention, if for ventilators there are preventions"

"Oh, let's be honest, sometimes it works, sometimes it doesn't"

The results showed that the implementation of prevention and control of nosocomial infections in the central operating room of the Panyabungan Regional General Hospital, Mandaling Natal Regency was carried out as well as possible, although not optimal, especially for reporting. This relates to the behavior of individual officers in applying standard precautions as a way to prevent nosocomial infections.

The results of this study are in line with research conducted by Vivi SS, et al. (2018) regarding the analysis of the implementation of management of prevention and control of healthcare associated infections at RSI Ibnu Sina which stated that the recording and reporting of HAIs that had been carried out was not optimal, the obstacles expressed by participants in the implementation of prevention and control of HAIs were: behavior of health workers (Grant & Massey, 1999). In addition, this study is also in line with La OA's research (2019) regarding the relationship between the implementation of infection prevention and control programs on the behavior of nurses in preventing and controlling nosocomial infections in inpatient rooms at the Kendari City Regional General Hospital. PPI (Infection Prevention and Control) is staff compliance that still needs to be improved and reminded again (Grant & Massey, 1999)

Incidence of Nosocomial Infection in the Central Surgical Room

The incidence of nosocomial infections in the central operating room of the Panyabungan Regional General Hospital, Mandaling Natal Regency, is IDO, while for other infections there may occur but there is no record. This is in accordance with the results of the interview as follows:

Data Clustured 12

"There are 4 categories of HAIs, namely installation of a central vein, installation of a ventilator, infection in the operating area, and one more UTI. In 2020 there are 2 cases of IDO, in 2021 there will be 1 case"

"In the operating room, for 2020 the incidence of SSI is 2 cases, in 2021 there will be 1 case"

"Based on the PPI (Infection Prevention and Control) report in 2020, the incidence of SSI is 2 cases, in 2021 there is 1 case."

Based on observations, the implementation of prevention and control of nosocomial infections in the central operating room is still not optimal because PPI (Infection Prevention and Control) is related to individual behavior. Then based on the document review for the incidence of nosocomial infections in the central operating room, namely SSI.

The results showed that the incidence of nosocomial infections in the central operating room, namely SSI, in the central operating room was not the highest in the hospital, while the incidence of other nosocomial infections may exist but have not been recorded.

The results of this study are in line with the research of Ratna N, et al (2012) regarding nosocomial infections at the Setjonegoro Regional General Hospital, Wonosobo Regency which stated that medical personnel did not wash their hands first, and immediately wore gloves. This is one of the causes of phlebitis infection (Grant & Massey, 1999)

The PPI Committee (Infection Prevention and Control) of the Panyabungan Regional General Hospital, Mandailing Natal Regency, has carried out surveillance in each room and recapitulated the incidence of nosocomial infections found every month in terms of incidence and percentage. For the central operating room, the number is SSI. This is due to the low number of officers' compliance with hand hygiene. Therefore, it is hoped that all officers will be able to carry out IDO bundles as a prevention of IDO incidents.

Conclusion

The amount of energy is sufficient and in accordance with the required characteristics. The hospital has provided education/training to all officers including the Central Operating Room staff. Sources of funds come from APBD and BLUD, but there is no specific budget for PPI (Infection Prevention and Control), but it is combined with other activities in hospitals that make PPI (Infection Prevention and Control) programs, one of which is prevention of nosocomial infections in the operating room. Central is blocked. Inadequate infrastructure, such as the absence of a sink, especially in the Central Surgery Room. Complete policies are available, such as SOPs and guidebooks, but their implementation has not been maximized. The implementation of hand hygiene is not in accordance with the 5 moments and 6 steps of washing hands, there are still only a few moments that are still being carried out. The use of PPE has been carried out in accordance with the specified indications. Most of the staff have done the etiquette of coughing and sneezing by covering the mouth and nose with the upper arm. Safe injection practices have been carried out by all officers, especially the Central Surgery Room. The implementation of prevention of nosocomial infections in the Central Operating Room has not all been in accordance with the standards, due to the individual behavior of officers, completeness of facilities and infrastructure, as well as management support such as giving rewards to officers who have implemented PPI (Infection Prevention and Control), so that the implementation is not optimal. Prevention of nosocomial infections through standard precautions carried out by nurses on duty in the Central Operating Room of Panyabungan Regional General Hospital, Mandailing Natal Regency for hand hygiene when 5 moments of hand washing with a percentage of 66% and 6 steps of hand washing with a percentage of 74%, the use of PPE with a percentage of 97% , practice coughing and sneezing etiquette with a percentage of 25%, and practice safe injections with a percentage of 100%.

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