

STUDY ON TURNAROUND TIME OF PATIENTS IN EMERGENCY DEPARTMENT AT MEDICOVER HOSPITAL, NAVI MUMBAI

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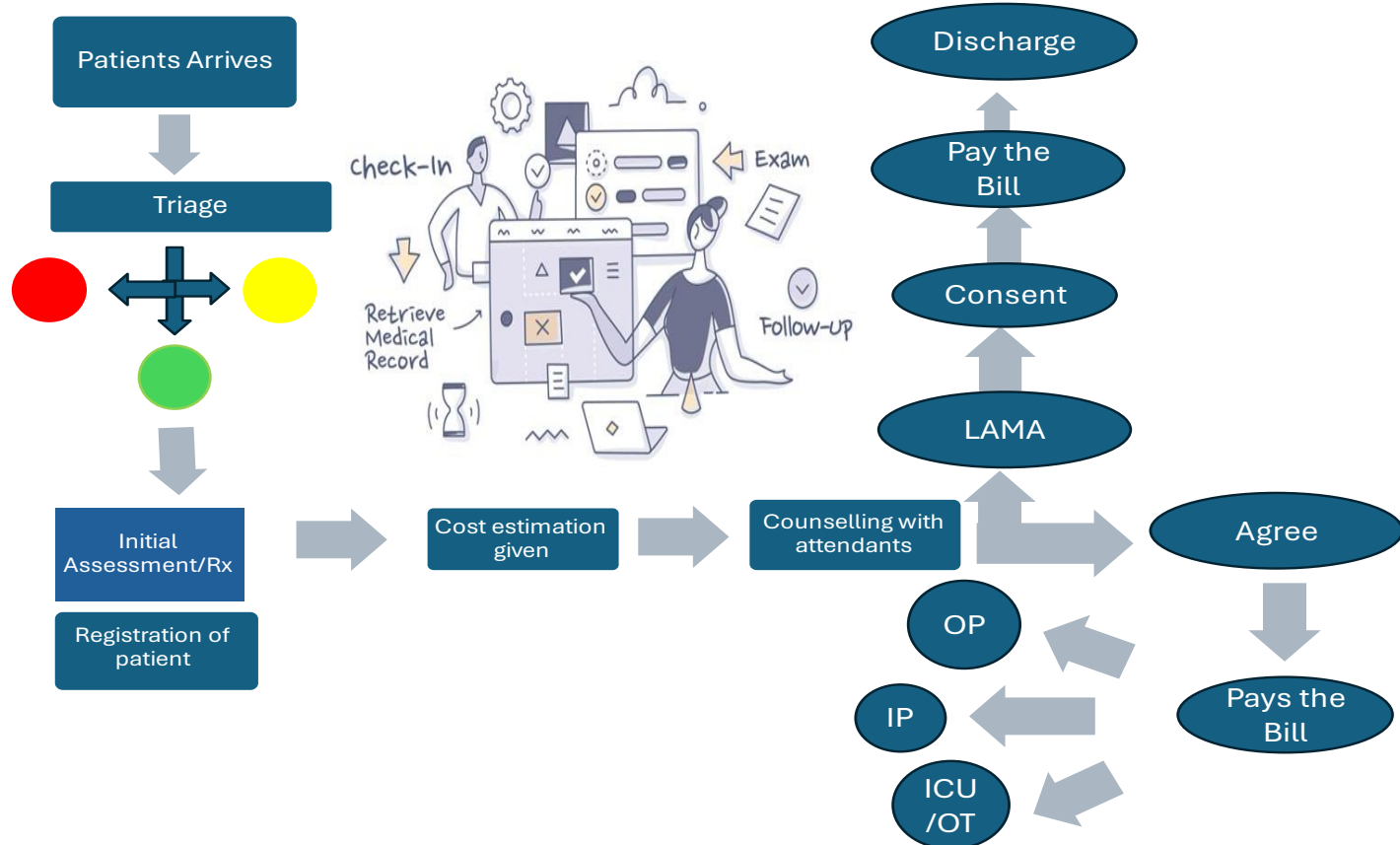


INTRODUCTION

The most important part of a hospital is the Emergency Department (ED), dealing with patients that experience a wide range of urgent medical needs. The real importance of an emergency department can be reflected by the turnaround time (TAT), which represents the total time the patient has before being brought to the hospital and being ultimately sent back home or admitted.

The purpose of this study is to see what factors contribute to delay in the and identify stages where delay takes place which will help in reducing the waiting time and will enable the department to make effective use of resources in providing the best possible service to the patient. The insights gained will help in designing emergency care much quicker and efficiently for better services to the patients.

Process flow of ED at Medicover Hospital:



LITERATURE REVIEW

Authors	Title of the study	Study location	Sample Size	Salient Features
Thakur A, Gupta S, Sharma R (2020)	Turnaround Time of Patients in Emergency Department at a Tertiary Care Teaching Hospital in Uttarakhand, India	Uttarakhand India	1128	Identified increased TAT, lack of staff during peak hours and long waiting time for diagnostic test. Recommended to increase staff, streamline triage process and improve communication
Ronny Otto (2022)	Length of stay as quality indicator in emergency departments	Germany	304,606	The length of stay depends on the factors that are related to the patients-like age and disease related factors
Chung Hsien Chaou (2015)	Analyzing Factors Affecting Emergency Department Length of Stay-Using a Competing Risk-Accelerated Failure Time Model	Taiwan	149,472	Results were divided in 3 categories: admission, death and discharge. Factors like age, transfer, in time were assessed and results showed that LOS was different by various groups

METHODOLOGY

Aim:

- The aim of this study is to know the factors associated with turnaround time in emergency department at Medcover Hospital, Navi Mumbai

Key research question:

- What are the factors that contribute to delay in turnaround time in emergency department, and how can these be reduced to improve the efficiency and patient outcomes?

Objectives:

- To identify factors that contribute to delay in emergency department
- To analyze the process and identify stages where delays frequently take place
- To evaluate the impact of turnaround time on patient satisfaction

Research design:

- Observational study

Study setting:

- This study is conducted in Medicover Hospital, Navi Mumbai

Study population:

- Patients who came to emergency department between 8am to 5pm

Sample size:

- 400

Sampling technique:

- Convenience sampling technique was used to select participants

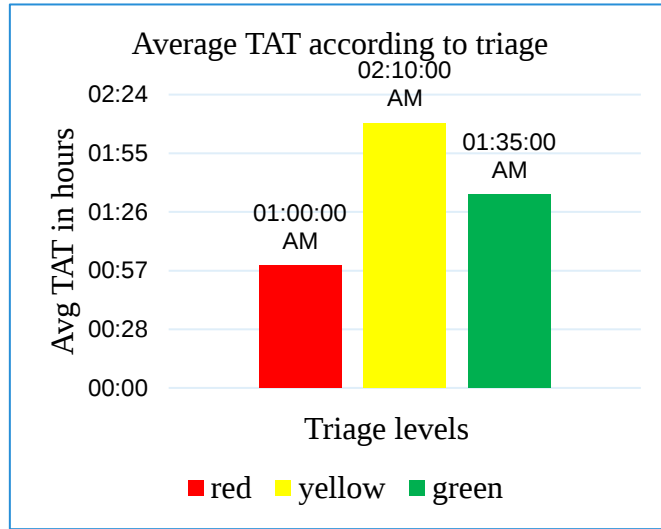
Method of data collection:

- Data was collected using a checklist which was created for tracking the TAT of the patients and then it was manually entered in excel. A total of 400 patients were tracked from 25th March 2024- 24th June 2024

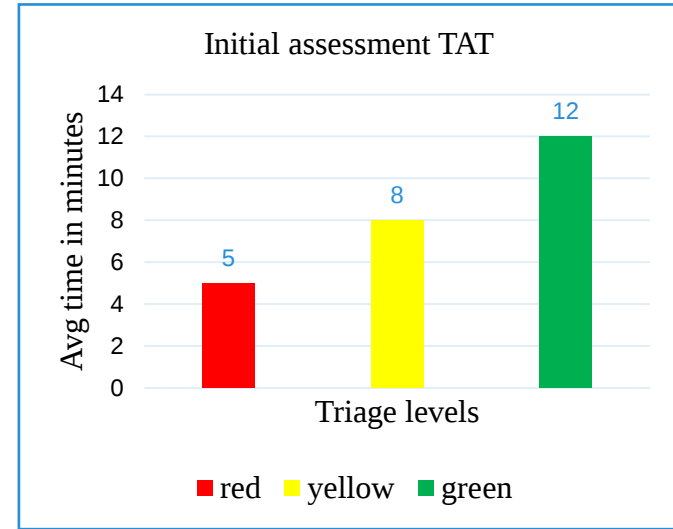
Ethical considerations:

- Obtained ethical approval from the hospital to conduct the study
- Patient's privacy is protected by anonymizing data

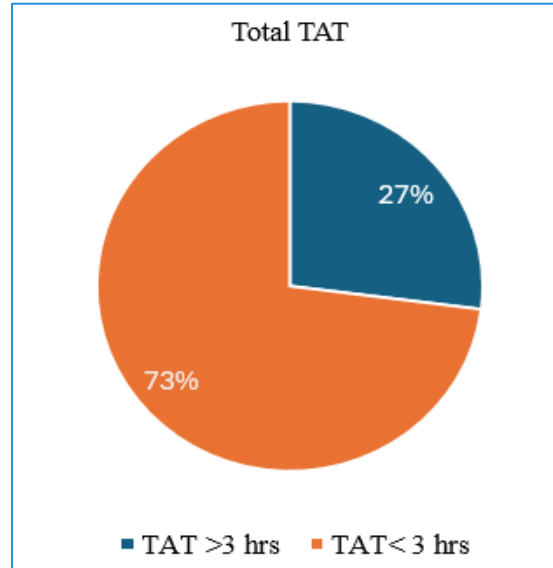
RESULT



- The average turnaround time for triage- red is 1 hour
- The average turnaround time for triage- yellow is 2 hour 10 minutes
- The average turnaround time for triage- green is 1 hour 35 minutes



- Average time taken for triage- red is 5 mins
- Average time taken for triage- yellow is 8 mins
- Average time taken for triage- green is 12 mins



- 27% of patients stay in emergency department for more than 3 hours
- 73% of patients stay in emergency department for less than 3 hours

There are several factors that causes longer turnaround time in the department:

1. Shortage of nursing staff especially during peak hours, as it causes delay in taking initial assessment, treatment and follow-up.
2. Due to unavailability of beds, patients are made to wait in the department longer than necessary
3. As there is no separate admission counter for ED, there is a long queue in the counter due to which the patient's admission is delayed
4. Prolonged wait to see the financial councilor delays the admission process as the patients need to understand and arrange payment accordingly before proceeding with their admission
5. Non availability of runner delays shifting of patients and shifting of samples
6. Delay in prompt availability of diagnostic reports hinders the staff's ability to make timely decisions regarding the treatment.

CONCLUSION

To conclude, optimizing turnaround times in the Emergency Department is critical for enhancing patient care outcomes, departmental efficiency, and overall satisfaction.

The result highlighted several crucial factors contributing to delays and addressing these challenges involved implementing dedicated ED admission counters, streamlining bed management processes, introducing expedited diagnostic testing procedures, deploying additional staff during peak hours, and integrating runners for prompt sample transfers to the lab.

Furthermore, optimizing diagnostic report turnaround times through automation is essential. The recommendations aim to create a more responsive and efficient emergency care system, ultimately improving patient outcomes and satisfaction.

RECOMMENDATIONS

1. Implementation of a separate admission counter dedicated to the Emergency Department (ED) to expedite the admission process.
2. Development of streamlined bed management processes to mitigate delays caused by late bed availability for patients.
3. Provision of additional staff during peak hours to enhance efficiency.
4. Dedicated runners to be present to transfer patients and deliver samples to the lab promptly, ensuring timely processing and diagnosis.
5. Introducing automated reporting systems to streamline the generation and delivery of diagnostic reports.

REFERENCES

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THANK YOU