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Patient Identification in the Hemodialysis Unit Using the Plan-Do-Study-Act Approach

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Abstract

Kidney disease patients undergoing hemodialysis (HD) in Indonesia increased from 52,000 in 2016 to 77,000 in 2017. The increase in HD patients should be balanced by the improvement of the quality of service and maintenance of patient safety consistently and continuously. This study determines the cause and solutions of the patient identification achievement that is not yet 100%, as the base to improve the patient identification system in the hemodialysis (HD) unit of Grha Permata Ibu Hospital (GPI) Hospital. Qualitative research using the Plan-Do-Study-Act (PDSA) approach involving triangulation of data collection, namely observation, documentation, and interviews with the PDSA form from National Health Service (NHS) Improved version as the instrument. Informants were selected by snowball sampling. The PDSA results indicated that the problem cause was the HD team's lack of understanding of patient identification. This problem can be overcome by socialization and simulation of patient identification: a standard operating procedure for patient identification, implementation of patient identification, patient identification incident reporting flow, and money for patient identification. The problem of identifying patients in the HD unit can be resolved using the PDSA cycle that has been performed. Modifications are required for the next PDSA cycle, consisting of 1) regular socialization and simulation of patient identification; 2) SOP of patient identification in HD unit; 3) implementation of the identification process by involving the patient; 4) reporting and building awareness of realizing a patient safety culture if an incident occurs, and 5) reporting on the achievement of monev data and recommendations for improvement efforts.

INTRODUCTION

World Health Organization (WHO) explains that patient safety is a global issue, where the most important point is patient identification. Misidentification of patients can lead to errors, or even fatality, at a later stage. In one Brazilian institution, a patient identification audit of 385 patient bracelets found 8.67% contained incomplete and incorrect information and misspellings of names. Also, up to 4.33% of the patients have bracelets with medical record numbers that do not match electronic medical record numbers (Sánchez, 2011). In Indonesia, one of the implementations of patient safety according to the First Edition of Hospital Accreditation Standards is the Patient Safety Goals (PSG) (KARS,

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2017). In Regulation Number 11 of the Ministry of Health of the Republic of Indonesia of 2017 concerning patient safety, the first and the most important point in the PSG is identifying patients correctly. Patient identification is a major concern because mistaken patient errors can occur in all aspects and stages. The reason is that patient identification is still not practiced properly. The impact of patient misidentification is often fatal and is a cause of disservice at a later stage (Cintha et al., 2016; ECRI, 2016; Ministry of Health of Republic of Indonesia, 2017; WHO, 2019).

Kidney disease patients undergoing hemodialysis (HD) in Indonesia increased from 52,000 in 2016 to 77,000 in 2017 (Indonesian Renal Registry, 2017). The increase in HD patients should be balanced by the improvement of the quality of service and maintenance of patient safety consistently and continuously. Any mistake in HD service can cause danger and death. The most common patient safety problems in HD care include falling of patients, medication errors (including deviation from dialysis prescriptions, allergic reactions, and neglect of medication), access-related events (clots, infiltrates, poor blood flow, and difficult cannulation), dialyzer errors (wrong dialyzer or dialysate and sepsis-related equipment), and excessive blood loss or prolonged bleeding. Medication and dialyzer errors are due to improper patient identification (Jiménez et al., 2017).

Grha Permata Ibu Hospital (GPI) is one of the hospitals in West Java that has yet to reach patient safety standards. From the November 2019 data in the HD unit, 221 of 247 patients (89.5%) wore identification bracelets. According to the Hospital Accreditation Commission, the accuracy of patient identification must be 100%. Thus, patient identification in the HD unit still has to be improved. This study aims to identify the causes and improve the patient identification system using the Plan-Do-Study-Act (PDSA) approach (Hospital Accreditation Commission, 2017).

METHOD

This is a qualitative descriptive study without any intervention. PDSA approach was used along with the triangulation of data collection using observation, documentation, and interviews. The PDSA form from translated National Health Service (NHS) Improved version was used as the instrument (ACT academy, 2017). It is to determine the application and possible obstacle of the patient identification system in the HD unit. The location of the study was at hemodialysis (HD) unit of Grha Permata Ibu Hospital (GPI), Depok city, West Java, Indonesia. This data was collected in February until March 2020.

Participants

Informants were selected by snowball sampling, where the selection of the second informant was based on the first informant's recommendation, the third informant was based on the second informant's recommendation and so was the selection of the fourth informant. The main informant was a nurse of the HD unit, meanwhile the other informant from HD unit was the doctor. Apart from the HD unit, the other informants involved were the PIC of Hospital Patient Safety, which was the person in charge of patient safety in the hospital, working as a nurse, as many as 1 person. Also, the person in charge of QI, was the person in charge of improving the quality and safety of patients in the hospital, was a doctor by profession, as many as 1 person. Participant inclusion criteria are health workers who understand patient safety and have responsibilities in the hemodialysis unit. While the exclusion criteria were non-health workers even though they worked in the hemodialysis unit, health workers in the hemodialysis unit but did not know patient safety, and health workers who understood patient safety but had no responsibility in the hemodialysis unit.

Data Collection and Analysis

In this study, data collection was done by observing the identification procession in all hospital units, specifically looking at the wristband checklist. Data analysis was carried out by carrying out three stages, namely data reduction, data presentation and verification. Firstly, data reduction is the process of selecting, focusing, simplifying, separating, and transforming the raw data seen in written field notes. The observation was carried out on the application of Standard Operating Procedures (SOP) related to patient identification, availability of patient wristbands, and checklist of patient wristbands, in the HD unit. Observation was made on 50 patients for one week, a total of 247 patients were observed. The data was collected from November 2019 until Januari 2020.

Secondly, the documentation serves to determine whether the HD patient identification system at GPI Hospital Depok has been well-documented based on the SOP of patient identification and wristband checklists. Presentation of data in the form of summaries presented in a more systematic arrangement, so that the theme or pattern is easily known. Qualitative research

often presents data in narrative form, because of the complexity of compiling the results of data reduction into diagrams. This is in accordance with the characteristics of qualitative research which produces a lot of descriptive and non-numerical data.

Third, verification is taken from the pattern that appears in the presentation of the data, then conclusions are drawn so that the data collected has meaning. Conclusions in qualitative research are new findings that have never existed before. Interview was conducted for the verification. Interview was carried out for 1 hour, using an instrument of the NHS improvement version of the PDSA form. The aspects asked during the interview including the causes of patient identification achievement problems in the HD unit and the choice of improvements using PDSA.

RESULT AND DISCUSION

This study has focused on the problems that occur in the HD unit at Grha Permata Ibu hospital, where the problems are related to patient identification. The achievement of patient identification in the GPI Hospital HD unit obtained in November 2019 was 89.5%. There were 221 patients out of a total of 247 patients used the patient wristbands, while 26 patients did not use patient wristbands. Observations made showed several points regarding the achievement of using the patient's bracelet not 100%, namely (1) there is no SOP regarding patient identification in the HD unit, but it already exists in other units, (2) the availability of patient bracelets was not found in the HD unit because the existing procedure is to give bracelets to patients in the registration section of the hospital. The observation continued to the registration department and found the availability of patient wristbands consisting of pink wristbands for female patients and blue wristbands for male patients, both for adult and child patients. There is also a printer machine to print patient data stickers consisting of name, date of birth, and medical record number which will then be attached to the patient's wristband as an identity. (3) The bracelet checklist, the HD unit has had since November 2019 what is referred to as patient identification evaluation monitoring data.

Based on Citra, et al. (2019), at the Type B Education Hospital in Wates City Indonesia, patient identification errors were dominated by the identification bracelet not attached because the nurse forgot to put the bracelet on the patient by 7.25%. Then obtained 2.9% loose identity bracelet and 2.17% identity discrepancy on the bracelet. Meanwhile, patient identification is the first point in patient safety goals which aim to improve the quality of service in health care facilities, as described in patient safety arrangements in Permenkes No. 11 of 2017. Patient identification is the most important point because errors that occur at this stage can result in service errors at a later stage and can be fatal.

The research of Dolores et al. (2017) explains that the main problem of patient safety in HD unit is in patient identification. This can be seen from the errors that often occur, including medication errors (including deviations from dialysis prescriptions, allergic reactions, and medication negligence) and dialyser errors (wrong dialyser or dialysate and equipment-related sepsis) (Dolores et al., 2017).

The monthly achievement results of monitoring and evaluation on the identification of HD patients are not 100% yet (see Table 1). It is due to not all patients wear identification bracelets. In November 2019, a patient was found wearing a bracelet with unmatching gender, and in January 2020, a patient was found wearing a bracelet with an unmatching name.

Tulus and Maksum's (2015) study describes other examples of errors that are triggered by patient identification errors, namely giving medication to the wrong patient, surgery being performed on the wrong patient, giving blood transfusions to the wrong patient, and giving the baby to the wrong parents. In the HD unit, it is feared that patient identification errors can lead to inappropriate HD prescriptions that can be fatal to the patient.

From the observations, there is 1 incident of patient using bracelets which did not match his/her identities. Informant 4 explained, *"An error (using a bracelet that does not match the identity) was caused by human error (by the registration party who provided the patient identification bracelet)"*. If

Table 1. Monitoring and evaluation data for the identification of HD patients

Month	Achievement	Explanation
November 2019	89.5%	1 patient with incorrect identity
December 2019	91.0%	-
January 2020	94.4%	1 patient with incorrect identity

Source: Grha Permata Ibu Hospital

the bracelet error is not followed up, it can cause an error at a later stage, such as while prescribing HD actions which can cause HD adequacy to not be achieved and even be fatal. For this reason, cooperation from the HD unit is needed to carry out the procedure for reporting patient identification errors to the hospital patient safety. So that the registration department can be more careful and not repeat the same mistake. Commitment is required in the implementation of the improvement plan. In line with this, informant 1 explained, *"Yes, definitely need a commitment so that (the patient identification system) can work"*.

The main informant was the HD nurses, who explained that the main cause of the obstacles in the patient identification system was that the team did not understand the meaning of patient identification and that there was no SOP for patient identification in the HD unit. The main informant explained, *"In the past, there was socialization (patient safety) when we wanted to do accreditation about 2 or 1 year ago. At the socialization (event) it was not explained if asked to wear bracelets (to patients). We knew from below (registration section) the patient was wearing a bracelet. In the past, we just made sure that the patient was wearing the right bracelet, the color was right, the name was right, we weren't the ones wearing it. There has been no direct socialization to HD. So, we don't understand (about patient identification)"*. In addition, informant 1 added, *"We didn't have SOP (patient identification) in the past"*. Meanwhile, SOP related to patient identification has existed in other units, but the HD unit does not have it. The HD patient identification system with evaluation and monitoring data has been well documented, seen from the data filled from November 2019 to January 2020. The data already exists in other units, but the HD unit has only received information verbally since November 2019. Therefore, the filling only started in November 2019.

A strategy for improving the patient identification system based on the causes observed is presented in Table 2. The process improvement can be done using the "Plan-Do-Study-Act" or PDSA approach, which according to Christoff (2018) is one of the most used tools in improving the quality of health services. PDSA is a cycle developed to implement continuous improvement and increase teamwork in implementing the change process towards improvement.(Christoff, 2018) In this study, the PDSA results were reconfirmed with the informants and compared with the literature, and the author's arguments were added at the end of each PDSA stage.

Plan

In the Plan step, the team determines which changes to test or implement in a brief statement of the process steps that can be measured

Socialization and simulation of patient identification

Mandriani et al. (2019) revealed that the successful implementation of patient safety programs is influenced by several things, one of which is patient safety culture. Patient safety is influenced by how the culture of the individual and the system that runs within the organization. This is consistent with Campione et al. (2019) which offered insight into how patient safety culture and the application of health information technology in the medical world can affect the frequency of errors in the treatment process, by identifying potential vulnerabilities that can increase diagnostic errors (Campione et al., 2019; Mandriani et al., 2019;). Therefore, socialization and simulations are needed. To attain that, hospitals should promote the socialization of patient identification to all health workers to improve the quality of the hospital.

The suggestion of informant 4, *"Socialization and simulation in the HD unit provided by Hospital Patient Safety are needed."* It is also under another study results, which states that socialization and simulation of the procedure for using a patient ID wristband with various conditions is seen as the right solution for increasing the accuracy of the patient identification system. Besides, socialization and simulation are a form of learning to prevent mistakes, improve the learning process, and can support a better patient safety culture (Tulus & Maksum, 2015; Napitupulu et al., 2017; Fatimah et al., 2018).

The availability of SOP regarding patient identification and patient bracelet removal

SOP as an internal standard that is procedural, is a series of standardized written instructions regarding various implementation processes, how and when to do it, and where and by whom it should be received (Stiyawan et al., 2018). The informant 3 explained the need for an SOP in the HD unit, *"SOP (patient identification) will be prepared in the HD unit, which consists of setting and removing the patient bracelet."* In another study, SOP is the most important element in the implementation of an activity. SOP is useful for effective managerial effort, facilitating delegation of authority and assigning responsibility, leading to the development of more efficient operational methods, facilitating supervision, enabling savings in personnel, and helping coordinate activities (Neri et al., 2018).

Table 2. PDSA form for HD patient identification

	Team: Improvement of the Patient Identification System in the HD Unit		Date: Feb 17–22, 2020
The goal: the patient identification system in the HD unit can run according to procedures so as to realize patient safety.			
Describe the changes that will be tested	Person in Charge	Implementation Time	Implementation Location
HD nurses are capable to perform the patient identification system	HD Doctors	February 17, 2020 to February 22, 2020 (1 week)	HD Unit
PLAN			
List Steps for Change	Person in Charge	Implementation Time	Implementation Location
1. Socialization and simulation of patient identification 2. The availability of SOP regarding patient identification and patient bracelet removal 3. Commitment to the implementation of patient identification 4. A reporting flow for errors in the patient identification process 5. Filling in the patient identification monev data	HD Doctors	February 17, 2020 to February 22, 2020 (1 week)	HD Unit
DO	Create a test		
STUDY			
Describe what was going on while you were running the test			
• Socialization and simulation of patient identification were provided to the HD unit team by the person in charge of Hospital Patient Safety. • Gave the SOP regarding patient identification and removal of the patient bracelet by the person in charge of Hospital Patient Safety to the HD unit team. • Implementation of patient identification according to SOP by HD nurses supported by HD doctors and involvement of patients for them to understand the importance of using a patient bracelet for the identification process. • Found that 100% of HD patients used wristbands • 1 patient used her/his own bracelet • An error in the patient identification process, in which a male patient used a pink bracelet • Filling of the monev data of patient identification every day by HD admin assisted by HD nurses.			
Describe measurable results and what was learned from the cycle			
• The socialization and simulation of patient identification were well received, seen from the nurse's ability to repeat and apply explanations that have been given. • The documentation of SOP regarding patient identification and bracelet removal in the HD unit • Nurses understood and were able to implement patient identification, and HD patients understood the function of the bracelet. • A report related to errors in the patient identification process • The monitoring and evaluation of patient identification have been done well, with the monev data being filled in every day.			

ACT
Describe the modifications for the next cycle based on what has been learned
• Regular socialization and simulations of patient identification. Regular means every week for a month, followed by every month for 3 months, and every 4 months for a year.
• The availability of SOP of patient identification and also the affordability of the document, thus the nurses can reach the SOP in the HD unit
• Implementation of the identification process by involving and communicating with patients
• If an incident occurs, it is expected they can report by filling out the reporting form given to the PIC and build awareness of realizing a patient safety culture.
• An achievement report based on data from monitoring and evaluation, as well as recommendations for improvement
• If performance is still volatile and does not reach standards, then patient safety training may be required
• The results of the PDSA cycle are documented as learning materials for the next PDSA cycle, which is expected to be implemented once a week. When the performance is in line with the standard, the PDSA cycle can be implemented once a month, every 4 months, and then per year.

Commitment to the implementation of patient identification

Commitment is required in implementing the improvement plan. For this reason, it is expected that direct implementation accompanied by a commitment will provide improvements. In line with this, informant 1 explained, *"Yes, definitely need a commitment so that SOP (patient identification system) can work."* Another research explained that nurse commitment has a significant effect on the performance of patient safety implementation (Sukesi et al., 2015; Zahroti, 2018).

A reporting flow for errors in the patient identification process

Hospital Patient Safety is a hospital system that makes patient care safer, including reporting. In this case, the possibility of errors in the patient identification process can affect patient safety. This is in the explanation of informant 2, *"Errors have the potential to occur because the patient had the wrong bracelet (color or identity) several times."* Thus, a reporting flow is required if an error occurs. The opportunities for this error are explained in which the obstacles encountered in implementing patient safety are caused by the behavior of health workers and support from management that has not been maximal (Mandriani et al., 2019).

Filling the monitoring and evaluation data of patient identification

Regular monitoring and evaluation are required to immediately improve unsuitable conditions (Dewi et al., 2019). Informant 3 explained, *"Actually, the monitoring and evaluation the monev data for identification of hospital patients has been around for a long time, but for HD, we just used it in November last year (2019)."* Several types of planning are required to solve the problems and improve the patient identification system, including socialization. Previous studies stated that several types of plans to overcome problems and improve patient identification systems are socialization of SOPs, periodic supervision, commitment to implementing improvement plans, and providing identity bracelets using a barcode system or with a computer. Besides that, leadership support is also needed in an effort to improve patient safety culture by choosing a person responsible for patient safety to focus more on implementing patient safety and providing special training for nurses on patient safety on a regular basis (Lunes, et al., 2016; Nu'ma & Chalidyanto, 2018; Nuaristia, et al., 2019).

Socialization is required as an initial step in introducing patient identification, followed by simulations for better understanding. Then, a guideline (SOP) is required to carry out patient identification correctly. Commitment is also required in implementing patient identification so that they can provide services according to standards. However, there are still probabilities for errors, so there is a need for a reporting line for errors in the patient identification process. It is expected that they will learn about previous mistakes and those mistakes can be prevented in the future. The final planning is monitoring and evaluation to ensure that patient identification is carried out based on the SOP.

Do

It is the second stage of the PDSA cycle, where the five points in the Plan stage were implemented for a week in HD units. In the implemen-

tation stage, a patient was found wearing an unidentified bracelet. The HD doctor immediately followed up on this matter to the Hospital Patient Safety. Informant 4 explained, *"The occurrence of an error (using a bracelet that does not match the identity) was caused by human error (by the registration party who provided the patient identification bracelet)."*

If the bracelet error is not followed up, it can lead to more errors in the next stage, such as errors in prescribing HD measures that can lead to not achieving HD adequacy and even have fatal consequences. For this reason, cooperation from the HD unit is required to carry out procedures for reporting patient identification errors to the Hospital Patient Safety so that the registration department can be more careful and not repeat the same mistakes.

The types of actions that have been taken to improve patient identification based on previous studies are socialization and simulation to the implementing nurses, the selection of a person in charge of patient safety in the related installation, and periodic monitoring and evaluation by the KPRS team (Lunes, et al., 2016; Nu'ma & Chalidyanto, 2018).

Study

The Authors collected measurable data during the implementation to explain what happened during the test. The data are as follows:

Socialization and simulation of patient identification were given by the person in charge of Hospital Patient Safety to the HD unit team

According to Insani and Sundari's research (2018), socialization related to patient safety should be carried out at the beginning of employee entry and when there is a patient safety incident, as this socialization affects increasing nurse compliance (Harsiwi & Sundari, 2018).

Providing SOP on patient identification by the person in charge of Hospital Patient Safety to the HD unit team

The SOP for patient identification is one of the regulatory documents in the hospital (Tulus & Maksum, 2015). Informant 4 explained the need for the SOP in HD units, *"SOP will be given to the HD unit. Because the existing SOPs are written only for ED, Polyclinic, later HD will be given just before the accreditation."* However, based on the other research results, the existence of SOPs may lead to further problems, such as non-compliance of nurses with SOPs (Cintha et al., 2016).

The Committed Implementation of patient identification according to SOP by HD nurses supported by HD doctors, involving patients for them to understand the importance of using a patient bracelet for the identification process

In the study of Tulus and Maksum (2015), the setting for the patient ID wristband was carried out by the registration officer (admission), although it should have been done by the nurse/midwife in charge of the service. Meanwhile, in the HD unit of GPI Hospital, the bracelet was given by the registration officer to be taken to the HD room and then put on by the nurse in the HD room. With these conditions, obstacles arise in the attachment of a patient ID wristband by the patient him/herself, not by the HD nurse. According to the explanation of informant 2, the reason for this experience was once asked by a patient, *"So that you don't lose it, so you don't forget, take your initiative."* Before putting on the bracelet, the nurse identifies the patient by asking him/her to state his/her name and date of birth and then matches the barcode to the patient's ID wristband and medical record file. The patient ID wristband is set up according to the color (pink for female patients and blue for male patients) on the wrist/leg or according to the patient's condition (Mandriani et al., 2019).

For the bracelet removal in the HD unit, the patient should be in one of the following conditions: 1) is allowed to go home, 2) has been discharged at the request of the patient him/herself, 3) has been referred to another hospital, or 4) has died. The bracelet is removed from the patient's body in the HD unit, cut into small pieces, and then thrown in the infectious trash. Anggraini et al. (2014) explained that the removal of the patient ID wristband was carried out when the patient was discharged from the hospital after all the drug administration processes and an explanation of the subsequent treatment had been completed. Several special conditions allow the removal of the bracelet. For example, if the placement of the bracelet interferes with the treatment procedure so that the bracelet is removed during the procedure and is put back after completion of the procedure. Before the bracelet is placed on the patient, the nurse is obliged to explain its purpose and when he/she will verify it (Anggraini et al., 2014; Tutiani et al., 2017).

The color error of the bracelet, in which a pink bracelet is prepared for male patients

Any incident that occurs in the hospital must be immediately followed up (prevented/handled) to reduce its unexpected impact by filling out the incident report form at the end of working hours/shift (no later than 48 hours). Then, the report should immediately be handed over to the direct supervisor for examination and grading the risk of the error, to be reported to the

Hospital Patient Safety team (Hospital Patient Safety Committee, 2015). According to informant 2, the cause of the error, *"Maybe there were many patients under (registration)."* This was supported by the opinion of informant 4, *"The error was a human error."* The error was reported by the HD doctor by filling out the reporting form and then giving it to the person in charge of Hospital Patient Safety for follow-up. The possible errors include a patient ID wristband that has not been set and an identity error. Misidentification can result in a wrong patient or wrong treatment procedure (Dewi et al., 2019). Although patient identification errors are relatively uncommon, the impact that occurs is often fatal and can result in other errors (Tulus & Maksum, 2015).

The admin of the HD unit fills in monev data and is assisted by HD nurses

Monitoring and evaluation is an effort to improve quality and patient safety. Monitoring and evaluation of patient identification in the HD unit have done well under the supervision of doctors. A nurse was committed to implementing patient identification in every action, and the admin officer filled in the monev data every day. This was explained by informant 1, *"The admin always asks the nurse whether all patients wear bracelets and whether there are patients who have a wrong bracelet. After that, the admin fills in the monev data."* Furthermore, monitoring and evaluation require good planning, including who should be responsible for a procedure and when, where, and how it can be done. Thus, improvement plans that have been and have not been implemented can be observed (Zahroti, 2018; Budi et al., 2019).

The socialization and simulation of patient identification in the HD unit went well, as could be seen from the HD nurse being able to explain and demonstrate them. It is expected that the HD unit team will understand the contents of the patient identification SOP, which consists of setting and removing the patient ID wristband. To support this, commitment from nurses is required to carry out the SOP. However, when an error by the registration party occurred, the HD team was expected to make a report and help the hospital to correct it.

Act

This is the final stage of the PDSA cycle. This cycle can be declared a success with the implementation of each step in the Plan stage, and there is an improvement in the patient identification system in the HD unit.

Further modification of the cycle is required to maintain the sustainability of the existing system, which follows the recommendation of the Ministry of Health Regulation No. 11 of 2017 by implementing the following several steps (Ministry of Health of Republic of Indonesia, 2017):

1. Regular socialization and simulations of patient identification are carried out

"The socialization should be carried out regularly so that the nurses can remember it." is input from informant 1. Informant 2 added, *"It is better if the socialization is done monthly, during the monthly briefing, as an evaluation material."* To support this, other researchers stated requirements of more structured socialization of patient identification steps (Tulus & Maksum, 2015) namely:

- definition of an identification bracelet and a risk mark,
- types and colors of patient ID wristbands and risk marks,
- the workflow of giving, setting, and removing identification bracelets and riskmarks,
- steps for setting and removing identification bracelets and risk marks, and
- what might happen if the patient ID wristband and risk sign are lost, damaged, or not attached.

Because the HD unit of GPI Hospital only accepts adult patients, the SOP exposure was adjusted to SOP for setting a patient ID wristband and SOP for removing the identification bracelet. Meanwhile, for the simulation, each participant was expected to be able to demonstrate, in front of the forum, the workflow and how to set and remove a patient ID wristband.

2. The availability of SOP for patient identification in the HD unit

The availability of SOP was the main improvement effort as a reference in implementing the patient identification (Muflihati, 2017). For the next cycle, the monitoring of SOP implementation can be done. Where nurses can carry out patient identification in accordance with existing SOPs and can be monitored whether the actions taken are in accordance with it. Based on the research of Cintha et al., (2016) and Yudhawati & Listiowati (2016), it was found that in there were still many nurses who did not comply with the SOP, therefore that they did not identify patients correctly. This is caused by the habit factor.

3. Implementation of the identification process by involving and communicating with patients

WHO argues that safe health care begins with good communication (The Lancet, 2019) This is followed by the explanation of informant 2, *"The patient has been educated (that) later the nurse is the one who is going to attach it (the bracelet)."* The

Ministry of Health of the Republic of Indonesia Regulation No. 11 of 2017 and NHS explain the need to ensure that team members appreciate and support the active involvement of patients and their families and provide clear, accurate, and timely information when an incident occurs. This can be done by developing ways of communicating openly and listening to patients (National Patient Safety Agency, 2004; Ministry of Health of Republic of Indonesia, 2017).

HD nurses are expected to explain to patients and their families the importance of the patient identification process in patient safety. It is also expected to have the right ways of communicating in two directions, both when setting the bracelet and when re-identifying it before the action. *"The patients understand and are aware of their condition, so they can alert the nurse if there is a potential error,"* explained informant 2.

The nurses are expected to report an incident and build awareness of realizing a patient safety culture. The hospitals are required to apply patient safety standards by reporting and analyzing incidents, can learn and follow-up on incidents, and implement solutions to reduce and minimize risks (Rangkuti et al., 2018). To support this condition, the Ministry of Health of the Republic of Indonesia Regulation No. 11 of 2017 and NHS agree that it is necessary to encourage team members to actively report patient safety incidents by reporting locally and nationally. It is hoped to create a safety culture in which staff has a constant and active awareness of the potential for things to go wrong. Openness and fairness mean open and free sharing of information and fair treatment of staff when an incident occurs. (National Patient Safety Agency, 2004; Ministry of Health of Republic of Indonesia, 2017). In line with these conditions, informant 4 explained, *"If there is an error, immediately reprimand the registration department to change the bracelet. Then, report to the Hospital Patient Safety department"*

The HD team should know both the reporting flow to the hospital and the national reporting flow, making it easier to report when a patient identification incident occurs. Besides, everyone involved in the patient identification process in the HD team can admit that if something goes wrong, one should learn from the mistakes and can take action to do the right thing. It is very important to create a culture of patient safety and team welfare.

4. An achievement report based on monev data and recommendations for improvement

The monitoring and evaluation itself are an effort to improve compliance with patient identification to reduce the number of incidents. Besides, if the results of monitoring and evaluation are still volatile and do not reach standards, then patient safety training may be required (Fatimah et al., 2018; Neri et al., 2018; Zahroti, 2018).

For the next PDSA cycle, the socialization and simulation steps will no longer serve as an introduction but as a reminder and will ensure they are still following the SOP. The SOP is expected to also have been written for HD units so that it can become a reference for identifying patients in the HD unit. There are some modifications to make the implementation more effective, namely involving patients and communicating with them, so that patients can be proactive in realizing their safety. Then, if an incident occurs, apart from being able to report, the HD unit should be able to build awareness of realizing a patient safety culture. Finally, processing monitoring and evaluation data for reports are becoming the basis for improvement to achieve and maintain standards.

The results of the PDSA cycle are documented as learning materials for the next cycle, which is expected to be implemented once a week. If the performance is in line with the standard, the frequency of PDSA cycles can be implemented once a month, every four months, and then per year.

The cause for patient identification achievement to have not yet reached 100% in the HD unit of GPI Hospital is that the HD team does not understand the meaning of patient safety, especially regarding patient identification. To overcome this problem and improve the patient identification system, the PDSA approach was carried out. The outcomes obtained were socialization and simulation of patient identification, a standard operating procedure for patient identification, implementation of patient identification, a patient identification incident reporting flow, and monev for patient identification.

The GPI Hospital has to update the SOP for patient identification in the HD unit, have a periodic simulation program, and fill in monitoring and evaluation data every month to strengthen the patient identification system. The HD unit of GPI Hospital is required to hold socialization related to patient safety, immediately following up and reporting on patient identification incidents and improving the patient safety culture. The limitation of this study is the difficulty of finding literature and trace studies as material for theoretical basis, especially literature from Indonesia which has no report yet regarding patient identification. Moreover, even in reports from ot-

her countries, literature discussing patient safety in hemodialysis units is very rare.

CONCLUSION

The cause of the achievement problem at the GPI Hospital HD unit that has not reached 100 % is the lack of understanding regarding patient safety, especially regarding patient identification. In overcoming this problem, improvements to the patient identification system were carried out using the PDSA analysis approach with the following 4 aspects:

1. Plan

Planning can be done by socializing and simulating patient identification. Then, there is an SOP regarding patient identification and release of patient bracelets. Also, commitment to the implementation of patient identification and the existence of a reporting line if there is an error in the patient identification process. In addition, monitoring and evaluating patient identification by filling in patient identification monitoring and evaluation data

2. Do

It has been carried out for 1 week in the HD unit, an obstacle was found, namely the incident of a patient using a bracelet that did not match his identity.

3. Study

The results of the Plan went well, seen from the nurses' understanding of patient identification and implementing it, there was SOP documentation for patient identification, there was reporting related to patient identification errors, and patient identification monitoring and evaluation was filled out according to the procedure every day.

4. Act

Documentation of the current PDSA cycle as learning material for the next cycle, which is expected to be held once a week.

If the results meet the standards, PDSA can be carried out once a month, then every 4 months, and finally every year. The results of the PDSA analysis depend on the commitment of the team in implementing each stage. This considers that PDSA is a cycle that needs to be carried out continuously until the expected results can be achieved.

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