



**FORTIS MEMORIAL
RESEARCH INSTITUTE**

FMRI, GURUGRAM

EMERGENCY & TRAUMA DEPARTMENT

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EMERGENCY MEDICINE & TRAUMA

At Fortis Memorial Research Institute, the core focus is on making the optimum use of available healthcare technology to treat patients quickly and effectively. As the preliminary objective of the department is to provide the quickest and effective care to patients in emergency, the department is backed by advanced imaging and other specialized equipment at or near the patient's bedside, with immediate access to Operating Rooms. They provide all the specialized care, screenings and environment that seniors appreciate and provide them a less chaotic and stressful experience while meeting their specific needs. FMRI's Trauma and Emergency Medicine Department is an American Heart Association (AHA) certified ACLS provider. Services are available 24 hours a day / 7 days a week and staffs is equipped to handle emergency and urgent care situations.

THE AVAILABLE TECHNOLOGIES INCLUDE:

6 dedicated Triage and Resuscitation Bays, 12 Acute Care beds, procedure and operating rooms

A complete Radiological suite abuts the emergency and complements the ED with MRI, CT and Ultrasound

Time-intensive conditions of Stroke and Heart have dedicated beds

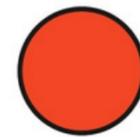
Pre hospital care by ambulances

ACLS Trained personnel and EMT within the first few minutes of call

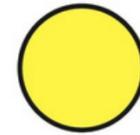
24X7 Blood Bank

TRIAGE

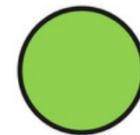
According to WHO, all patients arriving for emergency care need to be assessed and classified to prioritize those who have the most urgent medical problems and are in need of immediate care. This classification process is termed triage and it is usually performed by an ED nurse.



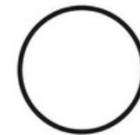
Red tags - (immediate) are used to label those who cannot survive without immediate treatment but who have a chance of survival.



Yellow tags - (observation) for those who require observation (and possible later re-triage). Their condition is stable for the moment and, they are not in immediate danger of death. These victims will still need hospital care and would be treated immediately under normal circumstances.



Green tags - (wait) are reserved for the "walking wounded" who will need medical care at some point, after more critical injuries have been treated.



White tags - (dismiss) are given to those with minor injuries for whom a doctor's care is not required.



Black tags - (expectant) are used for the deceased and for those whose injuries are so extensive that they will not be able to survive given the care that is available.

OBJECTIVES

PRIMARY OBJECTIVE

TO DETERMINE THE TURN AROUND TIME (TAT) OF PATIENTS AT DIFFERENT STAGES IN EMERGENCY DEPARTMENT (ED).

SECONDARY OBJECTIVES

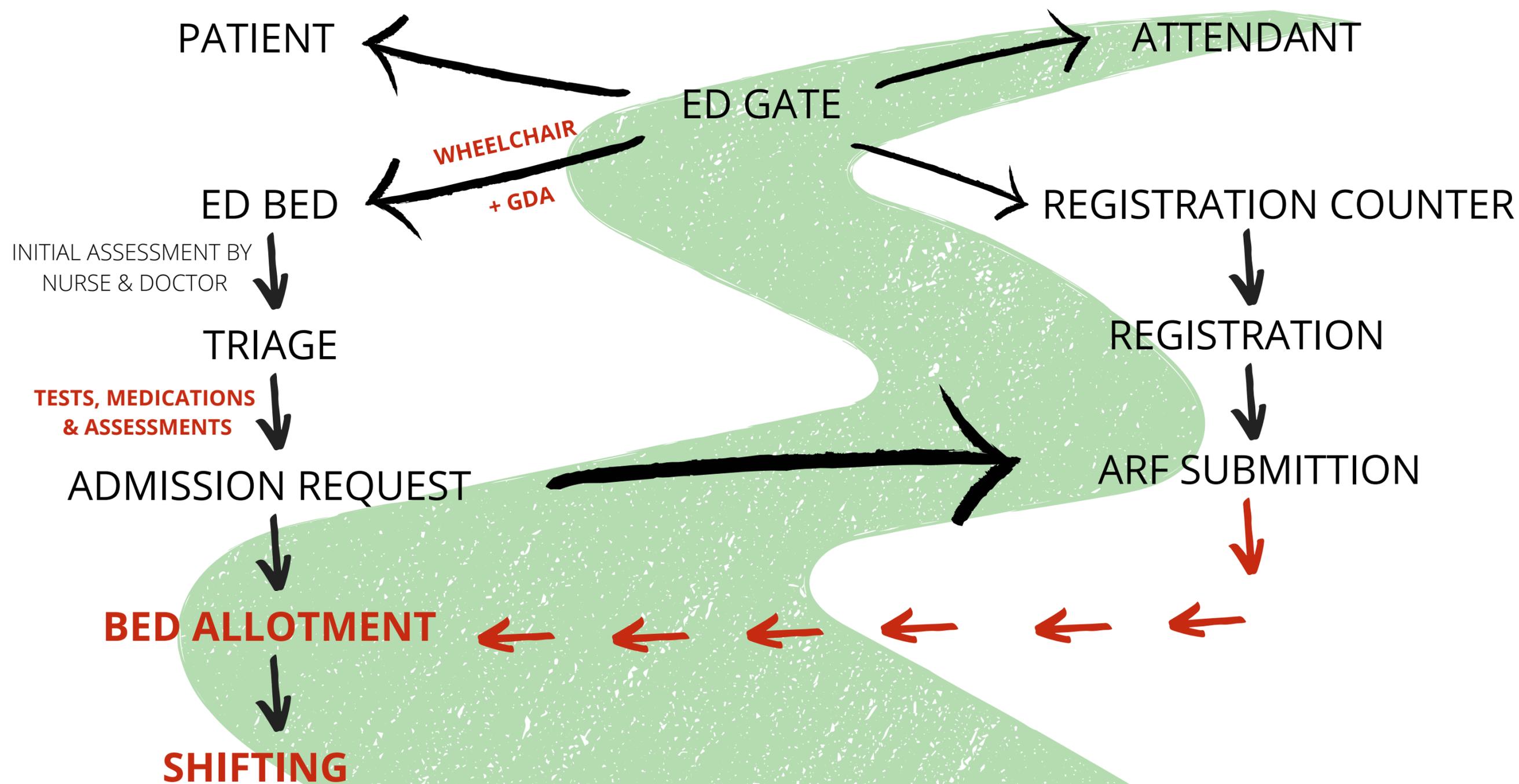
- TO IDENTIFY THE FACTORS INFLUENCING LENGTH OF STAY IN ED AT FMRI, GURUGRAM.
- TO STUDY THE CURRENT WORKFORCE IN ED.
- TO STUDY THE PATIENT FLOW IN ED.

METHODOLOGY

A PROSPECTIVE QUALITATIVE & QUANTITATIVE STUDY WAS CARRIED OUT DURING THE PERIOD OF APRIL 7, 2022 TO MAY 7 2022 AT FORTIS MEMORIAL RESEARCH INSTITUTE (FMRI), GURUGRAM. THE DATA COLLECTED WAS BOTH PRIMARY AND SECONDARY. PRIMARY DATA WAS COLLECTED FROM THE PATIENTS ARRIVING AT THE EMERGENCY DEPARTMENT BY DIRECT OBSERVATION & INTERACTION WHEREAS THE SECONDARY DATA WAS COLLECTED FROM HOSPITAL INFORMATION SYSTEM (HIS), THE ER REGISTER AND THE ER ATTENDANCE REGISTER. THE SAMPLE CONSIDERED WAS 50 BASED ON CONVENIENCE SAMPLING. THE STUDY WAS CARRIED OUT BY RECORDING THE FINDINGS IN A SELF-STRUCTURED ER LIST & PATIENT FLOW FORM. DATA ANALYSIS WAS DONE THROUGH ADVANCED MICROSOFT EXCEL FUNCTIONS.

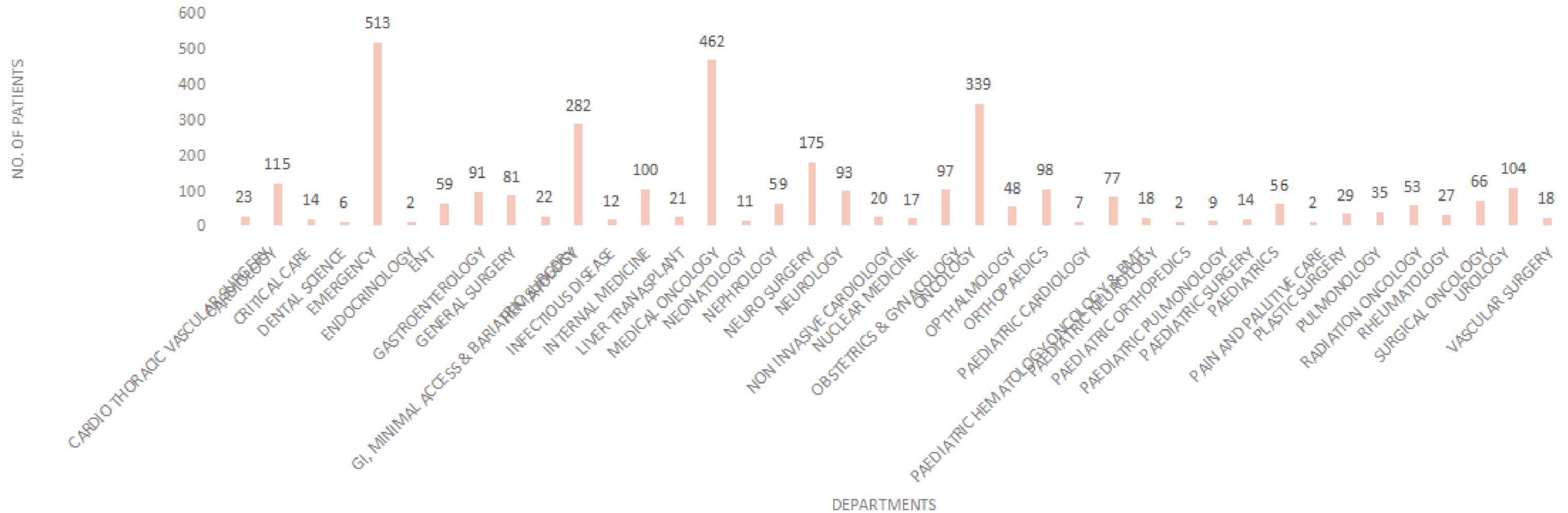
PATIENT FLOW IN ED

It is our mission to serve you well.

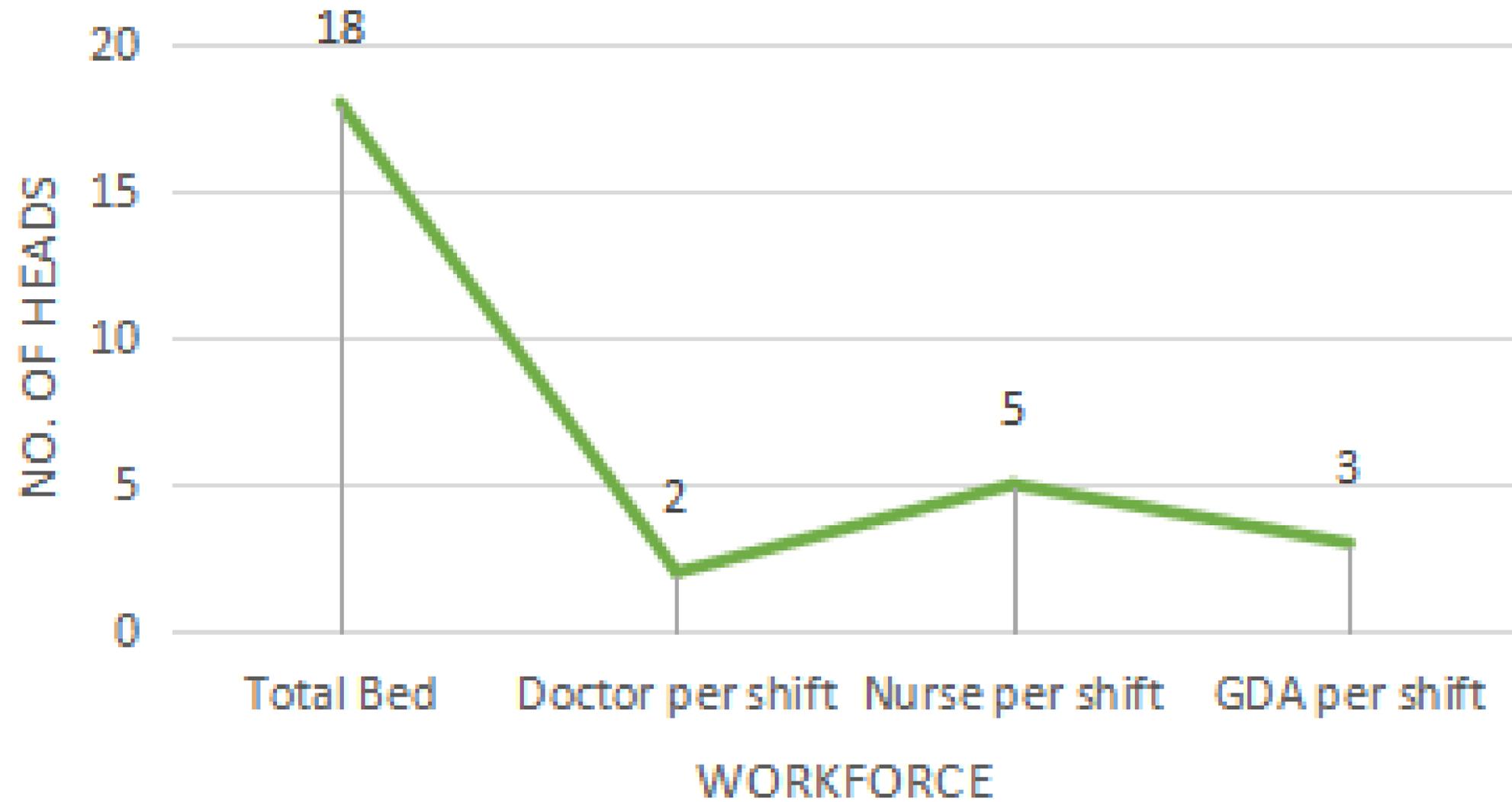


TOTAL HOSPITAL PATIENT COUNT

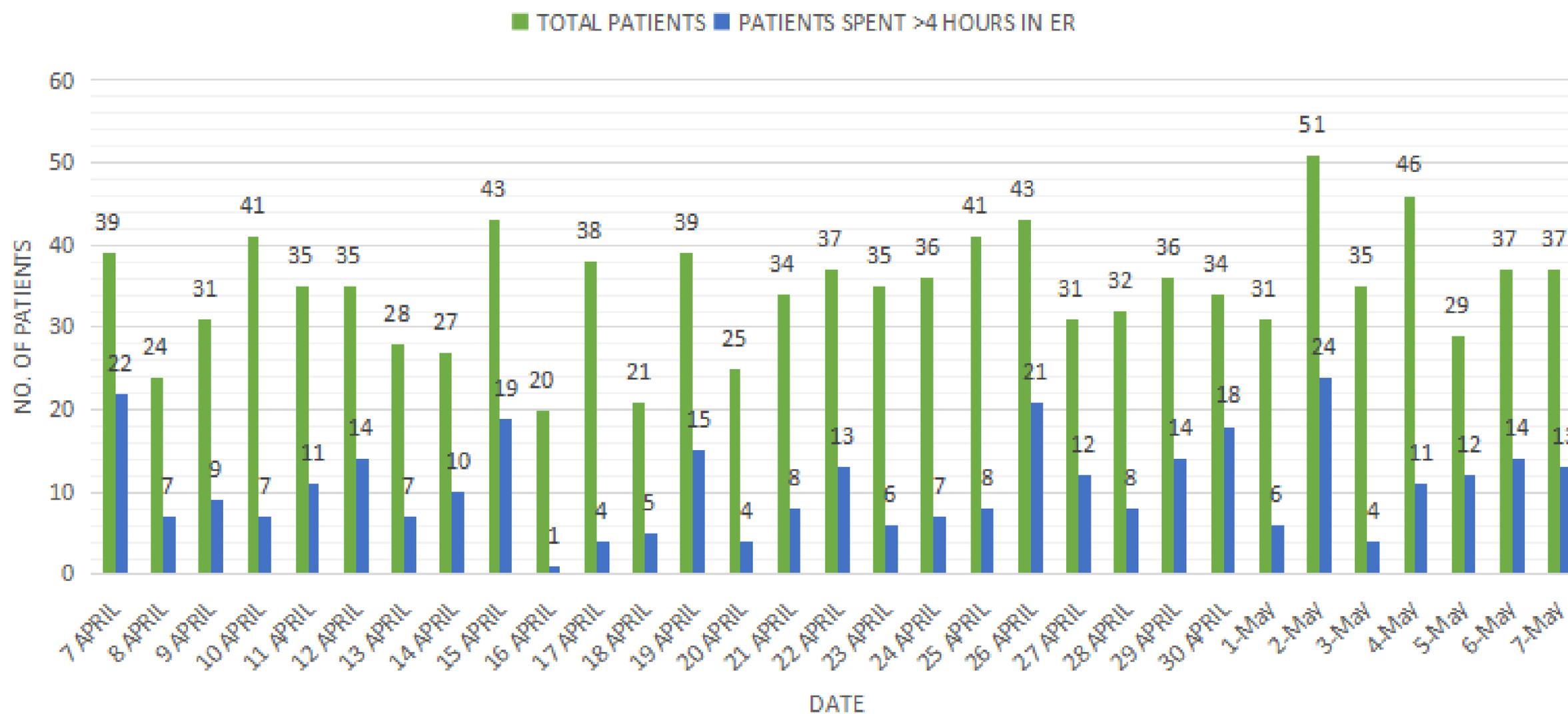
DEPARTMENT LOGS



TOTAL WORKFORCE W.R.T. TOTAL BEDS

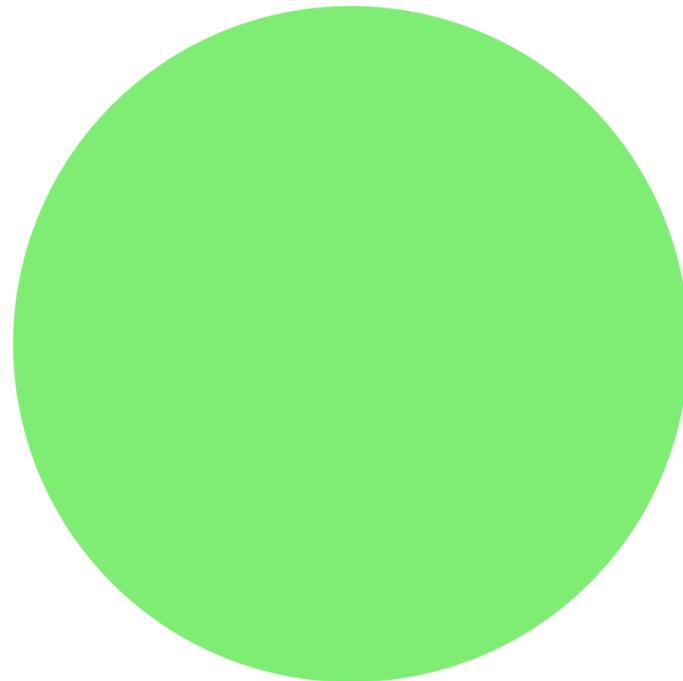


PATIENTS SPENT MORE THAN 4 HOURS IN ER



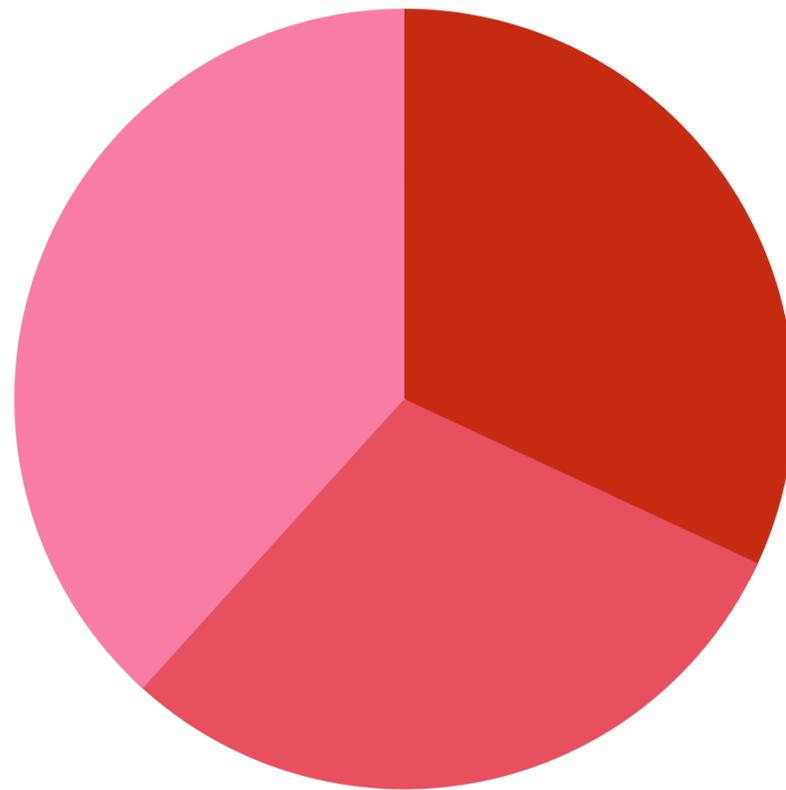
31.2% Patients spent more than 4 hours in emergency department.

ARRIVAL - INITIAL ASSESSMENT



LESS THAN 1 HOUR
100%

ARF - BED ALLOTMENT



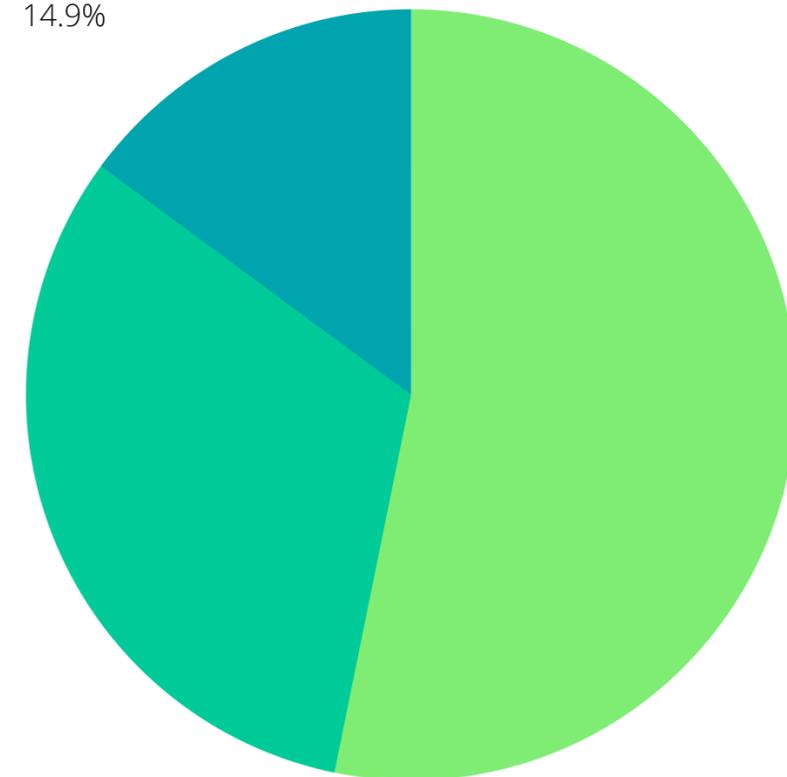
MORE THAN 2 HOURS
38.3%

WITHIN 2 HOURS
29.8%

LESS THAN 1 HOUR
31.9%

TAT

BED ALLOTMENT - SHIFT



LESS THAN 30 MINUTES
53.2%

WITHIN AN HOUR
31.9%

MORE THAN 1 HOUR
14.9%

DISCUSSION

- Out of all patients arrived in the hospital ,15.6% were registered through emergency department only.
- Emergency department- 18 bedded.
- Average doctors per shift- 2 & doctor: bed - 1:9
- Average nurses per shift - 5 & nurses: bed - 2:7
- Average GDA per shift - 3 & GDA: bed - 1:6
- Out of all patient arrived in emergency department, 31.2% patients spent more than 4 hours in emergency department. Reasons- 6.9% - delay in sample collection / lab tests, 4.2% -delay because of shortage of staff like nurses / GDAs, 3% - delay in non-cash patients, 82.9% - delay because of non-availability of beds.
- TAT of Arrival - Initial assessment
100% of the patients turnaround time for arrival - initial assessment was less than 1 hour.
- TAT of ARF - Bed allotment
32% was less than 1 hour, 30% - within 2 hours & 38% - more than 2 hours.
- TAT of Bed allotment - Shift
53% was less than 30 minutes, 32% - within an hour & 15% - more than one hour.

Gaps found in ED

FOLLOWING ARE THE GAPS FOUND DURING ONE MONTH STUDY :

- Many patients from OPD were coming to ED just for small processes.
- Delay in sample collection, transfer to lab and report collection.
- Staff fatigue in ED
- Communication failure

CONCLUSION

Emergency department is one of the most crowded areas within hospital and it requires proper management as it deals with every kind of patients termed under triages. Delay in turnaround time of patients in ER were non-availability of beds, delay in investigations and communication failure between nursing staff and front office staff while other reasons like GDA, nursing, housekeeping and patient payment type related issues further delayed the shifting from ER, leading to increased length of stay at ED. Approach to "Lean management" can improve patient flow in ED. Workforce management, their proper training, proper no. of hirings can also be useful. Electronic transfer of medical records could be developed to further decrease the time wasting for transfer of medical records. Controlling overcrowding at emergency department is very imported and very much needy in FMRI.

INTERNSHIP EXPERIENCE

- Teamwork
- Time management
- Communication skills
- Practical knowledge
- Professionalism
- Confidence
- Self management skills
- Problem solving skills
- HIS learning

SUGGESTIONS

- Proper training to nurses, GDAs
- Proper documentation should be maintained
- Injection room should be made
- Regular upgradation of technology
- Regular audit of documentations
- ACLs Training of doctors
- Adequate physical assets
- Proper attendant guidelines

THANK - YOU