

WASTE MAPPING STRATEGY BASED LEAN MANAGEMENT IN OUTPATIENT INSTALLATION AT HOSPITAL X BANYUWANGI DISTRICT

Martagela Kamahayo*¹, Farida Wahyu Ningtyias² and Ristya Widi Endah Yani³

¹Public Health Graduate Program, Jember University, Indonesia.

²Faculty of Public Health, Jember University, Indonesia.

³Faculty of Dentistry, Jember University, Indonesia.

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*Corresponding author: Martagela Kamahayo

Public Health Graduate Program, Jember University, Indonesia.

ABSTRACT

Lean management is a method used to eliminated or reducing waste. In the outpatient installation at the hospital X Banyuwangi. There are several waste that must be addressed immediately so that service ccan run optimally. The purpose of this study is to map waste based on lean management in outpatient installation. The research is a qualitative research with a type of phenomenology. The informans of this research results, there are 8 categories of the waste contained in outpatient installation, namely defect, overproduction, waiting, non-utilized talents, transportation, inventory, motion, and extra processing. There are 3 waste that must be resolved quickly due to their very serious impact namely extra processing in the form of hospital management information system (SIMRS) which not integrated, waiting in the form of the patient waiting time, and inventory in the form of mismatched drug stocks. Improvements were made using the failure mode and effect analysis (FMEA) method in the form of solution and the resulting impact. One form of the solution is the kanban design.

KEYWORD: lean management, waste, patient, outpatient installation

INTRODUCTION

Lean is a management system focused on efficiency, the philosophy of long-term growth through effort to increase the value of services, society and the economic with the aim of reducing costs, accelerating service time and improving quality through the total elimination of waste (Boos and Frank, 2013).

The preliminary study it was found that outpatient installation often had complain about the service provided. Data on the number of complaints from patients reach 15 to 25 peoples per month. The most complained complaints are the very long waiting time, doctor who arrive late, to the accumulation of prescriptions at the polyclinic. The impact on decreasing patient satisfaction as indicated by the large number of complaints and a decrease in the number of outpatient visit. This hospital is a private hospital that doesn't have interference from government, therefore efficiency service is needed to save cost and improve service quality. This research focuses on outpatient installations because outpatient installations are the units that have the most number of visits and the implementation of

continuous lean management by applying to the smallest and easiest units first.

Improvement to the outpatient installation management system are needed to improve services so that patient satisfaction increase. Lean management is the solution that researchers can provide to the hospital because researchers find a lot waste that must be reduced or eliminated.

METHODS

This research is qualitative research with phenomenology type. Research place in outpatient installation hospital X Banyuwangi on March to April 2020. Data collection technique used interview, observation and documentation. This research informants covers key's informant, main's informants and supporter informants. The research focused in outpatient installation. Analysis and processing data used lean management method and fishbone diagram.

RESULT

Waste Mapping With Value Stream Mapping On Registration Section

Waste mapping in registration covers defect which in the form implementation of SOP (Standart Operational Procedure) is not implemented 100%. Overproduction which in the form new medical records waste. In the standart operational procedure, one patient one medical record, however the reality in the field one patient have many medical records. Waiting which in the form long term waiting \pm 13 minute. Non-utilized talent covers 3 officers with other education background. Transportation covers no distribution officer of medical records from registration to polyclinic. Motion covers do other activities like playing handphome and kidding with friends. Extra processing covers hospital management information system (SIMRS) is not integrated with medical records section and created new medical records if patient's medical record was not found.

Waste Mapping With Value Stream Mapping On Polyclinic Section

Waste mapping in polyclinic section covers defect which in the form standart operational procedure (SOP) is not implemented 100%, delay doctors 30%, and incomplete filling of medical record. Waiting which in the form waiting doctors, the patient was not called because medical record doesn't exist and waiting medical records of patient come. Non-utilized talent which in the form lack of nurses polyclinic that only 5 peoples. Transportation which in the form no distribution officer. Motion which in the form waiting room is not separate so that process of calling patients requires extra effort, polyclinic officers carry out other activities, the distance between the polyclinic and the pharmacy is small due to the closure of IGD. Extra processing in the form of

asking for personal data that has been asked in patient registration, lack of computers so that officers have to take turns to input data.

Waste Mapping With Value Stream Mapping On Medical Record Section

Waste mapping on medical record section covers defect which in the form standart operation procedure (SOP) is not implemented 100%, extermination of medical records inactive never doing. Waiting which in the form search medical records that are not found. Non-utilized talent which in the form lack of officer in the medical record room. Transportation no tools for carry a lot of medical records. Inventory which in the form lack of medical record which amounted to 9 rack, storage medical records not wide enough. Extra processing which in the form file placement medical record which doesn't fit in its place.

Waste Mapping With Value Stream Mapping On The Pharmacy Section

Waste mapping on the pharmacy section covers defect which in the form standart operational procedure (SOP) was not implemented 100% and prescription is not up to the pharmacy. Overproduction which in the form drug expiration still occurs. Waiting which in the form length of waiting time in pharmacy \pm 19 minutes drugs non concoction and \pm 32 minutes drugs concoction. Non-utilized talent which in the form Lack of pharmacy staff, amounting to 5 people. Inventory which in the form The discrepancy between the stock data in SIMRS and the reality in the warehouse, There is a difference in excess stock because the stock menu cannot be reduced. Motion in the form of a pharmacy officer does other activities such as joking and playing on his cellphone and manually checking drug stocks.

DISCUSSION

Identification Of Critical Waste.

Type of Waste (<i>What</i>)	Resource of Waste (<i>Where</i>)	When Happened (<i>When</i>)	The Reason Happened (<i>Why</i>)
SIMRS is not integrated (<i>Extra Processing</i>)	Registration	Patient care process	Because it is still in IT team development
Length of waiting time (<i>waiting</i>)	Registration, polyclinic, pharmacy	Patient care process	Due to service process constraints
Drug stock mismatch (<i>inventory</i>)	Pharmacy	Drug care process	Because SIMRS cannot reduce stock, there are no officers who check drug stocks periodically

Cause Analysis of Waste on Outpatient Installation

1. SIMRS is not integrated

Cause from SIMRS is not integrated covers leadership policy, Big price and limited computer equipment.

2. Length of waiting time

Cause from length of waiting time covers delay doctors, delay medical records, officer do other activities, SIMRS is not integrated.

3. Drug stock mismatch

Cause from drug stock mismatch covers the officer miscalculated the drug amount, the officer entered the data incorrectly, the place for taking the drug was less ergonomic, SIMRS still had many shortcomings, there was no tool to check drug stocks.

Repair Design In Outpatient Installation

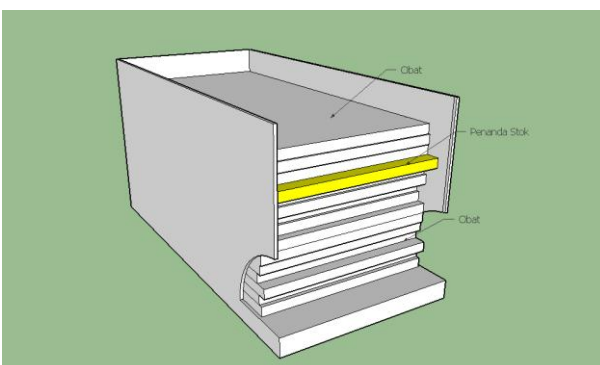
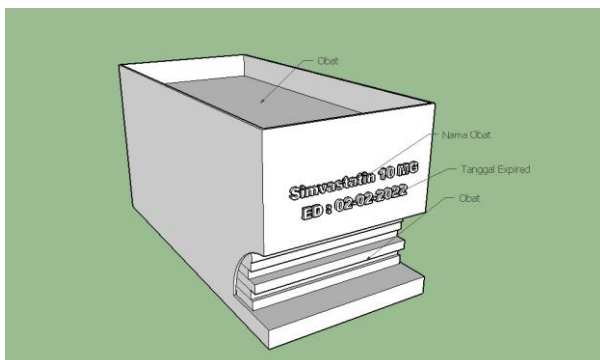
The solution for SIMRS not integrated is using SIMRS from the Indonesian Ministry of Health and maximizing existing tools by integrating SIMRS into other parts.

The solution to the long waiting time is increasing discipline by giving rewards and punishments, using new tracers to help make it easier for officer to find patient medical records, increasing discipline by giving warnings, cutting waiting time for BPJS patients after going to pharmacy, you don't need to register but immediately printed a medical record back at the pharmacy, use of online registration, use of scanning prescriptions from other applications, cutting the distribution flow of medical records and adding distribution officers.

The solution to the mismatch of drug stocks is making SOPs on drug examination, upgrading SIMRS / using SIMRS from the Ministry of Health of the Republic of Indonesia, Purchasing barcode scanners to increase and decrease drug stocks, Use of kanban to make it easier to control stocks and see drug expiration

Kanban Design in Outpatient Installation

Drug box for help officer of pharmacy to do patient care.



CONCLUSION

The outpatient system process at hospital X Banyuwangi is carried out through 4 main parts, namely registration, polyclinic, medical records and pharmacy.

Three critical waste namely SIMRS is not integrated, long waiting time and inadequacy of drug stock.

Analysis of the causes of waste includes leadership policy, big price, limited computer equipment, delays in doctors, delays in medical records, officers carrying out other activities, SIMRS is not integrated, human error, places for taking medicines are lacking ergonomic, there is nothing to check stock.

Recommendations for improvements include using SIMRS from the Ministry of Health, maximizing existing tools, giving punishment and rewards, using new tracers, using online registration, using prescription scans from other applications, using barcode scanners, and using kanban.

Making kanban is drug stock management in pharmaceuticals.

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