



# Relationship Between Nurses' Knowledge Level and Patient Identification Implementation in The Surgery and Urology Room of Toto Kabila Regional Hospital

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## ABSTRAK

Patient safety is a crucial aspect in health services, with proper patient identification can prevent medical errors. Nurses' knowledge of patient identification procedures plays an important role in effective implementation. The purpose of this study was to analyze the relationship between the level of nurses' knowledge and the implementation of patient identification in the Surgery and Urology rooms of Toto Kabila Hospital.

This research method uses observational analytic with a cross-sectional approach, involving 31 nurses as samples taken using the total sampling

technique. The instruments used were a questionnaire to measure knowledge and an observation sheet to assess the implementation of patient identification.

The results showed a significant relationship between the level of knowledge and the implementation of patient identification (p-value 0.000, r = 0.968). The conclusion of this study is that increasing nurses' knowledge is very important to improve patient safety. The suggestion given is the need for routine training and socialization regarding patient safety for new nurses so that they can carry out patient identification properly.

## 1. INTRODUCTION

Patient safety is a variable to measure and evaluate the quality of nursing services that have an impact on health services. Since malpractice has echoed throughout the world through various media, both print and electronic, to well-known scientific journals, the world of health has begun to pay high attention to the issue of patient safety (Nursalam, 2022). Patient safety is a system where hospitals make patient care safer in an effort to prevent injuries caused by errors due to carrying out an action or not taking the action that should have been taken (Salawati, 2020).

A patient safety program is an effort to reduce the number of adverse events (AEs) that often occur in patients while being treated in hospital, which is very detrimental to both the patient themselves and the hospital. AEs can be caused by various factors including high nurse workload, inappropriate communication flow, use of inappropriate facilities and so on (Nursalam, 2022). One of the goals of patient safety is to reduce AEs and to achieve this goal, Patient Safety Targets (SKP) are prepared. Six patient safety targets (PSTs): accurate patient identification, effective communication, increased drug safety that must be watched out for, certainty of the right location-right procedure-right surgical patient, reduction of infection risk, and reduction of patient fall risk. The preparation of these targets refers to the Nine Life Saving Patient Safety Solutions from WHO (2007) which is used by the PERSI Hospital Patient Safety Committee (KKPRS PERSI) and the Joint Commission International (JCI) (Nugraheni et al., 2021).

Patient identification is an early indication of patient safety goals such as verifying two main identities (usually name and date of birth), previous medical history that must be in accordance with patient safety SOPs. Patient identification refers to the system used to distinguish one patient from another, thus facilitating the provision of services to that individual (KARS, 2017).

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Patient identification is a very basic thing that must be done by a nurse, correct patient identification can avoid medical errors or unexpected events that can affect the patient (Rivani et al., 2022). The identification process requires at least two ways to identify patients such as patient name, medical record number, date of birth, bracelet (patient identity) with barcode or other means. This process is very important to note because small errors can cause extraordinary events such as clinical error decisions and cause allergies, side effects and even death. The patient's room number or location cannot be used for identification (KARS, 2017).

The importance of patient identification is greatly supported by a nurse's knowledge in identifying patients such as patient name, medical record number, date of birth, bracelet (patient identity). If nurses implement/carry out patient identification based on adequate knowledge, then the nurse's identification behavior towards patient safety will be long lasting (Rivani et al., 2022). Knowledge is an important thing that must be fully possessed by professional nurses to prevent Adverse Events (KTD), Near Injury Events (KNC), Potential Injury Events (KPC) due to misidentification (Desilawati et al., 2020).

According to Daud in (Aeni et al., 2023) that the results of the 2022 National Health Service report in the period April 2021 - March 2022 in England were 2,345,817 patient safety incidents. The Hospital Patient Safety Committee (KKPRS) reported that patient safety incidents in Indonesia in the period 2015-2019 were 11,558 cases. The number of cases based on the results of incidents in 2019 was 7465 cases where there were 171 deaths, 80 serious injuries, 372 moderate injuries, 1183 minor injuries, and 5659 no injuries. Based on the report on Improving the Quality and Patient Safety of Toto Kabila Hospital in 2023, it was found that there was 1 KNC (Near Missing Incident) patient. Based on the results of interviews with urology surgical nurses in August 2024, it was stated that KNC in the Urology room of Toto Kabila Hospital in 2023 occurred due to the lack of proper implementation of Standard Operating Procedures (SOP) during patient identification, where nurses only asked the patient's full name without asking the date of birth and matching it with the patient's identity bracelet (Toto Kabila Hospital, 2023). Based on the results of observations of surgical and urology nurses at Toto Kabila Hospital. Toto Kabila Hospital was used as the research location considering the prevalence rate

## 2. METHOD

This research was conducted in the Surgery and Urology Room of Toto Kabila Hospital on November 14-26, 2024 with a quantitative research type with a Cross Sectional design. The sampling technique used Total Sampling with a total of 31 respondents who were all nurses in the Surgery and Urology rooms. This research instrument used a Questionnaire and Observation Sheet in the form of a Standard Operating Procedure (SOP). This instrument was developed based on the WHO Patient Safety Guidelines and the Regulations of the Indonesian Ministry of Health, Content Validity Index (CVI) = 0.91 (very good), Reliability (Cronbach's Alpha) = 0.85 (high).

## 3. RESULT AND DISCUSSION

### Respondent Characteristics

The characteristics of respondents included in this study include age, gender, last education, length of service and work unit.

Table 1. Distribution of Respondent Characteristics

Karakteristik Responden	N	(%)
Age		
20 - 25 Year	7	23
26 - 35 Year	22	71
36 - 40 Year	2	6
Gender		
Male	7	23
Female	24	77
Last Education		

DIII	7	23
S1	1	3
Ners	23	74
Length of Work		
≤5 Years	25	81
>5 Years	6	19
Work Unit		
Surgery	15	48
Urology	16	52

Source: Primary Data, 2024

Based on table 1. above, it shows that the majority of respondents are aged 26-35 years, as many as 22 respondents (71%), as many as 24 respondents (77%) are female, as many as 23 respondents (74%) have a nursing education, as many as 25 respondents (81%) have worked for ≤ 5 years, and the respondents who work in the Urology room are the most with a total of 16 people (52%).

### Univariate Analysis

Table 2. Frequency Distribution of Respondents Based on Knowledge Level

No.	Level of knowledge	N	%
1.	Good	20	64
2.	Enough	8	26
3.	Less	3	10
Total		31	100

Source: Primary Data, 2024

Based on table.2. it was found that most respondents had a good level of knowledge as many as 20 respondents (64%) and a small portion had a poor level of knowledge as many as 3 respondents (10%).

Table 3. Distribution of Respondent Characteristics Based on the Implementation of Patient Identification

No.	Implementation of Patient Identification	N	%
1.	Good	21	67%
2.	Enough	7	23%
3.	Less	3	10%
Total		31	100%

Source: Primary Data, 2024

Based on table 3, it was found that the majority of respondents had patient identification implementation in the good category, as many as 21 respondents (67%) and a small portion had patient identification implementation in the poor category, as many as 3 respondents (10%).

### Bivariate Analysis

Based on the results of a study conducted on 31 respondents in the Surgery and Urology Room of Toto Kabila Hospital, the distribution of respondents based on the relationship between the level of nurse knowledge and the implementation of patient identification was obtained as follows:

Table 4. Relationship between Nurses' Knowledge Level and Implementation of Patient Identification in the Surgery and Urology Rooms of Toto Kabila Regional Hospital

Level of knowledge	Implementation of Patient Identification					Total		Uji Statistik	
	Good		Enough		Less				
	N	%	N	%	N	%	N	%	
Good	20	64	0	0	0	0	20	64	0.000

Enough	1	3	7	23	0	0	8	26
Less	0	0	0	0	3	10	3	10
<b>Total</b>	21	67	7	23	3	10	31	100

Source: Primary Data, 2024

Based on table 4. above, it was obtained that respondents who had a good level of knowledge with the implementation of patient identification were 20 respondents (64%), respondents who had a sufficient level of knowledge with the implementation of patient identification were 1 respondent (3%), in the category of sufficient knowledge level with sufficient implementation of patient identification were 7 respondents, and in the category of poor knowledge level with poor implementation of patient identification were 3 respondents (10%). Based on the results of the statistical test analysis using the Pearson correlation coefficient test, a p-value (0.000) <0.05 was obtained, meaning that there was a relationship between the level of knowledge and the implementation of patient identification with a correlation strength value between the variables, namely very strong with a Pearson correlation value of 0.968.

**Level of Knowledge of Nurses in the Surgery and Urology Rooms of Toto Kabila Hospital**

The results showed that most respondents, 20 respondents (64%), had a good level of knowledge regarding patient identification. This is in line with research conducted by Rivani in 2022 which showed that 24 respondents (60%) had good knowledge about patient identification (Rivani et al., 2022). Research conducted by Sriningsih in 2020 also showed that most respondents, 31 respondents (62%) had good knowledge about patient safety (Sriningsih & Marlina, 2020). Nurses who have good knowledge will find it easier to improve their ability to provide health services.

Knowledge is important for someone to change their behavior in doing work, if someone uses inadequate knowledge, it can cause them to lag behind others who have increased their knowledge. In this case, knowledge is not only a science in a certain period of time, but can be used to improve nurse performance in the long term (Sari et al., 2022). Nurses' knowledge regarding patient safety can be improved through seminars, training or seeking information through the internet, books and so on (Wahyudin et al., 2024) This is because in the study there were still nurses in the Surgery and Urology rooms of Toto Kabila Hospital who had sufficient knowledge about patient safety, especially about patient identification, namely 8 respondents (26%). This is supported by data that most respondents answered incorrectly to the favorable statement in the knowledge questionnaire, namely the statement item where patient identification errors can occur in patients who are anesthetized, disoriented, unconscious, and changing beds/rooms/locations in the hospital. Most respondents in the sufficient category also answered correctly to the unfavorable statement in the knowledge questionnaire, namely the statement item where nurses identify patients in order to prevent problems arising from errors in providing treatment to patient relatives, statements related to patient identification need to be made to prevent errors in recognizing doctors, and statements about patient identification are only done once when the patient is admitted to the hospital to recognize the patient while in the hospital.

One respondent in the sufficient category had a final education of S1 with a length of work of 1 year where in the knowledge questionnaire the respondent answered incorrectly to the statement item that patient identity such as full name and date of birth can be used in patient identification. In line with research (Sari et al., 2022) states that the level of education of a nurse greatly influences the performance of nurses, the higher the level of education, the more diverse the knowledge, because nurses are required to carry out their profession based on good education. Education is a factor that can improve the performance, productivity of nurses, and can be the basis for self-development of a nurse. Likewise with work experience, in general the more experience a person has, the more knowledge they gain.

In this study, it was also found that 3 respondents (10%) still had insufficient knowledge. This is supported by data that most respondents only answered 13 out of 24 statements correctly, and three respondents answered incorrectly to the statement that patients were identified using

their full name and full medical number, which basically both identities can be used in patient identification. From the results of the interview, respondents in the less category were nurses who had just started working so they had not received training or counseling by the Hospital's SKP (Patient Safety Target) team. The results of this study are the same as those conducted by Yenita Diah in 2016 which stated that there were still 4 respondents (6.7%) who had low knowledge, because they still needed training and counseling

### **Relationship of Nurses' Knowledge Level with the Implementation of Patient Identification in the Urology Surgery Room at Toto Kabila Hospital**

Based on the results of the study, respondents who had a good level of knowledge with the implementation of good patient identification were 20 respondents (64%), respondents who had a sufficient level of knowledge with the implementation of good patient identification were 1 respondent (3%), in the category of sufficient knowledge level with the implementation of sufficient patient identification were 7 respondents (23%), and in the category of poor knowledge level with the implementation of poor patient identification were 3 respondents (10%).

This is in line with research conducted by Rivani in 2022 where respondents with good knowledge were mostly able to carry out patient identification well, amounting to 18 (45%). Meanwhile, respondents who had poor knowledge and had poor patient identification abilities were 15 (37.5%). According to Notoatmodjo, "The higher a person's level of knowledge, the better the knowledge that person has" (in Arini, 2019). Education will influence a person in making decisions so that the higher a person's level of education, the more they understand and comprehend a science and it will affect their knowledge. Researchers assume that a good level of nurse knowledge will have a good effect on the implementation of identification, in this case supported by the results of the study that respondents with good knowledge and implementation are mostly educated as Nurses and there is a work program regarding patient safety which is implemented in the form of socialization or training on patient safety by the SKP team. According to Notoatmodjo, "Organizations or agencies that want to develop must pay attention to education and training for their employees" (in Arini, 2019). Respondents with sufficient knowledge but good implementation can be caused by experience, continuous information such as socialization related to patient safety and the ability of the nurse to adapt to new experiences and information. This is supported by data on the characteristics of respondents with a length of work of 1 year and 8 months, which means that the respondent has passed the pre-PK period so that he has adapted to the hospital environment. Nurses prioritize patient safety by always trying to learn even though their knowledge is lacking so that patients in the hospital are safe.

Implementation of actions is related to behavior where behavior based on knowledge will be more lasting than behavior that is not based on knowledge (Mualimah et al., 2021). Respondents with insufficient knowledge are one of the factors for nurses' non-compliance with the implementation of identification. Researchers assume this is due to several factors, one of which is that new nurses have not received socialization or training related to Patient Safety by the SKP team. Routine training is expected to be one way to increase knowledge, which can improve nurse performance and achieve patient safety and satisfaction (Ito, 2019). Based on the results of the statistical test analysis using the Pearson correlation coefficient test, the p-value (0.000) <0.05 was obtained, meaning that there is a relationship between the level of knowledge and the implementation of patient identification with a correlation strength value between variables, namely very strong with a Pearson correlation value of 0.968.

## **4. CONCLUSION**

Based on the research on the relationship between the level of nurses' knowledge and the implementation of patient identification, the following conclusions were drawn:

1. Judging from the characteristics of the respondents, most of the respondents were aged 26-35 years as many as 22 respondents (71%), the majority were female as many as 24 (77%), as many as 23 respondents (74%) were educated as Nurses, most of the work experience <5

years as many as 25 respondents (81%) and the most respondents were in the Urology room as many as 16 respondents (52%).

2. As many as 20 respondents (64%) had a good level of knowledge about patient identification
3. As many as 21 respondents (67%) implemented patient identification in the good category
4. There is a relationship between the variable level of nurses' knowledge and the implementation of patient identification. This is proven by the Pearson correlation coefficient test obtained a p-value (0.000) <0.05 and a Pearson correlation value of 0.968.

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