“ENHANCING PATIENT EXPERIENCE: IMPROVING PROCESS EFFICIENCY IN THE OUTPATIENT DEPARTMENT OF S R KALLA MEMORIAL GASTRO AND GENERAL HOSPITAL JAIPUR (RAJASTHAN)”.

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MBA IN HOSPITAL AND HEALTH MANAGEMENT

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INTRODUCTION

Outpatient Department (OPD) congestion and long waiting times pose significant challenges for hospital management, affecting patient perceptions and satisfaction. High patient volume and limited resources often lead to chaos and long lines. One solution is to appoint primary care physicians for initial screenings to reduce congestion. Waiting time—the period a patient waits before seeing medical staff—is a critical quality indicator that influences healthcare usage and patient stress. Factors like appointment types and patient distribution lists cause delays. Long wait times in the OPD can hurt the hospital's competitiveness. In the Laboratory and Radiology Departments, delays affect timely diagnosis and treatment. Issues like appointment scheduling, staff availability, and procedure complexity contribute to these delays. Waiting time in these departments is the period from patient arrival for an investigation to the completion and reporting of the investigation. Addressing these waiting times through systematic studies and interventions can improve operational efficiency, patient satisfaction, and overall healthcare delivery.

REASEACH QUESTION

1. What is the average wait time for patients in the OPD, radiology, laboratory and endoscopy department and at which points in the continuum of care do they experience delays during assessments?

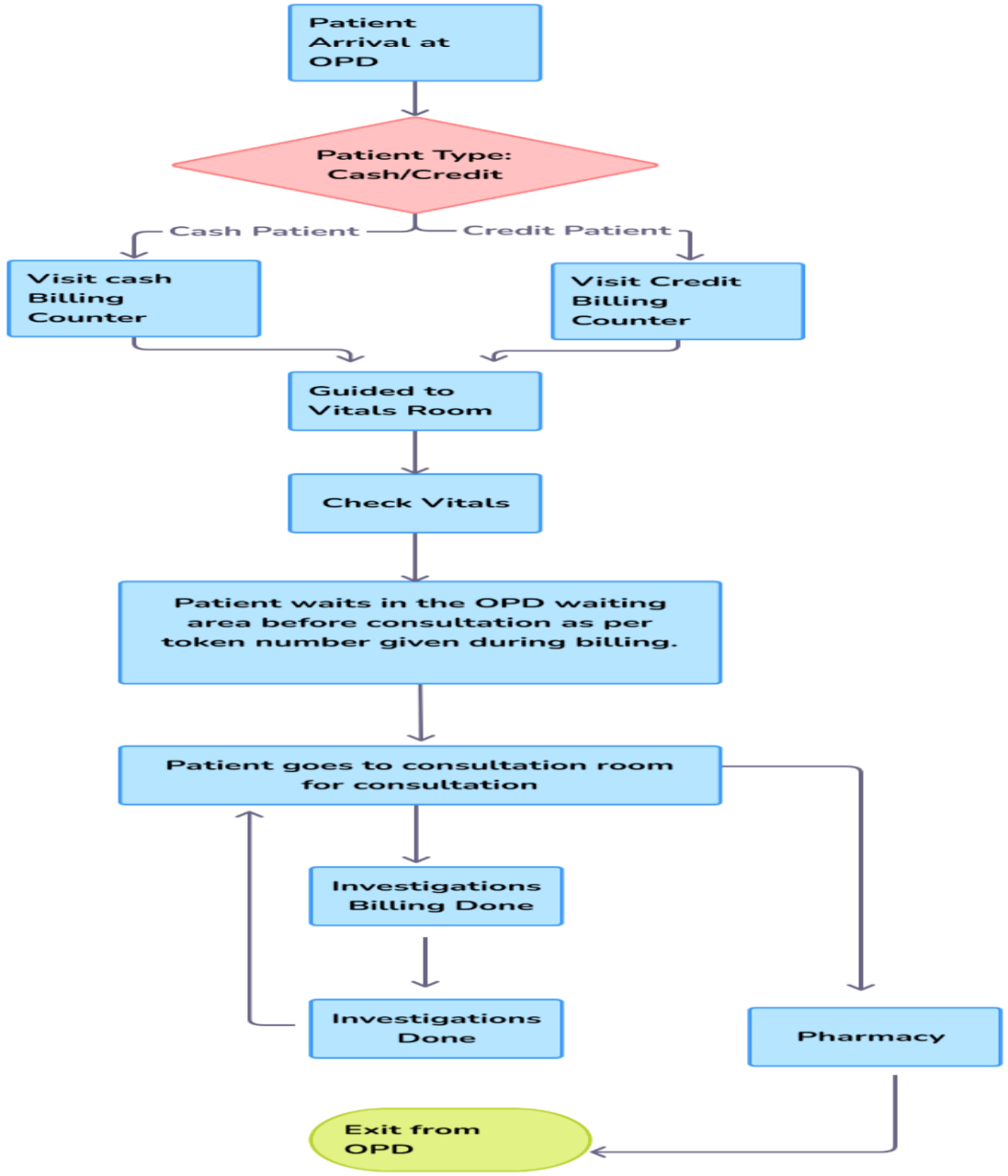
OBJECTIVES

1. To identify average waiting time in the OPD , radiology, laboratory and endoscopy department.

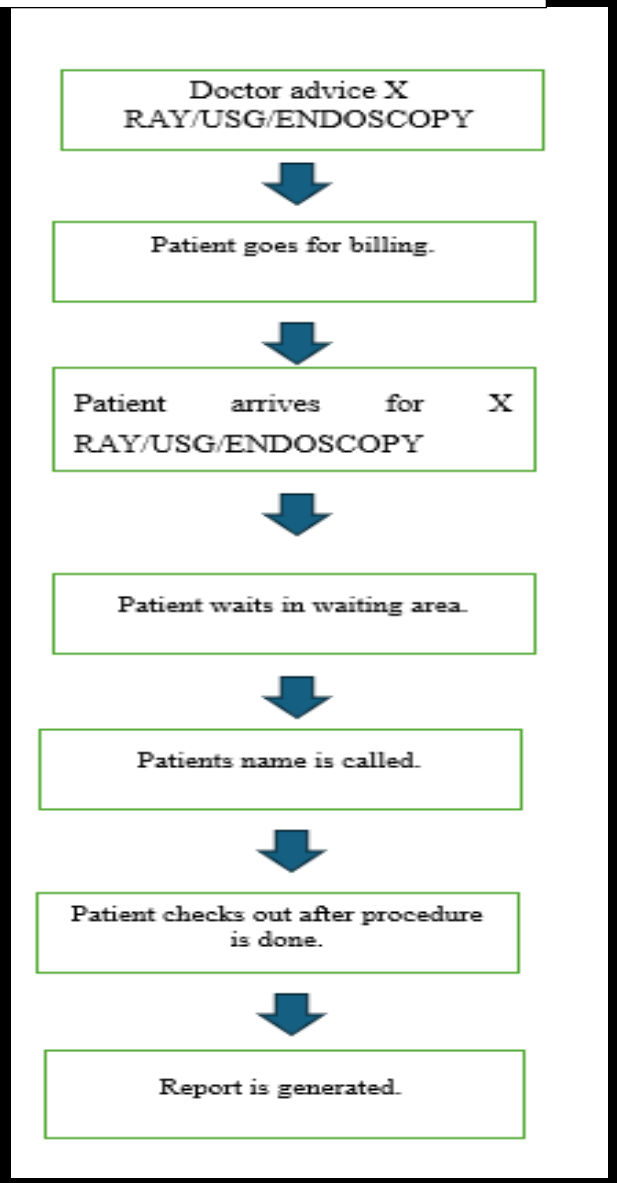
2. To identify the primary reasons contributing to prolonged waiting times in the OPD , radiology, laboratory and endoscopy department.

3. To identify solutions for reducing long waiting times.

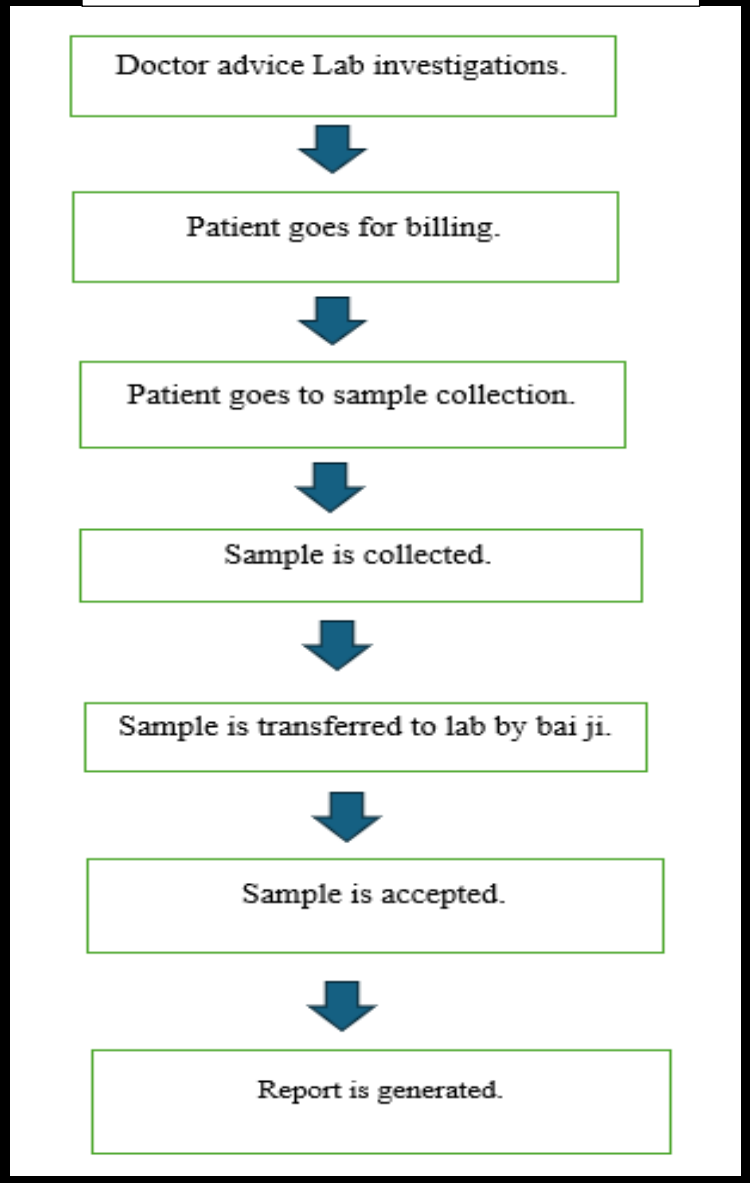
PROCESS FLOW IN OPD



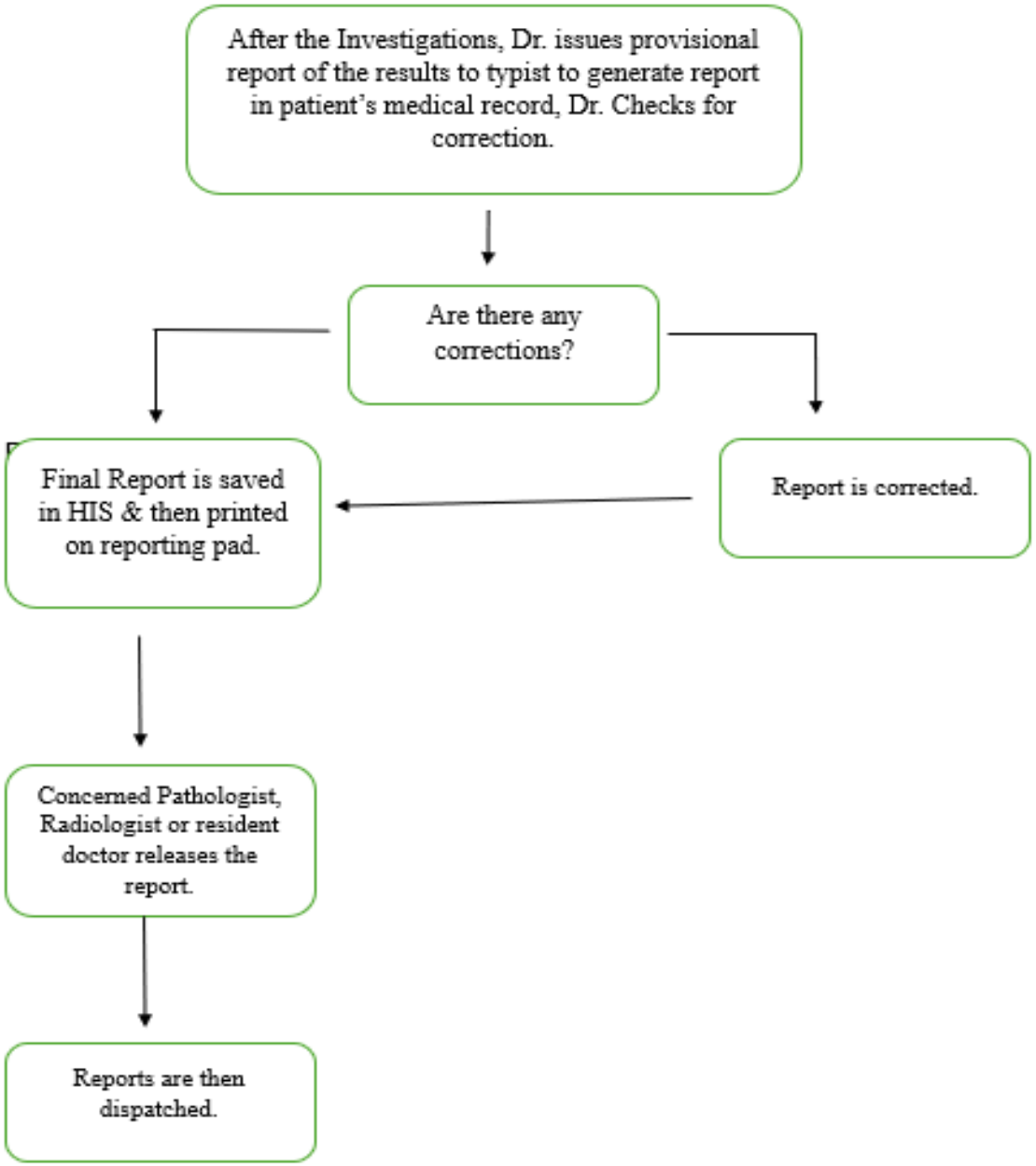
PROCESS FLOW IN X RAY/USG/ENDOSCOPY



PROCESS FLOW IN LABORATORY



REPORT GENERATION PROCESS



METHODOLOGY

SETTING: S R Kalla Memorial Gastro and General Hospital Jaipur (RAJASTHAN).

STUDY POPULATION: Patients visiting Gastroenterology OPD, laboratory, Endoscopy and radiology.

Inclusion Criteria : All patients visiting OPD, laboratory, endoscopy and radiology in OPD between 8 am to 5 pm.

Exclusion Criteria : IP patients, Emergency patients, critically ill patients, pregnant women.

DURATION OF STUDY: 20th March 2024 to 18th June 2024.

SAMPLE SIZE: 105 patients visiting OPD consultation, 50 patients visiting X ray, 50 patients visiting USG, 50 patients visiting Endoscopy, 50 patients visiting laboratory.

DATA COLLECTION: Direct and Primary Data collection.

DATA COLLECTION PROCEDURE: Direct observation and department-wise appointment list (Global Soft software). This project uses routinely collected data from Gastroenterology department of S R Kalla Memorial Gastro and General Hospital Jaipur (RAJASTHAN).

Study Design: Observational cross sectional descriptive study.

Study Tools : Primary data collection is done by direct observation of in time and out time (patient coming out of the consultation room, radiology, lab and endoscopy). Data analysis is done by MS Excel.

OBSERVATIONS/ RESULTS

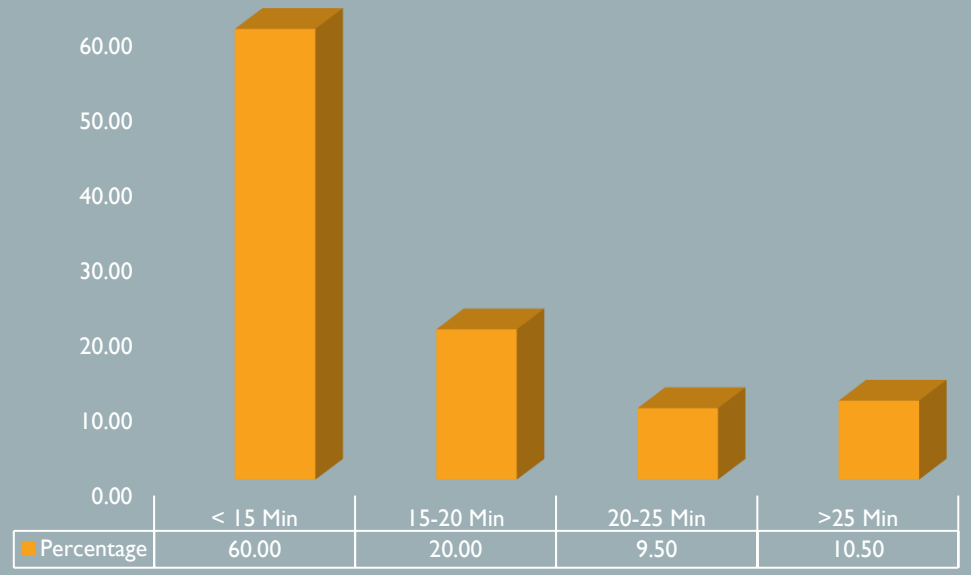


FIG 4.1. Average waiting time at Billing counter

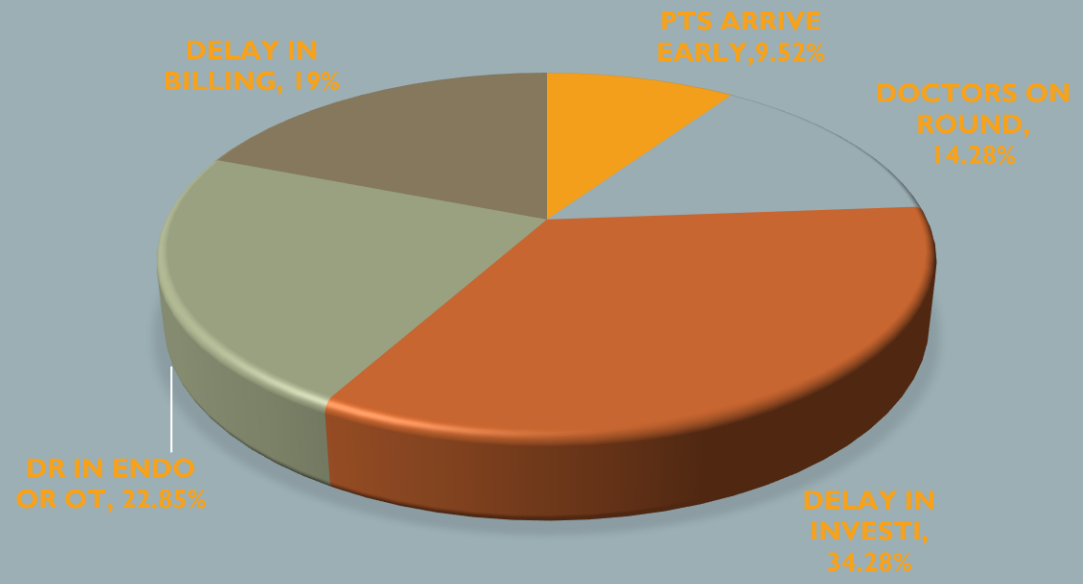


FIG 4.3. REASONS FOR DELAY

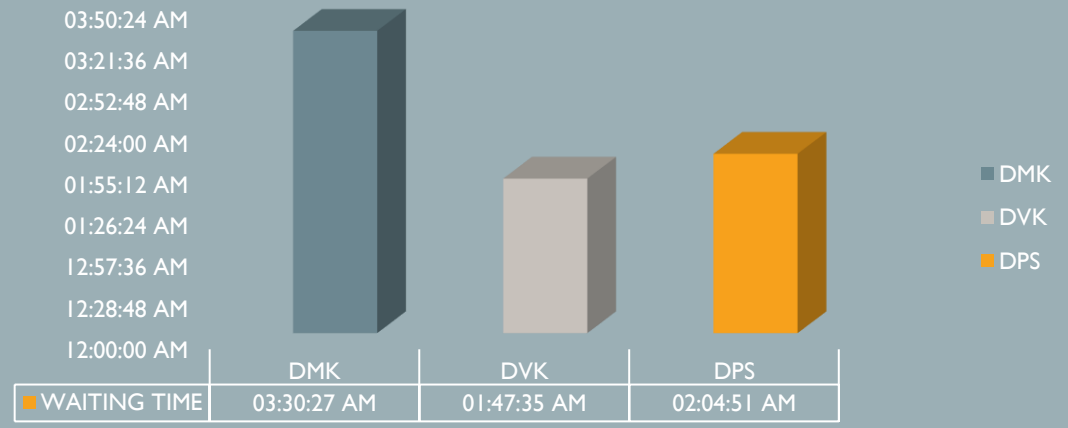


FIG 4.2. Average Waiting time for Consultation

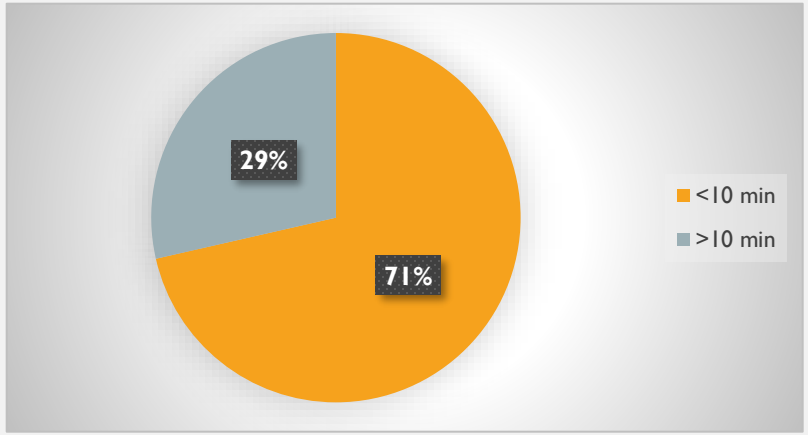


FIG 4.4. Average Waiting Time of X-ray

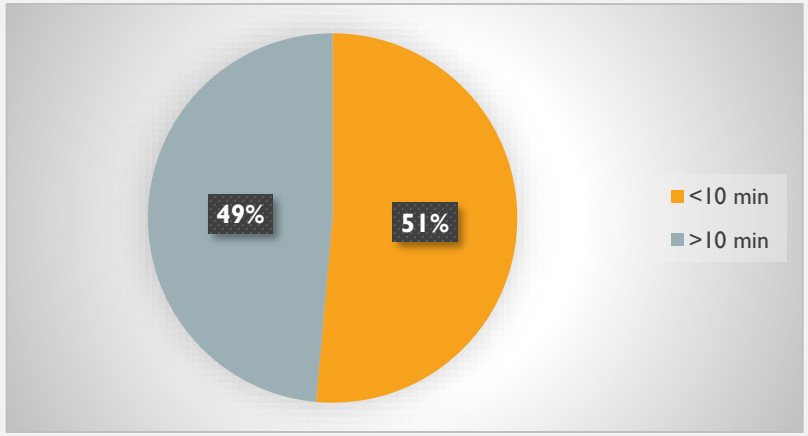


FIG 4.5. Average Waiting Time for report generation in X-ray

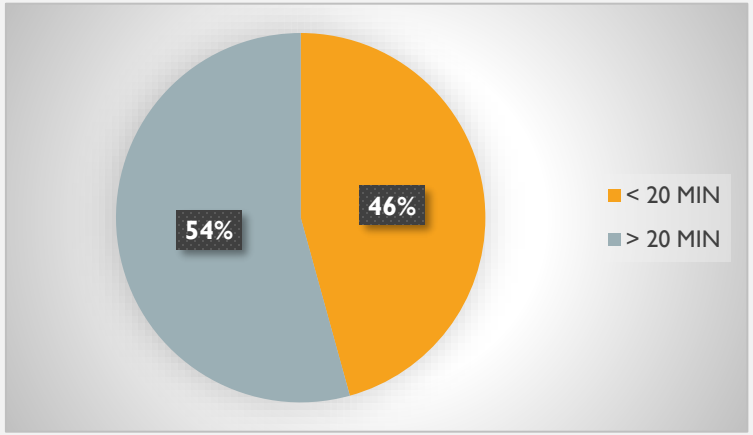


FIG 4.6. Average Waiting Time of USG

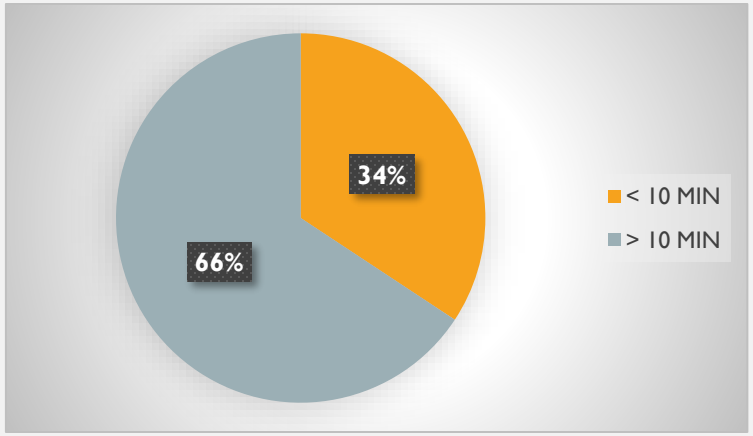


FIG 4.7. Average Waiting Time for report generation in USG

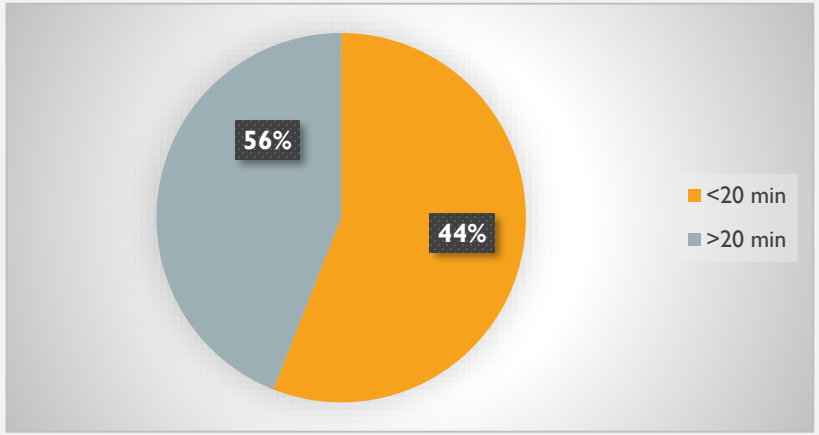


FIG 4.8. Average Waiting Time of Endoscopy

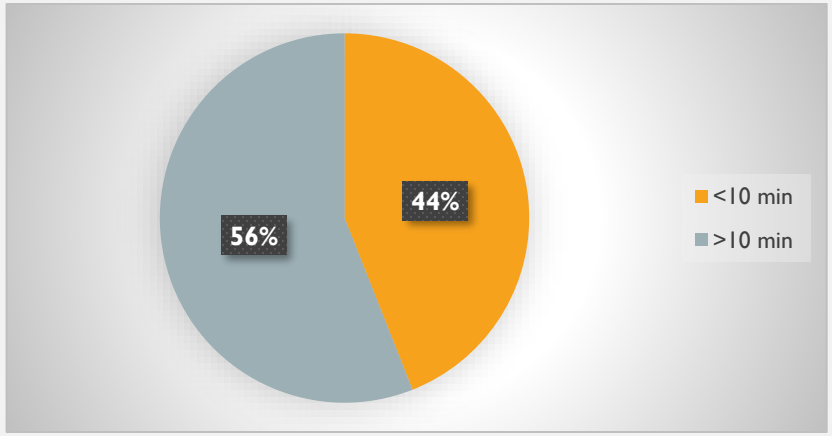


FIG 4.9. Average Waiting Time for report generation in Endoscopy

FIG 4.10. AVERAGE TIME BETWEEN SRT (SAMPLE RECEIVING TIME) AND SAT (LABORATORY)

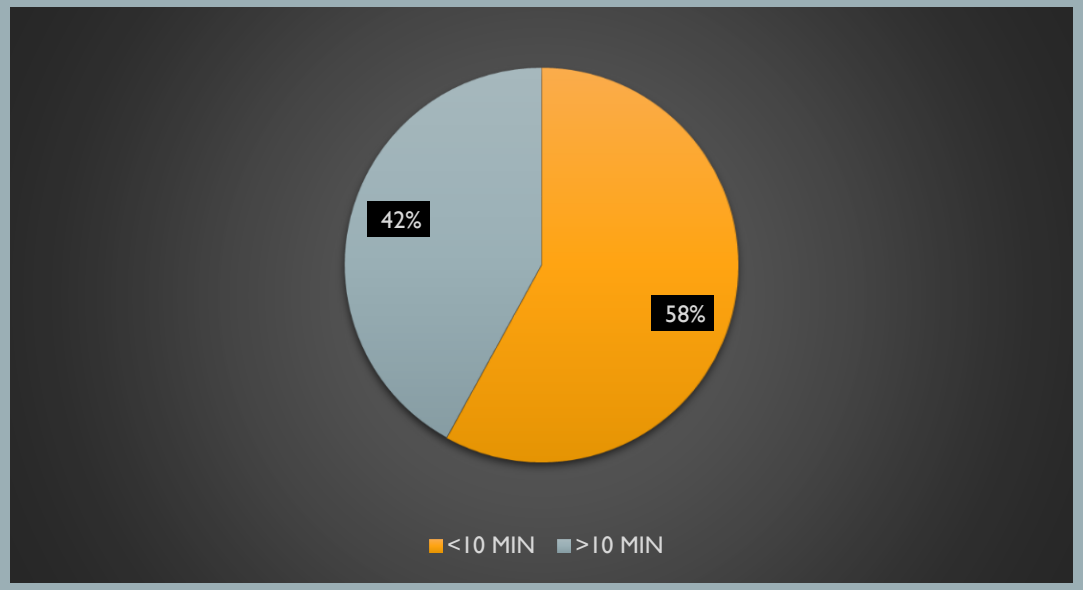
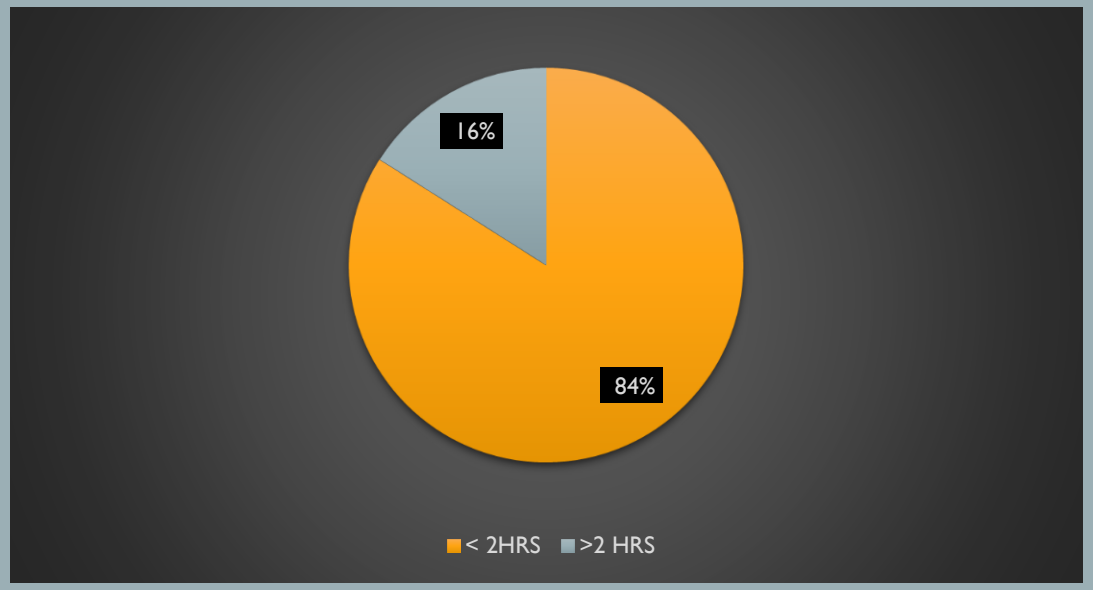


FIG 4.11. AVERAGE TIME BETWEEN SAT (SAMPLE ACCEPTING TIME) AND RGT (REPORT GENERATION TIME)



MAJOR FINDINGS

Average Waiting Time in the OPD

DMK TAT: Highest among three doctors, around 3 hours and 50 minutes.

Reasons for long waiting times:

1. Manual registration delays.
2. Patients arriving too early.
3. Lengthy billing for credit patients.
4. Lack of staff at the credit counter.
5. IPD billing done at OPD billing counter.
6. Improper signage.
7. Patients not present when called.
8. Doctors attending emergencies/endoscopic procedures.
9. No definite IPD round timings.
10. Lack of healthcare assistants for guidance.

Average Waiting Time in X-ray, USG, Endoscopy

Primary OPD delay reason: "DELAY IN INVESTIGATION" (34.28%).

X-ray:

71% of patients wait < 10 minutes (Figures 4.4, 4.5).

USG:

54% wait > 20 minutes (Figure 4.6).

Endoscopy:

56% wait > 20 minutes (Figure 4.8).

Reasons for long waiting times:

1. Radiologist starts at 11 AM, results overlapping among OPD, ICU, and IPD patients.
2. Delayed IPD rounds results in overlapping among OPD, ICU, and IPD patients.
3. IPD patients prioritized over OPD patients.
4. Poor management of peak hour patient load.
5. Patients unprepared for tests (e.g., improper urine pressure).
6. Emergency and priority patients causing delays.
7. Poor coordination and communication between departments.
8. System issues.

Average Waiting Time for Report Generation in X-ray, USG, Endoscopy

X-ray:

49% wait > 10 minutes for reports (Figure 4.5).

USG:

34% receive reports in < 10 minutes, 66% wait > 10 minutes (Figure 4.7).

Single radiologist and typist handling multiple tasks.

Endoscopy:

56% wait > 20 minutes due to high workload (Figure 4.9).

Laboratory Waiting Times

Time between SRT and SAT:

42% wait > 10 minutes.

Occasional delays due to BAI ji transporting samples.

Time between SAT and RGT:

84% of samples processed < 2 hours.

CONCLUSION AND RECOMMENDATIONS

Recommendations to Reduce OPD Waiting Time:

- Start billing at 10 AM instead of 8 AM to align with 11 AM OPD start.
- Introduce QR code self-registration with staff assistance.
- Allow patients to issue tokens from home and check queue status.
- Separate IPD Billing Counter
- Complete IPD Rounds Before 11 AM to ensure OPD can start on time.
- Guide patients.
- Use audio/sound notification and display screens.
- Encourage patients to make appointments to reduce waiting time.
- Encourage local Jaipur patients to visit in the evening.
- Install appropriate signage for OPD departments.
- Limit RGHS patient bookings to 50 and provide a resident doctor to assist Dr. DMK.

Recommendations for X-ray, USG, Endoscopy Waiting Time:

1. Radiologist should start at 10 AM to manage IPD and ICU patients before OPD.
2. Facilitate evening workup for local patients with follow-up endoscopy next day at 10 AM.
3. Collect IPD procedure lists from IPD floor manager for seamless coordination.
4. Collaborate with IPD floor manager for early bowel prep.
5. Display posters outside USG department detailing preparation instructions to reduce staff workload and delays.

Time between SRT and SAT:

Train staff on efficient sample handling and transport. Establish SOPs to standardize the process and reduce variability in transportation times.

References:

1. *Sengupta B, Kumar Mandal P, Kar A, Bhattacharyya N, Biswas S, Resident J. A Time Motion Study of Healthcare Delivery System at General OPD of Rural Hospital of West Bengal. Website www. ijrrjournal. com Orig Res Artic Int J Res Rev [Internet]. 2020; 7 (2): 254-60.*
2. *Javed D. A time-motion study of OPD services at a state level Ayurvedic hospital to reduce the OPD congestion. Int Ayurvedic Med J. 2015;3(10):1-9.*
3. *Patel R, Patel HR. A study on waiting time and out-patient satisfaction at Gujarat medical education research society hospital, Valsad, Gujarat, India. Int J Community Med Public Health. 2017 Mar;4(3):857-63.*
4. *Saxena R, Sharma S, Sharda V, Nalini G, Yadav MK. A study of waiting time of patients in outpatient department of armed forces Tertiary Hospital in Northern India. The Journal of Community Health Management. 2023 Jan 20;7(4):125-7.*
5. *Deorankar DR, Shinde V, Gudhe V. Assessment of Waiting Time and Recommend the Strategies for Reduction of Waiting Time in Outpatient Department at AVBRH, Wardha, India.*

THANK YOU