Analysis of the Effect of the Length of Drug Delivery Time on Patient Satisfaction in RSU Royal Prima Medan in 2018

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ABSTRACT

Pharmacy services at the Hospital Pharmacy Installation are one of the service units that must be provided by the hospital. There are several indicators that must be met by the Hospital Pharmacy Installation, one of which is satisfaction and waiting time for drug delivery services, which are considered to affect the patient's expectations of hospital services. This study aims to determine the analysis of the length of time the drug was handed over to patient satisfaction at Royal Prima Medan Hospital, with a method of qualitative and quantitative approach (mixed methodology). This study was conducted at IFRS Royal Prima Medan Hospital, with a population of 6,842 patients and the sample in this study were patients who prescribed their medication to enter the pharmaceutical installation on Monday to Saturday which were taken using simple random sampling of 96 respondents. The results showed that the length of the waiting time for drug delivery with patient satisfaction p value (0.386), the standard implementation value of drug delivery time with patient satisfaction p value (0.000), the value of drug availability in IFRS with patient satisfaction p value (0.234), type value guarantor of patients p value (0.837). It is suggested for IFRS to improve the quality of services that are more optimal in order to achieve maximum patient satisfaction values.

Keywords: Patient Satisfaction, Waiting Time, Quality of IFRS Services

INTRODUCTION

Health is a state of well-being of the body, soul, and social that greatly influences each individual to live productively in a social and economic way. With this health, each individual can carry out activities as creatures created by God, so that they can live productively both socially and economically. In realizing this healthy condition there are many things that need to be done, one of which is considered to have an important role is to provide health services (Efendi & Makhfudli, 2015).

Hospitals as a part of the health service system in general provide services to the community in the form of health services including medical services, medical support services, medical rehabilitation and care services. The service is carried out through the emergency department, outpatient unit and inpatient unit. Public hospitals have a mission to provide quality and affordable health services to the community in order to improve the health status of the community. The task of public hospitals is to carry out health service efforts in an effective and effective manner by prioritizing healing and recovery which are carried out in a harmonious and integrated manner by enhancing and preventing and implementing referral efforts (Herlambang, 2018).

Hospital is a health service that needs to pay attention to the quality of hospital services offered to patients who
will use hospital services, so they feel satisfied with the quality of services offered. All health care providers may compete, but the quality of service and patient satisfaction is still the main benchmark for the success of health services provided by hospitals (WHO, 2015). The quality of service in hospitals is greatly influenced by the service delivery process. Therefore, in improving the quality of services, the factors of facilities, available personnel, medicines and medical devices including human resources and professionalism are urgently needed so that quality health services and even distribution of health services can be enjoyed by the entire community.

Quality of service in hospitals is also seen from customer satisfaction in receiving services provided by health service organizations. Customer satisfaction is seen as an element of determining the merits of a hospital (Herlambang, 2018).

In health services in hospitals, patient satisfaction is one indicator of the quality of health services. Therefore, measuring the level of patient satisfaction must be an activity that cannot be separated from the measurement of the quality of health services (Azwar, 2017).

Supriyanto and Ernawati (2016) argue that if patients are satisfied with the services provided, then they will re-use the services provided if one day they need it again, encourage others to use the service, defend if others denigrate the service. In order for the hospital to continue to develop facilities and services to meet patient expectations thereby increasing patient satisfaction, good quality is needed to create customer satisfaction.

According to the World Health Organization (WHO, 2015), Hospitals are an integral part of a social and health organization with the function of providing complete (comprehensive) services, healing diseases (curative), and prevention of diseases (preventive) to the community. Based on Law No. 44 of 2009, the Hospital is a health service institution that organizes individual health services in a complete manner that provides inpatient, outpatient and emergency services. General Hospital (RSU) has a mission to provide quality and affordable health services to the community in order to improve the degree of public health. One of the dimensions of the quality of health services is access to services marked by patient waiting times.

Waiting time is the time used by patients to get health services from the place of registration to enter the doctor's examination room. Patient waiting time is one component that has the potential to cause dissatisfaction. The patient's waiting time reflects how the Hospital manages the service components that are tailored to the patient's situation and expectations. Category of distance between waiting time and check time which is expected to be satisfying or unsatisfactory for patients, among others, when the patient arrives, starting from registering to the counter, queuing and waiting for a call to the general poly to be planted and examined by a doctor, nurse or midwife for more than 90 minutes (old category), 30-60 minutes (medium category) and ≤ 30 minutes (fast category). Waiting times in Indonesia are determined by the Ministry of Health (Kemenkes) through minimum service standards. Every hospital must follow the minimum service standards regarding this waiting time. The minimum standard of outpatient care based on Kepmenkes Number 129 / Menkes / SK / II / 2008 is less or equal to 60 minutes (Bustani, et al, 2015).

Pharmaceutical Services according to the Republic of Indonesia Decree No. 1197 (2014) is one of the hospital services in order to support quality health services. Pharmacy services are an inseparable part of a hospital health service system that is intact and oriented to patient care, providing quality drugs, including affordable clinical pharmacy services for all levels of society. Aditama (2002) in Nila Hidayati (2008) states that pharmaceutical services in hospitals are an inseparable part of overall hospital services. In terms of medical
support, one of the important services in it is pharmaceutical services.

To improve and improve the efficiency of pharmaceutical services in hospitals that are based on pharmaceutical services (Pharmaceutical Care) it is necessary to have a service standard that can be used as a guideline in providing pharmaceutical services in hospitals (Kepmenkes RI No 1197 Menkes / SK / X / 2004). According to the Republic of Indonesia Minister of Health No. 129 of 2008 concerning Hospital Minimum Service Standards, Hospital Pharmacy Service Standards are waiting time for finished drug services is ≤30 minutes and concoction drugs are ≤60 minutes, the absence of drug administration errors is 100%, customer satisfaction is ≥80%, and the prescription according to the formulary is 100%.

According to Afolabi and Erhun in 2011 in Wijaya (2017) said that in a study conducted by the University of Southern California showed that patient satisfaction with pharmaceutical services is closely related to their satisfaction with waiting time. The long waiting time for prescription service is one of the reasons why some patients do not redeem their recipes at that place.

Based on Bustani’s research, et al (2015) through interviews and observations conducted at BKMM in North Sulawesi Province, it can be concluded that waiting time at BKMM of North Sulawesi Province is still relatively long (> 60 minutes). This is due to the large number of patients, the lack of staff at drug collection counters, internet connection disruptions, the distribution of prescription drugs that are often late, and the limited human resources available.

Based on the results of observations and interviews with several patients in the outpatient waiting room at Royal Prima Medan Hospital, it was found that the majority of patients stated that the service in the pharmaceutical waiting room was still unsatisfactory because of the length of administration of the drug to the patient and sometimes the medication was incomplete for the reason of the drug not yet available. For example Mrs. M who stated that "I have been waiting for almost an hour but my medicine has not come out yet, is it because I am a BPJS patient?" D "I have been waiting in the examination room for a long time, am I waiting for a long time too? Already the medicine is not complete anymore ", Mr. S "I am a general patient but how come the medicine is taking long?" Y "Yesterday when I took medicine a long time ago, all the friends who queued to take medicine were able to get all of my stay. I tried to tell the staff to check that it might be tucked in a cabinet drawer, but the employee said it might not be tucked. Because I could no longer stand it, I finally got angry and the employee just moved to check and finally got it in my medicine cabinet drawer.

In addition to the observations and interviews above, the researchers also found outpatient visit data for the last 3 months, namely in July there were 6,930 outpatients, 6,822 patients in August, and 6,774 patients in September. With the patient visit data above, it can be seen that there is a decrease in outpatient visits at RSU Royal Prima Medan.

**LITERATURE REVIEW**

**Hospital Pharmacy Installation (IFRS)**

Hospital Pharmacy Installation (IFRS) is a department or unit or part of a hospital that is led by a pharmacist and assisted by several pharmacists who meet the applicable legal requirements and are professionally competent, responsible for the place or facility for all work and plenary services, including planning, procurement, production, storage, medical supplies / pharmaceutical preparations, prescription drug dispensing for outpatients, quality control and distribution control and use of all health supplies in hospitals, general clinical pharmacy services and specialists, including direct services to sufferers and clinical services are a whole hospital program (Siregar, 2014).
Hospital Pharmacy Services Management
The Indonesian Ministry of Health said that optimization in drug management includes the process of planning, procurement, distribution, delivery and use of drugs (Aditama, 2012). The process in the management of pharmaceutical supplies consists of Planning, Procurement, Receipt, Storage, Distribution, Elimination, Drug Information, Supervision.

Quality of Pharmacy Services
Quality control is a mechanism of monitoring and evaluation of services provided in a planned and systematic manner so that opportunities for quality improvement can be identified as well as providing a mechanism of action taken so as to form a continuous process of improving the quality of pharmaceutical services.

Pharmaceutical Service Standards
In realizing the concept of Pharmaceutical Care, the Department of Health in collaboration with the Indonesian Pharmaceutical Association has developed pharmaceutical service standards in pharmacies to ensure the quality of pharmaceutical services to the public (Ministry of Health, Republic of Indonesia, 2014), namely: Prescription services, Community education, Health promotion and Residential Services (Home Care). Pharmacists as advisory consultants are expected to provide pharmacy services to homes, especially for elderly groups and patients with chronic therapeutic treatment.

Waiting Time for Prescription Services
Waiting time for prescription service is divided into two namely waiting time for prescription drug service and waiting time for prescription drug concoction service. According to Widiasari (2017), prescription service time consists of various stages, namely: Price pricing, payment and numbering phases require more than one minute because the computer's response to pricing is slow due to insufficient server memory to accommodate the data. And the prescription entry stage, the checking and delivery phase of the drug takes more than two minutes, because there are no officers who take the prescription at the entry and inspection stage, and at the time of delivery of the drug there is no officer who checks and delivers the drug because the officer is busy at other stages especially during peak hours where there is a buildup of prescriptions and the stage of taking patent medicines, the stage of making concoctions, the etiquette and packaging stage takes a little longer when compared to the other stages because it takes time to find and take patent medicines, while for the concoction drug it takes time to calculate, weigh, and take the drug according to the permissible dose, and the etiquette and packaging stage requires accuracy, especially for the concoction drug in order to be exact on each package.

Customer Needs And Satisfaction
According to Samosir (2017), IFRS in its work always interacts with consumers or patients through clinical pharmacy services, so in IFRS services it is very necessary to know the needs of its consumers. The needs of pharmaceutical customers include the availability of pharmaceutical supplies, the ease of getting pharmaceutical supplies, compliance with requests / prescriptions, information about pharmaceutical supplies, the speed of processing to delivering drugs and the price of pharmaceutical supplies. In accordance with Siregar's statement (2014), IFRS service is the result of activities occurring at the meeting point between IFRS personnel and consumers as well as IFRS internal activities, in order to meet the needs of these consumers, namely service accuracy, price, delivery schedule, and suitability in meeting usage.
Hypothesis
Based on the background of the study and the justification of the relationship between variables, the research hypothesis:
There is an influence of the length of time waiting for drug delivery to patient satisfaction at Royal Prima Hospital Medan.
There is an influence on the implementation of standard time for drug supply to patient satisfaction at RSU Royal Prima Medan.
There is an effect of the availability of drugs in IFRS on patient satisfaction in Royal Prima Medan Hospital.
There is an influence of the type of patient guarantor on patient satisfaction at Royal Prima Hospital Medan.

MATERIAL AND METHODS
This research is cross sectional, with a qualitative and quantitative (mixed methodology) approach. Mixed methods produce more comprehensive facts in researching research problems, because this researcher has the freedom to use all data collection tools according to the type of data needed. Qualitative research to obtain information about things that affect the length of time the availability of drugs in the pharmaceutical waiting room. Quantitative research to obtain patient satisfaction data.

The population is the whole subject of research to be studied. The populations in this study were all patients treated at Royal Prima General Hospital Medan as much as 6,842 patients. The study sample was patients whose prescription drugs were entered in pharmaceutical installations on Monday to Saturday taken using simple random sampling so that the number of samples in this study amounted to 96 respondents.

The type of data used in this study is Primary Data. Namely Data taken from respondents or research samples. Primary data obtained from the results of direct interviews to obtain data about gender, last education level, employment status, length of time waiting for drug delivery, implementation of standard time for drug supply, availability of drugs, type of patient guarantor, and patient satisfaction. Secondary data, Secondary data is supporting to complete primary data and is data obtained not from respondents to be examined but from other sources. Secondary data is data obtained from reports, notes or documents, medical records from the pharmacy unit at Royal Prima Hospital Medan and Tertiary Data, namely tertiary data is data obtained from various valid references such as journals, articles, WHO data, Riskesdas data, JNC VIII and Ministry of Health data.

Data collection techniques in this research include observation. Observation is a way that is done to observe all the behavior involved in a certain period or a certain stage of development. Observation itself is divided into two, namely direct observation and indirect observation. The research uses direct observation which means that the observation is carried out when an event is to be investigated. In-depth Interview / Interview Where Interview is a very important data collection tool in qualitative communication research involving humans as subjects (actors, actors) in connection with reality or symptoms chosen for research. According to Sugiyono (2016), an interview is a meeting of two people to exchange information and ideas through questions and answers, so that
meaning can be constructed in a particular topic. As well as Documentation, where this documentation is very helpful in the research process. This is closely related to the research discussion. It is intended to complement and strengthen the data of observations and / or interviews that are needed by researchers in this study.

RESULTS AND DISCUSSION
Effect of Waiting Time for Submission of Medicine on Patient Satisfaction in RSU Royal Prima Medan in 2018

The results showed that as many as 57.3% of respondents stated that the waiting time for drug delivery was > 60 minutes and 42.7% of respondents stated that the waiting time for drug delivery was < 60 minutes. Based on the results of statistical tests, the results obtained p Value = 0.008 (p Value <α) α = 0.05, then H1 is accepted so that there is a relationship between the effect of waiting time for drug delivery to patient satisfaction at RSU Royal Prima Medan.

The results of interviews with pharmacy staff also stated that, the length of drug delivery was due to a lack of human resources in this case the lack of pharmaceutical staff, the length of prescription drugs received by IFRS because the old nurse submitted drugs to the system, the system becomes longer.

The length of time a patient is waiting for health services is one of the important things and will determine the quality of health services provided by a health service unit (Buhang, 2017).

This is in line with the results of Permana research (2018), showing that there is a relationship between waiting times for finished and racic drug services and patient satisfaction with outpatient services at Dr. Loekmono Hadi Kudus with p = 0.000 and OR = 5.878. This shows that the long waiting time for finished and racic drug services in outpatient services will risk making the patient dissatisfied with the services provided in outpatient services by 5.878 times and vice versa.

Based on the results of the assumptions the researchers stated that at Royal Prima Hospital Medan, the average length of time for drug delivery to patients was included in the old category (57.3%). This is due to the length of prescription drugs received at IFRS and the number of employees who are not proportional to the number of prescription drugs that must be done so it takes a long time to prepare respondent's prescription drugs.

The Influence of Standards of Drug Supply Time on Patient Satisfaction in RSU Royal Prima Medan in 2018

The results of this study indicate that as many as 7.3% of respondents felt very dissatisfied, there were 39.6% of respondents feeling dissatisfied, there were 45.8% of respondents feeling satisfied, and there were 7.4% of respondents feeling very satisfied. Based on the results of statistical tests for the standard time of drug supply, the value of p is Value = 0,000 (p Value <α) α = 0.05, then H1 is accepted so that there is a relationship between the standard time of drug supply to patient satisfaction at Royal Prima Hospital Medan.

Based on the results of interviews with the inclusive study group, the results were obtained that the standard time for drug provision was indeed determined, where the drug had a maximum time of 30 minutes and a maximum of 60 minutes for racik drugs. However, this is sometimes not met due to the small number of IFRS employees that is not proportional to the large number of patients making the standard time for drug supply not in accordance with the time set by the hospital.

The results of this study are in line with the research of Adelina (2018), which shows that the activity of providing drugs is still very long to be carried out in pharmacies, where the percentage of drug supply in a long time is 57.75%, and in a short period of time is 42.25%.

The time standard for drug supply is the standard time for the role of the pharmacist, the pharmacy manager with the
pharmacist’s assistant in preparing drugs, compounding, packaging, delivery, drug information services, counseling, to residential services (Ginting, 2017).

Based on the results of research assumptions, it is stated that the standard time for drug supply to patient satisfaction in IFRS Royal Prima Medan is in the old category. This is due to the small number of employees and employees who also have to deal with outpatients, inpatients, and mobile duty to rooms to check and monitor inpatient medicines, so making work in IFRS requires a very long time.

**Effect of Drug Availability at IFRS on Patient Satisfaction at RSU Royal Prima Medan in 2018**

The results of this study indicate that as many as 81.3% of drugs in IFRS Royal Prima Medan Hospital are available and 18.8% of drugs are not available. Based on the results of statistical tests for the availability of drugs obtained \( p \) value = 0.001 (\( p \) Value <\( \alpha \) \( \alpha = 0.05 \)), then \( H_1 \) is accepted so that there is a relationship between drug availability and patient satisfaction at Royal Prima Hospital Medan.

Based on the results of interviews with the study inclusive group, it was found that the unavailability of drugs also sometimes creates obstacles in service at IFRS. This is because the drugs that the doctor has prescribed are not available at the pharmacy and the patient or doctor does not want to replace the prescription with the same type of drug. Sometimes the doctor’s prescription is not in accordance with the formulary that has been provided, moreover the patient uses BPJS Health insurance, where BPJS Health special medicine has been determined according to the national formulary.

This study is in line with the research of Prabowo et al (2016), where the results of the R2 and F tests were obtained by a physician factor of 0.706 and 69.562, pharmacy power factors of 0.710 and 114.962, patient factors of 0.945 and 5660.020. test results together with physicians, pharmacy and patient factors of 0.971 and 293.444. This study can be concluded that physician factors, pharmacy power factors and patient factors significantly influence the availability of drugs. Doctors factors, pharmaceutical personnel factors and patient factors together influence the availability of drugs in the JKN era at RSUD dr. Soedono Madiun.

The availability of drugs as the main element in health services besides affordability, safety, quality and efficiency, the availability of drugs is closely related to funding. Drug inventory management can be seen from stock management, inventory management, administrative management and drug management information systems. Monitoring drug use includes adherence to treatment guidelines and formularies and generic prescribing (Mustika, et al, 2014).

Based on the results of research assumptions that the availability of drugs to patient satisfaction at IFRS Royal Prima Medan Hospital is good, but there are still some drugs that are not available or do not comply with the formulary that has been determined but doctors still prescribe it. In this case it takes a long time, both when confirming to the doctor so that the drugs that are not available can be replaced with other drugs of the same type or when searching for drugs in other pharmacies because the patient does not want to be replaced with other drugs. This can make patients wait up to 60 minutes and complain about the service at IFRS.

**Effect of Patient Guarantor on Patient Satisfaction at RSU Royal Prima Medan in 2018**

The results of this study indicate that as many as 18.8% of patients with general guarantor, 19.8% of patients with Company guarantor, 5.2% of patients with insurance guarantor, and 56.3% of patients with BPJS Health guarantor. Based on the results of statistical tests for the availability of drugs obtained \( p \) value = 0.779 (\( p \) Value > \( \alpha \) \( \alpha = 0.05 \)), then \( H_1 \) is rejected so there is no
relationship between the patient's guarantor on patient satisfaction at RSU Royal Prima Medan.

Based on the results of interviews with the inclusive study group, it was found that the patient's guarantor was also an obstacle in IFRS services. For example in insurance coverage, the pharmacy cashier must confirm to the insurance party whether the drug is guaranteed or not by the insurance party. Likewise with the guarantee of the Company and BPJS Health must be careful in providing drugs, because not all types of drugs can be approved by the guarantee.

The results of this study are in line with Jacobis (2014), which states that the significant value of t for patient insurance is 0.592 greater than 0.05. Thus the hypothesis 3 which states that guarantees in service affect patient satisfaction is not proven. This study shows that guarantees do not affect patient satisfaction.

Based on the results of the research assumptions, it states that the patient's guarantor for patient satisfaction at IFRS Royal Prima Medan Hospital does not significantly affect IFRS services. This is because the most guarantors is the BPJS Health guarantor and the prescribed medication has also been determined by the Health BPJS. So the guarantee is done through the provision of bills from the hospital to the Health BPJS once a month.

**CONCLUSIONS AND RECOMMENDATIONS**

**Conclusion**

Based on the results of research and discussion that has been carried out in this study, the researchers draw conclusions as follows:

1. Variable length of time waiting for drug delivery together does not have a significant effect on patient satisfaction at RSU Royal Prima Medan because it has a value of p = 0.386 > 0.05 and a regression coefficient (β) of 0.076.

2. Variable Implementation of the standard time of drug supply together has a significant effect on patient satisfaction at Royal Prima Hospital Medan because it has a value of p = 0.000 < 0.05 and a regression coefficient (β) of 0.827.

3. The drug availability variable at IFRS together does not have a significant effect on patient satisfaction at Royal Prima Hospital Medan because it has a p value = 0.234 > 0.05 and a regression coefficient (β) of 0.135.

4. Variable type of patient guarantor together does not have a significant effect on patient satisfaction at RSU Royal Prima Medan because it has a value of p = -0.837 < 0.05 and a regression coefficient (β) of 0.153.

5. The conclusion of this study is that of the four independent variables, namely the length of time waiting for drug delivery, the implementation of standard time for drug supply, availability of drugs in IFRS, and the type of patient guarantor, only one variable is most influential with the length of time for drug delivery to patient satisfaction at Royal Prima Hospital Medan in 2018 is the implementation of the standard time for drug supply, wherein the known p value = 0.000 (< 0.05) and the regression coefficient (β) value of 0.827. This shows that the implementation factor of the standard time of drug supply has the most influence on patient satisfaction.

**Recommendations**

Based on the results and discussion, there are several suggestions that can be delivered:

1. For Researchers

   The existence of this research is expected to be able to add insight, experience, and skills of researchers about the problem of the level of patient satisfaction in improving the services of a hospital and can apply the knowledge gained during lectures.

2. For Hospitals

   Conducting this research, will provide information and input to the hospital, so that it can serve patients well and
patients feel satisfied, especially in terms of improving services performed by pharmaceutical officers.

3. For Institutions
For educational institutions, it is expected that the results of this study can be material or learning material for students in analyzing the quality of service at IFRS on patient satisfaction.

4. For Further Researchers
Further researchers are expected to be able to conduct further research with other variables related to service quality at IFRS on patient satisfaction.

REFERENCE