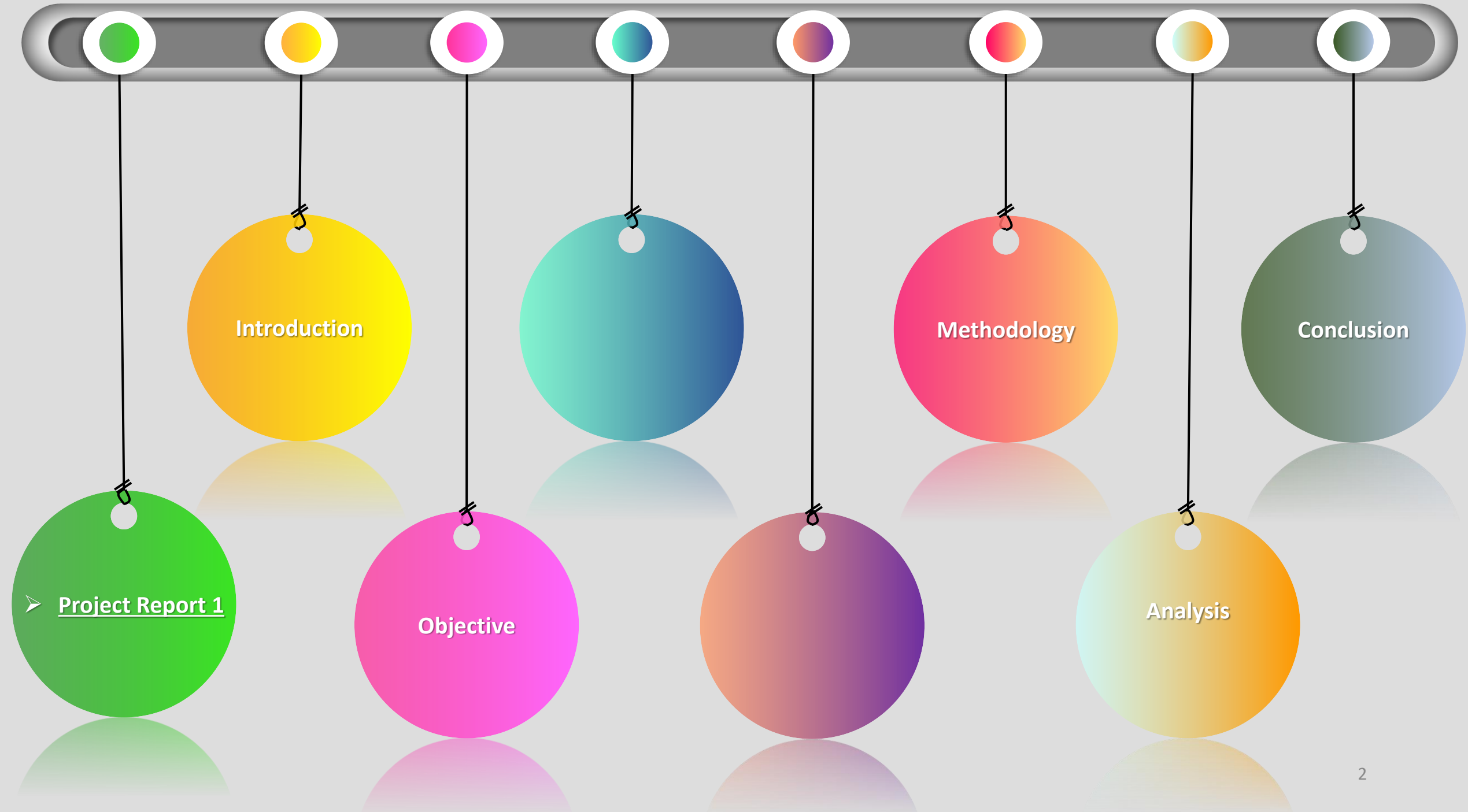


Summer Training Report By,

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**MBA HM-25
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Project Report : 1

**A study on Turn Around Time in
Diagnostic Radiology**

Introduction:

Radiology is a medical specialty that uses imaging diagnosing and treat diseases seen within the body. Radiologists use a variety of imaging techniques such as X-Ray, MRI,CT,USG to diagnose diseases.

Objective :

- To study the process flow and TAT of Diagnostic Radiology
- To find out different factors that determine turnaround time for complete process

METHODOLOGY

Study Design-It was descriptive observational type of study in diagnosis radiology department of Healthcare Global Enterprise, Jaipur.

Type of Research-Primary Research

Data Type-Primary Data

Data Collection Tools

- Primary research on diagnosis radiology department (billing time, arrival time, waiting time, in time, out time)
- Used control charts for identifying the problem

Data Analysis Tool-MS Excel

Sampling Plan

- **Sampling unit** : Patients of Radiology department
- **Sample size** : Patients were observed on day-to-day basis in the month of June 2021. Out of 171 patients, 149 sample size was taken rest were removed in data cleaning and validation.
- **Sample collection technique** : Random sampling
- **Sample collection area** : HCG (Healthcare Global Enterprise), Jaipur

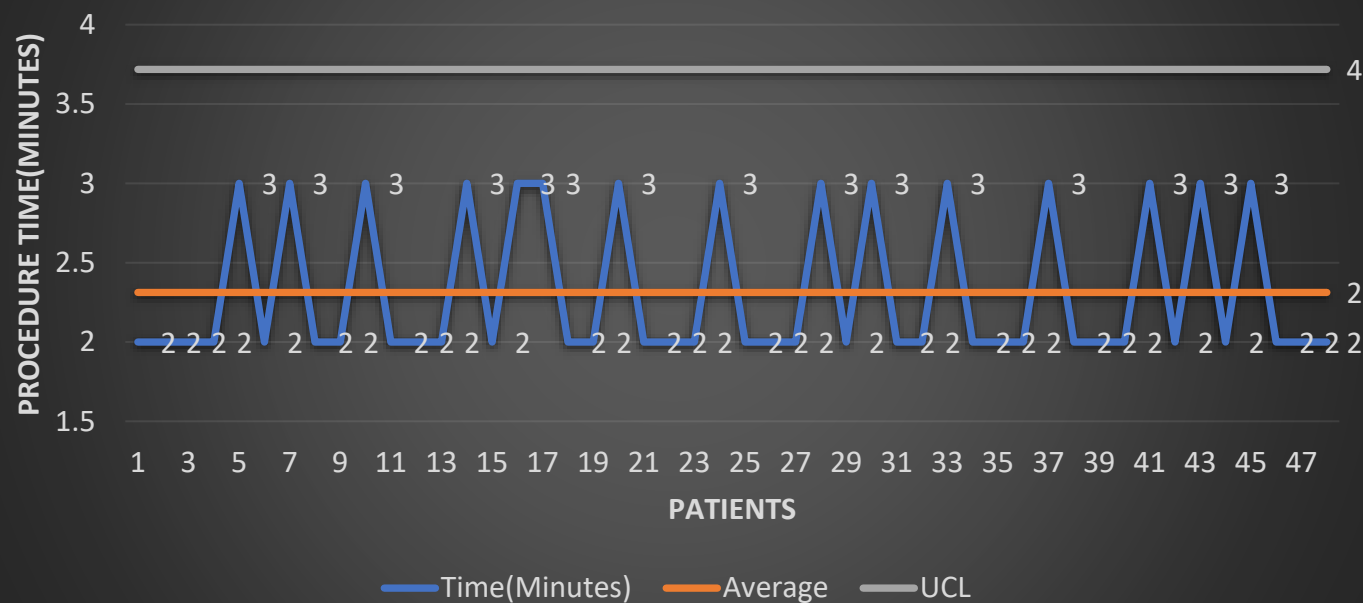
Inclusion Criteria

- Patients covered under Diagnostic Radiology

Exclusion Criteria

- CT patients (location was different)
- IPD patients

C-Chart X-ray

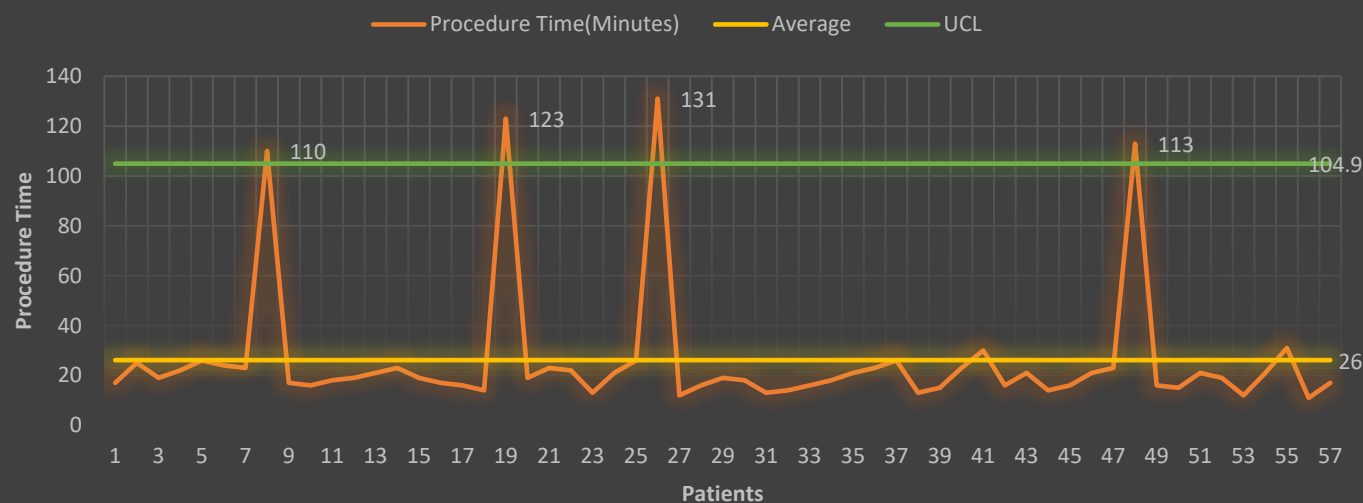


ANALYSIS

The C-Chart portrays the subsequent discoveries :

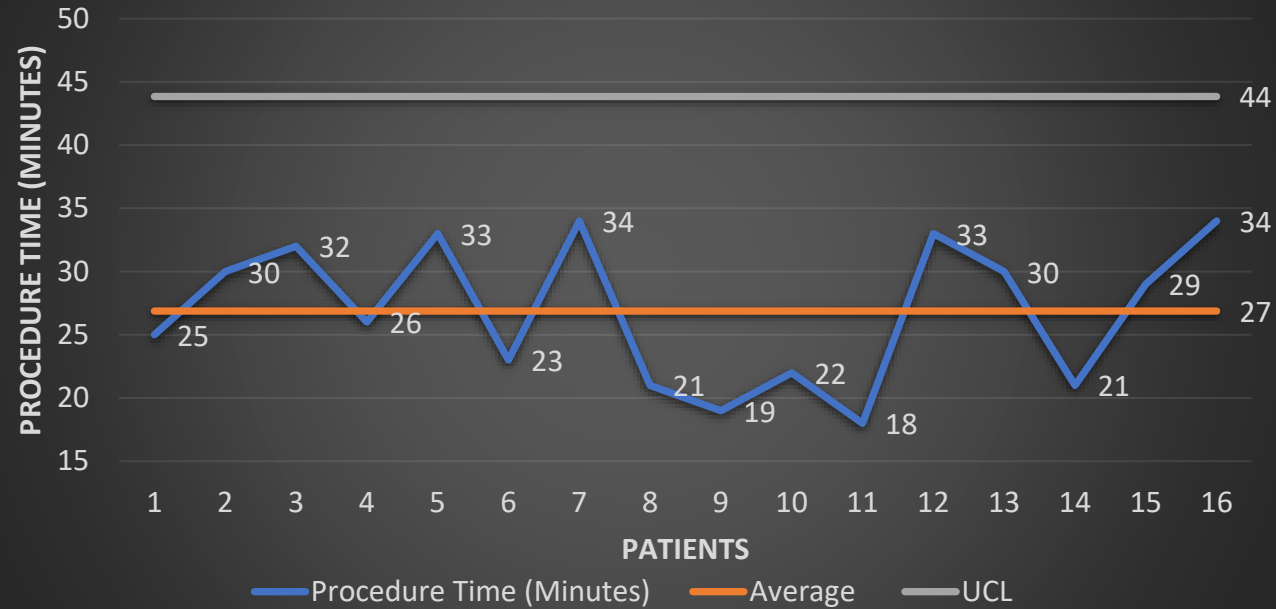
- The Chart is showing UCL(Upper Control limit) & control limit that is average.
- This C-Chart has been used for detects if there is any defect in sample.
- As shown in portrays all the procedure has been done within the time. 2 min was the standard time, and 4 min was the upper control limit and no patient exceed more than 4 mins.

C-chart USG



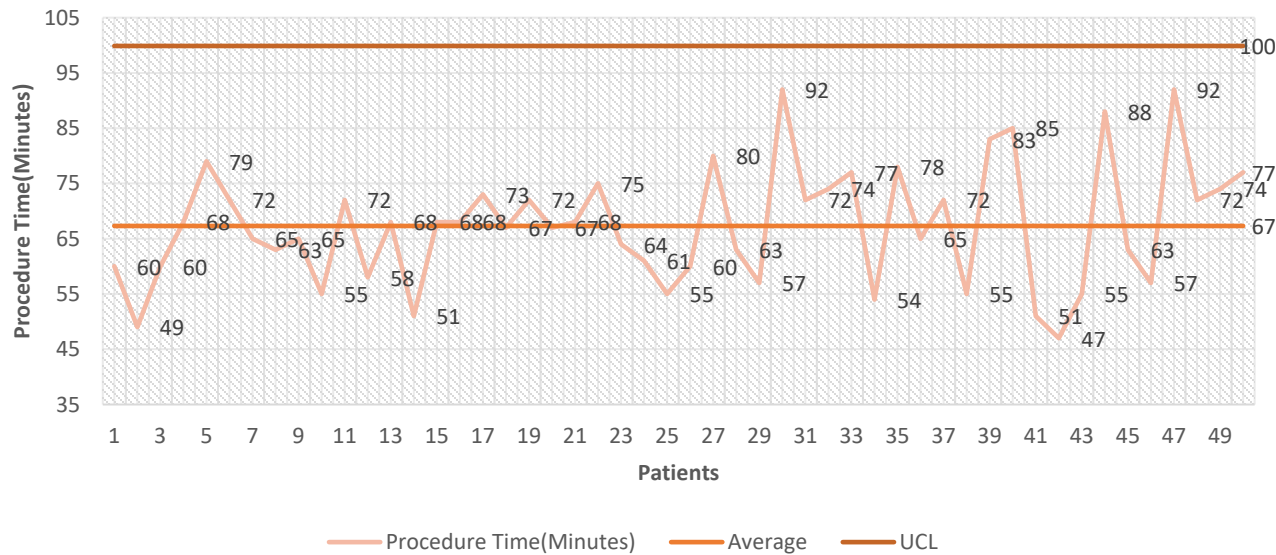
A shown in portrays , there are 4 outliers which are above the UCL (Upper Control Limit) which exceed 105 mins, rest are within the control border.

C-Chart Mamography



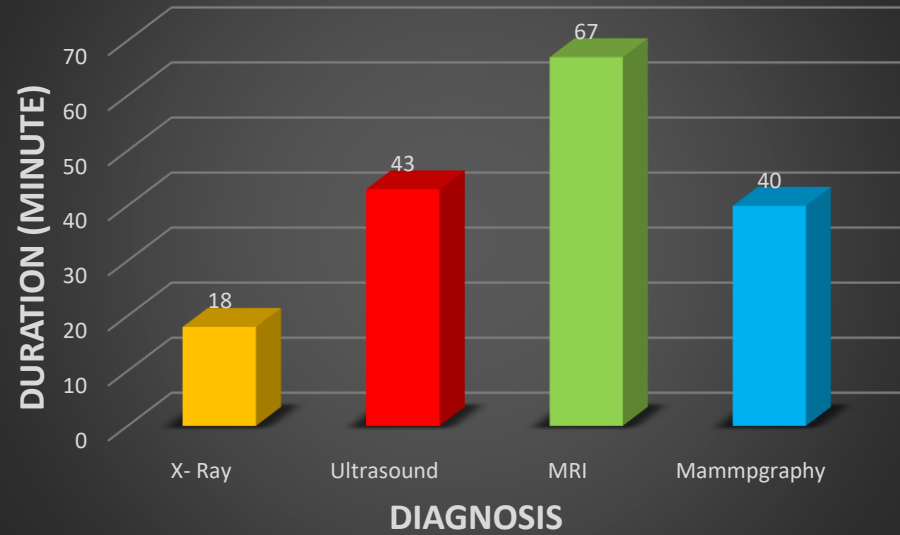
For MRI procedure all the patients are in control limit who were traced during the study. The mean time is 67 mins & UCL is 100 mins & all procedures were done within the time frame and not exceed more than 100 mins.

C-Chart MRI

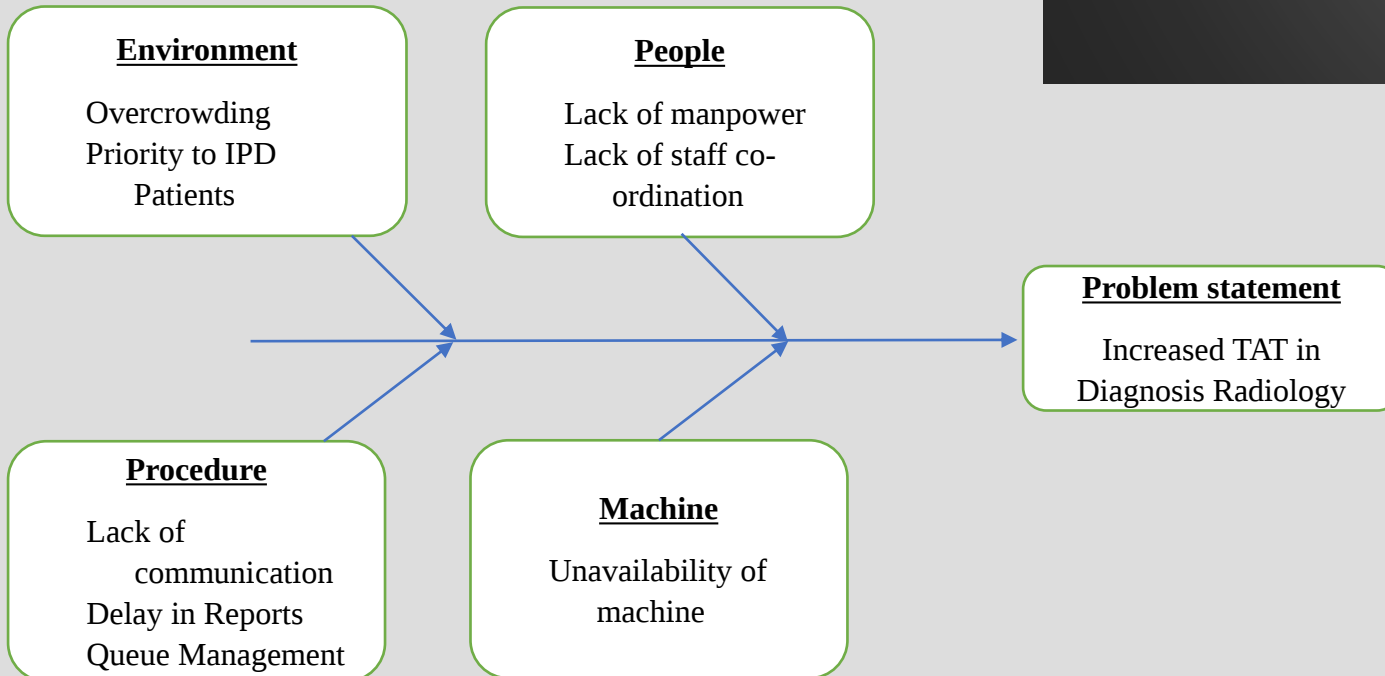
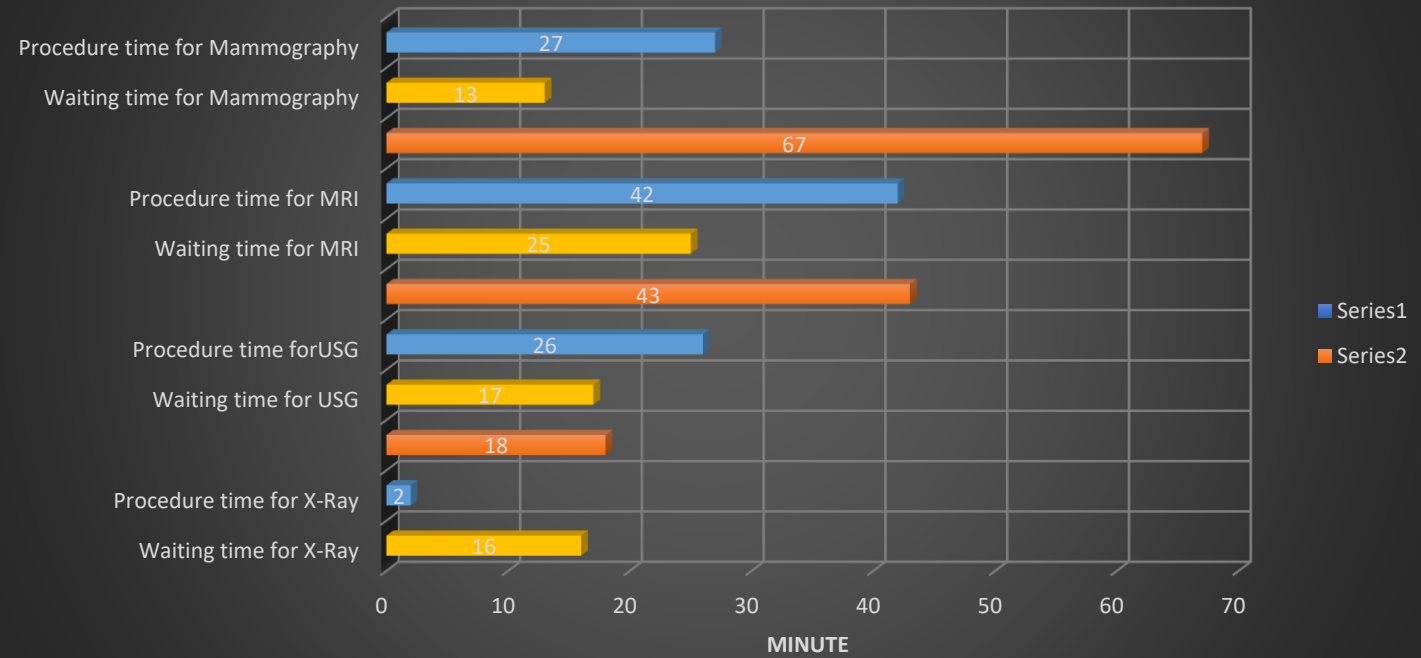


For Mammography procedure all the patients are in control limit who were traced during the study. The mean time is 27 mins & UCL is 44 mins & all procedures were done within the time frame and not exceed more than 44 mins.

Average Turn Aroun Time



Average Time in Different Procedures



Findings :

Factors which are affecting to high turnaround time-

- Unavailability of equipment's
- Due to improper queue management turnaround time is increasing
- Shortage of manpower
- Lack of co-ordination among staffs
- IPD patients procedures in OPD hours

RECOMENDATIONS

- Unavailability of equipment's is one of the major reasons behind high TAT, hospital should deploy more equipment's.
- Assigning more radiographer to avoid high turnaround time
- Staffs timing will be more prominent to avoid shortage of staff
- Co-ordination among staffs should be increased
- To improve queue management their should have token system
- Displaying patients queue on screen should be there to avoid asymmetrical queue system

CONCLUSION

Turn Around Time of any process indicates the quality of the procedure that is delivered by the organization to the customer. There may be several factors due which there may be increase in the turnaround time is stated. These factors need to be controlled by the organization, so that the quality of the procedure is ensured. Staff unavailability, failure in queue management, and movement of patients is going out of the department. Turn Around Time was calculated by observational study and the recommendation was made accordingly to reduce Turn Around Time.

Thank You