

**Report on Dissertation Work**

**at**

**Yatharth Superspeciality  
Hospital, Greater Noida**

**Study on Turnaround time at Emergency Department , Yatharth  
Superspeciality Hospital , Greater Noida**

**By**

**Dr. Shivi Sabbarwal**

**PG/21/100**

**Under the guidance of:**

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Ms. Sushmita Singh (IPD Manager)**

**Post graduate Diploma in Hospital and Health management**

**Batch: 2021 – 2023**



**International Institute of Health Management Research  
New Delhi**

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Title EMERGENCY TAT

and has successfully completed his/her Project on

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This is to certify that **Dr Shivi Sabbarwal** student of Post Graduate Diploma In Hospital and Health management (PGDHM) from International Institute of Health Management Research, New Delhi has undergone dissertation training at **Yatharth Superspeciality Hospitals, Greater Noida** from **1 March 2023 to 1 May 2023**.

The candidate has successfully carried out the study designated to her during dissertation and her approach to the study has been sincere and analytical.

The internship is in fulfillment of the course requirements.

We wish her all the success in all her future endeavors.



**Dr. Sumesh Kumar**  
**Associate Dean, Academic and Student Affairs**  
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**Dr. Rohini Ruhil**  
**Associate Professor**  
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### Certificate of Approval

The following dissertation titled "Study on turnaround time in Emergency Department" at "Superspeciality hospital at Greater Noida" is hereby approved as a certified study in management carried out and presented in a manner satisfactorily to warrant its acceptance as a prerequisite for the award of PGDM (Hospital & Health Management) for which it has been submitted. It is understood that by this approval the undersigned do not necessarily endorse or approve any statement made, opinion expressed or conclusion drawn therein but approve the dissertation only for the purpose it is submitted.

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### **Certificate from Dissertation Advisory Committee**

This is to certify that Dr. Shivi Sabbarwal, a graduate student of the PGDM (Hospital & Health Management) has worked under our guidance and supervision. She is submitting this dissertation titled "Study on TAT in Emergency Department" at "Yatharth Superspeciality Hospital, Greater Noida" in partial fulfillment of the requirements for the award of the PGDM (Hospital & Health Management).

This dissertation has the requisite standard and to the best of our knowledge no part of it has been reproduced from any other dissertation, monograph, report or book.

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Annexure F

## FEEDBACK FORM

Name of the Student: DR. SHIVI SABBARWAL

Name of the Organisation in Which Dissertation Has Been Completed:

YATHARTH SUPERSPECIALITY HOSPITAL, GREATER NOIDA

Area of Dissertation: EMERGENCY DEPARTMENT.

Attendance: 100%.

Objectives achieved: REDUCTION IN TURNAROUND TIME.  
IMPROVEMENT OF WORKFLOW PROCESS  
IN EMERGENCY DEPARTMENT.

Deliverables:

Strengths: SINCERE, PUNCTUAL, DEDICATED, RESULT-ORIENTED

Suggestions for Improvement: -

Suggestions for Institute (course curriculum, industry interaction, placement, alumni):

Signature of the Officer-in-Charge/ Organisation Mentor (Dissertation)



Date:

Place: GREATER NOIDA

### Acknowledgement

The success and final outcome of this project required lot of guidance and assistance from many people and I am extremely thankful to have got this all along the completion of my project work. I owe a great debt to all the project guide(s) at, Yatharth hospitals , Greater Noida for providing me all support with their knowledge and time during my dissertation. I express my sincere gratitude and thanks to **Mr. Shirish Kumar Vaz – Zonal H.R** for his valuable guidance and co-operation in my endeavor.

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~ Dr. Shivi Sabbarwal

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### **List of Symbols and Abbreviation**

<b>ABBREVIATION</b>	<b>MEANING</b>
<b>1.YSSH</b>	<b>Yatharth Superspeciality Hospital</b>
<b>2. IPD</b>	<b>In-Patient Department</b>
<b>3. OPD</b>	<b>Out-Patient Department</b>
<b>4. ICU</b>	<b>Intensive Care Unit</b>
<b>5. ER</b>	<b>Emergency department</b>
<b>6. CCU</b>	<b>Critical Care Unit</b>
<b>7. MRD</b>	<b>Medical Records Department</b>
<b>8. ER</b>	<b>Emergency Room</b>
<b>9. TAT</b>	<b>Turnaround Time</b>
<b>10. TMS</b>	<b>Time Motion Study</b>
<b>11.PSU</b>	<b>Public Sector Undertaking</b>
<b>12. TPA</b>	<b>Third Part Administration</b>
<b>13. IP Billing</b>	<b>In-patient Billing</b>

## 1.0 About Yatharth Superspecialty Hospitals



**GREATER NOIDA**



**NOIDA**



**NOIDA EXTENSION**



**JHANSI**



**Yatharth Superspeciality Hospital, Greater Noida**



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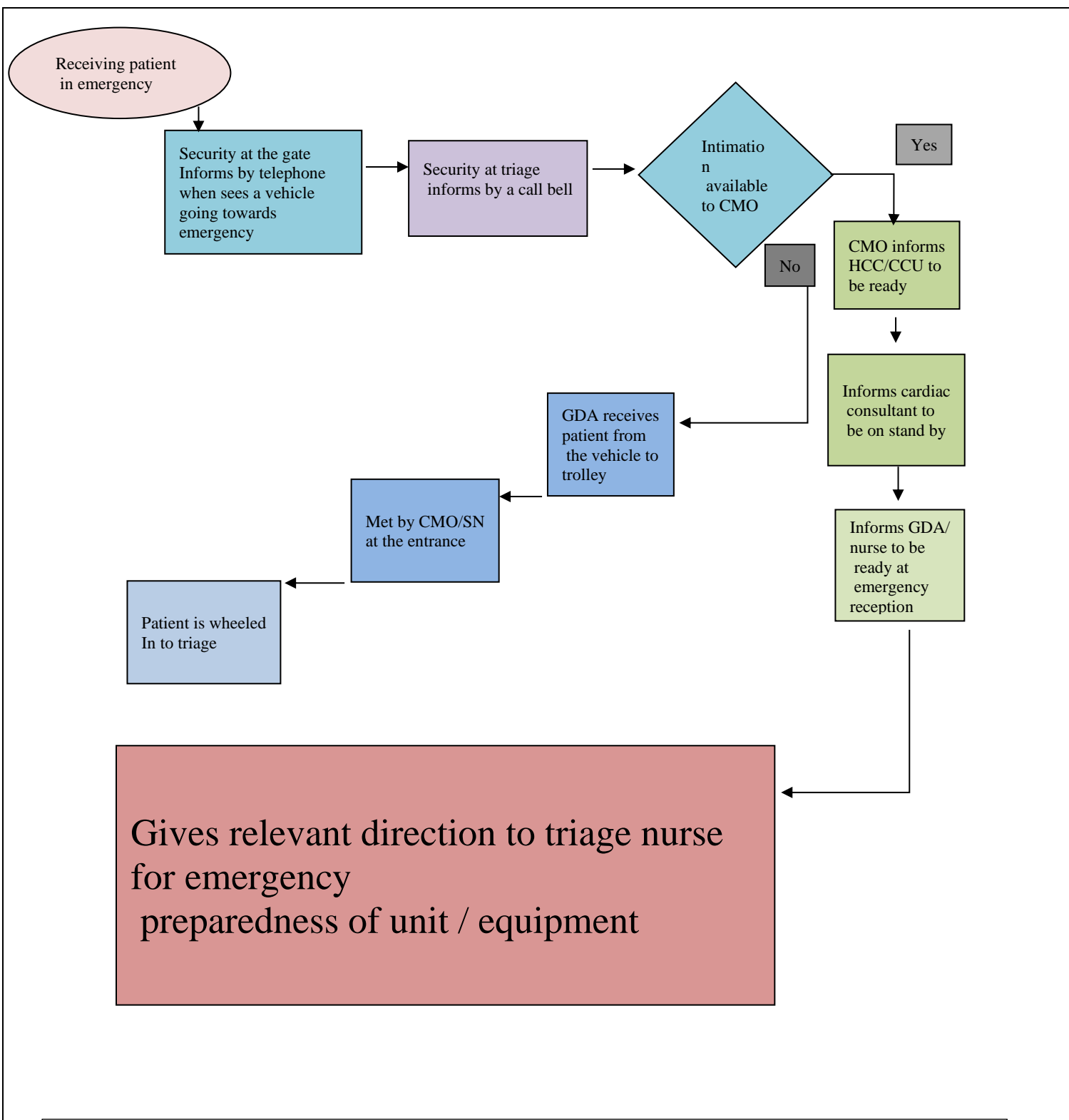
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## **2.0 Introduction**

### **Study on Turnaround time in Emergency Department of Yatharth Superspeciality Hospital, Greater Noida.**

- This study is primarily focused on the Emergency department of Yatharth Superspeciality Hospital which includes data from the arrival of patients to the discharge or transfer of the patients to the referred departments.
- Emergency medical care can cut down fatality rates, improve treatment outcomes, reduce time, and optimize treatment costs for many patients. That is why an emergency room or ER is very important part of any hospital.
- Emergency Department overcrowding has become a global problem and safety and quality concern. The primary goal of the emergency services are to minimize mortality, and longer-term morbidity, quality of life and mortality.
- Turnaround time is the amount of time it takes to complete a process. Turnaround time is the time from a process is started to the time when the process is complete.





## **2.1 WORKFLOW OF RECEIVING PATIENTS IN ER OF YATHATH HOSPITAL**



### **3.0 OBJECTIVE**

- To understand the workflow process of ER department in Superspeciality Hospital.
- To monitor turnaround time and waiting time in the Emergency Room.

#### **4.0 Literature Review**

TAT in hospital emergency departments (EDs) is critical to patient treatment, satisfaction, and overall operational efficiency. TAT reduction is critical for providing immediate and effective medical care, reducing patient waiting time, and utilizing the resources. The purpose of this literature review is to review existing research on TAT in the ED, identify major factors influencing TAT, and provide understanding and interventions used for improving TAT. A comprehensive review of electronic databases such as PubMed and Google Scholar was done. The terms used in the search were "turnaround time," "emergency department," "hospital," "efficiency," "patient flow". The review covered articles published between 2005 and 2021.

##### **Important Findings:**

##### **1. Turnaround Time Influencing Factors:**

- Patient-related factors include disease severity and attention level.

TAT is affected by process-related factors such as diagnostic test availability, consultation and treatment wait times, and bed availability.

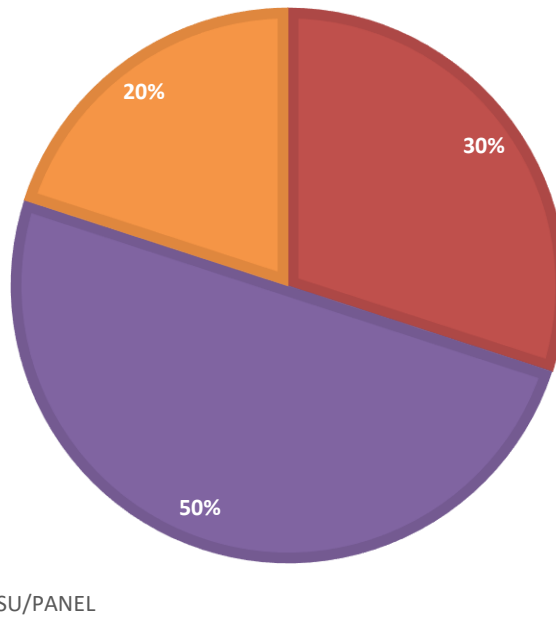
- Staffing and resource-related factors: TAT is influenced by adequate staffing numbers and the availability of resources.

##### **2. Impact of Improved Turnaround Time:**

- Reduced patient waiting time: Improved TAT results in decreased waiting times, which leads to improved patient satisfaction and outcomes.
- Efficient TAT improves resource allocation and reduces ED overcrowding.
- Patient safety and care quality: Prompt TAT ensures timely interventions, lowers medical errors, and enhances patient safety.

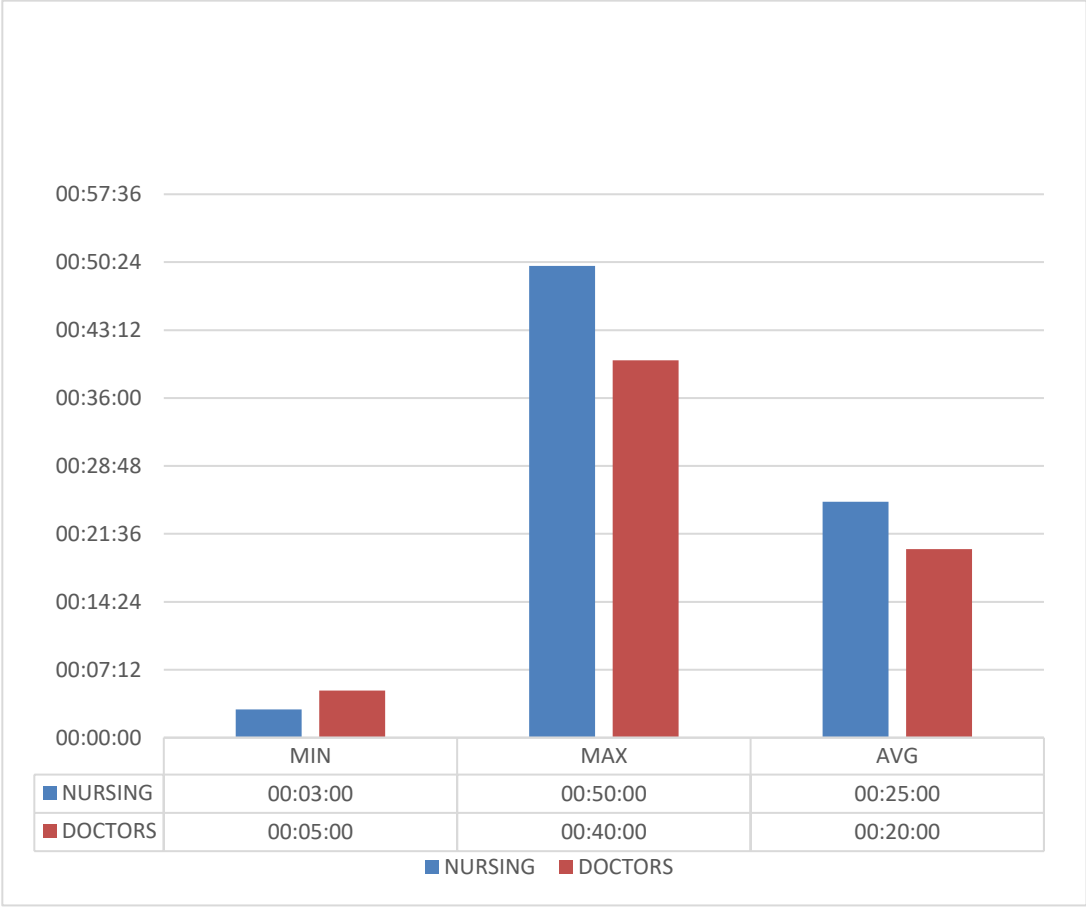
## 5.0 Analysis and Discussion

### 5.1 Category of patients admitted in ER



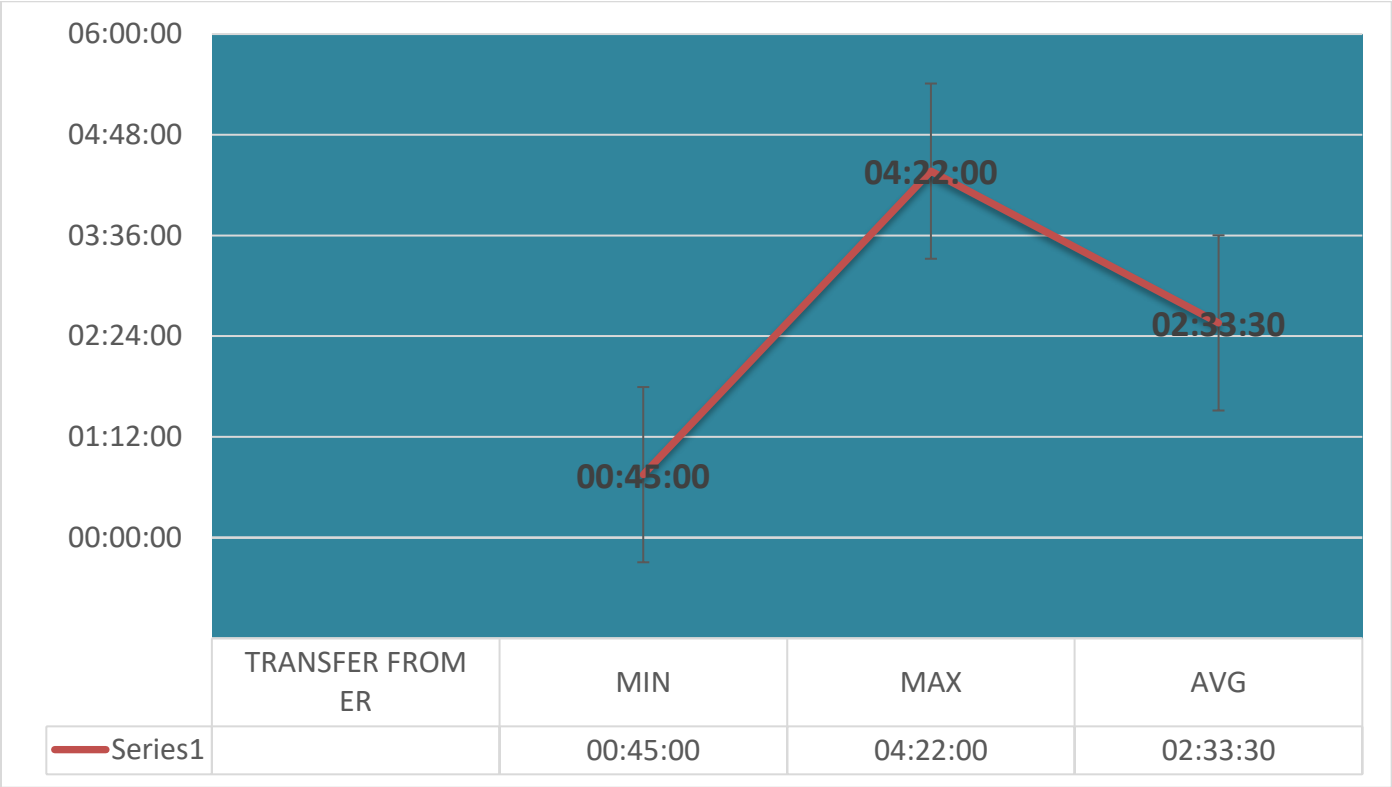
CATEGORY	CASH	TPA	PSU/PANEL
PERCENT	50%	30%.	20%

**5.2 TAT of assessing patients in ER**



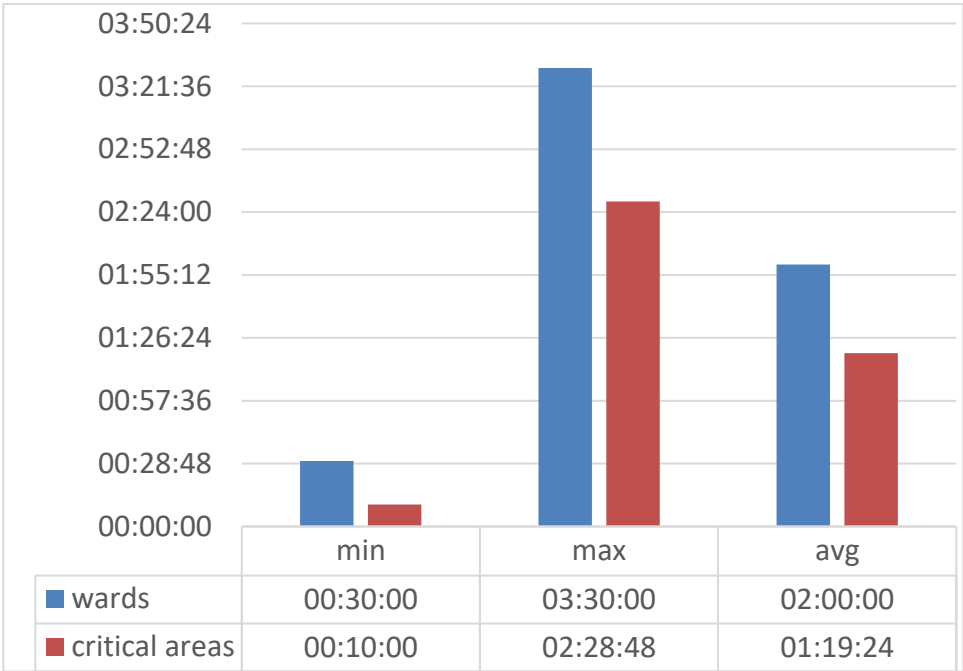
The minimum turnaround time of 5 minutes suggests that some patients can be promptly assessed by doctors upon arrival in the ER. The maximum turnaround time of 40 minutes indicates that there are cases where the assessment process by doctors can take longer, potentially due to factors such as the complexity of the patient's condition, the need for additional diagnostic tests, or waiting for specialist consultations.

**5.3 Duration of transferring out patients from ER**



The Emergency department (ER) has a minimum waiting time of 45 minutes, a maximum wait time of 4 hours and 20 minutes (4:22:00), and an average wait time of 2 hours 33 minutes and 30 seconds (02:33:30). The range of transfer times, from 45 minutes to 4 hours and 22 minutes, illustrates significant variability in the time it takes to move patients out of the ER.

**5.4 Total time for transferring patients to Different areas**



- **WARDS**

The minimum transfer time of 30 minutes shows that some patients can be transferred to the wards rapidly. The maximum transfer time of 3 hours and 30 minutes suggests that the transfer process may take longer in some situations, due to factors such as bed availability, cooperation with ward staff, or administrative processes.

- **CRITICAL AREAS**

The minimum transfer time of 10 minutes suggests that some patients requiring critical care can be rapidly transferred to the critical areas. The maximum transfer time of 2 hours 28 minutes indicates that in certain situations, the transfer process to critical areas can be more time-consuming, potentially due to factors such as critical care bed availability, specialized equipment setup, or intensive care team coordination.



### **5.5 Overall factors associated with delay in TAT**

<b>DOCTORS</b>	<ul style="list-style-type: none"><li>• <b>UNAVAILIBLTY OF DOCTORS(CONSULTANT)</b></li><li>• <b>RTA/MLC CASES.</b></li><li>• <b>MASS CASUALITY</b></li></ul>
<b>NURSING</b>	<ul style="list-style-type: none"><li>• <b>COMMUNICATION FAILURE BETWEEN NURSING AND OTHER STAFF.</b></li></ul>
<b>WARDS</b>	<ul style="list-style-type: none"><li>• <b>NO BED AVAILABILITY</b></li><li>• <b>GDA/HK RELATED ISSUES</b></li></ul>
<b>OPERATIONAL</b>	<ul style="list-style-type: none"><li>• <b>HIGH WAITING TIME FOR LIFTS.</b></li><li>• <b>NON AVAILIBITY OF VENTILATORS.</b></li><li>• <b>EQUIPMENT BREAKDOWN</b></li></ul>

## **6.0 Discussion**

- Emergency rooms (ER) are an integral part of hospitals and medical care and provide the best medical or surgical care to patients arriving in need of emergency. ERs are the most critical and active department of a hospital. It consists of nurses, doctors, and physicians, who address medical issues.

After reviewing the data, it was discovered that the -

- Average time taken by a nurse to complete the assessment of a patient is 10 minutes
- Average time taken by a doctor to complete the assessment of a patient in the emergency room is 13 minutes.
- TAT to transfer patient to critical areas is 30 minutes.
- TAT to transfer patient to Wards is 1 hour.
- TAT of Emergency Process is min 02 hour 33 minutes, which give satisfactory outcome to the study.
- Yatharth Superspeciality Hospital is a 400 bedded hospital that likely adheres to the emergency guidelines. It is critical to follow the guidelines for a hospital's smooth operation, and Yatharth Superspeciality Hospital doing good in order to provide patients with the level of Satisfaction.

## **7.0 Conclusion**

- The time spent on various activities in the emergency room of a hospital was documented to see workflow and waiting time of ER.
- A satisfactory result was found after the study was done. In the ER, the staff were well-trained, and doctors were present while performing a wide range of activities in the ER, the turnaround time was also good.

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