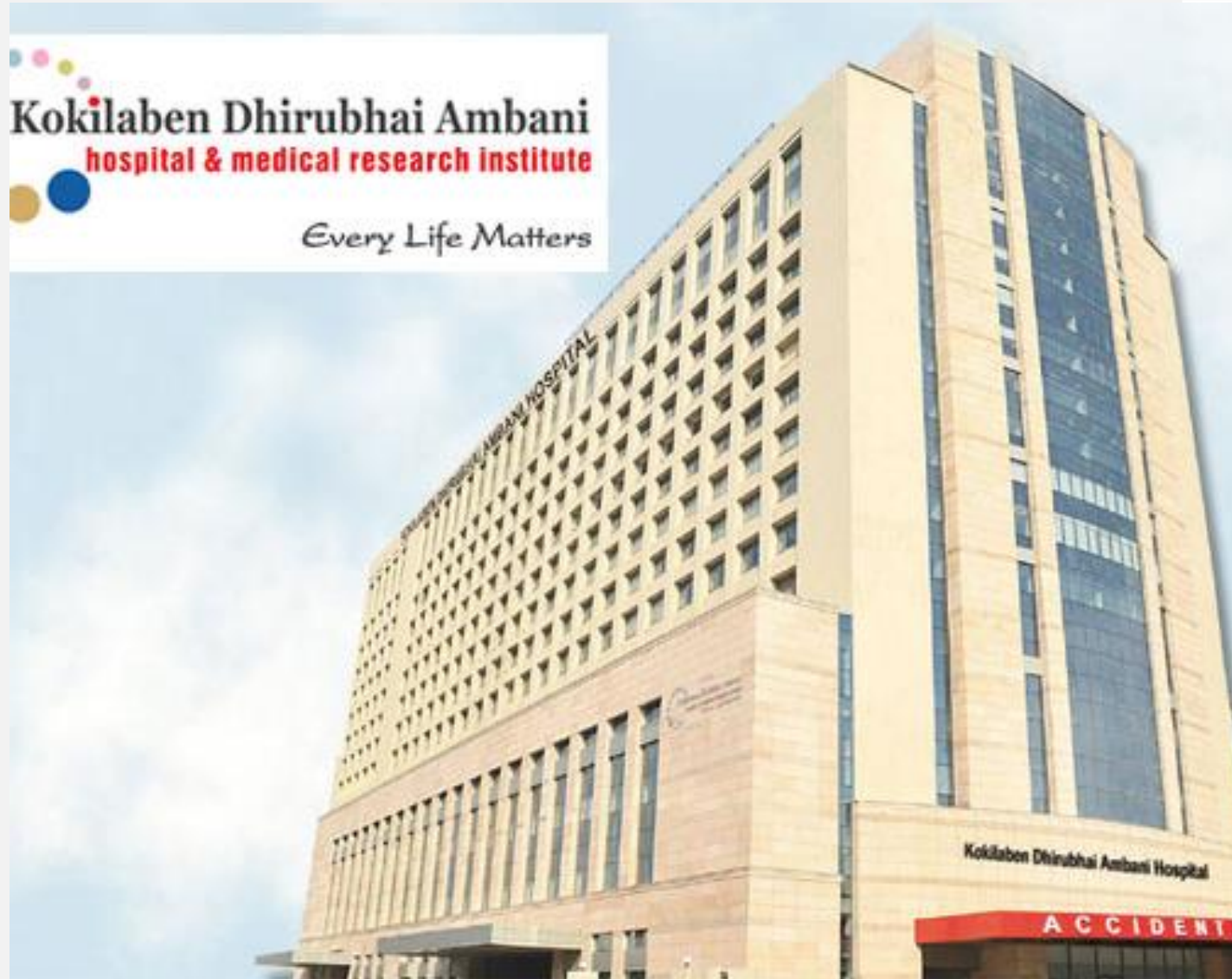




Time & Motion Study for 2D-ECHO department at Kokilaben Dhirubhai Ambani Hospital, Mumbai.

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Overview

It's common to be nervous or a little anxious before a hospital visit. Whether it's thinking about seeing blood during blood test or having some fear of medical procedures. This anxious state of mind can elevate owing to long waiting period before a procedure or worrying about the outcome of a test.



Aim



The aim of this study was to analyze the patients Turnaround Time (TAT) and Waiting Time (WT) for the 2D-ECHO department at Kokilaben Dhirubhai Ambani Hospital, Mumbai.

2D ECHOCARDIOGRAPHY



- ❖ **2D echocardiography**, also known as **2D-ECHO**, is a non-invasive investigation used to evaluate the functioning and assess the sections of your heart.
- ❖ It creates images of the various parts of the heart and makes it easy to check for damages, blockages, and blood flow rate.
- ❖ 2D-ECHO provides your physician with information like the functioning of your heart, diagnose the malfunctions, if any, and plan the treatment for the developing disease. Your normal 2D-ECHO results also helps your mind be at peace that your heart is working fine.





Echocardiography

PS/ 01119



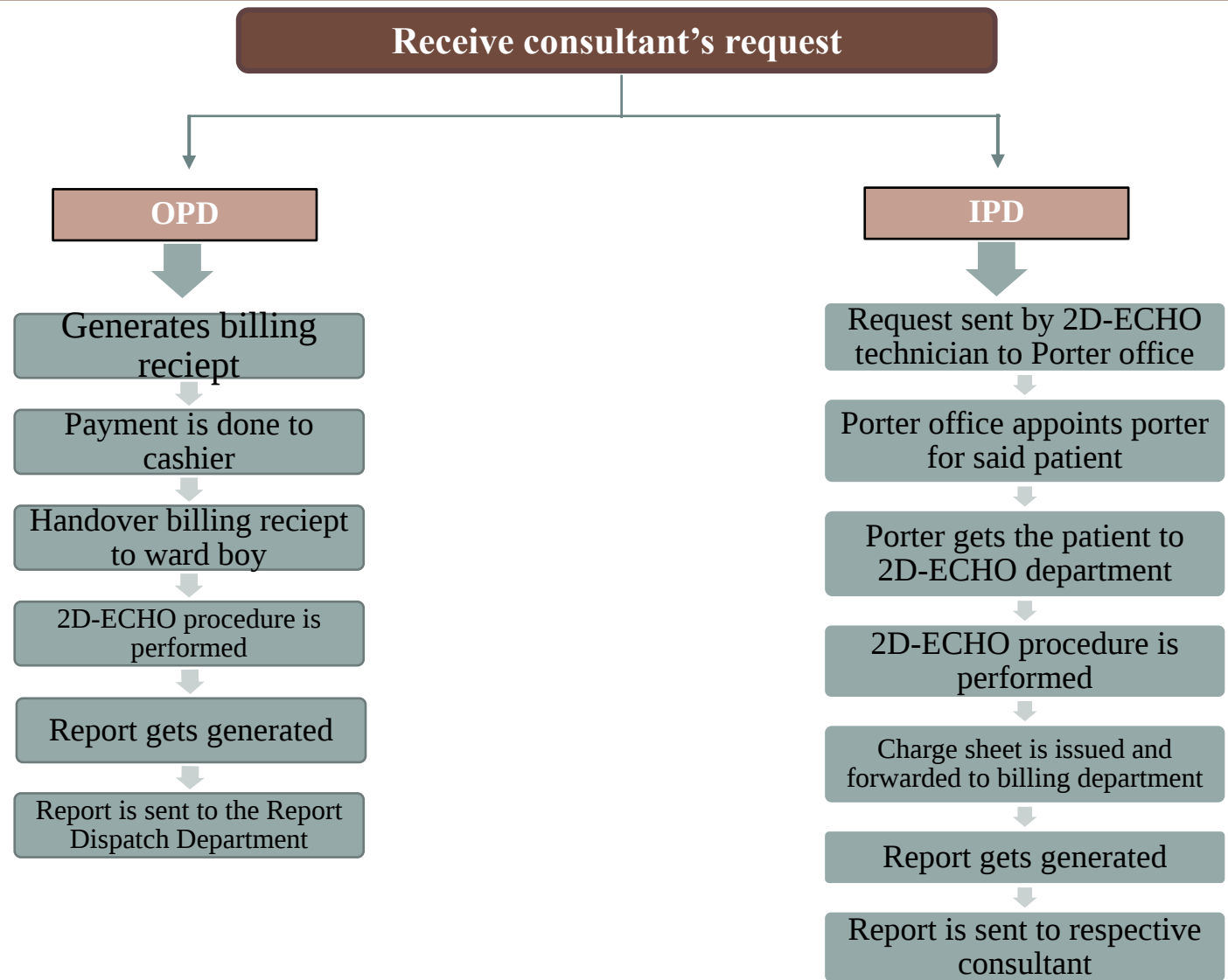
Definitions

- ❖ Waiting Time(WT): It is the time measured starting from patient's arrival time in the 2D-ECHO department till the start of the 2D-ECHO test.
- ❖ Turnaround Time (TAT) : It is the time measured starting from patient's arrival time in the 2D-ECHO department till the time the final report is sent to the Report Dispatch Department.

Methodology

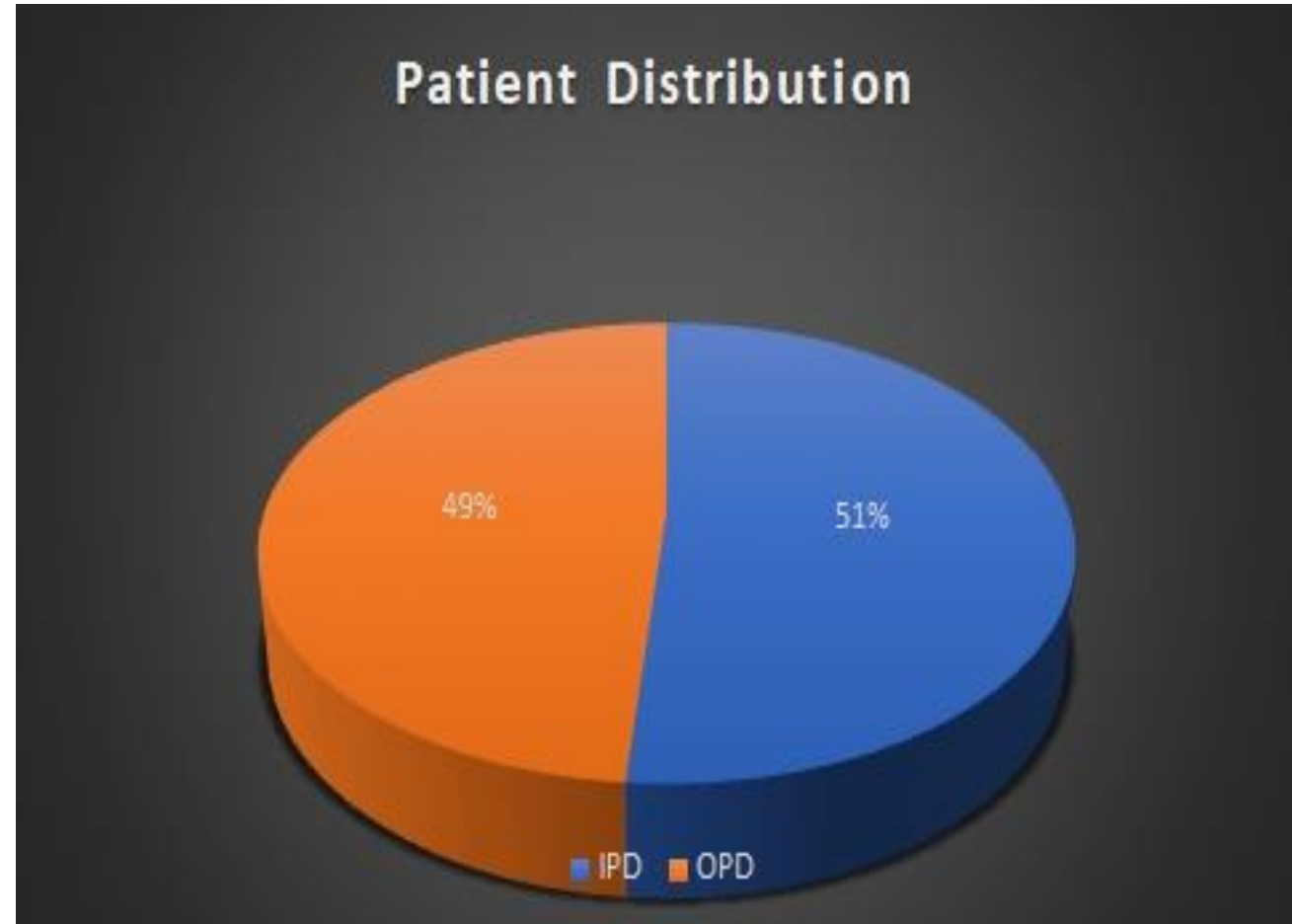
- ❖ **Type of study:** Descriptive study.
- ❖ **Study duration:** The period of data collection was from 15th June 2021 to 21st June 2021
- ❖ **Sample size:** A total of 150 patients were observed from the Inpatient Department (IPD) and Outpatient department (OPD).
- ❖ **Mode of Data Collection:** Observational
- ❖ **Data collection tool and techniques:** An Observational table was created as a tool to record time using MS-EXCEL sheets, at various steps in the process.

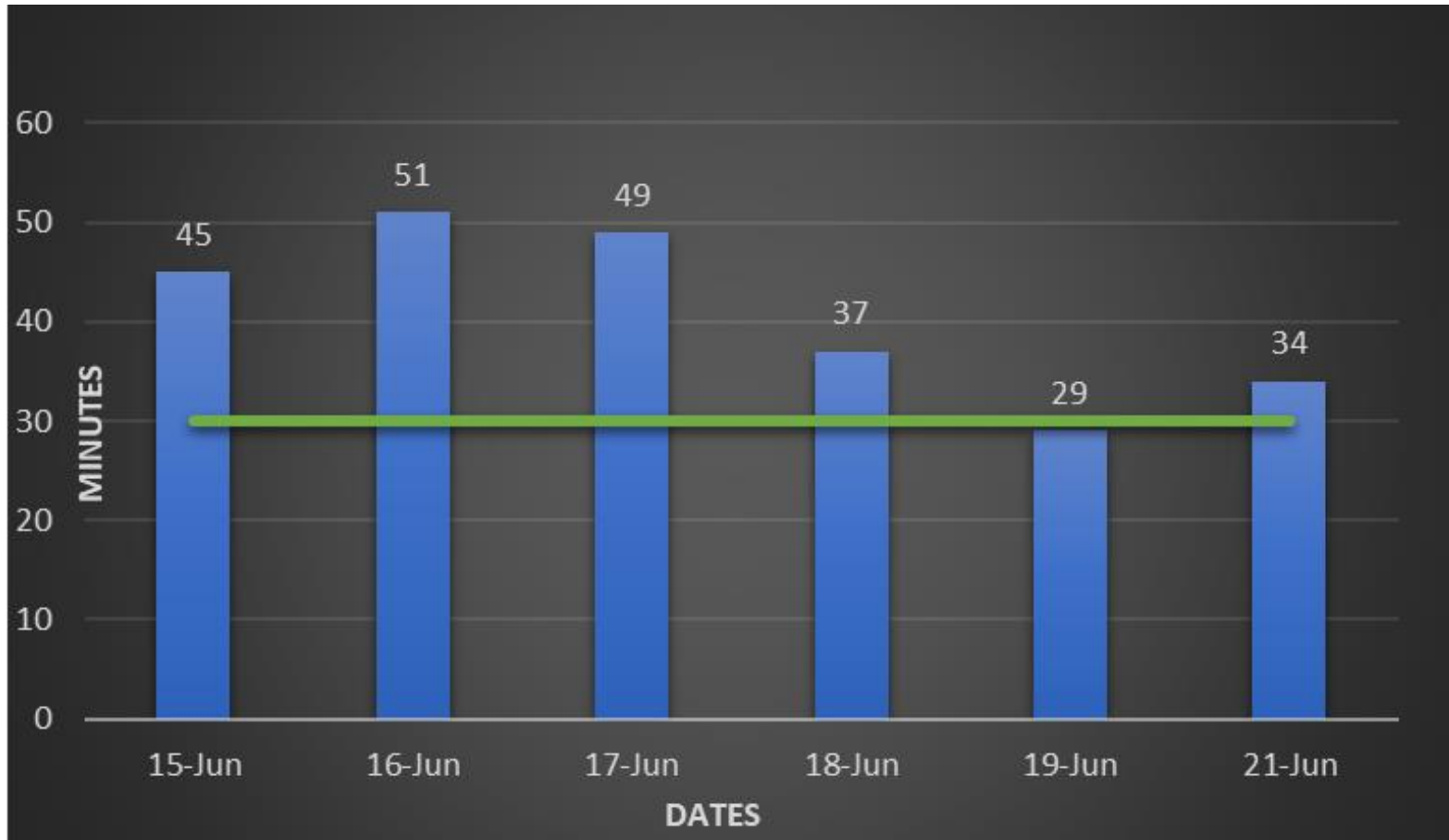
Process Flow of 2D-ECHO Department



Patient Distribution

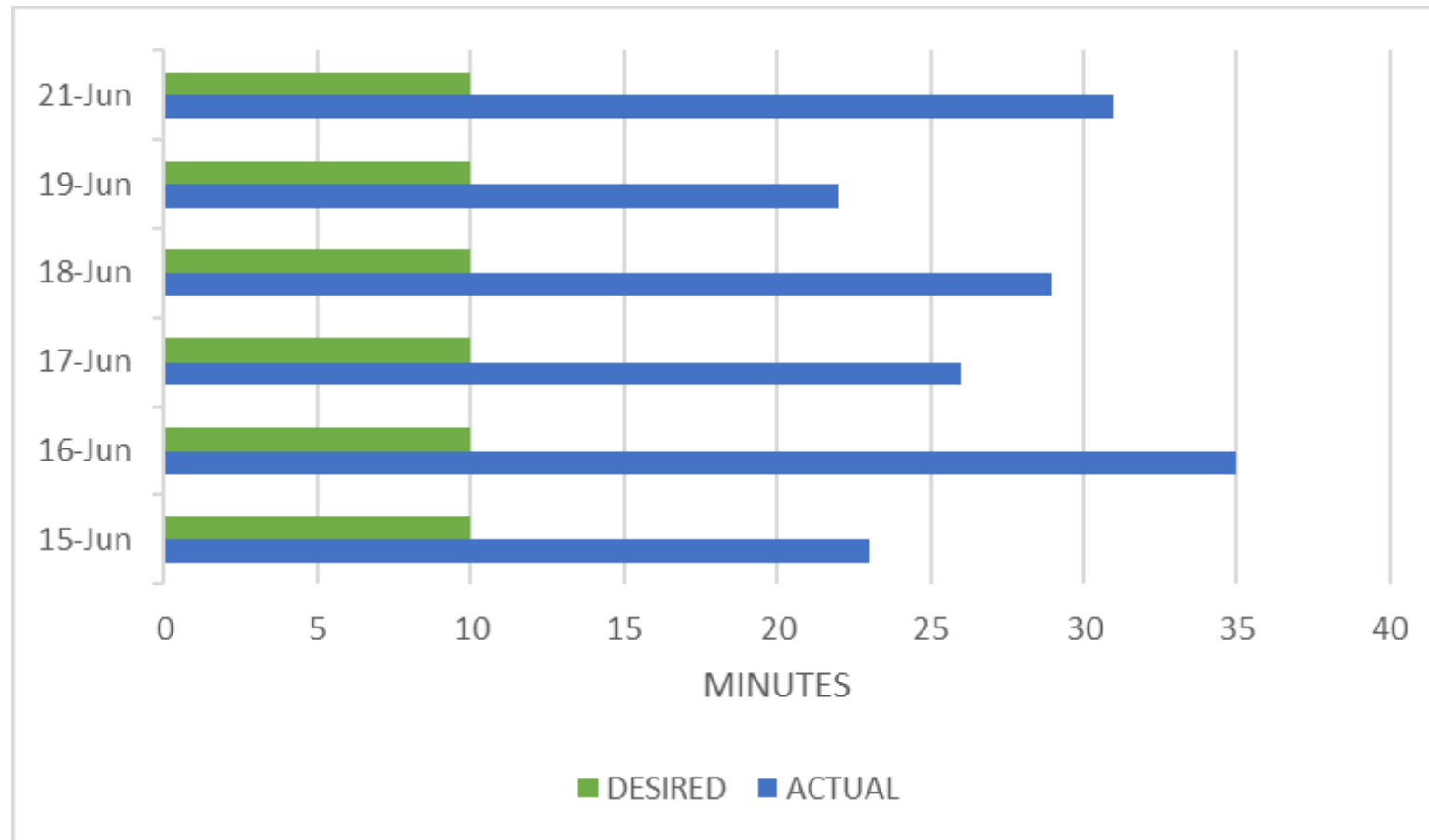
Out of the total data collected, highest number of patients recorded are from in-patient department(IPD), followed by the Out-patient department(OPD).



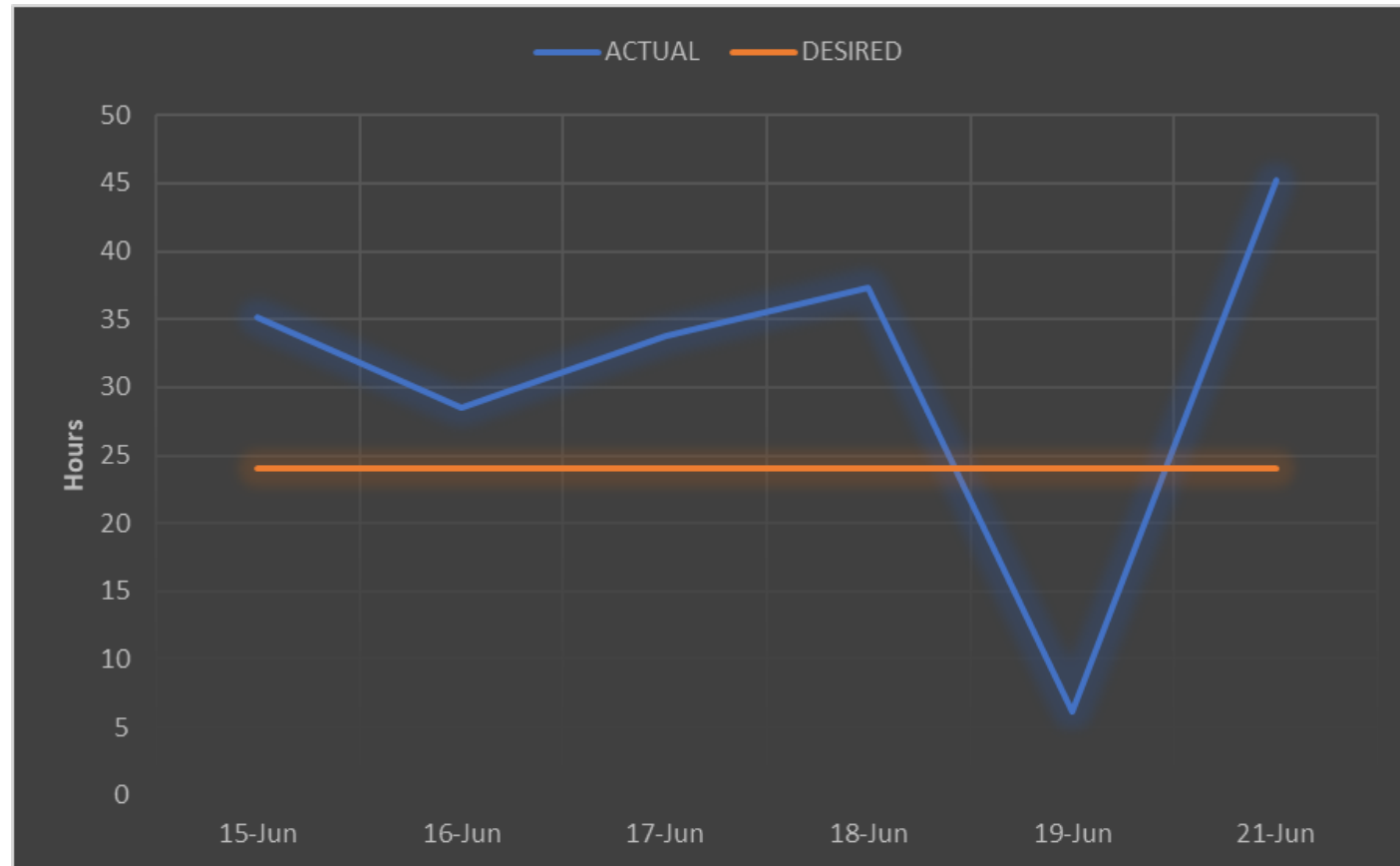


Average Waiting
Time(WT)
compared to
different days.

Average time taken by porter service to get a patient to the 2D-ECHO department.



Turn Around Time(TAT) for 2-D ECHO process.



Observations

- ❖ The maximum Waiting Time(WT) in the 2D-ECHO department was observed to be 2 hours & 44 minutes, while the average time taken was 41 minutes.
- ❖ Walk-in from the Outpatient department(OPD) can lead to increase in waiting time for other patients.
- ❖ Sometimes queue system is not followed which leads to unjust waiting time for other patients.
- ❖ Too many patients from In-Patient Department(IPD) are called through porter service at once, increasing the waiting time for such patients.
- ❖ Each porter takes around 35 minutes after receiving request from the porter office to get the patient from their respective room/bed to the 2D-ECHO department.
- ❖ The maximum Turn Around Time(TAT) in the 2D-ECHO department was observed to be 78 hours & 23 minutes, the average for the same was 30 hours & 52 minutes.
- ❖ It has been observed that some of the employees showed irregularities and delay in their reporting to the department.

Recommendations

- ❖ There is no proper queue for OPD patients. A token system should be incorporated and generated on the arrival of the patient to the department.
- ❖ Due to mismanagement, 4-5 IPD patients are called in altogether at one point of time, causing increase in the waiting time of each patient. A person must be appointed to co-ordinate IPD patients call time.
- ❖ There are 25 porter's available to manage a 750 bedded hospital. This causes an increase in the time taken by the porter service for arrival. Hiring more number of porters can be suggested.
- ❖ Turn Around Time (TAT) can be significantly reduced if the reports get typed on the same day and get dispatched the next day in the morning.

Conclusion

From this presentation I would like to conclude that the 2D-ECHO department is a busy department with constant load of patients from both Inpatient department(IPD) and Outpatient department(OPD), due to which there were some delays in the process thus increasing the overall turnaround time for the patients. Decreasing this time would help to increase patient satisfaction, consequently increasing the quality experience for the patients in the hospital.



Thank You.