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# ANALYSIS EFFECTIVITAS RELATING TO THE WAITING TIME IN CT SCANNING PROCEDURE BASED ON THE MALCOM BALDRIDGE APPROACH ON OUTPATIENT TREATMENT PATIENTS AT THE RADIOLOGY INSTALLATION OF THE CENTRAL POLICE HOSPITAL R. SAID SUKANTO

Leti Ratna Kusumawati<sup>1</sup>, Munir<sup>2</sup>, Adang Bachtiar<sup>3</sup>

<sup>1</sup>Post Graduate Student at the Faculty of Public Health, University of Indonesia, Depok

<sup>2</sup>Radiology installation of The Central Police Hospital R. Said Sukanto Jakarta.

<sup>3</sup>Department of Health Policy Administration, Faculty of Public Health, University of Indonesia

\*Corresponding author's email : leticya\_cute@yahoo.com

### ABSTRACT

**Introduction:** Hospitals have the mission to provide excellent, comprehensive and standardized medical services in the context of improving people's health conditional through among others reduced waiting time. Waiting time is the time used by a patient to receive health services beginning from at the registration counter to the doctor's examination room.

**Method:** This research used the Qualitative study. The research was conducted from April 2019 through May 2019 at the Outpatient Treatment Unit of the Radiology Installation of the Central Police Hospital R. Said Sukanto Jakarta The informants in this research were chosen based on the principle of suitability and sufficiency namely 8 informants; they were head of the Radiology Installation, a radiologist, a senior supervisor or radiographer, a registration counter officer, a nurse and 3 selected patients. The data collected in this study was primary data namely through in-depth interviews and direct observation, while secondary data was obtained through document reviewing.

Analysis using Malcolm Baldrige framework

**Results:** The result of this study indicates that the waiting time in CT Scanning procedures average 3 hours 1 minute and 25 seconds, which exceeds the standard stipulated by the Ministry of Health of the Republic of Indonesia the standard time  $\leq 3$  hours. Assessment aspect of Malcolm Baldrige the best is aspect organization profile, leadership and customer/ patient focus, an aspect have substantial effect on the waiting time in CT Scanning procedures. Mismatch between the theory and the result of this study may be caused by limitation in the research.

**Conclusion:** In principle, services are already good except for few matters that need improvement namely on customer/patient care, strategic planning, measurement of analysis and management of knowledge as well as results in the organization.

**Keywords:** Malcolm Baldrige criteria, CT Scanning procedure, waiting time

## INTRODUCTION

According to the World Health Organization (WHO), hospital is an integral part of a social and health organization with the function of providing comprehensive, healing [curative] and prevention (preventive) services to the community.[1]. Under Law No. 44 of 2009, hospital is a health service institution which organizes individual health services comprehensively providing inpatient treatment, outpatient treatment, and emergency services.[2].

The average waiting time chiefly depends on the rate of service. A decision making situation often arises in which an individual coming to obtain services must wait before receiving the desired service. [3]. Waiting time is the time used by a patient to receive health services beginning from at the registration counter to the doctor's examination room. Patient's waiting time is one of components that potentially cause dissatisfaction. Patient's waiting time reflects how the hospital manages the component of services adjusted to the patient's situation and expectation. [4].

The category of distance between the waiting time and the expected examination time namely as from a patient arrives and registers at the registration counter up to the call to the CT Scan room and receives the result of contrast and non contrast CT scan examination is regularly  $\leq 3$  hours, while the time for non contrast cito CT scan patients is 120 minutes, and 150 minutes for contrast CT scanning patients. [5]. The waiting time in health services in Indonesia is stipulated by the Ministry of Health (Kemenkes) through the minimum service standard. Every hospital must abide by this minimum service standard with respect to the waiting time. The minimum service standard for outpatient treatment under Decree of the Minister of Health Number 129/Menkes/SK/II/2008 is  $\leq 3$  hours.[6]

Radiology service is one of medical supporting services provided by hospitals and is performed by a service unit called Radiology Installation. Diagnostic service is the service of carrying out diagnosis using non ionizing radiation, among others examination using Magnetic Resonance Imaging/MRI, USG. Interventional radiology service is the service to conduct diagnosis and interventional therapy using X- ray radiology instrument (Angiography, CT). [6]

The Central Police Hospital R. Said Sukanto Jakarta has a medical supporting department namely the Radiology Installation which handles medical imaging with or without ioning radiation. Medical services in the field of radiology consist of services using ionizing radiation; conventional & invasive radiology, CT scan, nuclear medicine, services using non-ionizing radiation: MRI, and USG. The mechanism of services to consumers is performed through radiological examination on patients visiting the department, in accordance with the patient service provision procedure determined in the Standard Operating Procedure (SOP).

The Central Police Hospital R. Said Sukanto Jakarta or more popularly known as the RS Polpus has in its development gained public confidence not only for handling patients from within the National Police but also serving general patients. As the center for referrals from all police hospitals in Indonesia and also as the partner for state hospitals in cooperation with the National Health Assurance (JKN), this central Police Hospital is demanded to be able to serve various complex cases, be related to crime, accidents, prisoners or many other cases.

In 2017 the total visits for CT scan examinations evidently increased by 33.29% for non contrast CT scanning and 28.78 for contrast CT scanning.

Increased number of patients in CT Scan examination indicates high work productivity in CT Scanning division, which involves various components of resources. In the service process, a patient passes several

stages. The patient is not only in contact with the Radiology Installation but also with other installations starting from the registration desk to other service divisions, which requires the patient to go through a complex process. Growing number of outpatient treatment patients to have CT Scan examination indicates a yearly increase of CT Scan examination which also signifies the importance of such examination in supporting diagnosis.

Based on the above background and the fact that there has yet any written report to this date about length of waiting time at the Outpatient Treatment Unit of the Radiology Installation of the R. Said Sukanto Central Police Hospital, the authors are interested in carrying out a research on the waiting time in CT Scan examination in outpatient treatment unit only. This research is conducted to know the waiting time in CT Scan examination and factors that affect the waiting time based on the Malcolm Baldrige criteria.

The Malcolm Baldrige criteria are one of measurement models that is widely known and has been proven to effectively assist the successful application of the quality management system known as the Malcolm Baldrige National Quality Award (MBNQA) system which is an effective measurement method to analyze and find aspects that needs to be corrected or improved so as to produce high-quality result.

As an independent assessment tool, the Baldrige criteria in the field of health service for excellent performance may assist health service organizations to measure performance and determine the target and opportunities in improving their performance in achieving quality excellence with 7 key criteria namely: leadership, strategic planning, focus on patients, other customers, and markets, measurement, analysis, and knowledge management, staff focus, process management, and results of organizational performance. [7].

The Organization Profile and the seven Baldrige Criteria can be further elaborated to Leadership; Strategic Planning; Customer Focus; Measurement, Analysis and Knowledge Management or Hospital Management Information System (SIM RS); Focus on human resources or Work Force; Focus on Operation and Results.

## **METHOD**

This research was conducted using the qualitative study. The research was carried out from April 2019 to May 2019 at the Outpatient treatment Unit of the Radiology Installation of The Central Police Hospital R. Said Sukanto Jakarta from Monday through Friday, at 07.00 up to 16.00 West Indonesia Time involving 8 informants consisting of head of the Radiology Installation, senior supervisor or radiographer, nurse, administration staff or registration counter staff and 3 selected patients.

The data collected in this research is primary data namely obtained through in-depth interviews and direct observations, while the secondary data is from document reviewing. The data from interviews is recorded using a tape recorder which is then copied in the form of transcript.

Data analysis in this research uses the content analysis under the following steps: data collection, data reduction, data presentation, inspection on the validity of data and analysis of the components obtained from the research. [8]. Data validation uses the triangle techniques namely source triangulation and method triangulation. Analysis using Malcolm Baldrige framework.

## **RESULTS**

The Authors studied the issue of long patient waiting time exceeding the standard ( $\geq 3$  hours) at the Outpatient Treatment Unit of the Radiology Installation of The Central Police Hospital R. Said Sukanto Jakarta through the Malcolm Baldrige Criteria approach for Health Care Performance Excellence (The Malcolm Baldrige criteria to assess performance excellence in the field of health service 2015-2016, usually

referred to as the Baldrige Criteria). The Authors chose and decided the 8 informants consisting of head of the Radiology Installation, senior supervisor or radiographer, nurse, administration staff or registration counter staff and 3 selected patients, that have provided information from in-depth interviews as the primary data and strengthened by direct observations while the secondary data was obtained from document reviewing.

The materials in in-depth interviews are in the form of questions to the informants. The series of those questions refer to the framework or tools for measuring performance excellence in an organization namely the Malcolm Baldrige criteria in the field of health : [9].

#### *Organization Profile*

The four informants (Informan 1 Mr. A, 54 th, L , Informan 2 Mrs. R, 45 th, P dan Informan 3 Mrs. D 39 th, P) who underwent CT Scan examination at the outpatient treatment Installation of The Central Police Hospital R. Said Sukanto Jakarta expressed positive statements and assessment that appreciate the profile The Central Police Hospital R. Said Sukanto Jakarta They also gave good impression of the services provided in the hospital and that both the physicians and nurses are equally nice and friendly.

These are the interviews taken with 3 outpatients.

*"This Polri Hospital is good, officers at radiology department are quite friendly. The doctor is also friendly. I feel happy and have never felt disappointed with the service". (Informants 1 Mr. A, 54 th, L).*

*"Good, the service and cleanliness are good". (Informants 2 Mrs. R, 45 th, P)*

*"This hospital has good service". (Informants 3 Mrs. D, 39 th, P).*

#### **Leadership**

In an interview, the Head of Radiology Installation ( If 4), senior supervisor or radiographer (If 5) and Nurse (If 6) that all the activities are performed based applicable standards, in accordance with the regulations set by the government, the Ministry of Health and the accreditation standards of the Hospital.

Accreditation Commission (KARS). The informant also said that the knowledge and understanding of the waiting time in CT scan examination conform to applicable regulations of the Minister of Health. Although the Head of Installation acknowledges the issue of waiting time in CT Scan examination based on the minimum service standard issued by the Ministry of Health of the Republic of Indonesia, in reality the waiting time in The Central Police Hospital R. Said Sukanto Jakarta still exceeds the standard time,  $\geq 3$  hours. [6]. However, from the result of in-depth interviews with the Head of Installation, the Hospital has applied policies in the form of service guidelines and the standard operating procedure that have been communicated to all staff members in the radiology department. From review of documents, there has been issued Decision Letter of the Head of The Central Police Hospital R. Said Sukanto Jakarta regarding Guidelines on Organization of Integrated Service of Radio diagnostic, Imaging and Interventional Radiology ( RIR) but the decision does not put emphasis on the policies of Waiting Time for Outpatient treatment particularly in the Radiology Room

The results of in-depth interviews with the Head of Radiology The Central Police Hospital R. Said Sukanto Jakarta about this are as follow:

*"Every action and procedures, both medical and non medical carried out in the CT Scan, is based on applicable standards, in accordance with the regulations in this hospital, government,*

*the ministry of health and standard accreditation of the Hospital Accreditation Commission (KARS).”*

### **Strategic Planning**

Based on the results of in-depth interviews with the Informants (head of the Radiology Installation, senior supervisor or radiographer), in which the Authors asked particularly about the strategic plans in effort to solve the problem of waiting time in the radiology unit especially in the CT Scan examination, the informants conveyed several matters that the Hospital needs to deal with the issue of waiting time.

Table 1 Strategic Planning

| No | Result of In-depth Interviews  | Result of Document Reviewing  |
|----|--|---|
|    | Strategic plan to handle the issue of patients' waiting time in CT Scan examination room <ul style="list-style-type: none"> <li>• Recruitment of human resources name system via telephone or text messages</li> <li>• Distribution of job for physician taking procedure and physician reading the result of CT Scan image examination</li> <li>• Addition of rooms for administration staff at the registration counter.</li> <li>• Addition of rooms for administration staff at the registration counter.</li> </ul> | In the strategic planning document of the R. Said Sukanto Central Police Hospital |

### **Customer/Patient Focus**

The response from customer informants (Informants 1 Mr. A, 54 th, L , Informants 2 Mrs. R, 45 th, P and Informants 3 Mrs. D, 39 th, P) concerning long waiting time greatly varied. Some patients said that it did not take long time for them to wait compared to that in other state hospitals which is even much worse, while some others said that although they had to wait but they felt comfortable as this hospital is equipped with facilities such as malls, restaurants or eating places everywhere that make it easy for them to find food or drinks while waiting. There are also informants claiming to feel very uncomfortable because they are often tired waiting and they suggest that the hospital recruit more staff or administration officers at the registration counter because the counter only has 1 door that things will get stuck when a patient with incomplete documents is being served. They further said that they sometimes have to come over and over again if the examination protracts which require them to come back to the polyclinic specialist the following day to hand the result of examination to the physician they had previously visited for consultation. [10].

Table 2 Customer Focus

| No | Informant's opinion of the waiting time | Expected waiting time   |
|----|---|-------------------------|
| 1. | Not too long waiting in the line        | Waiting for 10 up to 15 |

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|    |   |                                    |
|----|---|------------------------------------|
|    |   | Minutes                            |
| 2. | Satisfied and comfortable because of no problem waiting in line.  | Waiting for 10 up to 15<br>Minutes |
| 3. | Quite long time standing in line starting from the registration counter up to being called up to collect the result | Waiting for maximum 15<br>Minutes  |

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*Measurement, Analysis and Knowledge Management*

Measurement, Analysis and knowledge management in this research are as applied in the Hospital Management Information System (SIMRS), in which The Central Police Hospital R. Said Sukanto Jakarta applies a web-based hospital information system. However, according to an Informant (If 8) in an in-depth interview, the SIMRS Medical record room also experienced disruptions due to several causes that significantly hamper services to the patients.

**Table 3 Measurement, Analysis and Knowledge Management**

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| No | Benefits of Web-based Hospital Information System and Lan                                      | Problems  |
|----|--|---|
| 1. | The system has been based on transactions, SOP, and also in the accounting system and the HRD. | SFM recklessness (human error) that may cause the cable pulled or fallen off.                                       |
| 2. | All the services are connected to each other.  | Intermittent disruption to the internet connection because of the factors of weather, power failure or rodent pest. |
| 3. | Preparing the patients' waiting time   | Intermittent disruption or disconnected internet network by PT Telkom.  |

| No | Benefits of Web-based Hospital Information System and Lan | Problems |
|----|---|----------|
|----|---|----------|

### ***Human Resources***

In in-depth interview with an informant competent with personnel affairs in this hospital, he said that the availability of personnel in the radiology department is adjusted to the distribution of shift and as up to now, the hospital has yet to have medical physicists [10], that are needed to continually review the existence of human resources, equipment, procedure, instrument to protect from radiation and needs additional human resources for administrative works to serve more registration counters. Other information was also obtained from interviews that all officers be specialists, radiographers, nurses and administration officers in the registration counter already know and comprehend their respective duties and authorities. They must have these job description and authorities as their guidelines in performing work and serving patients.

### ***Results of Organizational Performance***

The activity of observing and calculating the waiting time commences when patients arrive at the registration counter, receive queue number, medical records or insurance coverage or JKN documents, then prepare for CT Scan examination, examination, reading out of result images by the physician and result collection.

Based on observation by the authors, all stages in services in the radiology have been performed properly, although patients sometimes have to start waiting at the registration counter, and problems in the form of administrative matters.

## **DISCUSSION**

The research has the purpose to find out the waiting time in outpatient treatment in the Radiology Installation analyze by Malcolm Baldrige criteria approach. The waiting time in the health services is one of components that potentially cause dissatisfaction to the customers or patients. The waiting time in Indonesia is stipulated by the Ministry of Health through the minimum service standard. Every hospital must comply with this minimum service standard on waiting time.

The authors studied the issue of patients' waiting time which exceeds the standard namely reaching 3 hours 1 minute and 25 seconds through the Malcolm Baldrige approach to assess the performance excellence in the field of health services in 2015-2016, referred to as the Baldrige Criteria.

There are seven Baldrige categories including Organization Profile, Leadership, Customer Strategy, Measurement, Analysis and Knowledge Management, Human Resources / Personnel, Operation and results.[11].

### ***Organization Profile***

This criterion is a brief description of hospitals, their key effects, their organization and competition environment, as well as their main service products that are offered, interest relation and success as well as the mechanism for providing the health service (2015-2016 Health Care Criteria for Performance Excellence, also referred to as the Baldrige Criteria).

The organization profile shows how the R. Said Sukanto Central Hospital which operates in reference to its vision, mission and motto becomes a hospital excellent in the field of health service and police medicine at the national level.

Radiology services particularly in CT Scan examination is one of excellent services at the R. Said Sukanto Central Police Hospital which is popular and frequently visited by people of different strata and backgrounds, ages, education, works, socio-economic and socio-culture backgrounds.

In in-depth interviews with outsider informants, some customers, be patients or patients' parents, they expressed their first impression of the R. Said Sukanto Central Police Hospital as the hospital with good reputation, committed and endeavoring to provide secured, comfortable, friendly and satisfactory services to its customers.

### ***Leadership***

The criteria of Leadership in this hospital is the behavior of how senior leaders direct and maintain the hospital organization and household governance, and how the hospital is socially responsible for meeting the needs, ethics and law, and also how senior leaders engage all the personnel and customers. Senior leaders should also delegate the performance of policies and this SOP to all the staff in the radiology department, and involve all the manpower, patients or key customers (2015-2016 Health Care Criteria for Performance).

Based on interviews, this hospital has applied policies in the form of service guidelines and standard operating procedure that have been communicated to all the staff members at the radiology department.

The results of document reviewing support the existence of the standard operating procedure, policies and regulation of the Minister of Health Number 1014/Menkes/SK/XI/2008. However, the authors see that the Decision Letter of the Head of the I R. Said Sukanto Police Hospital concerning Guidelines on Provision of Integrated Radio diagnostic, Imaging and Interventional Radiology (RIR) services has no policies on Waiting time in Outpatient treatment especially in the Radiology Room and Standard Operation Procedure on waiting time.

### ***Strategic Planning***

The criteria in strategic planning discuss the development of action plan and strategic objective, as well as the implementation and revisions where required and progress identification (2015-2016 Health Care Criteria for Performance).

The process of strategic planning consists of eight steps which cover: [11].

- 1) Initiate and agree on a strategic planning process.
- 2) Identify the organization's mandate
- 3) Clarify the organization's mission and values.
- 4) Assess the external environment: Opportunities and threats.
- 5) Assess the external environment: Strengths and weaknesses.
- 6) Identify the strategic issues faced by the organization
- 7) Formulate the strategy to manage issues.



- 8) Create the organization's vision which is effective for the future.

The strategic plans of the R. Said Sukanto Central Police Hospital fulfill the following elements, both in strategy development and strategy implementation: [11].

- 1) Analysis of internal environment which covers the strengths of human resources, specialist doctors who are experienced and are even members of the presidential doctor team and have strong commitment to standard quality services.
- 2) Analysis of external environment which covers the opportunities of the R. Said Sukanto Central Police Hospital which is located within the community of different classes; low, middle and high classes.
- 3) Identification of strategic issues by which the hospital provides medical devices in accordance with the standards, completes and revises the plans from all unit services in order to have an uninterrupted management of the hospital that has effect on increased speed and accurate administrative services.

From in-depth interviews with the Head of Radiology Installation on how the strategic plan can tackle the issue of patients' waiting time in the outpatient treatment unit particularly the radiology room which exceeds the minimum service standard, the following suggestions can be summarized:

Recruitment of additional radiologists and medical physicists. Development of the patient registration system via phone or text messages.

Distribution of jobs between doctors that perform procedures and doctors that read the result of CT Scan examination. Addition of rooms for administration staff at the registration counter.

### ***Customer or Patient Focus***

The criteria of customer focus discusses the method used by a hospital in involving the patients for long-term success, including how the hospital listens to the customers, develops relations with patients and provides information to increase innovation opportunities (2015-2016 Health Care Criteria for Performance Excellent).

Based on the Authors' observation during the research, the problems in the waiting time in CT Scan examination are oftentimes related to preparation of administrative documents for JKN patients and insurance patients that require them to go back and forth to the photocopy counter which is 500m away from the hospital, and also during verification to the insurance firm as it takes so long for the insurance firm to give response to the inquiry about the cost of CT Scan procedure.

From the result of in-depth interviews with informants from patients in the outpatient treatment room of the radiology installation, there are several notes to take related to the patients' waiting time that they expect. Some Informants expect the average waiting time of 10 minutes maximum 15 minutes. An informant said that he expected the waiting time to be maximum 2 hours. Earlier this informant waited for up to 3 hours when he had to have CT Scan examination on his head because he often felt dizzy due to an accident.

The Authors assessed that they actually did not want to wait long for the examination result because they had to return to the specialist polyclinic to hand the result to the physician they had consulted to earlier fearing the physician had gone out from his examination room and they had to come back again the following day.

The R. Said Sukanto Central Police Hospital as a provider of health services must try the concept of Baldrige Assessment which functions as the tool to measure and evaluate the management performance. The Baldrige Assessment is one of basic considerations to give a framework for an improvement toward performance excellence. The Baldrige Assessment can be used in the field of health service referred to as Performance Excellence for Health Care Based on MBNQA (Malcolm Baldrige National Quality Award). [12].

The Central Police Hospital R. Said Sukanto Jakarta as a provider of health service has performed the activity of conducting survey on customer satisfaction in the outpatient treatment unit of the radiology installation. The forms are available in the registration room or registration counter. The patient collects the form paper, then fill them out with their experience, and when completed insert them in the suggestion box. Every Friday, the suggestion box is always followed up by the head of survey program to ensure that customer satisfaction is maintained as the commitment of the management to implementing the criteria of customer focus at The Central Police Hospital R. Said Sukanto Jakarta with the purpose of maintaining the loyalty of customers and increasing the level of customer satisfaction.

#### ***Measurement, Analysis and Knowledge Management***

The criteria of Measurement, Analysis, and Knowledge Management reviews how the Hospital selects, collects, analyzes and corrects data, information and knowledge capital (2015-2016 Health Care Criteria for Performance Excellence), and how the hospital ensures that software and hardware are reliable, secured and friendly to its users, and then under emergency situation how the hospital ensures that the software system is safe and continually available in effectively serving patients (2015-2016 Health Care Criteria for performance Excellence).[12].

From the result of interviews with informants, the R. Said Sukanto Central Police Hospital has applied the web-based hospital information system in all service areas of the hospital. In its implementation, SIMRS has sometimes problems in the form of disruption to the Local Area Networking (LAN) in the hospital or disruption to the internet network which is the product of PT Telkom. Staff at the IT unit in cooperation with the team of Maintenance Unit is always ready to fix them in accordance with their job description and authorities. The hospital executive must also be responsive to problems related to disruption in the organization of SIM RS.

Problems of disruption to the internet network must be settled in coordination with PT Telkom to carry out monitoring and evaluation on the organization of internet. From the result of interviews with informants, this web-based hospital information system is very beneficial and helpful in ensuring uninterrupted implementation of each process with the purpose of prime service to the patients and other customers.

#### ***Focus on Human Resources***

The criteria of Malcolm Baldrige focusing on human resources or work force reviews how a hospital organization assesses its capability and capacity and develops a conducive work environment to have high performance, and how the hospital recruits, maintains, and employs its work force (2015-2016 Health Care Criteria for Performances Excellence). [13].

The Central Police Hospital R. Said Sukanto Jakarta has provided and employed medical personnel from Specialist doctors, radiographers, nurses and administration staff at the registration counter.

The problem at present is shortage of medical physicists while a medical physicist is required for obtaining license from Bapeten. One of the main requirements for obtaining license to have a radiation tool is having a medical physicist. A medical physicist is needed to continually review the availability of human resources, equipment, procedure, protection gears against radiation, operational procedure, installation, testing, quality control, calibration, and observation of safety procedure on CT Scan devices. Proper control by medical physicist will ensure better maintenance of the devices which will consequently minimize damages as damage will inhibit the process of CT Scan examination and as a result the waiting time in the examination process will take longer time.

Table 4 Work Force Pattern and Personnel Qualification

| Position                     | Education          | Total | Description                     |
|------------------------------|--------------------|-------|---------------------------------|
| Head of RIR Services         | Master's Degree    | 1     | Radiology Specialist            |
| Head of Installation         | Master's Degree    | 1     | Medical Doctor                  |
| Radiologist                  | Master's Degree    | 4     | Radiology Specialist            |
| Cardiologist                 | Master's Degree    | 4     | Cardiology Specialist           |
| Urologist                    | Master's Degree    | 2     | Urology Specialist              |
| Obgynec                      | Master's Degree    | 2     | Urology Specialist              |
| Interventional<br>Specialist | Master's Degree    | 2     | Cardiology Specialist           |
|                              | Undergraduate      | 3     |                                 |
| Radiographer                 | Diploma-IV         | 8     | Radiographer                    |
|                              | Diploma-III        | 19    |                                 |
| Radiographer                 | Undergraduate      | I     | Radiation Protection<br>Officer |
|                              | D-IV               | I     |                                 |
| Radiology Nurse              | D-III              | I     | Radiology Nurse                 |
| Administration Staff         | Senior High School | 4     |                                 |

| Position                          | Education                 | Total | Description  |
|-----------------------------------|---------------------------|-------|--------------|
|                                   | Undergraduate             | 1     |              |
| Logistics officer/<br>Procurement | Diploma III               | 2     | Radiographer |
| Cleaning Service                  | Vocational High<br>School | 2     |              |

In an interview with a radiographer, they said that at present the Hospital does not have a Medical Physicist whereas a medical physicist is needed to fulfill the requirements for obtaining license from Bapeten and also to supervise medical devices. In another interview with a staff at the registration counter, they said human resources at the counter are short that there is only one counter door.

The Head of The Central Police Hospital R. Said Sukanto Jakarta has stipulated and issued policy of Standard Operating Procedure for the process of employee recruitment. This is the process whereby the Hospital chooses one or more persons from a number of applicants deemed good and fulfilling the criteria to be assigned in a certain position.

#### ***Focus on operation and results***

The criteria of focus on operation and results discusses how a hospital designs, improves and makes innovation in health services and work process, and also enhances the operational effectiveness to give value to the customers in order to reach success for the hospital. (2015-2016 Health Care Criteria for Performance Excellence).

The activity starts from the arrival of patients at the registration counter, receipt of queue number, preparation of medical records or insurance or JKN documents, then preparation for CT Scanning, examination, reading out of the result image by the physician and collection of examination result.

- *Unit at the Registration Counter*

For general or private patients, the registration process at the counter takes 1 minute, while it takes more time for insurance or JKN patients namely 2 minutes as these patients are oftentimes not prepared in their documents, and the registration officer must sometimes wait for approval from the insurance firm.

- *Medical Records Unit*

At the Medical Records unit, the average waiting time is over 2 minutes. This is because the searching process for medical records still takes some time.

- *Examination Room*

The process of preparation for examination up to examination and CT scan examination takes 45 minutes up to 1 hour.

- *Result Reading*

This condition depends on the readiness of the physician in reading out the result and writing them on a piece of paper, and this is done when the physician is not performing other examinations. The Authors observes and calculates that the time for reading out varies from 1 to 1 ½ hours.

In-depth interviews with various informants summarize various factors that spark the issue of waiting time in CT Scan examination among others short personnel at the registration counter that causes delay in serving patients. Physician's untimeliness in reading out the result of CT Scan examination may also hamper settlement in an examination.

The process flow of services in the radiology unit as experienced by patients is still slow that patients must wait on the line exceeding the standard stipulated by the Ministry of Health. Some constraints commence at the registration counter and on to the examination room. The constraints in the registration counter are usually incomplete administrative requirements, or documents not yet photocopied, and in some cases the officer at the registration counter must wait for approval from the relevant insurance company before swiping the insurance card in the implementation of CT Scan examination.

The web-based hospital management information system sometimes has trouble because of human error or environment error when used to settle the above problems. The concept of Lean Hospital has the purpose to reduce inefficiency in health services in the Hospital by identifying factors of inefficiency in input, output within the Hospital services. [13].

## CONCLUSION

The waiting time in CT Scanning process reaches 3 hours 1 minute and 25 seconds which means exceeding the standard stipulated by Decree of the Minister of Health Number 129/Menkes/SK/II/2008 regarding Minimum Hospital Service Standard which is  $\leq 3$  hours.

- a. Basically, the service provision in the hospital has run well except in several points that need improvement namely on customer/patient focus, strategic planning, measurement, analysis and knowledge management as well as results in the organization.
- b. Effectifitas that are closely related to the average score of waiting time from the result of research are reviewed using the Malcolm Baldrige approach.
  - 1) Organization at The Central Police Hospital R. Said Sukanto Jakarta in which the Radiology Installation is a prime product which refers to the vision, mission, values, objective and motto of the hospital. This product still, however, has problem of waiting time in CT Scan examination which causes dissatisfaction to patients.
  - 2) Leadership, which has yet to prioritize settlement of the waiting time in the CT Scan examination although the Radiology unit has in place the implementation guideline but has yet to focus on the issue of waiting time in CT Scan examination.
  - 3) Strategic plan in the part of strategy implementation which improves the Standard Operating Procedure to support an uninterrupted service of CT Scan examination.
  - 4) Customer Focus, not all customers feel satisfied and comfortable.
  - 5) Measurement, Analysis, and Knowledge Management, which is implemented in the form of web-based hospital management information system that also suffer disruption in its internet website system.

- 6) Human Resources, which also sees shortage of personnel in the registration counter that causes delay in services which may affect all the service flows in the Radiology.
- 7) Operation which reviews the policy of patient service flow in the Radiology Room. This service is in fact inefficient and ineffective for patients who undergo examination in the radiology room.

In response to the result of research that the waiting time in the CT Scan examination exceeds the standard for Health Services as stipulated by the Ministry of Health of the Republic of Indonesia, as applicable at the Radiology Room of The Central Police Hospital R. Said Sukanto Jakarta, the Authors provide the following recommendations and inputs to the Hospital, The leadership factor. The head or senior management of the Hospital must improve communication of the Hospital's waiting room policy in CT Scan examination and the Standard Operating Procedure, Strategic planning. The point in the strategic planning that must be paid attention to is the outpatient treatment at the Radiology Installation Room should have a working plan which can be a short-term and long-term work program. The point of Customer Focus in conducting surveys on customer's satisfaction must be maintained. Analysis and management of Knowledge of the Hospital SIM should pay more attention to the employees' comprehension of the Hospital SIM so as to avoid human error and good cooperation with PT Telkom to avoid environment error. The point of human resources or manpower should pay more attention to the need for human resources at the registration counter and the need for medical physicists in the Radiology Room because medical physicists can also maintain medical devices to ensure that they work properly. Focus on process. The management should review the service flow in the Radiology Room.

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#### **CONFLICT OF INTEREST**

The author declares that there is no any conflict of interest regarding publication of this article

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