# The Influence Of Monitoring, Evaluation, Supervision And Teamwork Effectiveness On The Implementation Of The 7 Correct Principles Of Drug Administration In Non-Covid-19 Inpatient Installations In Hospitals

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#### Abstract.

Errors in drug administration were ranked first (24.8%) of the top 10 incidents reported in hospitals. The types of errors that caused death in patients included 40.9%, wrong dose, 16% wrong drug, and 9.5% wrong route of administration. The purpose of this study was to analyze the influence of monitoring, evaluation, and teamwork effectiveness on the implementation of the 7 correct principles of drug administration. This research is a quantitative analysis with a cross-sectional approach. The research was conducted at Hospital Pematang Siantar. The study population was 103 people and all of them were used as samples (total sampling). Data were analyzed using univariate, bivariate with chi-square test, and multivariate with multiple logistic regression at 95% confidence level ( $\Box$ =0.05). The results showed that the implementation of the 7 correct principles of drug administration at the non-Covid-19 Inpatient Installation at Hospital in Pematang Siantar was influenced by monitoring variables (p=0.000), evaluation (p=0.036), teamwork effectiveness (p=0.042). The monitoring variable has a greater influence on the implementation of the 7 Correct principles of drug administration with a value of OR = 10.643 meaning that nurses who say monitoring is good have the opportunity to implement the 7 Correct principles of drug administration properly by 10.6 times higher than nurses who say monitoring is not good. The conclusion of the study is that monitoring, evaluation and teamwork effectiveness affect the implementation of the 7 principles of correct drug administration. It is recommended that the hospital can carry out continuous monitoring and evaluation regarding the procedures that have been established as a benchmark for achieving SOPs that are applied in implementing the 7 correct principles of drug administration. Nurses need to increase the effectiveness of teamwork (teamwork) so as to minimize the adverse impact on the patients served.

Keywords: Monitoring, Evaluation, Teamwork Effectiveness, and Principle 7 Correct Medication

#### I. INTRODUCTION

The main professional goal of nurses is to provide and improve patient health by implementing patient safety [1]. The Ministry of Health of the Republic of Indonesia emphasizes the importance of patient safety and is recognized as a global issue [2]. This supports the International Patient Safety Goals (IPSG) which identify six patient safety goals, namely: 1) Accurate patient identification 2) Improved effective communication 3) Increased safety of drugs that need to be watched out for 4) Confirmation of the Correct location, Correct procedure and Correct operation 5) Reduction health care-related infection risk 6) Reduction of the risk of patient falls [3]. Medication errors are one of the most common health-threatening errors that affect patient care and conflict with one of the goals of patient safety [4]. These errors are considered a global problem that increases morbidity and mortality, length of stay in hospital, and costs during hospitalization [1]. Every year, in the United States, 7,000 to 9,000 people die due to medication errors. In addition, hundreds of thousands of other patients experience but often do not report adverse reactions or other complications associated with treatment [5]. The total cost of treating patients with medication-related errors exceeds \$40 billion annually, with more than 7 million patients affected. In addition to monetary costs, patients experience psychological and physical pain and suffering as a result of medication errors [6]. Finally, the main consequence of medication errors is that they lead to decreased patient satisfaction and a lack of trust in the healthcare system [7]. Errors in drug administration were ranked first (24.8%) of the top 10 reported incidents.

Medication errors are estimated in 1 in 10 patients worldwide [6]. The types of errors that caused death in patients included 40.9%, wrong dose, 16% wrong drug, and 9.5% wrong route of administration. This incident will continue to increase if there is no awareness of nurses in administering drugs in

accordance with the principles of administration that apply in hospitals [8].Research that has been conducted in Iran states that in reducing the incidence of drug administration errors, a nurse has an important role [9]. Factors that influence drug administration errors by nurses are the disproportionate number of nurses and patients, the workload of nurses, having difficulty reading doctor's instructions, nurses working night shifts, and there are still nurses who do not understand drug therapy. Research in Iran found that medication errors were made by 64.55% of nurses [1]. Moreover, 31.37% of patients reported medication errors on the verge of occurrence. The most frequently reported types of errors were dose and infusion rate errors. The most common cause is using an abbreviation instead of the full name of the drug and similar drug names. Therefore, the main cause of medication errors is the lack of pharmacological knowledge. A report on improving the quality of health services from a private hospital in Indonesia shows that in 2017 there were 99 incidents of medication errors. The highest percentage of medication errors was administration time errors (34%) followed by dosing errors (25%). In 2018 there were 68 incidents of medication errors with the same causes as mentioned in the previous year, 30% were due to drugs given at the wrong time and 20% due to wrong doses given.

Furthermore, from June to July 2019 there were seven incidents of medication errors. The Ministry of Health sets a medication error standard of 0% while private hospitals in West Indonesia have a medication error standard of 5%. These differences in established standards need to be addressed so that patient safety can be upheld [10].Research at Panti Nirmala Hospital through observation found that 64.9% of nurses did the Correct patient, 86.5% of the nurses did the Correct medicine, 64.9% of the nurses did the Correct time, and 100% of the nurses did the Correct dose, Correct method and documentation [11]. Research shows that 67.3% of nurses apply Independent double checking (IDC) before drug administration, while 32.7% do not apply it [10]. However, those who implemented IDC did not contribute to reducing medication errors in ward care.Nurses carry out the seven correct principles of drug administration with good criteria such as the Correct patient, Correct medicine, Correct dose, Correct time, Correct method of administration, Correct documentation and Correct information [12]. The role of the nurse in applying the seven Correct principles in administering medication, especially in hospitalized patients because all medical care depends on the nurse. Nurses provide nursing care in full and the ratio between the number of nurses and patients is not balanced, so it is easy for nurses to experience workload. If nurses experience excessive workload, it will result in the application of the seven Correct principles of drug administration so that there are many adverse events (unexpected events) that occur in hospitalization [13].

The application of patient safety in drug administration is not an easy thing to implement, this is due to the high workload of nurses, the number of nurses who are not up to standard, differences in educational background, experience, and competencies possessed by nurses, so that nursing services sometimes still receive complaints from recipients of health services, such as errors in drug administration to patients or medication errors [14].Implementation of Principle 7 Correct Drug Administration is a form of nurse performance. Gibson presented performance theory and conducted an analysis of a number of variables that affect individual (employee) performance, namely individual variables, psychological variables, and organizational variables. Individual variables are grouped into ability and background and demographic subvariables. Psychological variables consist of perception, attitude, personality, learning, and motivation subvariables. While organizational variables consist of sub-variables resources, leadership, monitoring, evaluation, rewards, teamwork, structure and job design [15]. In this study, the researcher chose the variables of monitoring, evaluation, teamwork effectiveness as factors that influence the performance of nurses in implementing the 7 correct principles of drug administration. The results of research conducted at the non-Covid-19 inpatient installation at the Sidoarjo District General Hospital show that the implementation of the 7 correct principles of drug administration which has a less valuable interpretation is the correct time and the correct document while those with a good interpretation are the correct patient, the correct type of drug, correct dose, correct method of drug administration and correct officer [16].

Measuring the influence of the independent and dependent variables, the results of monitoring, evaluation, and teamwork effectiveness have an influence on the actions of nurses in implementing the 7 correct principles of drug administration. The results of a study which examined the performance of

implementing nurses in the Inpatient Room of the Regional General Hospital dr. Djasamen Saragih Pematang Siantar showed that supervision or supervision of the head of the room was significantly related to the performance of nurses at RSUD Dr. Djasamen Saragih Pematang Siantar namely organizing, monitoring, guiding, training, controlling, and evaluating. The variable most strongly related to nurse performance is monitoring [17]. Research at the Sunan Kalijaga Demak Hospital found that teamwork effectiveness has a significant effect on nurse performance [18]. This research was conducted at the Hospital in Pematang Siantar. Based on the data obtained from the hospital, the number of patient safety incidents at the Hospital in Pematang Siantar has fluctuated over the last 5 years. Details can be seen in the following table.

| Veer  | Number of Patient | Medication Errors |      |  |
|-------|-------------------|-------------------|------|--|
| Year  | Safety Incidents  | Total             | %    |  |
| 2016  | 23                | 5                 | 21,7 |  |
| 2017  | 27                | 7                 | 25,9 |  |
| 2018  | 20                | 3                 | 15,0 |  |
| 2019  | 17                | 4                 | 23,5 |  |
| 2020  | 26                | 4                 | 15,4 |  |
| Total | 113               | 23                | 20,4 |  |

 Table 1.1. Data on Patient Safety Incidents

Source: Pematang Siantar, 2021

Based on the table above, it shows that over the past 5 years there have been 113 cases of patient safety incidents at the Hospital in Pematang Siantar. The number of cases of drug administration errors was 23 (20.4%), and the number fluctuated every year. The highest number occurred in 2017 with 7 cases (25.9%), and the lowest in 2018 with 3 cases (15.0%). The hospital is trying to reduce the number of patient safety incidents according to the target, namely 0 events.

| Year  | Types of | Total |     |       |  |
|-------|----------|-------|-----|-------|--|
|       | KTD      | КТС   | KNC | Total |  |
| 2016  | 2        | 2     | 1   | 5     |  |
| 2017  | 3        | 2     | 2   | 7     |  |
| 2018  | 2        | 1     | 0   | 3     |  |
| 2019  | 2        | 1     | 1   | 4     |  |
| 2020  | 1        | 2     | 1   | 4     |  |
| Total | 10       | 8     | 5   | 23    |  |

Table 1.2. Data on Types of Medication Error Incidents

Source: Pematang Siantar, 2021

Information :

**KTD** : Unexpected Events

KTC : Non-Injury Event

KNC : Near miss

The table above shows that of the 23 types of drug administration error incidents over the past 5 years, the most frequent were unexpected events with 10 cases, 8 cases of non-injury and 5 cases of near misses. Furthermore, based on the scene of the incident where the drug administration error occurred at the Hospital in Pematang Siantar is as follows:

Table 1.3. Data On Where Incidents Of Drug Administration Errors Occurred

|            |      |       | $\mathcal{O}$ |      |      |       |  |
|------------|------|-------|---------------|------|------|-------|--|
| Deem       |      | Years |               |      |      |       |  |
| Room       | 2016 | 2017  | 2018          | 2019 | 2020 | Total |  |
| Orchid     | 1    | 0     | 1             | 0    | 1    | 3     |  |
| Daisies    | 0    | 1     | 0             | 1    | 0    | 2     |  |
| Chrysolite | 1    | 2     | 0             | 1    | 0    | 4     |  |
| Dahlia     | 1    | 1     | 0             | 1    | 0    | 3     |  |
| ICU        | 0    | 1     | 0             | 0    | 1    | 2     |  |
| Perinatal  | 0    | 0     | 0             | 1    | 0    | 1     |  |
| Rose       | 1    | 1     | 1             | 0    | 1    | 4     |  |
| Jasmine    | 1    | 1     | 1             | 0    | 0    | 2     |  |

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| Covid isolation | 0 | 0 | 0 | 0 | 1 | 1  |
|-----------------|---|---|---|---|---|----|
| Total           | 5 | 7 | 3 | 4 | 4 | 23 |

Source: Pematang Siantar, 2021

According to the place of occurrence, the most incidents of drug administration errors occurred in the Cempaka Room and the Mawar Room with 4 cases each, while the least occurred in the Perinatal and Covid Isolation rooms with 1 case each. The Hospital in Pematang Siantar has Standard Operating Procedures for the principle of 7 correct drug administration issued by the Director of the hospital in Pematang Siantar. When the letter was first issued, each head of the room gave an explanation to the implementing nurse in the inpatient room about principle 7 of drug administration, but lately it has only been explained to the nurse just now or usually after an incident of drug administration error. The preliminary survey that the researchers conducted at the Hospital in Pematang Siantar were 139 people consisting of 125 nurses in inpatient installations and There are 14 nurses in outpatient installations. The number of nurses in the inpatient installation was divided into 103 nurses in the non-Covid-19 room, and 22 nurses in the Covid-19 room. The focus of this research is on nurses in the Non-Covid-19 room as many as 103 people.

During the Covid-19 pandemic, the Hospital in Pematang Siantar was also a referral hospital for patients experiencing Covid-19 both from the puskesmas and those who came alone. Nurses at the Hospital in Pematang Siantar are divided into 2 groups, namely nurses who care for Covid-19 patients who are isolated and nurses who care for inpatients who are not affected by Covid-19. With regard to drug administration procedures, nurses at hospital in Pematang Siantar try to always apply principle 7 correct of drug administration in accordance with standard operating procedures, but some nurses are still found to be imperfect in their implementation. Writing doctor's prescriptions manually is often difficult for nurses to read, and is the most common factor that causes medication errors. Another medication error that is sometimes made by nurses is that the nurse does not first check whether the medication is correct or not. Nurses also sometimes do not provide information to inpatients or the patient's family regarding the drugs given to patients. The results of interviews with 15 nurses why medication errors still occur in implementing the 7 correct principles of drug administration, obtained various answers. Some nurses said that these errors could occur due to the nurse's own human error as well as the lack of monitoring, evaluation. In addition, it can also occur because the cooperation of the nurse team at the Hospital in Pematang Siantar is less effective.

### II. METHODS

The type of research used in this study is quantitative research, namely research conducted to obtain explanations that will be examined. This quantitative analytic study aims to analyze the effect of monitoring, evaluation, and teamwork effectiveness on the implementation of the 7 correct principles of drug administration in non-Covid-19 inpatient installations (Study at Hospital in Pematang Siantar). The research design used was cross sectional, that is, the research variables were examined directly at the time of the study. The type of research used in this study is quantitative research, namely research conducted to obtain explanations that will be examined. This quantitative analytic study aims to analyze the effect of monitoring, evaluation, and teamwork effectiveness on the implementation of the 7 correct principles of drug administration in non-Covid-19 inpatient installations (Study at Hospital in Pematang Siantar). The research design used was cross sectional, that is, the research variables were examined directly at the time of the study. The location of this research will be carried out at the Hospital in Pematang Siantar. This research was conducted from April 2021 to February 2022. Data was collected in November 2021. The population for this study were all nurse practitioners who were in the Non Covid-19 inpatient room, Hospital in Pematang Siantar, totaling 103 people.

The sample is partly taken from the entire object under study and is considered to represent the entire population [19]. The sample in this study was the entire population, namely the implementing nurses in non-Covid-19 inpatient rooms at the Salak Regional General Hospital, totaling 103 people (total sampling). The data used in this data collection are primary data and secondary data. Primary data was obtained directly

from the respondents and primary data was obtained from the Hospital in Pematang Siantar relating to the number of nurses, and other data related to this study. Prior to data collection, the questionnaires in this study were tested by testing the validity and reliability of the research instrument (questionnaire). Validity and reliability tests were carried out at the Hospital in Pematang Siantar as many as 30 people. Due to the current Covid-19 pandemic, collecting data to test the validity and reliability of questionnaires online (online / innetwork) using the Google form. The validity test is used to measure the validity of an instrument used, meaning that it is able to express what is being measured. The validity test was carried out, namely determining the correlation between the question items and the total score of the construct or variable. A construct is declared valid if there is a positive and significant correlation. The correlation value must be greater than 0.361 or the Corrected Indicator-Total Correlation value at the SPSS output using the Pearson Product Moment test [20]. The results of the validity test show that all items are declared valid because they have a value of > 0.361, which can be seen in full in the following table.

| No.                  | Variable Questionna                                  | r-count        | r-table        | information    |
|----------------------|--|----------------|----------------|----------------|
| 1.                   | Monitoring-1   | 0,745          | 0,361          | Valid          |
| 2.                   | Monitoring-2   | 0,693          | 0,361          | Valid          |
| 3.                   | Monitoring-3   | 0,618          | 0,361          | Valid          |
| <u> </u>             | Monitoring-4   | 0,013          | 0,361          | Valid          |
| <del>4</del> .<br>5. | Monitoring-5   | 0,487          | 0,361          | Valid          |
| 6.                   | Monitoring-6   | 0,507          | 0,361          | Valid          |
| 7.                   | Monitoring-7   | 0,697          | 0,361          | Valid          |
| 8.                   | Monitoring-8   | 0,693          | 0,361          | Valid          |
| <u> </u>             | Monitoring-9   | 0,689          | 0,361          | Valid          |
| <u> </u>             | Monitoring-10  | 0,089          | 0,361          | Valid          |
| 10.                  | Evaluation-1   | 0,531          | 0,361          | Valid          |
| 12                   | Evaluation-2   | 0,007          | 0,361          | Valid          |
| 12                   | Evaluation-2<br>Evaluation-3                         | 0,390          | 0,361          | Valid          |
| 13                   | Evaluation-4   | 0,304          | 0,361          | Valid          |
| 14                   | Evaluation-5   | 0,703          | 0,361          | Valid          |
| 15                   | Evaluation-6   | 0,737          | 0,361          | Valid          |
| 10                   | Evaluation-7   | 0,400          | 0,361          | Valid          |
| 17                   | Evaluation-7   | 0,393          | 0,361          | Valid          |
| 18                   | Evaluation-9   | 0,300          | 0,361          | Valid          |
| 20                   | Evaluation-10  | 0,717          | 0,361          | Valid          |
| 20                   | Teamwork Collaboration-1                             | 0,032          |                |                |
| $\frac{21}{22}$      | Teamwork Collaboration-2                             | 0,762          | 0,361<br>0,361 | Valid<br>Valid |
| 22                   | Teamwork Collaboration-2                             | 0,829          | 0,361          | Valid          |
| 25                   |  | 0,609          |                | Valid          |
| 24                   | Teamwork Collaboration-4<br>Teamwork Collaboration-5 | 0,619          | 0,361<br>0,361 |                |
| 25<br>26             |  | 0,770          | 0,361          | Valid          |
|                      | Teamwork Collaboration-6                             |                |                | Valid          |
| 27                   | Teamwork Collaboration-7                             | 0,558          | 0,361          | Valid          |
| 28<br>29             | Teamwork Collaboration-8<br>Teamwork Collaboration-9 | 0,699<br>0,812 | 0,361<br>0,361 | Valid<br>Valid |
| 30                   | Teamwork Collaboration-9                             | 0,812          | 0,361          |                |
| 31                   |  | 0,780          | 0,361          | Valid<br>Valid |
| 32                   | Implementation of Principle 7 Correct-1              |                |                |                |
| <u> </u>             | Implementation of Principle 7 Correct-2              | 0,596<br>0,364 | 0,361<br>0,361 | Valid<br>Valid |
|                      | Implementation of Principle 7 Correct-3              | ,              | ,              |                |
| 34                   | Implementation of Principle 7 Correct-4              | 0,763          | 0,361          | Valid          |
| 35                   | Implementation of Principle 7 Correct-5              | 0,737          | 0,361          | Valid          |
| 36<br>37             | Implementation of Principle 7 Correct-6              | 0,460          | 0,361          | Valid          |
|                      | Implementation of Principle 7 Correct-7              | 0,593          | 0,361          | Valid          |
| 38                   | Implementation of Principle 7 Correct-8              | 0,500          | 0,361          | Valid          |
| 39                   | Implementation of Principle 7 Correct-9              | 0,717          | 0,361          | Valid          |
| 40                   | Implementation of Principle 7 Correct-10             | 0,652          | 0,361          | Valid          |

Table 3.1. Variable Questionnaire Validity Test Results

This study uses reliability measurements carried out by means of one shot or one time measurement, that is, the measurement is only once and the results are compared with other questions or measuring the correlation between the answers to questions. The statistical test used is the Cronbach Alpha test. A construct

or variable is said to be reliable if the results of the Cronbach Alpha statistical test give a value of > 0.600 [20]. The results of the research variable reliability test showed that the five variables tested for reliability had a higher value than the Cronbach's Alpha value limit = 0.600. Details can be seen in the following table.

| No. | Variable   | Reliability<br>Value | Cronbach's<br>Alpha limit | Information |
|-----|--|----------------------|---------------------------|-------------|
| 1.  | Monitoring   | 0,765                | 0,600                     | Reliabel    |
| 2.  | Evaluation   | 0,759                | 0,600                     | Reliabel    |
| 3.  | Teamwork Collaboration   | 0,775                | 0,600                     | Reliabel    |
| 4.  | Implementation of Principle 7 Correct<br>Medication Administration | 0,779                | 0,600                     | Reliabel    |

 Table 3.2. Research Questionnaire Reliability Test Results

Monitoring is the perception of the implementing nurse about the actions taken by the head of the room in monitoring the actions of the nurse in implementing the 7 Correct principles of drug administration. Evaluation is the perception of the implementing nurse about the actions taken by the head of the room in evaluating the actions of the nurse in implementing the 7 Correct principles of drug administration. The effectiveness of teamwork is the nurse's perception of teamwork in implementing the 7 correct principles of drug administration. The effectiveness of teamwork is the nurse's perception of teamwork in implementing the 7 correct principles of drug administration is the action taken by the nurse in administering the drug based on the 7 correct principles, namely the correct patient, the correct drug, the correct dose, the correct time, the correct method of administration, the correct documentation and the correct information.

The data analysis method carried out consists of 3 steps as follows, namely [19]. Univariate analysis is the first step in analyzing each variable in a study. While the bivariate analysis aims to determine the relationship between the two variables, namely the independent variable and the dependent variable. The statistical test used is Kai square or  $\chi^2$  (Pearson chi square), using a 95% degree of confidence. Multivariate analysis was carried out to determine the most dominant factor influencing the implementation of the 7 Correct principles of drug administration in the Non-Covid-19 Inpatient Room at Hospital in Pematang Siantar. This study uses multiple logistic regression analysis with modeling at a significance level of p <0.05 and CI (Confidence Interval) and the variable that is a candidate model has a value of p <0.25. Furthermore, to find out the significant variables using the 95% confidence interval ( $\Box = 0.05$ ). Based on the research results, the variables of age, gender, education and length of work can be seen in the following table.

| Respondents Charac       | <b>F</b> = 103 | %  |      |
|--------------------------|----------------|----|------|
| Age                      | <32 years      | 45 | 43,7 |
|                          | ≥32 years      | 58 | 56,3 |
| Gender                   | Female         | 80 | 77,7 |
|                          | Male           | 23 | 22,3 |
| Education                | Diploma        | 63 | 61,2 |
|                          | Bachelor       | 40 | 38,8 |
| Long Working in Hospital | <5 years       | 33 | 32,0 |
|                          | ≥5 years       | 70 | 68,0 |

Table 4.1. Frequency Distribution of Respondents Based on Variables

#### III. RESULT AND DISCUSSION

#### The Effect of Monitoring on the Implementation of Principle 7 Correct Medication

Based on the results of the study, it showed that there was an effect of monitoring on the implementation of the 7 correct principles of drug administration at the non-Covid-19 Inpatient Installation at Hospital Pematang Siantar in 2021, p=0.000 < 0.05. The monitoring variable is the most dominant variable affecting the implementation of the 7 correct principles of drug administration with a value of OR = 10.643 meaning that nurses who state monitoring are in the good category have the opportunity to implement the 7 correct principles of drug administration in the good category by 10.6 times higher than nurses who state monitoring. in the less good category. This research is in line with research conducted at the non-Covid-19 inpatient installation at the Sidoarjo Regency Hospital that there is an influence between monitoring of

nurses' actions in implementing the 7 correct principles of drug administration [16]. The results of a study which examined the performance of implementing nurses in the Inpatient Room of the Regional General Hospital dr. Djasamen Saragih Pematangsiantar showed that the supervision or supervision of the head of the room was significantly related to the performance of nurses at RSUD dr. Djasamen Saragih Pematangsiantar namely organizing, monitoring, guiding, training, controlling, and evaluating [17]. The variable most strongly related to nurse performance is monitoring. The head of the room is a nurse who is assigned to lead an inpatient room, and is responsible for providing nursing care, who acts as a first line manager in a hospital, who is expected to be able to carry out nursing management functions, one of which is monitoring [21].

Monitoring is an activity aimed at providing information about the causes and effects of a policy that is being implemented. Monitoring is done when a policy is being implemented. Monitoring is needed so that early errors can be immediately identified and corrective actions can be taken, thereby reducing greater risk [22]. According to the researchers, the results of this study have proven that the implementation of the 7 correct principles of drug administration at the non-Covid-19 Inpatient Installation at Hospital Pematang Siantar is influenced by monitoring variables. The actions of nurses who are continuously monitored will have an impact on the implementation of the 7 correct principles of drug administration and this will minimize errors that will impact the services provided to patients seeking treatment at the non-Covid-19 Inpatient Installation Hospital Pematang Siantar. The implementation of the 7 Correct principles of giving good medicine is related to monitoring in the implementation of the 7 Correct principles of giving medicine by superiors continuously, monitoring becomes feedback for improving nursing care activities, monitoring carried out by superiors provides benefits to patient services, monitoring is carried out by superiors increase the morale of nurses to work and must carry out the implementation of the 7 correct principles of drug administration according to SOP. While some nurses felt that their superiors in monitoring the implementation of the 7 correct principles of drug administration did not provide enough motivation for the implementing nurses. In addition, some nurses stated that the supervisor's monitoring in implementing the 7 correct principles of drug administration was less objective, so that sometimes the nurses made mistakes.

#### The Effect of Evaluation on the Implementation of Principle 7 Correct Medication

Based on the results of the study, it showed that there was an evaluation effect on the implementation of the 7 correct principles of drug administration at the non-Covid-19 Inpatient Installation at Hospital in Pematang Siantar 2021, p=0.036<0.05. The evaluation variable that has a value of Exp(B)/OR= 4.042 means that nurses who state evaluations are in the good category, have a chance of implementing the 7 correct principles of drug administration in the good category by 4 times higher than nurses who say monitoring is in the bad category. In line with research conducted at the non-Covid-19 inpatient installation at the Sidoarjo Regency Hospital, there was an influence between the evaluation of the actions of nurses in implementing the 7 correct principles of drug administration [16]. The results of the study in the Inpatient Room of the Regional General Hospital dr. Djasamen Saragih Pematang Siantar found that evaluation is related to nurse performance [17]. Evaluation is a measurement or improvement in an activity carried out, such as comparing the results of activities that have been planned. From there the purpose of the evaluation is, so that the plans that have been made can achieve the goals that have been set and can be carried out [23]. It can also be interpreted that the results of the evaluation itself are intended for re-planning and then function as an administrative and management function, the last is to combine and collect data with standards that are in accordance with the objectives to be achieved [22].

According to the researchers, the results of this study have proven that evaluation has an effect on the implementation of the 7 Correct principles of drug administration at the non-Covid-19 Inpatient Installation at Level IV Hospital in Pematang Siantar. Nurses who said that the evaluation was carried out well then, the implementation of the 7 Correct principles of drug administration was also good, conversely nurses who said that the evaluation was carried out poorly then the implementation of the 7 Correct principles of drug administration according to the nurse in the Non-Covid-19 Inpatient Installation at Hospital in Pematang Siantar, that is, the supervisor evaluates every action of implementing the 7 correct principles of drug administration by nurses, the superior evaluates each

nurse carrying out the 7 correct principles of drug administration whether the desired results have been achieved, superiors conduct evaluations to solve problems that occur if there are errors in implementing the 7 correct principles of drug administration. The things that make the nurse in the non-Covid-19 Inpatient Installation at Hospital in Pematang Siantar say that the evaluation is not good, namely that superiors sometimes do not discuss with the implementing nurse to overcome problems that arise related to the implementation of the 7 correct principles of drug administration, superiors sometimes do not consider trying new ideas, evaluations made by superiors often do not satisfy nurses. In addition, superiors are less responsive if there are problems related to the implementation of the 7 correct principles of drug administration.

# The Effect of Teamwork Effectiveness on the Implementation of Principle 7 Correct Medication

Based on the results of the study, it showed that there was an influence on the effectiveness of teamwork on the implementation of the 7 correct principles of drug administration at the non-Covid-19 Inpatient Installation at Hospital in Pematang Siantar in 2021, p=0.042<0.05. The teamwork effectiveness variable that has a value of Exp(B)/OR= 4.450 means that nurses who state teamwork effectiveness is in the good category, have the opportunity to implement the 7 correct principles of administering drugs in the good category by 4.4 times higher than nurses who state teamwork effectiveness in the poor category. good.In line with research conducted at the non-Covid-19 inpatient installation at the Sidoarjo District Hospital, it shows that there is an influence between supervision of the actions of nurses in implementing the 7 correct principles of drug administration [16]. Furthermore, research at the Sunan Kalijaga Demak Hospital found that the effectiveness of teamwork has a significant effect on nurse performance [18]. Furthermore, research at Pavilliun RSUP Building. H. Adam Malik Medan found that the Salary and Physical Work Environment simultaneously have a positive and significant effect on the Job Satisfaction of Non-Civil Servant Nurses in Pavilliun RSUP Building. H. Adam Malik Medan [24]Teamwork is positive synergy through coordinated effort. The efforts made by team members result in higher performance than the individual input of each member [25].

Meanwhile, according to Heymann, teamwork is the process of how individuals work together to achieve a goal. The same thing was also revealed by [21] that the team has a common goal, where team members can develop effectively and there are reciprocal relationships to achieve team goals. Teamwork is a collection of individuals working together through sharing knowledge and skills [26]. Stated that Teamwork is individual collaboration to work together to achieve the specified goals. A multidimensional approach characterized by a series of adaptive behaviors, cognitions and attitudes that interact to achieve common goals. According to the researchers, the results of this study prove that the effectiveness of teamwork has a significant effect on the implementation of the 7 correct principles of drug administration at the non-Covid-19 Inpatient Installation at Hospital in Pematang Siantar. Teamwork in implementing the 7 correct principles of drug administration is very important for nurses because with good teamwork, problems found when administering drugs do not have an adverse effect on patients or as an effort to prevent medication errors that patients receive. With good teamwork, nurses will remind each other about the 7 Corrects, which are the Correct patient, the Correct dose, the Correct type of drug, the Correct time, the Correct method of administration, the Correct staff, and the Correct documentation.

Things that encourage the effectiveness of nurse teamwork at the non-Covid-19 Inpatient Installation at Hospital in Pematang Siantar, namely the implementation of the 7 correct principles of drug administration to patients is carried out with the joint responsibility of nurses, fellow nurses helping and contributing to each other in implementing the 7 Correct principles of drug administration. Fellow nurses provide mutual support to nurses who have difficulty reading doctor's prescriptions. But there are also some nurses who don't cooperate as a team, this is because when problems arise related to the implementation of the 7 correct principles of drug administration, there are nurses who don't help find solutions to problems together. Communication is not well established with other nurses and personal relationships are not going well.

# IV. CONCLUSION

## Conclusion

Based on the results of the research that has been carried out and has been presented in the previous chapter, it can be concluded as follows. aged <32 years (43.7%), the majority of respondents were female (77.7%) and male respondents (22.3%), the majority of respondents had D3 education (61.2%) and respondents educated S1/Ners (38.8%). There is a monitoring effect on the implementation of the 7 correct principles of drug administration at the non-Covid-19 Inpatient Installation at Level IV Hospital in Pematang Siantar in 2021, p=0.000<0.05. There is an evaluation effect on the implementation of the 7 correct principles of drug administration at the non-Covid-19 Inpatient Installation at Hospital in Pematang Siantar in 2021, p=0.036<0.05. There is an influence on the effectiveness of teamwork on the implementation of the 7 correct principles of drug administration at the non-Covid-19 Inpatient Installation at Hospital in Pematang Siantar in 2021, p=0.042<0.05. There is an influence on the effectiveness of teamwork on the implementation of the 7 Correct principles of drug administration at the non-Covid-19 Inpatient Installation at Hospital in Pematang Siantar in 2021, p=0.042<0.05. The monitoring variable has a greater influence on the implementation of the 7 Correct principles of drug administration at the non-Covid-19 Inpatient Installation at the Hospital in Pematang Siantar in 2021, p=0.042<0.05. The monitoring variable has a greater influence on the implementation of the 7 Correct principles of drug administration at the non-Covid-19 Inpatient Installation at the Hospital in Pematang Siantar in 2021 with a value of Exp(B)/OR = 10.643 meaning that nurses who state monitoring are in the category good, the chance of implementing the 7 Correct principles of drug administration in the good category is 10.6 times higher than nurses who state that monitoring is in the bad category.

#### Suggestion

Suggestions were conveyed to several parties related to this research as follows Hospital Leadership in Pematang Siantar. It is hoped that the hospital can carry out monitoring and evaluation related to procedures that have been established as a benchmark for achieving SOPs that are applied in implementing the 7 correct principles of drug administration. Monitoring and evaluation activities are carried out continuously so that problem solving can be carried out as quickly as possible if obstacles are found in implementing the 7 correct principles of drug administration. Nurses at Hospital in Pematang Siantar It is hoped that nurses will improve teamwork in applying the 7 correct principles of drug administration so that they are effective in providing nursing care and minimizing the adverse effects on the patients served. And further research can be carried out by the next researcher, relating nurse performance using different research methods such as qualitative research

#### REFERENCES

- [1] Cheragi, M. A., Manoocheri, H., Mohammadnejad, E., & Ehsani, S. R. (2013). Types And Causes of Medication Errors from Nurse's Viewpoint. *Iranian Journal of Nursing and Midwifery Research*, 18(3), 228–231.
- [2] Kemenkes RI. (2016). *Peraturan Menteri Kesehatan Nomor 66 Tahun 2016 tentang Keselamatan dan Kesehatan Kerja Rumah Saki*t. Jakarta: Kementerian Kesehatan Republik Indonesia.
- [3] JCI. (2015). *Standar Akreditasi Rumah Sakit : Enam Sasaran Keselamatan Pasien*. Jakarta: Joint Commission International (JCI).
- [4] WHO. (2015). *Regional strategy for patient safety in the WHO South-East Asia Region (2016–2025)*. World Health Organization, Regional office for South-East Asia.
- [5] Wittich, C. M., Burkle, C. M., & Lanier, W. L. (2014). Medication Errors: An Overview For Clinicians. *Mayo Clinic Proceedings*, Vol. 89, No.8, Page: 1116 1125. https://doi.org/10.1016/j.mayocp.2014.05.007
- [6] Whittaker, C. F., Miklich, M. A., Patel, R. S., & Fink, J. C. (2018). Medication Safety Principles And Practice In CKD. *Clinical Journal of the American Society of Nephrology*, 13(11), 1738–1746. https://doi.org/10.2215/CJN.00580118
- [7] Tariq, R. A., Vashisht, R., Sinha, A., & Scherbak, Y. (2020). *Medication Dispensing Errors and Prevention*. In StatPearls.
- [8] Pranasari, R. (2016). Gambaran Pemberian Obat Dengan Prinsip 7 Oleh Perawat Di RSU PKU Muhammadiyah Bantul. Skripsi. Yogyakarta: Program Studi Ilmu Keperawatan Fakultas Kedokteran Dan Ilmu Kesehatan Universitas Muhammadiyah Yogyakarta.
- [9] Abdar, Z. E. (2014). Regsitered Nurses Perception of Medication Error: A Crosssectional study in Southeast of Iran. *International Journal of Nursing Education*, 6(1), 19–23.
- [10] Kadang, S. (2020). Nurses' Compliance in Applying Independent Double Check in Drug Administration. *Nursing Current*, 8(2), 120–126.

- [11] Sthephani, P. (2015). Faktor Penghambat Pelaksanaan SPO 7 Benar dalam Pemberian Obat di Ruang Rawat Inap Rumah Sakit Panti Nirmala. Jurnal Kedokteran Brawijaya, 28(2), 228–234.
- [12] Lestari, S. (2016). Farmakologi dalam Keperawatan. Jakarta: Kementerian Kesehatan Republik Indonesia.
- [13] Ahsan. (2018). Hubungan Beban Kerja Perawat Dengan Penerapan Prinsip Tujuh Benar Dalam Pemberian Obat Pada Pasien di Ruang Rawat Inap. *J.K. Mesencephalon*, 4(2), 73–78.
- [14] Tampubolon, L., & Pujiyanto. (2018). Analisis Penerapan Prinsip Keselamatan Pasien Dalam Pemberian Obat Terhadap Terjadinya Medication Error di Rawat Inap Rumah Sakit X Tahun 2018. Jurnal ARSI, 1(1), 173–183.
- [15] Gibson, I. D. (2007). Organisasi: Perilaku, Struktur, Proses (Kelima). Jakarta: Erlangga.
- [16] Ba-Lashraf, H. S. A. (2020). Pengaruh Monitoring, Evaluasi, Supervisi Dan Efektifitas Teamwork Terhadap Pelaksanaan Prinsip 7 Benar Pemberian Obat Di Instalasi Rawat Inap Non Covid-19 (Studi Di Rumah Sakit Umum Daerah Kabupaten Sidoarjo). *Skripsi*. Surabaya: Universitas Airlangga.
- [17] Ginting, D., & Manurung, M. (2018). Hubungan Supervisi Kepala Ruangan Dengan Kinerja Perawat Pelaksana di Ruang Rawat Inap Rumah Sakit Umum Daerah dr. Djasamen Saragih Pematangsiantar. JPKMI, 4(1), 1–9.
- [18] Rahma, A., & Fuad, M. (2016). Pengaruh Penerapan Konsep Team Work Dan Budaya Organisasi Terhadap Kinerja Perawat (Studi Pada Rumah Sakit Umum Daerah Sunan Kalijaga Kabupaten Demak). *Diponegoro Journal of Management*, 5(4), 1–11.
- [19] Notoatmodjo, S. (2017). *Metodologi Penelitian Kesehatan* (Cetakan 6). Jakarta: Rineka Cipta.
- [20] Ghozali, I. (2015). Aplikasi Analisis Multivariate dengan Program SPS (Cetakan 7). Semarang: Universitas Diponegoro Press.
- [21] Nursalam. (2016). *Manajemen Keperawatan Aplikasi Dalam Praktik Keperawatan Profesional*. Jakarta: Salemba Medika.
- [22] Sagala, R. (2019). Buku Manajemen Keperawatan Konsep Praktis bagi Mahasiswa dan Tenaga Keperawatan. Jakarta: Deepublish.
- [23] Sudarta, I. W. (2019). Manajemen Keperawatan. Teori & Aplikasi Praktik Keperawatan. Yogyakarta: Gosyen Publishing.
- [24] Bambang Suwarno, et. al. (2020) The Effect of Salary and Work Environment on Job Satisfaction on Non-Civil Servant Nurses in the Hospital Medan. *IOSR Journal of Business and Management* (IOSR-JBM), 22(11), pp. 25-30
- [25] Robbins, S. P., & Timothy, A. J. (2014). *Perilaku Organisasi (Organizational Behavior)* (Cetakan 8; D. Angelica, R. Cahyani, & A. Rosyid, Eds.). Jakarta: Salemba Empat.
- [26] Johnson DW & Johnson, R, T (1991) Learning Together and Alone. Allin and Bacon: Massa Chussetts

