



# INDONESIAN NURSING SCIENCE JOURNAL

journal homepage: <https://jurnal.panengeninsani.com/index.php/insj/>



## The Role Of Nurses In Drug Safety And Precautions

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### Digital Object

#### Identifier

DOI:

### Article History

Received:

December 22, 2024

Revised:

January 13, 2025

Accepted:

February 16, 2025

Available online:

April 4, 2025

### Keywords

role of nurses, safety and vigilance

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### Abstract

The incidence of medication errors is still large. Data obtained from the Joint Commission International & World Health Organization reports that in several countries there are as many as 70% incidents of medication errors. Medication errors are the number one patient safety incident, including the very important role of nurses in safety and vigilance when administering drugs. This study aims to determine the role of nurses in drug safety and vigilance to improve patient safety in the ICU room at Bandung City Hospital. This research uses a qualitative study. The results of the research show that there are important points which are used as 3 themes, namely the role of nurses in managing drug storage to increase safety and vigilance, the role of nurses in administering drugs using the 7 correct principles and the role of nurses in preventing errors in documentation. It is hoped that this research can be useful for future researchers remembering the role of nurses in drug safety and vigilance.

## INTRODUCTION

Hospitals are healthcare institutions that play a vital role in society, improving health. Therefore, hospitals aim to continually improve the quality of their services to ensure 24-hour patient care. Hospitals are obligated to ensure the safety and security of patients during their hospitalization.

Patient safety is a variable used to measure and evaluate quality and service. Patient safety is a top priority in hospitals and encompasses risk assessment, identification and management of patient-related risks, and incident reporting and analysis to ensure safer patient care. Solutions to minimize risks and prevent injuries resulting from errors resulting from or failure to perform appropriate actions are essential (Ministry of Health, 2011). Patient

Safety Goals are the most important standard when evaluating hospital accreditation. Since 2000, a current issue in hospital medicine has been the increase in unforeseen events, events that cause unexpected consequences that endanger the safety of patients, including those using medical devices. Examples of adverse events include medication errors (Suhartono, 2019).

Medication errors are preventable events that can result in inappropriate medication use, potentially harming patients. Factors influencing medication errors include individual characteristics such as lack of knowledge about medications and dosage miscalculations. Medication errors can be prevented if nurses exercise greater safety and vigilance when administering medications, paying attention to all factors that can lead to medication errors (NCCMERP, 2017).

The incidence of medication errors remains high, as data from the Joint Commission International (JCI) and the World Health Organization (WHO) report that in some countries, as many as 70% of medication errors result in permanent disability. Data obtained from JCAHO shows that 44,000 of the 98,000 deaths that occur in hospitals each year are caused by medication errors (Health Joint Commission on Accreditation of Institutions (Kuntartis, 2020)

## LITERATURE REVIEW

Medication errors are caused by improper storage procedures, particularly for LASA (Look Alike Sound Alike) medications, which are medications whose appearance and pronunciation are similar to high-alert medications. Therefore, it is crucial for nurses, especially in the ICU, to manage the proper storage of high-alert medications to minimize errors when administering high-alert medications. Previous research has shown that incorrect medication administration has occurred due to improper storage. The most effective way to address medication errors is to improve the storage system (Bayang et al., 2014).

High-alert medications should be stored separately from other medications and should not be placed close together. Each medicine cabinet has a red numbered sticker labeled "Double Check High Alert." Medication safety needs to be monitored and can be improved by paying attention to prescribing, storage, preparation, recording, use, and monitoring, as well as by identifying the specific risks associated with each medication. High-alert medications should be stored in a dedicated cabinet (Soekidjan, 2009).

Law Number 38 of 2014 concerning Nursing, there are several authorities for nurses, Article 30 states: (1) In carrying out duties as providers of nursing care in the field of individual health efforts, nurses are authorized to::

a. Care Giver (nurses can provide direct and indirect health services to clients, using the nursing process, including assessment, diagnosis, planning, implementation, and evaluation).

b. As a health educator, nurses must be able to assess the needs of clients, namely individuals, families, groups, and communities, and develop health education/education programs for both healthy and sick individuals (Ministry of Health, 2006).

c. As a Coordinator (nurses utilize all available resources and potential, both material and client capabilities, in a coordinated manner to avoid missed or overlapping interventions).

d. As a collaborator, nurses collaborate with community health services and community health centers to achieve health goals through collaboration with other health teams (across programs and sectors).

e. As a counselor, nurses conduct nursing counseling as an effective problem-solving effort using their own teaching methods (Pery & Potter, 2005).

Nurses also have a role in medication safety and awareness to improve patient safety, according to Regulation of the Minister of Health of the Republic of Indonesia No. 72. Nurses must recognize the types of LASA (Look Alike

Sound Alike) drugs, namely drugs whose shape and name are similar, must be taken into account and drugs that require high vigilance with storage management and storage of LASA drugs are not placed close together and are given special markings.

## RESEARCH METHODS

This research method uses a qualitative descriptive case study design. This research method is conducted using interview techniques. The aim is to develop an overview of the role of nurses in medication safety and vigilance, as providers of nursing care in improving the quality of medication administration. The focus of this case study is a single case study, focusing on an in-depth examination of the role of nurses in medication safety and vigilance.

The case study subjects in this study were two nurses, with inclusion criteria for nurses working in the Intensive Care Unit (ICU) and working in the ICU for  $\geq 1$  year without changing duties.

## RESULTS AND DISCUSSION

After data analysis, three themes emerged:

Theme 1: "The Role of Nurses in Medication Storage Management to Improve Safety and Vigilance."

The first theme explains the role of nurses in medication management in the intensive care unit to improve safety and vigilance before administering medication to patients.

Nursing care services in the intensive care unit. There is one category within this theme: Category 1: High-Alert Medication Management.

"...Medications are stored in their respective lockers and placed as needed. High-alert medications are usually marked with a sticker." (P1)

"High-alert medications and non-high-alert medications are separated and always marked with a sticker, like for example, Lasa, so we are more vigilant." (P2)

Theme 2: "The Role of Nurses in Medication Administration to Improve Safety and Vigilance."

The second theme explains the role of nurses in medication administration for safety and vigilance, using the principle of the 7 rights of medication administration.

There is one category, namely the 7 rights of medication administration.

"We use the 7 correct principles, such as the correct patient, checking whether the medication is correct, the dosage, the method of administration, and the time of administration are correct. And then there's the documentation that's been done and reported." (P1)

"We adhere to the 7 correct principles in medication administration, such as the correct patient, the correct medication, the correct dose, the correct method of administration, the correct information, and the correct documentation." (P2) Theme 3: The Role of Nurses in Preventing Documentation Errors

The third theme explains preventing documentation errors.

Category 1: "To prevent this, we usually double-check with a colleague to see if the medication is correct. If something does happen, we usually report it to the person in charge of the emergency room. If it's resolved, we usually report it to the doctor. There are steps, usually according to standard operating procedures." (P1)

"Medicines that have the same shape and sound similar, look similar, and have the same name, so you have to double-check them. If that's the case, you should read the doctor's advice again." (P2)

"Double-check, usually with a friend. Usually, this is a high-alert medication. Hey, high-alert medication is usually with a friend who is more concerned about taking this medication. Double-check, for example, something like KCl 25 meq 1 Plakon in ml or NaCl something like that." (P1) "It comes back to double-checking by colleagues here."

"There's also one nurse, two nurses, so both of them sign the documentation." (P1)

"When administering medication, it's immediately circled under the signature, and then there's the time stamp."

(P2) "Double-checking is usually done by colleagues, usually on high alert. Uh, high alert is usually done by colleagues, who see this medication being administered. Double-checking, for example, is KCl 25 meq in 1 Plakon, in ml, or NaCl, like that." (P1)

"It comes back to double-checking by colleagues here." (P2)

"There's also one nurse, two nurses, so both of them sign the documentation." (P1)

"When administering medication, it's immediately circled under the signature, and then there's the time stamp."  
(P2)

## DISCUSSION

"The role of nurses in managing medication storage to improve safety and vigilance."

Based on the research results, nurses at Bandung Kiwari Hospital described the ICU nurses' role in managing medication safety and vigilance storage. This was evident in interviews with nurses, as follows:

The results of this study revealed that (P1) medications are stored in their respective lockers and placed according to need. There is a sequence of high-alert and non-high-alert locations. (P2) High-alert and non-high-alert medication security is stored separately and marked with stickers, and safety and vigilance are always double-checked. This statement is similar to research (Soekidjan 2009). High-alert medications must be stored separately from 32 other medications and should not be placed close together. Each medication cabinet has a red numbered sticker labeled "Double Check High Alert."

Medication safety does require monitoring and can be improved by paying attention to storage, preparation, recording, use, and monitoring, as well as by identifying the specific risks associated with each medication. High-security medications should be stored in a dedicated cabinet. And according to the Regulation of the Minister of Health of the Republic of Indonesia no. 72, namely: for the management of high alert drug storage, signs or stickers are provided for warning, drug storage based on the type of drug, nurses must recognize the type of LASA (look alike sound alike) drugs, namely drugs that have the same shape and pronunciation. "The role of nurses in administering medication is to increase safety and awareness." The research results revealed that (P1) had applied the principle of 7 rights: the right patient, the right drug, the right dose, the right route of administration, the right information, and the right documentation. (P2) for safety and precautions, the principle of 7 rights is based on the principle of 7 rights: the right patient, the right drug, the right dose, the right route of administration, the right information, and the right documentation.

This statement is similar to research (Harmiady, 2014). The principle of 7 rights is a procedure used by nurses in hospitals in carrying out their duties when administering medication to patients. The seven rights are: the right patient, the right drug, the right dose, the right time, the right route of administration, the right documentation, and the right information. 33

"The Role of Nurses in Preventing Documentation Errors" The research results revealed that (P1) we double-check with our colleagues to see whether the medication is correct. If an error occurs, we usually report it to the person in charge of the PJ room. If it is resolved, we usually report it to the doctor. There are stages, usually according to SOP.

(P2) the administration is reviewed by a colleague who checks whether the medication is correct. So the documentation also has one nurse and two nurses, so both of them sign, preventing errors from occurring in the office.

## CONCLUSION

Based on the results of interviews with nurse H and nurse S in one of the Bandung hospitals regarding the role of nurses in drug safety and vigilance to improve patient safety. The author can conclude that in the role of nurses in drug safety and vigilance by separating drugs in lockers where each high alert drug is marked with a sticker and

separated from non-high alert drugs and using the principle of 7 correct where the patient is correct, the drug is correct, the dose is correct, the method is correct, the time is correct, the documentation is correct, the information is correct and nurses also always double check with colleagues when administering drugs to avoid errors and if an error occurs in administering drugs, the nurse immediately confirms it first with the person in charge of the room and then confirms it with the doctor.

## References

- Bayang, A. T. and Pasinringi, S. (2014) Faktor Penyebab Medication Error Di RSUD Anwar Makkatutu Kabupaten Bantaeng, Causes Factors of Medication Errors At Regional General Hospital of Anwar Makkatutu Bantaeng Regency. Pascasarjana UNHAS. Available at: <http://pasca.unhas.ac.id/jurnal/files/dc3b56fef2e0e78a6413c013fefcdd>
- Nugraheni, S., Yuliani, N., & Veliana, A. (2021). STUDI LITERATUR: Budaya Keselamatan pasien dan insiden keselamatan pasien Di rumah sakit. 290–295.
- Sakinah S, Wigati Asmita P., & Arso Pawelas (2017) Analisis sasaran keselamatan pasien dilihat dari aspek pelaksanaan identifikasi pasien dan keamanan obat di rs kepresidenan RSPAD gatot soebroto jakarta. 145-152.
- Ulum kholifatum , Hilmy laily I., & Salman (2023) Implementasi dan Evaluasi Peresepan Elektronik Dalam Upaya Menurunkan Kesalahan Pengobatan 191- 198.
- Wahyuni Uni ., Andhini dwi S ., & Supratini (2022) Hubungan Pelaksanaan Prinsip Pemberian Obat Dengan Kejadian Nyaris Cedera (KNC) Pada Pasien Rawat Inap Di Rumah Sakit Pelabuhan Cirebon 85-93.
- Syukur Sabirin ., Ismail Windrawati (2023) Pelaksanaan Identifikasi Pasien Terhadap Pencegahan Kesalahan Dalam Pemberian Obat di RSUD Otanaha Kota Gorontalo 171-179.
- Adriana christie., Nugraha Antonius ., Siregar Deborah ., & Silalahi elfrida (2020) Penyebab Medication Error Pada Fase Administrasi Di Rumah Sakit X 96-106.
- Mayningsih Nurnisa., Citraningtyas Gayatri & Jayanto iman (2023) Analisis Medication