

# Implementation Of Patient Safety Program In The Surgical Room By Nurses Based On The Rules Of The Royal Prima Medan Hospital In 2021

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## **Abstract**

*Currently, the issue of patient safety is getting serious attention from the government. Hospitals must fulfill the patient's right to security and safety while in hospital treatment. Patient safety is a serious global public health problem. Medical errors can be caused by both system and human factors. This research was conducted at the Royal Prima Hospital Medan with the issue of patient safety at the Central Surgical Installation (CSI). The formulation of the problem in this study is about the implementation of patient safety programs by nurses in the operating room based on the rules of the Royal Prima Hospital Medan in 2021. The type of research used is descriptive using a phenomenological approach which is a type of qualitative research. The population in this study were all nurses who worked in the Central Surgical Installation ward (CSI) of the Royal Prima Hospital Medan. The total sampling was 23 nurses with inclusion criteria, willing to be respondents and not on vacation/leave the service facilities at the hospital. The results showed that the implementation of the patient safety program in the operating room by nurses based on the rules of the Royal Prima Hospital Medan had been implemented and had a program prepared policies and patient safety guidelines as a reference in improving the quality of health services.*

**Keywords:** Patient safety, Operating room, Nurse, Hospital rules.

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## **I. INTRODUCTION**

The World Health Organization (WHO) has introduced Patient Safety Safe Surgery Saves Lives to improve patient safety in surgery in the world by setting up a standard that can be applied to all situations in all countries. The purpose of this checklist is to improve patient safety during surgery and reduce complications and deaths due to surgery (Klase, Pinzon, and Meliala, 2016). Currently, the issue of patient safety is getting serious attention from the government as stated in Health Law No. 36 of 2009 and Hospital Law No. 44 of 2009. Hospitals are required to fulfill the patient's right to obtain security and safety during the treatment period at the hospital. Based on Permenkes 1691/ MENKES/ PER/ VIII/ 2011 concerning Hospital Patient Safety that every hospital is required to implement patient safety management (Faluzi, Machmud, and Arif, 2018). According to the World Health Organization (WHO), patient safety is a serious global public health problem. Medical errors can be caused by both system and human factors. Adverse patient safety incidents were related to surgical procedures (27%), medication errors (18.3%), and healthcare-related infections (12.2%). Whereas in Europe, the incidence of patients with infection risk is 83.5% and evidence of medical errors shows 50-72.3% (WHO, 2017). Reports of patient safety incidents in Indonesia by province found that of the 145 incidents reported, 55 incidents (37.9%) occurred in the DKI Jakarta area. Meanwhile, based on the type, there were 69 cases of KNC (47.6%), KTD 67 cases (46.2%), and 9 cases (6.2%) others (Pasaribu, 2018).

Followed by Central Java at 15.9%, DI Yogyakarta 11.7%, South Sumatra 6.9%, West Java 2.8%, Bali 1.4%, South Sulawesi 0.69%, and Aceh 0.68 % (Mangkang et al., 2018). Referring to the Permenkes Standard No. 11 of 2017 health facilities should implement patient safety with a good design process (Astriyani, Suryoputro, and Budiyanto, 2021). One of the hospitals with a high incidence of patient safety incidents in the city of Medan is the Royal Prima Hospital, Medan. From initial observations that have been made at the Royal Prima Hospital in Medan, on the quality indicators of the Central Surgical Installation (CSI) in July 2021 for waiting time for surgery, from all planned elective surgeries there are still some cases of delay, but not more than 2 days. For the incident of the operation of the wrong person, none was recorded. This is because the Central Surgical Installation (CSI) room ensures that the name, medical record number, diagnosis, and appropriate action are written on the patient's name bracelet. For the incidence of death on the operating table in the initial observation data, there has been no incident at the Central Surgical Installation (IBS) of Royal Prima Hospital in July 2021. Based on the description above, the authors are interested in

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examining the implementation of patient safety goals at the Royal Prima Hospital Medan at the Central Surgical Installation (CSI) for Patient Safety data in 2021.

## II. LITERATURE REVIEW.

### 2.1. Definition of Hospital

According to Law no. 44 of 2009 concerning Hospitals, Hospitals are health service institutions that provide complete individual health services which include promotive, preventive, curative, and rehabilitative services as well as providing inpatient, outpatient, and emergency services for those who require immediate medical action saving lives and preventing further disability. Promotive health service is an activity and/or a series of health service activities that prioritize health promotion activities. Preventive health service is an activity to prevent a health problem/disease. Curative health service is an activity and/or a series of treatment activities aimed at curing disease, reducing suffering due to disease, controlling disease, or controlling disability so that the patient's quality can be maintained as optimally as possible. Rehabilitative health services are activities and/or a series of activities to return former sufferers to the community so that they can function again as community members who are useful for themselves and the community as much as possible according to their abilities (Kalsum, 2020).

### 2.2. Patient Safety

According to the World Health Organization (WHO), patient safety is the absence of danger to the patient during the health care process. Patient safety can also be defined as the avoidance, prevention, and amelioration of adverse outcomes or injuries resulting from the health care process (Tutiany, Lindawati, and Krisanti, 2017). Based on the Minister of Health Regulation No. 11 of 2017 that patient safety is a system that makes patient care safer, including risk assessment, patient risk identification and management, incident reporting and analysis, the ability to learn from incidents and their follow-up, and implementation of solutions to minimize risk and prevent injury caused by errors resulting from carrying out an action or not taking the action that should have been taken. Patient safety can be interpreted as an effort aimed at protecting patients from something unwanted during the treatment process (Permenkes, 2017). The objectives of the patient safety implementation system mentioned in the national guidelines for patient safety in hospitals, namely the creation of a patient safety culture in hospitals, increasing hospital accountability to patients and the community, decreasing Unexpected Events in hospitals, and implementing hospital programs, and prevention program so that there is no recurrence of unexpected events (Permenkes, 2017). Patient safety goals are to promote specific improvements to patient safety in health care and explain evidence and consensus-based evidence and solutions to these issues, including accurate patient identification, improved communication, increased safety of high-alert drugs, confirmation of the right location, correct-procedure, correct patient operation, reducing the risk of infection related to health services, and reducing the risk of patient injury due to falls (Permenkes, 2017).

### 2.3. Surgical Safety Checklist

The Surgical Safety Checklist is part of Safe Surgery Saves Lives which is a communication tool for patient safety used by the surgical team in the operating room. The surgical Safety Checklist is a checklist to provide safe and quality surgery to patients. The surgical team consists of nurses, surgeons, anesthesiologists, and others. The surgical team must consistently carry out every item carried out in surgery from sign in, time out, sign out so as to minimize any unwanted risks (Basuki, 2019). Patient safety is a system in hospitals that aims to make patient care safer. The application of patient safety in surgery is very important which aims to prevent complications and death in patients, so WHO made a Surgical Safety Checklist (SSC) which aims to improve patient safety during surgery and reduce complications and deaths due to surgery. (Basuki, 2019). The surgical safety checklist is divided into three stages, including: before induction of anesthesia (sign in), after induction and before a surgical incision is made (time out), and the period during or immediately after wound closure and before removing the patient from the operating room (sign out). At each stage, the checklist coordinator must confirm to the team that the task has been completed before taking further action (Selano, Kurniawan and Sambodo, 2019).

### 2.4. Sign In

Sign-in is a procedure performed before induction of anesthesia. The sign-in procedure is ideally carried out by three components, namely the patient (if the condition is conscious/possible), the anesthesiologist, and the anesthesiologist. In the sign-in phase, confirmation is carried out in the form of the patient's identity, the correct operation site and has been marked, whether the anesthesia machine is functioning, whether the patient's pulse oximeter is functioning, and the patient's risk factors such as whether there is an allergic reaction, the risk of difficulty in the airway, and the risk blood loss of more than 500 ml.

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The Surgical Safety Checklist steps that must be confirmed when signing in are a) confirmation of the patient's identity; b) confirmation of surgical site; c) preparation of surgical and anesthetic machines; d) checking pulse oximetry and its function; e) confirmation of the patient's allergies; f) confirmation of operating risks; and g) confirm the risk of blood loss of more than 500 ml (700 ml/kg child).

### **2.5. Time Out**

Time out is a patient surgical safety procedure performed before a skin incision is made. Time out is coordinated by one of the operating room staff members (doctor or nurse). During time out, each operating room officer introduced himself and his duties. This is intended so that the operating officers can know each other and recognize each other's roles. Before the incision, the operating room staff will loudly confirm that they operated correctly, the right patient, and confirm that prophylactic antibiotics have been given at least 60 minutes previously. The Surgical Safety Checklist steps that must be confirmed during the time out are: a) confirming the names and roles of team members; b) operating team members confirm verbally the patient's identity, the location to be operated on, and the surgical procedure; c) anticipation of critical events; d) operator review whether critical/unexpected steps, duration of operation, anticipated blood loss; e) anesthesia team review: does the patient have any special considerations; f) review of the nursing team: whether sterilization has been confirmed and whether any notification of equipment or other; g) confirmation that prophylactic antibiotics have been administered in the last 30-60 minutes; and h) supporting examination in the form of imaging.

### **2.6. Sign Out**

Sign Out is a surgical safety procedure performed by operating room officers prior to wound closure, coordinated by a member of the operating room staff (doctor or nurse). When signing out, there will be a review of the actions that have been carried out previously, then checking the completeness of the sponge, counting the instruments, labeling the specimens, damage to the equipment or problems that need to be addressed, and the final step is to focus on post-operative management and recovery of the patient before being transferred from the hospital. operating room. This safety check must be completed before the patient leaves the operating room. Its purpose to facilitate the transfer of important information to the care team responsible for the patient after surgery. The Surgical Safety Checklist steps that must be confirmed at the time of sign out are: a) surgical review; b) counting of instruments, gauze, and number of needles; c) specimen labeling; d) confirmation of equipment problems; and e) surgeons, anesthesiologists, and nurses review the patient's recovery and management plan.

### **2.7. Legal Basis of Surgical Safety Checklist**

Some of the legal bases for a surgical safety checklist include:

1. WHO (World Health Organization) recommendations regarding Patient Safety and Safe Surgical Save Live
2. Regulation of the Minister of Health number 1691/Menkes/Per/VIII/2011 concerning patient safety in hospitals as stipulated in Chapter IV Article 8 paragraphs 1 and 2 which contains Paragraph 1, Every hospital is obliged to strive to fulfill patient safety goals. Paragraph 2, Patient safety targets as referred to in paragraph 1 include accuracy of patient identification, improvement of effective communication, improvement of drug safety that needs to be monitored, the certainty of the correct location, correct procedure, correct patient for surgery, reduction of risk of infection related to health services, and reduction of patient risk fall down

## **III. METHODS**

The type of research used in this research is descriptive using a phenomenological approach which is a type of qualitative research. Qualitative is a research process that produces descriptive data in the form of speech or writing from the behavior of the people being observed, namely looking closely at individual interpretations of their experiences that reveal events or facts, circumstances, phenomena, variables, and circumstances that occurred during the research by presenting what is actually happened. The population in this study were all nurses who worked in the Central Surgical Installation (CSI) ward at Royal Prima Hospital Medan. In determining the research sample population, the data used to obtain the sample is total sampling. In accordance with the purpose of the study, the sample used in this study used a total sampling of 23 nurses with inclusion criteria, nurses were willing to be respondents and nurses were not on vacation/leave at service facilities at the hospital. The research instrument used in this study was the researcher himself who was equipped with written interview guidelines according to the problem and then used as a means of obtaining information from informants who had been researched to find out clearly and more deeply about hospital rules for the implementation of patient safety programs in the surgery room at the

Royal Prima Hospital Medan and instrument guidelines for conducting in-depth interviews with informants at Royal Prima Hospital Medan. The data analysis method carried out in this study was based on hospital regulations as a patient safety program at the Royal Prima Hospital Medan in 2021. Citing the Milles and Huberman method, qualitative data analysis was carried out simultaneously with the process of collecting data, interpreting data, and making a matrix to facilitate in viewing the data more systematically. The data that has been collected is discussed in depth in a narrative form.

#### **IV. ANALYZE AND RESULT.**

##### **4.1. Overview of Research Site**

Royal Prima Hospital Medan is one of the largest private B class hospitals and will become a referral center for the community, especially the city of Medan and the people of North Sumatra in general. The health services provided at Royal Prima Hospital Medan include Inpatient Installation, Outpatient Installation, Emergency Room, Intensive Care Unit, Central Surgical Installation, Workforce atrium Installation, Midwifery Installation, Nutrition Installation, Medical Rehabilitation Installation, Pharmacy Installation, Radiology Installation, Hemodialysis Unit, Education and Training Installation, Hospital Information System Installation, Hospital Maintenance Installation (HMI), Laundry Installation, Environmental Sanitation, and Hygiene Installation, Medical Record Installation, Body Retrieval Installation, Health Insurance, and Verification Installation, Goods and Services Procurement Installation, Medical Check-Up, and Guest House.

##### **4.2. Patient Safety Program Based on The Rules of The Royal Prima Hospital Medan**

Patients as users of health services have the right to obtain security and safety for themselves while in hospital treatment (Law on Health and Hospitals Article 32n of Law No.44/2009). Health services by prioritizing patient safety need to be carried out in all parts of the hospital, including the surgical installation room. Patient safety is a top priority in health services and is the first critical step to improve service quality and is related to hospital quality and image. Based on the results of interviews with three informants who are nurses at the central surgical installation, regarding the patient safety program based on the rules of the Royal Prima Hospital Medan, it is clear that the Royal Prima Hospital Medan has a program that prepares patient safety policies and guidelines as a reference in improving quality health services. This means that all elements of the hospital are ready to carry out patient safety programs by trying to balance it with the quality of health workers and facility support in the form of nurses who are given socialization of patient safety programs according to the SOPs listed in the rules of the Royal Prima Hospital Medan.

##### **4.3. Patient Safety Program Based on Regulation of the Minister of Health Number 1691/Menkes/Per/VIII/2011 concerning Patient Safety in Hospitals**

Patient safety in the implementation of patient safety programs in hospitals needs to be carried out, so hospitals need to implement patient safety goals. These patient safety goals include accurate patient identification, increased effective communication, increased safety of drugs that need to be watched out for, exact-location certainty, right-procedure, right-patient surgery, reduced risk of infection related to health services, and reduced risk of patient falls. Based on the results of interviews and statements from two informants, it can be seen that the implementation of the patient safety program based on the regulations of the minister of health number 1691/Menkes/Per/VIII/2011 regarding patient safety in hospitals can be seen which is also applied to the rules at the Royal Prima Hospital Medan. It can be seen that the implementation of the program has been going well, especially in the Central Surgical Installation (CSI) room at the Royal Prima Hospital, Medan.

##### **4.4. Implementation of Patient Safety Program Based on WHO Rules Regarding Patient Safety and Safe Surgical Saves Live**

The Surgical Safety Checklist program is part of Safe Surgery Saves Lives which is a communication tool for patient safety used by the surgical team in the operating room. The surgical Safety Checklist is a checklist for providing safe and quality surgery to patients. A thought suggests that if the identification process is carried out properly, transferred with complete information and transfer of responsibility, and strengthened by re-checking. Based on the results of in-depth interviews about the implementation of patient safety programs based on WHO rules regarding Patient Safety and Safe Surgical Saves Live regarding the exact location, procedures, and patient safety operations used by the surgical team in the operating room. The surgical team consisting of nurses, surgeons, anesthesiologists, and others must consistently carry out every item carried out in surgery starting from sign in, time out, sign out to minimize any unwanted risks. It can be seen that from the interview results of the implementation of the patient safety program based on WHO rules regarding patient safety and safe surgical saves live, it shows that the

achievements of the implementation of the patient safety program in the central surgical installation room of the Royal Prima Hospital Medan are carried out properly by the existing SOPs. Every action taken must be checked or verified first by nurses, surgeons and anesthesiologists before performing surgery using a surgical safety checklist by noting the exact location, right procedure, and correct patient operation completely before starting the procedure. Through research that has been done, this sign phase is an important phase in preparation for surgery to prevent medical errors in patients, such as the wrong patient, wrong side of the operation, wrong procedure, and making preparations to anticipate airway difficulties, allergies and anticipation of blood loss >500 ml, so the surgical safety checklist in the sign-in phase must be carried out routinely in every operation.

#### **4.5. Implementation of the Surgical Safety Checklist Sign in Procedure Based on the Rules of The Royal Prima Hospital Medan**

The sign-in phase on the surgical safety checklist is the phase that is most often carried out, namely the first time the patient arrives at the reception or preparation room or the phase before induction of anesthesia. Coordinator who usually asks and checks whether the patient's identity is correct, the procedure and the part to be operated on are correct and have been given a sign, the consent for surgery and anesthesia has been signed by the patient, pulse oximetry can work. Nurses and anesthesiologists reconfirm the possibility of risk whether the patient is at risk of losing large amounts of blood, there is a possibility of difficulty breathing, and the patient has an allergic reaction. Based on interviews with informants who are nurses at the central surgical installation regarding the surgical safety checklist sign-in program and procedure based on the rules of the Royal Prima Medan hospital as patient safety which is applied at the Royal Prima Hospital Medan as a hospital rule, it can be seen that the implementation of the procedure implementation program surgical safety checklist sign-in based on the rules of the Royal Prima Hospital Medan is also implemented properly, such as the surgical safety checklist steps. Things that must be confirmed when signing in are, a) Confirmation of the patient's identity; b) Confirm the surgical site; c) Preparation of surgical and anesthetic machines; d) Checking pulse oximetry and its function; e) Confirmation of the patient's allergies; f) Confirm the risk of the operation; and g) Confirm risk of blood loss of more than 500 ml.

#### **4.6. Implementation of the Surgical Safety Checklist Time Out Procedure Based on the Rules of The Royal Prima Hospital Medan**

The surgical safety checklist time-out procedure is a patient surgical safety procedure that is carried out before a skin incision is made. During time out, each operating room officer introduced himself and his duties. This is showed that the operations officers can know each other and recognize each other's roles. Before making an incision in the patient's skin, the operating room staff will loudly confirm they did the surgery correctly, the right patient, and confirm that prophylactic antibiotics have been given at least 60 minutes before. Based on interviews with informants who are nurses at the central surgical installation regarding the implementation of the surgical safety checklist time-out procedure implemented at the Royal Prima Hospital Medan as a hospital rule, it is known that the implementation was carried out at the Royal Prima Hospital Medan. In this phase, what is rarely done is self-introduction before surgery. In the WHO guidelines regarding the surgical safety checklist, especially the administration of prophylactic antibiotics, if prophylactic antibiotics have not been given 60 minutes before surgery, then they should be given immediately. If prophylactic antibiotics are given more than 60 minutes before surgery, then antibiotics should be repeated and if prophylactic antibiotics are not given because they are not considered, it is enough to fill in the surgical safety checklist column that cannot be applied and the team must confirm it orally.

#### **4.7. Implementation of The Surgical Safety Checklist Sign Out Procedure Based on the Rules of The Royal Prima Hospital Medan**

The surgical safety checklist sign-out procedure is the part where the entire surgical and anesthetic team will assess the end of the operation that has been completed. Checking postoperative completeness such as gauze and counting surgical instruments, labeling specimens on the tissue taken, any equipment damage during surgery, and other problems that have not been and have been handled. Furthermore, to re-assure the number of equipment used so that it can avoid unexpected events such as leaving needles or gauze in the body of the patient being operated on. Based on the results of interviews with informants who are nurses at the central surgical installation, the implementation of the surgical safety checklist sign-out procedure applied at the central surgical installation at the Royal Prima Hospital Medan as a hospital rule. It can be seen that the implementation was carried out at the Royal Prima Hospital Medan for this phase was carried out well and this phase is a very important phase. If there is an error in this phase, such as an incorrect gauze calculation, it will cause complications that cannot be imagined. Therefore, the implementation for

calculating tools and instruments must be standardized so that the implementation can be maximized. Those who have the responsibility to ensure that the tools and instruments used are complete are not only nurses but also doctors. Doctors are not only authorized about the patient's clinical but are also responsible for ensuring that the tools/instruments used are complete and that nothing is left on the patient's body.

## V. CONCLUSION.

Based on the results of the study, it can be concluded as follows:

1. Implementation of the patient safety program in the operating room by nurses based on the rules of the Royal Prima Hospital Medan has been implemented and has a program in preparing patient safety policies and guidelines as a reference in improving the quality of health services.
2. Implementation of patient safety program based on the regulation of the Minister of Health no. 1691/Menkes/Per/VIII/2011 concerning Patient Safety. Royal Prima Hospital Medan applies this rule in accordance with the Regulation of the Minister of Health number 1691/Menkes/Per/VIII/2011.
3. Implementation of patient safety programs based on WHO rules regarding Patient Safety and Safe Surgical Saves Live is also applied to the Royal Prima Hospital in Medan, especially the Central Surgical Installation (CSI).
4. The implementation of the surgical safety checklist program for the sign-in, time-out, and sign-out phases is also contained in the rules of the Royal Prima Hospital Medan at the Central Surgical Installation (CSI). Although in the implementation of the time out phase, it can be seen from the results of in-depth interviews that the implementation is still carried out at the Royal Hospital, but for the self-introduction phase before surgery, this phase is rarely carried out.

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