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# An Evaluation of Waste Implementation of Poly Clinic's Outstanding Services with Blueprint Service to Reduce Waiting Time on Kisaran Asahan District

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#### Abstract

The quality of health services provided to patients should be observed and addressed as well as possible so that patients as hospital customers can be loyal/loyal to the hospital. In this study, one aspect that needs to be improved is the outpatient service aspect. The outpatient unit is the patient's entry gate to the hospital in addition to the emergency unit. Outpatient visits exceed emergency department visits. The tendency of the community towards polyclinic services is increasing to get practical treatment services that come once and on that day also get complete services (one daycare) (Dewi et al., 2020) Installation of care in the hospital consists of installations inpatient, and outpatient. Outpatient installation is a service used by doctors as a place for consultation, examination, and treatment of patients who require a short time (Ministry of Health, 2012).

#### **I. Introduction**

One of the service installations in hospitals is an outpatient installation. Outpatient installation is a service used by doctors as a place for consultation, examination and treatment of patients who require a short time (Ministry of Health, 2012).

There are several stages of the service process at the outpatient installation, starting from taking a queue number, carrying out the registration process, conducting an initial examination, conducting an examination by a doctor, conducting a consultation process, carrying out supporting processes, processing payments to taking medicines. Access is one of the dimensions of the quality of health services for health services which is characterized by patient waiting time (Arietta, 2012).

The quality of health services provided to patients should be observed and addressed as well as possible so that patients as hospital customers can be loyal/loyal to the hospital. One aspect that needs to be improved is the outpatient service aspect. The outpatient unit is the patient's entry gate to the hospital in addition to the emergency unit. Outpatient visits exceed emergency department visits. The tendency of the community towards polyclinic services is increasing to get practical treatment services that come once and on that day also get complete services (one day care).(Dewi et al., 2020)

Installation of care in the hospital consists of installations inpatient, outpatient. Outpatient installation is a service used by doctors as a place for consultation, examination and treatment of patients who require a short time (Ministry of Health, 2012).

Patients can be categorized as outpatients (polyclinic patients and emergency patients) and inpatients. First, in terms of service, patients who come can be divided into two, namely patients who can wait (outpatients who come by appointment and patients who come not in an emergency condition) and patients who are immediately helped

#### Keywords

quality health service; patient; emergency

Rudapest Institut



(Emergency patients). According to arrival, it can be divided into two, namely new patients (patients who come to a health care facility for the first time to get health services) and old patients are patients who have come before for the purpose of obtaining health services. The arrival of a patient to a health care facility can be caused by, among others, sent by a doctor or midwife practice outside the health care facility, sent by another hospital/ Puskesmas/ Maternity Hospital/ other types of health services, and came of their own accord. (Ministry of Health of the Republic of Indonesia, 2017)

Patients are served based on the health service needs that have been identified in accordance with the resources in the hospital. The following is an explanation of the flow and procedures according to the type of patient arrival. The flow and procedures for patients who will perform outpatient treatment, starting from registration to the results of a doctor's examination (Ministry of Health of the Republic of Indonesia, 2017)

Waiting times in Indonesia are set by the Ministry of Health through minimum service standards. Each hospital must follow one of the minimum service standards regarding waiting times. Outpatient waiting time according to the Decree of the Minister of Health of the Republic of Indonesia No.129/Menkes/SK/IV/2008 Outpatient services with service waiting time indicators are the waiting time required starting from registering until being received / served by a specialist doctor <60 minutes (Kemenkes, 2008).

Factors influencing patient waiting time:

a. Gender

Gender will affect a person in the success of the service process. Humans are distinguished according to their gender, namely men and women Cempakasari, Sari and Hakim (2020).

b. Age

The age difference of each patient will affect the speed of the service process. Patients who are classified as elderly will take longer to carry out activities (Susilo, 2016).

c. Education

Education is one of the efforts to improve the ability of human intelligence (Saleh and Mujahiddin, 2020). The level of patient education will influence patients to compare and evaluate the health services they receive. A high level of patient education leads to demands for better and faster services (Arifin et al., 2019).

d. Outpatient Experience

Experience in outpatient treatment will greatly affect the speed of service provided. Patients will better understand the service process and the speed of services provided by hospitals compared to new patients who have never been treated at the destination hospital (Susilo, 2016).

# **II. Review of Literature**

### 2.1 Definition of Lean Management

*Lean* is a systematic approach method to identify and eliminate waste or activities that have no added value (non value adding activities) through periodic improvement to seek information using a pull system and internal and external patients to pursue excellence and perfection (Gaspersz, 2017)

*Lean* used in hospitals is lean hospital. Lean hospital is a rule which is a management system and also a philosophy that can change the perspective of a hospital so that it can be more organized and organized by improving the quality of service for patients by reducing errors and reducing waiting times (Graban, 2009).

#### **2.2 Lean Management Method**

Lean method used by hospitals to improve the quality of service to patients by reducing errors (reducing errors) and waiting time (waiting time). In the two definitions above, it can be concluded that Graban defines lean into two things, namely:

#### a. Total Elimination Waste

Waste or Waste is any activity that cannot reflect assistance in the healing process of the patient. All waste must be eliminated or minimized in order to reduce hospital costs, increase patient satisfaction, and improve patient and employee safety.

#### **b. Respect of People**

*Respect* in the context of lean, there are a number of ways to encourage employees to be motivated to do a better job in a constructive way by respecting employees' patients, doctors, and all stakeholders in the hospital and its environment. Graban made a definition of 5 lean principles that were adapted into the hospital service system, as shown in the following table.

Table 1: I fillelpies of Lean								
Principles	Lean Hospital							
Val Value	Nil Value specifically must be seen from the point of							
	view of the consumer (patient)							
Val Value stream	Idea Identify all value-added stages of the process							
	across all and across departments (value stream),							
	eliminating the non-value-creating stages							
Flow	Me Keeping the process running smoothly by							
	eliminating factors that cause service quality							
	problems or resource allocation							
PulPull	Hin Avoid pushing a job based on the availability of							
	existing resources, let a service process occur because							
	of a need or a request from the patient (so as to create							
	efficiency and suitability to the patient's needs)							
Pe Perfection	Pursuing perfection through continuous improvement							

Table 1. Principles of Lean

#### **2.3 Definition of Waste**

Waste is a collection of several activities that do not provide added value (non added value) to patients and organizations (Gaspersz, 2017)

Examples of waste in hospitals are:

- a. Waiting time for a patient to be examined by a doctor,
- b. Waiting time for next process,
- c. There is an error that endangers the patient,
- d. Unnecessary movements such as the location of cashiers and pharmacies too far (Usman et al, 2017)

In the service process in hospitals, a lot of waste or inefficiency is found. The time nurses spent in the patient's room increased from 2.5 hours to 6.5 hours in one nursing shift, resulting in a 32% reduction and a 17% reduction in medication errors. The nurse turnover rate fell by almost 20% which indicates that an environment with less waste and more time for patient care will be more beneficial for hospital staff (Graban, 2016).

Reducing waste by improving processes also makes it possible to do more work, doing it in a less stressful way. Reducing waste can also provide time for people to do their jobs the right way and can provide high quality, great service to patients. Eliminating waste makes it possible to reduce costs, provide more services, improve quality and increase employee satisfaction. All of these activities are very good for all hospital stakeholders (Graban, 2016).

#### **2.4 Definition of Waiting Time (Waiting Time)**

Waiting time for patients in hospitals needs to be considered, because it involves the rights of patients they want in a service and can be a measure of the quality of service. Waiting time or waiting time is the time used by patients to get health services starting from the place of registration to entering the doctor's examination room. Patient waiting time is one component that has the potential to cause dissatisfaction. Waiting time describes the hospital managing service components that are in accordance with the patient's expected situation (Amalia Vinna, 2020).

According to the Ministry of Health of the Republic of Indonesia (2008), the categories of distance between waiting time and check-up time that are expected to satisfy patients include when patients come, starting from registering at the counter, queuing and waiting for a call to the police to take a history and be examined by a doctor, nurse or midwife. more than 90 minutes (old category), 30-60 (medium category) and <30 minutes (fast category) (Depkes, 2008).

According to Bustani, Ratu, and Saerang (2015) explaining that there are several activities that can trigger a relatively long waiting time for outpatient services, starting from the arrival process, service time, and the availability of human resources. According to Ulfa (2017) states that there are several things that result in long waiting times for outpatient services, one of which is the registration process which results in patients feeling dissatisfied with the services provided.

Factors that cause long waiting times in outpatient services that affect registration services are new patients who do not bring the required documents such as identity cards, do not bring referral letters for referral patients, do not understand the procedure for registering outpatients because it is the first time, filling in data. Adequate patients take about 3 minutes, and other factors that may cause long waiting times can also be caused by delays in the arrival time of doctors providing services (Ilyas, 2017).

#### **2.5 Understanding Service Blueprints**

In developing a new form of service/service or improving an existing service, a tool is needed which becomes a major technique in service design called the Service Blueprint. The service blueprint is a stepping stone to service innovation, designing and developing is a very difficult thing to describe and describe in services.

One of the keys to aligning service specifications to patient expectations is the ability to describe the characteristics of the service process objectively and to tell them that employees, patients, and managers need to know the definition of service. According to Zeithaml and Bitner (2018) in their book states that a service blueprint is an image or map that describes the experience of patients and the service system, so that people involved in the service process can understand it objectively regardless of their respective roles (Zeithaml and Bitner, 2018).

*Service blueprint* is a method of visualizing, analyzing, controlling and developing organizational service processes to improve the organization internally (Gersch, et al., 2011). The service blupprint helps organizations to spot key operational, human resource

and service issues that can be an unpleasant experience for patients. Service blueprints are very useful at the design stage of service development. The service blueprint visually displays services by simultaneously describing the service delivery process, patient contact points, patient and employee roles, and visible service elements (Zeithaml and Bitner, 2018).

*Service blueprints* or blueprints are used when we want to observe the service from all sides, in order to find points and areas of development and new opportunities. This service blueprint describes the physical evidence, the different players, their actions and their interdependence over the course of the journey, making it possible to catch deficiencies as well as unnecessary overlap. This facilitates the development of strategies as well as tactical innovation (Vianna et al., 2011).

According to the British Standards for Service Design (BS 7000 -3, BS 7000-10, BS EN ISO 9000), blueprinting is described as an out-of-service mapping that identifies the processes that constitute a service, eliminates possible failure factors and establishes a time frame. for the service flow. With the various explanations above, it can be concluded that the service blueprint is a flow that accurately describes a service system so that every individual involved in the service can understand the system well.

#### **III. Research Method**

This type of research is qualitative with a descriptive approach that is included in this study aimed at obtaining information regarding the evaluation of the implementation of the waiting time service program in outpatient services at H.Abdul Manan Hospital Simatupang Kisaran through direct observation by researchers.

The population in this study were medical officers and non-medical officers from Information services, Registration Counters (General Patients and BPJS), Medical Records, Policenters, Laboratories, Doctors (general patients and BPJS), Nurses (General patients and BPJS), Pharmacies and Cashiers, as well as 280 outpatients, both non-BPJS patients (general) and BPJS patients based on the number of visits per day. The number of patient populations was obtained from the number of calculations carried out by researchers from the annual visit data divided by month and divided by 22 working days per month.

The sample used in the study with the Slovin formula:

$$n = \frac{N}{1 + N (e)^2}$$

With information:

n : Sample size

N: Total population

e : Percentage of allowance for inaccuracy due to sampling error that can still be tolerated

Then the number of samples:

$$n = \frac{N}{1 + N (e)^2}$$
  
n =  $\frac{280 + 75}{1 + 280 + 75 (0,1)^2}$   
n =  $\frac{355}{1 + (355 \times 0.01)}$ 

 $n = \frac{355}{1+3.55}$ n = 88.75n = 89 people

This study uses 2 (two) sampling techniques, namely purposive sampling for the Outpatient Installation of the Hospital. HAMS Range and Accidental Sampling for patients receiving outpatient services at the Outpatient Installation of RSUD. HAMS Range. This accidental sampling method begins when the patient enters the entrance of outpatient services to get a queue number, then the researcher observes the patients who are respondents in each service process that is passed until they finish the service process. After completing the observation, it is continued by examining the next respondent from the beginning of the process. The reason the researcher chose purposive sampling for officers was because not all samples had criteria that matched the phenomenon under study. Therefore, The authors chose the purposive sampling technique which stipulates certain considerations or criteria that must be met by the samples used in this study. The inclusion criteria or those included in the respondent's criteria are:

- a. Officers who serve and relate to patients who are also research respondents both at the front office/onstage and back office/backstage in general outpatient and special outpatient settings at the time of the study.
- b. Officers who are willing to be research respondents.

Exclusion criteria or those not included in the respondent's criteria are also set, namely:

- 1. Officers who serve and relate to respondents but are handling other services (double job).
- 2. Medical officers such as doctors who were not in the clinic at the time of the study.
- 3. Medical officers such as doctors who leave the practice or clinic in the middle of the practice schedule at the time of the study.

#### **IV. Results and Discussion**

#### 4.1 Brief History of RSUD HAMS Kisaran, Asahan Regency

Based on the past government structure (15 March 1945) that the capital of Asahan Regency was in Tanjung Balai and Kisaran is one of the sub-districts in the Asahan Regency area. At that time there were only 2 (two) units of the Government General Hospital, namely in Tanjung Balai and Labuhan Ruku.

In accordance with the Decree of the DPRD-GR Level II Asahan Number: 3/DPRD/GR/1963 dated February 16, 1963, it was proposed to move the capital of Asahan Regency from Tanjung Balai to Kisaran, and it was only realized on May 20, 1968, which was strengthened by Number 19 of 1980, State Institution of 1980 No. 28, State Supplement of 1980 No. 28, State Supplement No. 3166. Thus, from that moment on, there was a transfer of the Central Government of the Regional Head and all the Services/Services to the Range which at that time was the Head of the Regional Head of District H. Abdul Manan Simatupang.

In line with the move to the capital city of Asahan Regency and at the initiative of Mr. Haji Abdul Manan Simatupang as the Regent of Asahan to build health service facilities for the needs of the Asahan community who need health services. So in 1968/1969 by the Regent of the Regional Head, the Kisaran General Hospital was built

which is located on a land area of  $\pm 2.82$  Ha, with the initial stage being built a main building that functions for outpatient and first aid services along with 2 (two) outpatient units. General hospitalization for both men and women. Operated definitively in 1972 led by dr. TM Panjaitan. The construction of the Kisaran General Hospital was the result of the hard work of the people of Asahan Regency at that time.

For the services and initiatives of Mr. H. Abdul Manan Simatupang, through Regional Regulation No. 8 of 2005, the Asahan District Government changed the name of Kisaran General Hospital to "ABDUL MANAN SIMATUPANG Kisaran HAJI Regional General Hospital"

Now RSUD H. Abdul Manan Simatupang (Hospital-HAMS) Kisaran continues to improve services to the community, because currently RSUD-HAMS, apart from being a health service institution for the Asahan community, is also a referral center from neighboring regencies such as Labuhan Batu Selatan Regency, Labuhan Batu Utara , Tanjung Balai Municipality, Simalungun Regency and Batu Bara Regency.

Period 1972 – 2002 the leadership of the Haji Abdul Manan Kisaran Regional General Hospital was successively occupied by dr. TM Panjaitan, dr. Darmansyah Harahap, dr. H. Najamuddin Ritonga, dr. Rusdi Zain, Sp.ENT, dr. Armansyah Siregar, dr. H. Djufristar. At that time the name of the hospital was Kisaran General Hospital.

Period 2002 – 2016 the leadership of the Regional General Hospital Haji Abdul Manan Simatupang Kisaran held by dr. H. Bambang Wahyudi, dr. Herwanto, Sp.B, and dr. Nilwa Arif. In the leadership of dr. H. Bambang Wahyudi In 2005 the Kisaran General Hospital was named the Haji Abdul Manan Simatupang Kisaran Regional General Hospital. In 2014 under the leadership of dr. Nilwan Arif Regional General Hospital Haji Abdul Manan Simatupang implements PKK BLUD full status. 2016 – 2018 led by dr. Edi Iskandar as director.

In the leadership of dr. Edi Iskandar RSUD Haji Abdul Manan Simatupang passed the 2017 Accreditation version. From April 2018 to December 2019 led by dr. Hari Sapna as director. In 2020 Haji Abdul Manan Simatupang Hospital was led again by dr. Eddie Iskandar.

# 4.2 H. Abdul Manan Simatupang Hospital Services Kisaran (CHANGING YEAR 2020)

Types of services at H. Abdul Manan Simatupang Hospital The range consists of services medical, public and administrative services, financial services. Medical services at this hospital include 24-hour emergency services, medical emergencies, PONEK emergencies, surgical emergencies, code blue services, ambulance services. Outpatient services at Undaan Eye Hospital Surabaya consist of refraction, general outpatient, special outpatient and specialist consultations.

The types of services at the H.Abdul Manan Hospital Simatupang Range consist of: a. Outpatient Services (Polyclinic)

- b. Inpatient Services
- c. Surgical Services
- d. Emergency Services
- e. Childbirth Service
- f. Dental and Oral Medical Services
- g. Hemodialysis Services (HD).
- h. Clinical Support Services:
  - 1. Radiological Examination
  - 2. Endoscopy examination, Broncoscopy

- 3. Ultrasound examination
- 4. CT scan examination
- 5. Intensive Care ICU
- 6. ECG, EEG, TCD Pemeriksaan
- 7. Medical Rehabilitation Services
- 8. Anesthesiology.
- 9. Pharmacy
- 10. nutrition.
- 11. Clinical Pathology.
- 12. Laboratory
- 13. Hospital Blood Transfusion Unit (UTDRS)
- i. Non-Clinical Support Services:
  - 1. Medical Record Service
  - 2. Laundry
  - 3. Ambulance
  - 4. The Beginning of the Body
  - 5. Facilities of Worship / Mosque.
  - 6. Doctor's Office.
  - 7. Parking for four-wheeled and two-wheeled vehicles is relatively wide.
  - 8. Security.

# 4.3 Human Resources Hospital H. Abdul Manan Simatupang Kisaran

Human resources that support the implementation of health services this year at H. Abdul Manan Hospital Simatupang this range consists of medical personnel, nurses, other health workers and the general public with a total of 594 people. The number of human resources and types of human resources at H. Abdul Manan Simatupang Hospital Kisaran can be seen in the human resource classification table of H. Abdul Manan Simatupang Hospital Kisaran below, as follows:

DESCRIPTION	Year						
DESCRIPTION	2016	2017	2018	2019	2020		
Number of Employees at HAMS Hospital Range	551	539	561	605	594		

	Table	2.	Total	Staff
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Data source from General and Personnel Subdivision

The number of employees of RSUD H. Abdul Manan Simatupang decreased by 0.92% compared to 2019. This was due to pensions and shifts in the duties of civil servants.

	YEAR									
Description	2016		2017		2018		2019		2020	
	Total	%								
Civil Servant	262	47.54	257	47.68	253	45,10	256	42.31	261	43.93
Local Government Honors	15	2.72	15	2.78	9	1.60	8	1.32	7	1.18
Volunteer	268	48.65	263	48.79	294	52.4	337	55.61	324	54.55
Contract	6	1.09	4	0.75	5	0.89	4	0.66	2	0.34
Amount	551	100	539	100	561	100	605	100	594	100

Table 3. Number of Employees by Status

Data source from General and Personnel Subdivision

#### 4.4 Service Blueprint before Repair

The service process at the outpatient unit of RSUD H. Abdul Manan Simatupang Kisaran starts when the officer and patient wait for the registration process, carry out the registration process, initial examination, waiting for a doctor's call, giving action by a doctor, waiting at the medical support unit, giving action at the medical support unit , waiting for the results of medical support, waiting for the consultation process, giving the consultation process, waiting at the pharmacy, administering drugs at the pharmacy. The entire process of servicing the outpatient unit of RSUD H. Abdul Manan Simatupang Kisaran involves several officers, both those who are directly involved with patients and those who are not directly involved with the service process, which consist of officers at the place of patient registration, health workers, and non-health workers.

Researchers have identified and carried out the arrangement of the outpatient service flow scheme based on primary data that has been obtained from the hospital and the results of the outpatient service service blueprint based on current field conditions from the stopwatch calculation results that have been obtained to determine the time required in every process both carried out by patients and those carried out by service personnel. There are several points that need improvement in the results of the identification of the service flow scheme as well as the results of the service blueprint, which will be marked in red.

## **V. Conclusion**

From the explanations presented in the previous chapters, several things can be concluded as follows:

- 1. Regional General Hospital H. Abdul Manan Simatupang is the only class C hospital owned by the Regional Government of Asahan Regency which is the referral center for Asahan Regency.
- 2. Has implemented PPK-BLUD with full status since 2014.
- 3. The 2017 version has been accredited PASSING the PRIMARY level since December 2017.
- 4. The highest number of outpatients at RSUD H. Abdul Manan Simatupang in 2020 were 65,941 patients using BPJS cards, 13,889 general patients, and a total of 79,830 patients.
- 5. The value of the Inpatient Service Indicators, namely the Realized IKM of 79.77, the average BOR of 59%, the average LOS of 4 days, the average BTO of 40 times, the average TOI of 4 days, the average NDR the average is 50‰, the average GDR is 98‰.
- 6. In 2020 there were 1,590 patients who were categorized as simple surgery. 644 people in KBU, 664 in KBK.
- 7. The number of visits to the Emergency Room in 2020 was 7,759 people. It decreased by 13.32% from 2019. If you look at the follow-up services, the number of visits treated was 5,907 people, 75 people were referred, and 1,777 people were sent home. Of those who were treated, 71 people died not long after being in the ER, while 75 people died outside the ER after receiving further treatment in the room.
- 8. The number of deliveries in 2020 was 1,256 people, 9 mothers died, 1,279 live born babies, 5 stillborn babies, 168 low birth weight babies (LBW).
- 9. Haemodialysis services have been carried out since 2014. Now the services at the Haemodialysis Installation have 15 (fifteen) machines with the number of Haemodialysis visits in 2020 as many as 5,075

- 10. Laboratory activities at the H. Abdul Manan Simatupang Hospital in the 2020 range of 75,912, a decrease of 29.82% from 2019. The largest laboratory examination was Leukocytes with 10,696 and the lowest laboratory examination was a pregnancy test with 43.
- 11. Activities at the Physiotherapy Installation consist of Electro Therapy, Physical Exercise, Akino Therapy and Others with a total of 9393 visits in 2020.
- 12. Endoscopy and ECG Room activities with the number of EKG examinations in 2020, namely 3,600 Inpatients and 363 Outpatients.
- 13. Radiology Installation activities consist of CT-Scan, Abdomen Ultrasound and Thorax Photo with the number of visits in 2020 as many as 10,112.
- 14. The number of servings of hospitalized food is more for diet food than regular food. For regular foods, the highest was in January at 1,452, the lowest was in November at 752. For diet foods, the highest was in January at 2,000 and the lowest was in October at 834.
- 15. When viewed from human resources, Haji Abdul Manan Simatupang Hospital Kisaran is a government hospital, the number of ASN personnel is still lacking. So that to meet the workforce required non ASN staff (ASN 43.93% Non ASN 56.07%).
- 16. The quality of human resources at Haji Abdul Manan Hospital Simatupang has an average range of about 60% with Diploma education, so to meet the quality of human resources, we must be more selective in paying attention to the level of education or more motivating employees to upgrade education again.
- 17. The latest technological medical equipment is still limited so that patients who need referrals are referred.
- 18. It is hoped that the Asahan Regency Government or other health observers can contribute to the improvement of health equipment.
- 19. The officer's empathy for the community is still low.
- 20. There is still limited knowledge and online queuing tools needed in the registration flow.
- 21. There are one unit at the registration counter and the cashier section for general outpatient polyclinic patients.

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