

Reduce Waiting Time for Orthopaedic Clinic in Jasin Hospital – A Lean Healthcare Initiative



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Introduction

The Specialist Clinic at Hospital Jasin has evolved significantly, offering diverse outpatient services, including orthopaedic consultations. The Orthopaedic Outpatient Department (OOPD) operates weekly, with an additional clinic day introduced to manage increasing patient loads. However, current resources are insufficient to meet the demand. Lean principles were proposed to enhance operational efficiency, aiming to reduce wait times, improve resource utilization, boost staff productivity, and enhance patient outcomes.

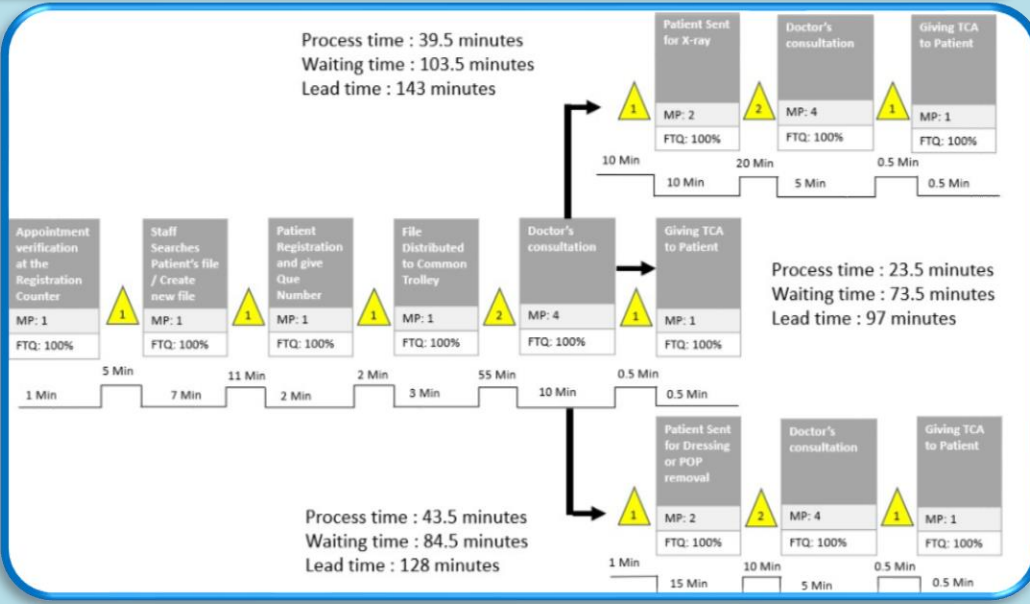
Methodology:

A **time-motion study** was employed for this initiative. Data collection was conducted in April 2024 by clinic staff. The process involved mapping the current state of patient flow, identifying all value-adding and non-value-adding activities, and calculating lead time, waiting time, and process time. Value-adding activities contributes to the service as well as meeting patient needs, while non-value-adding activities were included into the waiting times. By analyzing these factors, areas of inefficiency were identified.

Results

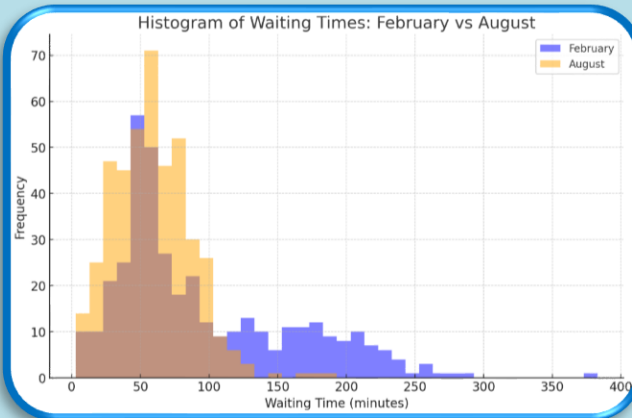
Three patient processes were identified post-consultation: discharge with an appointment, referral to radiology, or undergoing a clinical procedure.

- Patients discharged after the first consultation experienced a waiting time of 73.5 minutes and a lead time of 97 minutes.
- Those requiring X-ray imaging had a waiting time of 103.5 minutes and a lead time of 143 minutes.
- Patients needing procedures faced a waiting time of 84.5 minutes and a lead time of 128 minutes.



Discussion

Kaizen events were organized to address specific inefficiencies identified through Value Stream Mapping, engaging frontline staff, clinicians, and support teams in problem-solving and process improvement. Preliminary results indicate a reduction in **average waiting time** from **95 minutes** in February 2024 to **58 minutes** in August 2024. Ongoing Kaizen initiatives will be reviewed with a second data collection in October 2024 to assess the six-month impact post-Kaizen. Continuous improvement efforts will be maintained, with regular updates to processes to adapt to technological advancements and evolving patient needs.

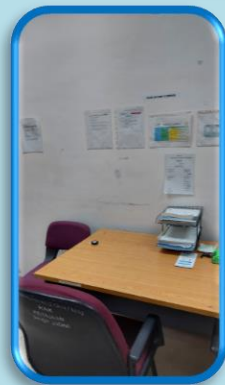


Before

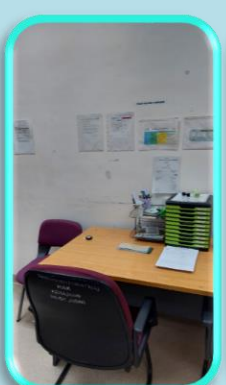
TARIKH	BULAN	SMP	KEMAHABAN	AM/PM SLOT	NAMA	NOMOR KAD PENGENALAN	ALAMAT	NO TELEFON	JENIS TCA	UMUR	BANGSA	BARU / ULANGKAH
6/2/2024	Feb	070018	Hadir	AM	Censored							
6/2/2024	Feb	070019	Hadir	AM								
6/2/2024	Feb	070020	Hadir	AM								
6/2/2024	Feb	070021	Hadir	AM								
6/2/2024	Feb	070022	Hadir	AM								
6/2/2024	Feb	070023	Hadir	AM								
6/2/2024	Feb	070024	Hadir	AM								
6/2/2024	Feb	070025	Hadir	AM								
6/2/2024	Feb	070026	Hadir	AM								
6/2/2024	Feb	070027	Hadir	AM								
6/2/2024	Feb	070028	Hadir	AM								
6/2/2024	Feb	070029	Hadir	AM								
6/2/2024	Feb	070030	Hadir	AM								
6/2/2024	Feb	070031	Hadir	AM								
6/2/2024	Feb	070032	Hadir	AM								
6/2/2024	Feb	070033	Hadir	AM								
6/2/2024	Feb	070034	Hadir	AM								
6/2/2024	Feb	070035	Hadir	AM								
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6/2/2024	Feb	070040	Hadir	AM								
6/2/2024	Feb	070041	Hadir	AM								
6/2/2024	Feb	070042	Hadir	AM								

After

TARIKH	JENIS TCA	KEMAHABAN	SMP	AM/PM SLOT	NAMA	NOMOR KAD PENGENALAN	ALAMAT	NO TELEFON	UMUR	BANGSA	ULAH
6/2/2024	OHK case			AM	Muhammad Hafid azmi bin azmi	800113-09-1084	Sungai sekam mang	1133758763	17	Melayu	B
6/2/2024	OHK case			AM	Ahmad Fauzi bin ghu	800113-09-1084	Daerah kemuning	1734717566	17	Melayu	B
ISNIN MINGGU 4											
5/8/2024											
6/8/2024	NEW CASE			AM							
7/8/2024	OHK case			AM							
8/8/2024	OHK case			AM							
9/8/2024	NEW CASE			AM							
10/8/2024	OHK case			AM							
11/8/2024	OHK case			AM							
12/8/2024	OHK case			AM							
13/8/2024	OHK case			AM							
14/8/2024	OHK case			AM							
15/8/2024	OHK case			AM							
16/8/2024	OHK case			AM							
17/8/2024	OHK case			AM							
18/8/2024	OHK case			AM							
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25/8/2024	OHK case			AM							
26/8/2024	OHK case			AM							
27/8/2024	OHK case			AM							
28/8/2024	OHK case			AM							
29/8/2024	OHK case			AM							



- ### Actions taken
- Addition of clinic day per week
 - Addition of surgeon
 - Staggered appointment system
 - Appointment baskets
 - Awareness poster
 - Systematic drawers



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