

**A STUDY TO ANALYZE THE TIME TAKEN FOR TREATMENT OF NEW OCULAR
EMERGENCY PATIENTS PRESENTING TO OUTPATIENT DEPARTMENT OF
ARAVIND EYE HOSPITAL, MADURAI.**

Dissertation Submitted to



The IIHMR University, Jaipur
for the partial fulfillment for the award of the degree of

Master of Business Administration (MBA)

in

Hospital and Health Management

by

HARAN RAJ C

Under the Supervision and Guidance of

DR. SEEMA MEHTA

PROFESSOR, IIHMR UNIVERSITY

2022

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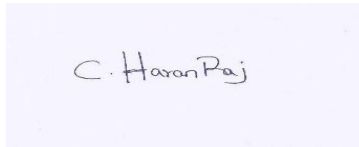
DR. SEEMA MEHTA,

PROFESSOR, IIHMR UNIVERSITY

2022

DECLARATION BY STUDENT

I hereby declare that this dissertation titled **A STUDY TO ANALYZE THE TIME TAKEN FOR TREATMENT OF NEW OCULAR EMERGENCY PATIENTS PRESENTING TO OUTPATIENT DEPARTMENT OF ARAVIND EYE HOSPITAL, MADURAI** is the bonafide record of my original research work. I declare that it has not been submitted to any other university or institution for the award of any degree or diploma. Information derived from the published or unpublished work of others has been duly acknowledged in the text.

A rectangular box containing a handwritten signature in black ink. The signature reads "C. Haran Raj".

Name of student: HARAN RAJ C

Date: 03/07/2022

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& POSTGRADUATE INSTITUTE OF OPHTHALMOLOGY

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28th June, 2022

INTERNSHIP CERTIFICATE

This is to certify that Mr. Haran Raj C (Reg.No. IIHMR-U/01/2020-22/1101), II year student of MBA (Hospital & Health Management) from IIHMR University, Jaipur has done a project titled "A study to analyze the time taken for treatment of new Ocular Emergency patients presenting to Outpatient department" of Aravind Eye Hospital, Madurai from 7th March 2022- 28th June, 2022.

During this period his conduct and behavior was good.

Best wishes



Ms. Deepa
HR Manager



ARAVIND EYE CARE SYSTEM

CERTIFICATE

This is to certify that dissertation titled **A STUDY TO ANALYZE THE TIME TAKEN FOR TREATMENT OF NEW OCULAR EMERGENCY PATIENTS PRESENTING TO OUTPATIENT DEPARTMENT OF ARAVIND EYE HOSPITAL, MADURAI** is a record of the research work undertaken by HARAN RAJ C in partial fulfillment of the requirements for the award of the degree of MBA Hospital and Health Management from the IIHMR University, Jaipur under my guidance and supervision and his/her approach to the research study has been sincere, scientific, and analytical.

Faculty Guide

IIHMR University, Jaipur

Date

School Dean

IIHMR University, Jaipur

Date

ACKNOWLEDGMENT

Thank You God.

I would like to express my sincere Thanks and gratitude to Aravind Eye Hospital, Madurai for helping me to complete my summer internship and project.

The structure and the content of this project have been deeply influenced by many people for whom I wish to express my gratitude.

I sincerely Thank Dr. R D Ravindran, Chairman; Director-Quality, Aravind Eye Care System, for giving me the opportunity to do my project at “Aravind Eye Hospital, Madurai”. Foremost, I would like to Thank Mrs. Ushalini Rasiah (Central Manager-Quality), who was kind enough to spare her valuable time and provided several important suggestions at every stage of my study.”

I also acknowledge all the help and support provided by Mrs. Chandravadhana (Quality Manager-Madurai) and Mrs. SasiPriya (Quality Department) in the fulfillment of this project. Also, I am sincerely grateful to Dr. Dharendra Kumar (Dean of Institute of Health Management Research and Dr. Seema Mehta (Mentor) IIHMR UNIVERSITY, JAIPUR (Rajasthan) for their continuous encouragement in completion of this project.

Sincere especially thanks to all the staff of the department for helping me at each and every step of my work. Heartiest gratitude to them for making my work at this place a memorable one.

Thanks to one and all.

HARAN RAJ C

MBA (HM), 2020-2022,

IIHMR UNIVERSITY, JAIPUR (RAJASTHAN).

ACRONYMS

MLOP – Mid Level Ophthalmic Assistant

INTERNSHIP ORGANIZATION

- The growing problem of preventable blindness remains a major source of concern in the Indian healthcare system. In view of this, this health care model was developed.
- After retiring at the age of 58 in 1976, Dr. Venkataswamy hoped to establish another health care model that could add to the government's efforts and be able to support itself. So, Aravind Eye Hospitals was established.
- The Aravind Eye Hospital, Madurai has 4 general clinics. UNIT 3 for people aged 16 to 40. UNIT 1, 2 and 4 for people aged more than 40. Pediatric Clinic for 0 – 15 ages. The specialties are Cornea, Glaucoma, IOL, Neuro Ophthal Clinic, Orbit, Retina, Uvea.

VISION and MISSION

1. EYE HOSPITAL

Provide compassionate and quality eye care that is affordable to all.

2. OUTREACH

Extending access to quality eye care for the poor and needy - through active community involvement, testing camps, and IT enabling Vision Centers in rural areas.

3. TRAINING

Improve human ophthalmic resources through teaching and training.

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ABSTRACT

PROJECT TITLE

A STUDY TO ANALYZE THE TIME TAKEN FOR TREATMENT OF NEW OCULAR EMERGENCY PATIENTS PRESENTING TO OUTPATIENT DEPARTMENT OF ARAVIND EYE HOSPITAL, MADURAI.

RESEARCH OBJECTIVE

To study the time taken for treatment of new patients presenting with ocular emergency conditions at Aravind Eye Hospital, Madurai.

RESEARCH QUESTION

What is the time taken for the treatment of new patients presenting with ocular emergency at Aravind Eye Hospital, Madurai?

SCOPE

This research is done for assessing the time taken for the treatment of emergency patients. How long does it take for the treatment of new patients presenting with ocular emergency at Aravind Eye Hospital, Madurai.

RESULT

The average ocular emergency visit time in the Aravind Eye Hospital, Madurai for January

2022 was 3 hours 12 minutes based on the 167 emergency patients. The main reasons for delay were identified and for improving the process, recommendations were given.

RECOMMENDATIONS

1. Every emergency patient should be followed by 1 MLOP till the process ends.
2. All staff should strictly follow the set protocols-all emergency patients should be sent to UNIT 1, which is near by the registration area.
3. Those patients who left without completing the entire process, must be called through telephone and must be said – how serious is the injury.
4. Inside UNIT 1, it is written as EMERGENCY UNIT. Outside of the unit, the unit's name is written – UNIT 1. It should be changed to “EMERGENCY UNIT/ UNIT 1”.
5. In the reception area separate REGISTRATION DESK for emergency cases, should be opened as the patients will not stand in the usual queue.

CONCLUSION

Outpatients with an eye emergency condition completed their process in 3 hours and 12 minutes. Patients who did not undergo dilation or any special investigation completed their process in 1 hour 6 minutes. Dilated patients and patients who must undergo special investigations completed their process in 2 hours 30 minutes. Most people who visited the clinic were pleased with their experience there.

CHAPTER 1

INTRODUCTION

INTRODUCTION

A lack of specialized diagnostic tools might complicate the evaluation of ocular crises. However, a definitive diagnosis, together with the right course of treatment and necessary referrals, may be reached by the use of a brief patient history, general observation, and some simple eye tests. When cared for by a skilled doctor, a patient's vision may be preserved or improved to the greatest extent possible.

If an ocular emergency occurs in the primary care environment, it is crucial that it be diagnosed and treated immediately. Ocular crises include but are not limited to chemical burns, retinal detachment, central retinal artery occlusion, acute angle-closure glaucoma, and penetrating globe injuries. Simple tests and a thorough examination of the eyes may aid primary care doctors in determining the best course of action. Vision and eye movement tests should be administered to all patients with eye disorders. Additionally, direct ophthalmoscopy of both eyes, a pupillary examination, and a confrontational visual field assessment should be carried out. Injury to the eye caused by chemicals or high-velocity trauma is often misdiagnosed. It is crucial to wash the eyes thoroughly for at least 30 minutes after a chemical burn, or until the eye's pH returns to a physiologic range, to avoid additional damage. Patients with a ruptured globe must wear an eye cover to prevent further damage to their wounded eye and maintain their ability to see.

Understanding the variety of ocular crises that occur in South Asia is crucial for creating effective local preventative and treatment measures. Any delay in treatment during an ocular emergency may result in irreversible loss of vision, hence it is imperative that primary care practitioners be prepared to diagnose, manage, perform first aid, or refer.

Primary care physicians are often the first to identify symptoms of ocular illnesses and disorders, send patients to specialists, and begin therapy. In order to prevent irreversible vision loss, it is crucial to be well-versed in the most common causes of eye emergencies. Corneal ulcers, amaurosis fugax, glaucoma, and retinal detachment are all discussed in detail along with their definitions, etiologies, clinical manifestations, and treatments.

Primary care physicians have a lot on their plates when it comes to ocular concerns. An in-depth familiarity with the most eye-threatening diseases is crucial, since delays in treatment during an ocular emergency might result in permanent vision loss. In this post, we will discuss four different types of ocular emergencies: retinal detachment, acute angle-closure glaucoma, amaurosis fugax, and corneal ulcer.

CHAPTER 2

LITERATURE

REVIEW

PAPER 1

TPOIC: OCULAR EMERGENCIES

As such, it is crucial to keep records of one's subjective or objective visual acuity. It is crucial to identify disorders such as acute angle closure glaucoma, orbital cellulitis, retinal detachment, and piercing and nonpenetrating injuries. An accurate diagnosis may be made with the help of the patient's history. Differentiating diagnoses and arriving at the right therapy generally relies on factors such as the start and duration of symptoms, the presence of other visual disorders, and the patient's immediate ocular history. Prior context to an accident is of utmost relevance for trauma patients. Small, sharp, high-velocity items, such as those created while pounding metal on metal or using a grinder, may cause serious piercing injuries.

PAPER 2

TOPIC: EPIDEMIOLOGY OF EYE-RELATED EMERGENCY DEPARTMENT VISITS

In the United States, ocular issues accounted for 11,299,955 visits to emergency departments between 2006 and 2011 (male patients, 54.2%; mean [SD] age, 31 [22] years). These visits were classified as either emergent (41.2%), nonemergent (44.3%), or not determined (5.6%). (14.5 percent). Among the most common emergency eye conditions, corneal abrasions (13.7% of cases) and foreign bodies (7.5% of cases) were the most

common. Conjunctivitis accounted for 28.0%, subconjunctival hemorrhages for 3.0%, and stytes for the remaining 1.0% of the over 4 million visits (3.8 percent). Males (odds ratio [OR], 2.00; 95% CI, 2.00-2.01), those in the top income quartile (odds ratio [OR], 1.47; 95% CI, 1.46-1.49), those aged 65 and over (odds ratio [OR], 2.38; 95% CI, 2.38-2.44), and those with private insurance were considerably more likely to make an emergency room visit (OR, 1.29; 95 percent CI, 1.28-1.30). In terms of average annual inflation-adjusted expenditures, \$2.0 billion was spent on eye-related ER visits in 2016.

PAPER 3

TOPIC: EYE-RELATED EMERGENCY DEPARTMENT VISITS WITH OPHTHALMOLOGY CONSULTATION IN TAIWAN: VISUAL ACUITY AS AN INDICATOR OF OCULAR EMERGENCY

To our knowledge, this is the first research in Taiwan to examine the epidemiology of ophthalmology-consulted ED visits for eye-related conditions. Our research showed that around 20% of patient visits were not urgent. Only 10% of patients who went to the ER were given prompt ophthalmologic treatments, and 13% of patients who were considered to be true emergencies were admitted to the ophthalmology ward. An eye-related emergency department visit may not constitute an emergency in the eyes of the law according to this study. Using VA as a metric for managing eye-related ED visits and deciding if ophthalmologic intervention or admission to the ophthalmology ward is necessary is a promising area of research.

PAPER 4

TOPIC: PEDIATRIC EYE EMERGENCY DEPARTMENT ACTIVITY DURING THE FIRST WAVE OF COVID-19 PANDEMIC

During the first phase of the COVID-19 pandemic, there was a dramatic decline in the number of PEED visits. A large number of children with lesser problems have been self-managed by parents or pediatricians, despite the fact that the closure of schools and sports clubs in the wake of trauma led to an entire decline in eye exams. When the emergency is gone, a more efficient use of PEED might reduce unnecessary waste and congestion and maximize the use of scarce resources in the care of critically ill patients. To determine how the second wave of the COVID-19 pandemic would affect PEED activity in comparison to the first, further research is required.

PAPER 5

TOPIC: OCULAR EMERGENCIES IN CHILDREN: DEMOGRAPHICS, ORIGIN, SYMPTOMS, AND MOST FREQUENT DIAGNOSES

Additionally, children often have eye injuries and problems. Children accounted for 9 percent of patients in an evaluation of ocular emergencies seen at Wills Eye Hospital within a year. While most ophthalmological crises are very minor, some do include potentially blinding pathology or serve as the first warning sign of central nervous system disorders. The modest but clinically significant number of children who benefit from early diagnosis and referral by primary care professionals.

There are a number of caveats to this research. Cases seen by the ophthalmologist in the emergency room were included; nevertheless, there are known patients who may proceed straight to the Paediatric Ophthalmology Department. Additionally, the population that La Paz University Hospital treats for speciality treatment may not be a perfect reflection of the population of Madrid as a whole, despite the fact that it is quite big. More information on severe pathology may be gleaned from larger research with a longer time frame.

PAPER 6

TOPIC: DEMYSTIFYING ORBITAL EMERGENCIES: A PICTORAL REVIEW

There is a wide range of imaging findings in orbital crises that may be used to direct therapy and predict prognosis. Emergency situations in the orbit may be caused by infection, trauma, vascular disease, or inflammation. Understanding the classification of a presenting entity may aid in narrowing down the list of possible diagnoses. It is important to think about where each thing comes from in terms of its orbit. When clinical assessment of the orbit is restricted by factors such as the patient's incapacity to cooperate, substantial facial damage, or more life-threatening injuries elsewhere in the body, radiologic evaluation of the orbit becomes more important. When clinical examination is restricted, it is critical for radiologists to distinguish distinctive signs of ocular emergency at cross-sectional imaging. To arrive at the right differential diagnosis, it is helpful to take a methodical approach to evaluating orbital crises based on etiology (infectious, traumatic, vascular, and inflammatory causes).

PAPER 7

TOPIC: ARTIFICIAL INTELLIGENCE METHOD TO CLASSIFY OPHTHALMIC

EMERGENCY SEVERITY BASED ON SYMPTOMS: A VALIDATION STUDY

The SMOTE-based models (ECcSMOTE I and II) performed very close to perfectly (98.88 percent and 99.05 percent, respectively). Although investigations in more varied populations than in this study are ideal, this exploratory study generated outstanding predictions, in contrast to earlier reports, utilizing several existing mathematical and technological methodologies that sought to adjust for the constraints. In conclusion, we offer an AI-based strategy for categorizing the severity of ocular emergencies.

PAPER 8

TOPIC: INDUSTRIAL ACCIDENT-RELATED OCULAR EMERGENCIES IN A TERTIARY HOSPITAL IN SINGAPORE

A significant number of patients in need of ophthalmic examination at the emergency services level in Singapore suffer from ocular injuries linked to industrial hazards, according

to the study. These patients were mostly young, non-local males who had very little injury and had direct end-of-life vision. However, these risks can be avoided with the appropriate type of protective clothing and commitment to wear it whenever called upon. Such a step can significantly reduce lost working days without a good reason.

As a result, it is crucial to reevaluate the design of eye protection and to increase the enforcement of stringent occupational eye safety measures, particularly for temporary employees.

PAPER 9

TOPIC: PROFILE OF OCULAR EMERGENCIES IN A TERTIARY HOSPITAL FROM NORTHEAST OF BRAZIL

Our findings suggest that there is a substantial prevalence of inappropriate use of the ophthalmological emergency service at the Santa Casa de Sobral, with ocular trauma being the most common cause followed closely by infections. There may be a high volume of non-emergent patients brought to our emergency care due to the lack of public ophthalmology facilities in our area. Many of these people probably needed to go to an ophthalmology walk-in clinic or their family doctor instead than an emergency room. Our results may be applied to other cities in Brazil and may help people in other countries with public health systems better grasp the issue. Extra research is needed to fully understand how this might affect both the emergency room personnel and the hospital as a whole.

PAPER 10

TOPIC: CONSENSUS ON SEVERITY FOR OCULAR EMERGENCY: THE BASIC SEVERITY SCORE FOR COMMON OCULAR EMERGENCIES

Just like any other emergency situation, dealing with an ocular emergency calls for quick action, a thorough assessment of the patient, and a focus on what comes next. Patient medical history and current symptoms are used extensively in the first triage process. General non-medical staff members often collect the anamnesis and may use a standardized methodology to decide whether or not to send individuals to the expert. In 2006, just 46% of Florida's ophthalmologists were available to see patients in the state's emergency rooms. So, different health practitioners, who may have a medical degree or just be part of the paramedic crew with varying degrees of expertise, orient patients within a certain time frame. We hypothesize that a standardized severity score would facilitate reasonable, secure, and more consistent communication across the various healthcare professionals. Smartphones, tablets, and laptops have significantly improved communication in the medical field. With the Base Score, medical professionals would have a unified method to make consistent decisions about patient care, which might be especially useful when using mobile devices for triage.

CHAPTER 3

METHODOLOGY

METHODOLOGY

The methodology used in this report is retrospective methodology.

The process of going through the whole project in a retrospective provides a chance to discuss these issues in a group context devoted to reflecting back on what occurred, with the specific purpose of continuing improvement, which would not have been possible in another setting.

DATA COLLECTION

Data was collected from IHMS – Integrated Hospital Management System from the IT department of Aravind Eye Care System using MS Excel software.

DATA ANALYSIS TOOL

The bar graph frequency distribution was used to analyse the data.

STUDY POPULATION

The sample size data collected from the month of 1st – 31st January, 2022.

SAMPLE SIZE

The sample size of the data was 167 emergency patients.

INCLUSION CRITERIA

1. 1st VISIT TO Aravind Eye Hospital MADURAI AS EMERGENCY PATIENT.
2. Patients who have got prior TREATMENT FOR EMERGENCY, BUT ON THE SAME DAY.

EXCLUSION CRITERIA

Patients who have got prior treatment for emergency, but not on the same day.

STUDY AREA

Aravind Eye Hospital, Paid Section, Madurai.

CHAPTER 4

RESULTS AND

DISCUSSIONS

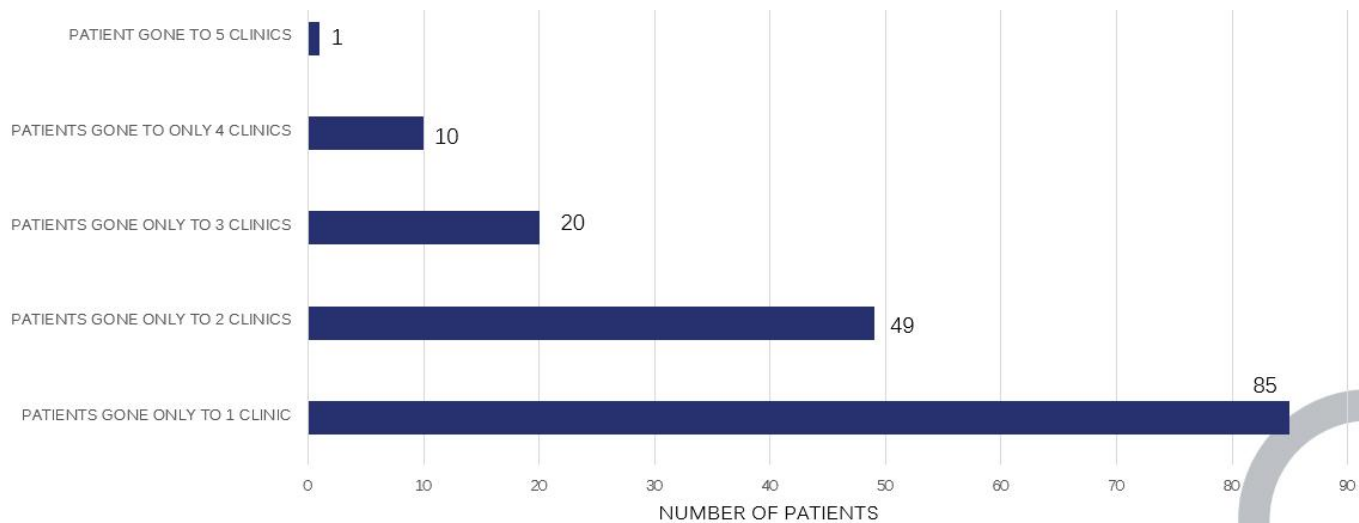
FINDINGS

1. FINDINGS BASED ON TIME TAKEN 'FROM REGISTRATION TO VISION at 1st CLINIC'
2. FINDINGS BASED ON TREATMENT
3. FINDINGS BASED ON DIAGNOSIS
4. FINDINGS BASED ON ACTUAL FIRST VISIT OF THE EMERGENCY PATIENT
5. FINDINGS BASED ON REGISTRATION

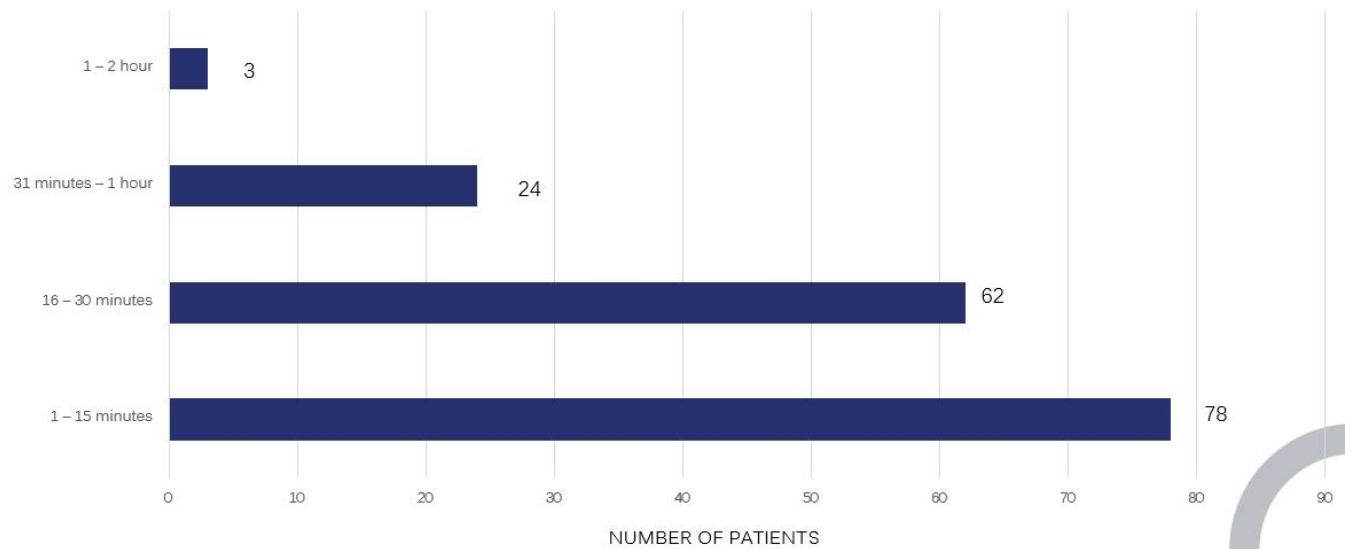
THE NUMBER OF CLINICS EACH EMERGENCY PATIENT HAS GONE

Out of the 167 emergency patients,

- 85 (50.9%) patients have gone only to 1 clinic,
- 49 (29.3%) patients have gone only to 2 clinics,
- 20 (12%) patients have gone only to 3 clinics,
- 10 (6%) patients have gone only to 4 clinics,
- 1 (0.6%) patient has gone to 5 clinics.



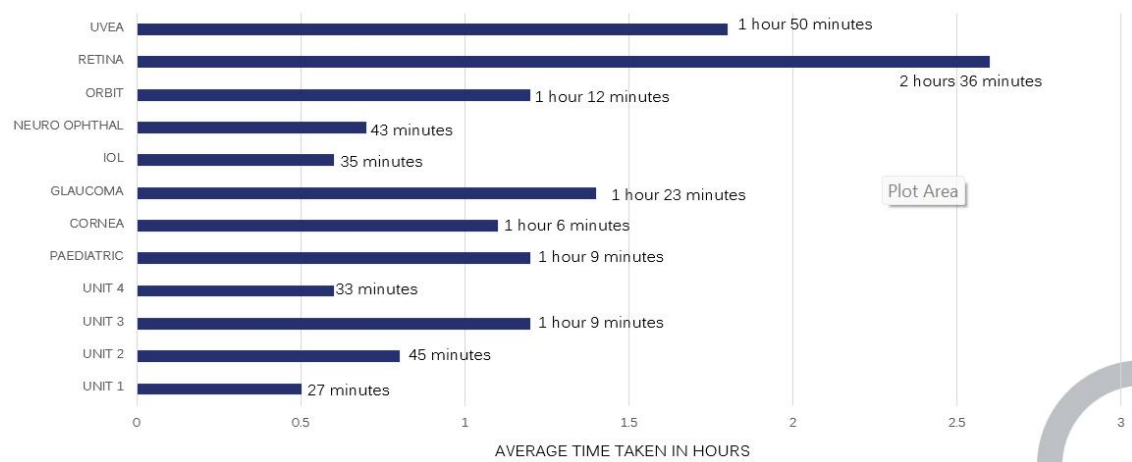
1. FINDINGS BASED ON TIME TAKEN ‘FROM REGISTRATION TO VISION at 1st CLINIC’



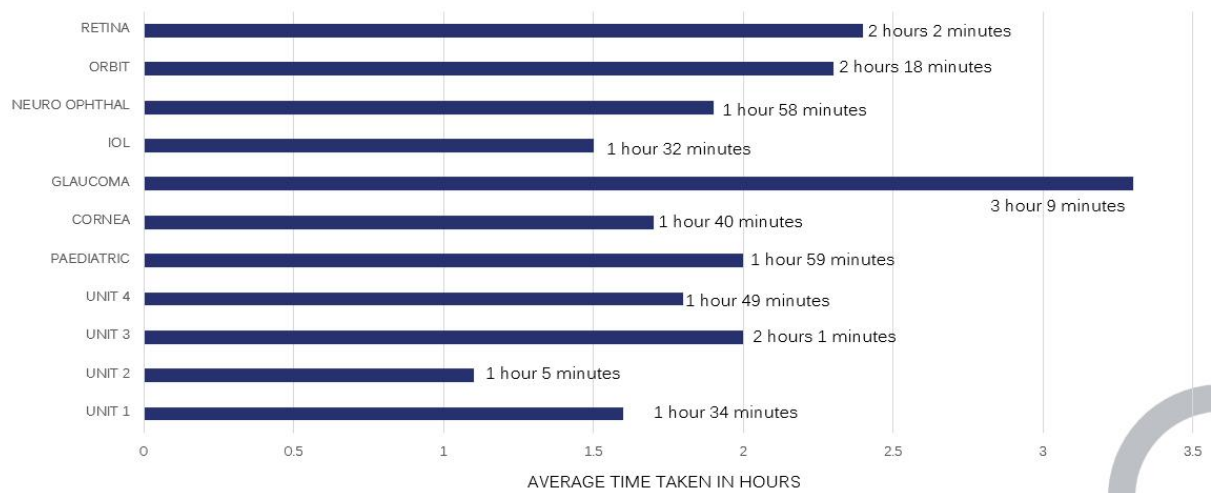
TIME TAKEN	PATIENTS
1 – 15 minutes	78 [46.7%]
16 – 30 minutes	62 [36.5%]
31 minutes – 1 hour	24 [14.4%]
1 – 2 hour	3 [1.8%]
TOTAL	167

2. FINDINGS BASED ON TREATMENT

a. AVERAGE TIME AT EACH CLINIC OF ‘PATIENTS WHO DID NOT UNDERGO DILATION or any SPECIAL INVESTIGATION’



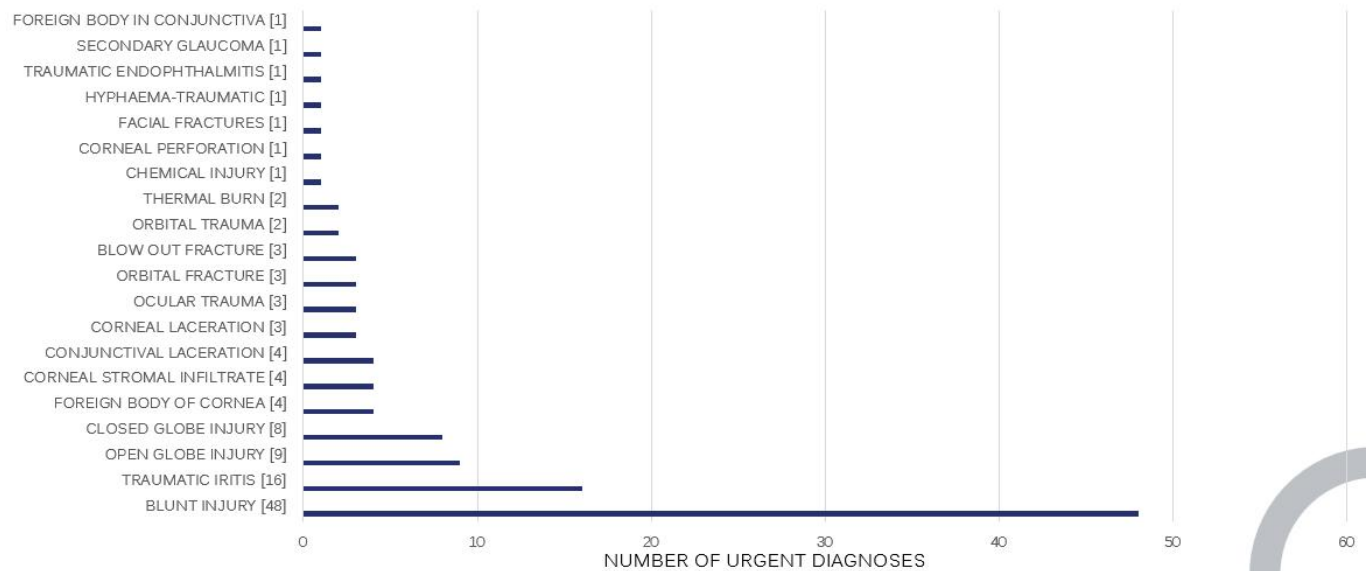
b. AVERAGE TIME AT EACH CLINIC OF 'PATIENTS WHO UNDERWENT DILATION or any SPECIAL INVESTIGATION'



3. FINDINGS BASED ON DIAGNOSIS

DISTRIBUTION OF TOP-20 URGENT DIAGNOSES

During the month January 2022, there were 167 ophthalmic emergency initial encounters to the Aravind Eye Hospital, Madurai. The top-20 urgent diagnoses represented 116 (69.5%) of the total Emergency initial encounters and are depicted below and ranked according to their frequency. The top-five most frequent diagnoses include blunt injury (28.7%), traumatic iritis (9.6%), open globe injury (5.4%), closed globe injury (4.8%), foreign body of cornea (2.4%).



OTHER EMERGENCY DIAGNOSES DURING JANUARY 2022

The other emergency patients include 30% of the total emergency patients. Out of the 167 emergency patients, 51 patients belonged one of the categories below.

Ametropia

Anophthalmic Socket

Anterior Uveitis

Aphakia

Berlin's Edema

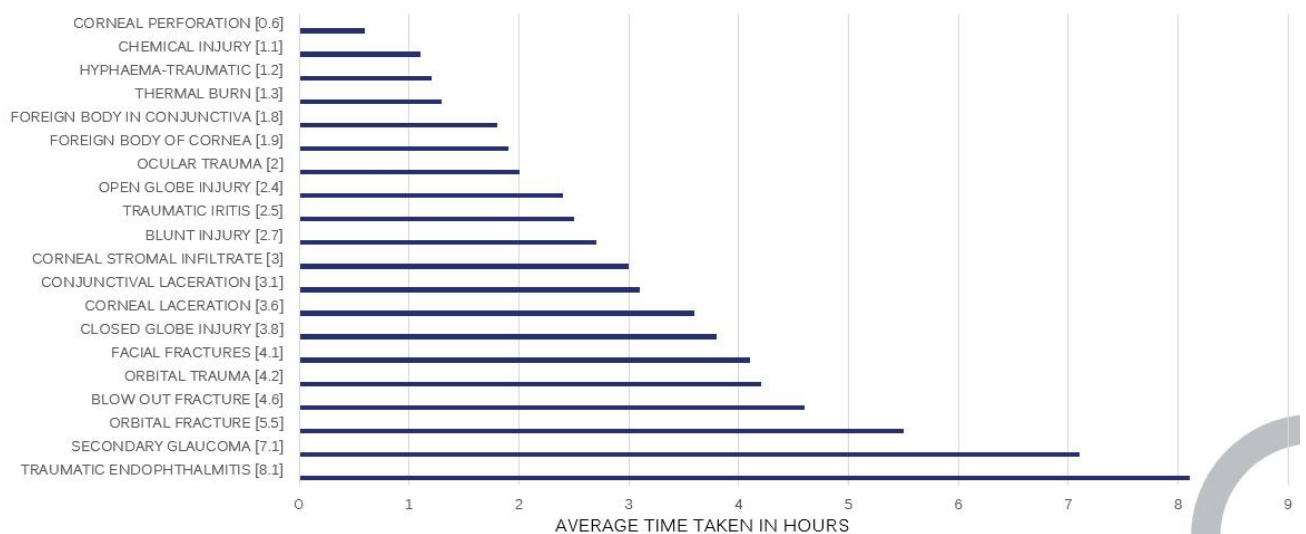
Commotio Retinae

Compound Hyperopic Astigmatism

Compound Myopic Astigmatism
Conjunctival Injury
Corneal Abrasion
Corneal Scar
Orbital Hematoma
PCIOL
Punctate Epithelial Cornea
Subconjunctival Haemorrhage
Temporal Pterygium
Third Nerve Palsy Pupil Involved
Traumatic Cataract
Traumatic Iridocyclitis
Traumatic epithelial defect
Traumatic Optic Neuropathy
Full thickness macular hole
Epithelial Defect
Eyelid haematoma
Homonymous Hemianopia
Madar Juice Keratitis
Traumatic Orbital Apex Syndrome

AVERAGE TIME TAKEN OF TOP-20 URGENT DIAGNOSES

The average ocular emergency visit time in the Aravind Eye Hospital, Madurai for January 2022 was 3 hours 12 minutes based on the 167 emergency patients. The visit time is defined as the total time from when the patient 'registered' to when the patient 'completed the last process in the last unit' on that particular day.



4. FINDINGS BASED ON ACTUAL FIRST VISIT OF THE EMERGENCY PATIENT

NUMBER OF PATIENTS BASED ON ACTUAL FIRST VISIT

Out of the 167 ophthalmic emergency encounters, 144 (86.2%) patients visited Aravind Eye Hospital, Madurai as their 1st encounter. The rest 23 patients have gone to any of the AEH Vision Center or City Center or Community Center or any other hospital where they have been given prior treatment on the same day.

AVERAGE TIME TAKEN OF PATIENTS BASED ON ACTUAL FIRST VISIT

The average ocular emergency visit time in the Aravind Eye Hospital, Madurai for January 2022 was 3 hours 12 minutes based on the 167 emergency patients.

AVERAGE TIME TAKEN IN HOURS

NUMBER OF PATIENTS

5. FINDINGS BASED ON REGISTRATION

COUNT OF PATIENTS BASED ON REGISTRATION

Out of the 167 ophthalmic emergency initial encounters to the Aravind Eye Hospital, Madurai, 155 (92.8%) patients went to UNIT 1 initially, 12 (7.2%) patients either went to any of the other units or specialties.

AVERAGE TIME TAKEN BASED ON 1st UNIT AS THE INITIAL ENCOUNTER

Out of the 167 ophthalmic emergency initial encounters to the Aravind Eye Hospital, Madurai, 155 (92.8%) patients went to UNIT 1 initially, 12 (7.2%) patients either went to any of the other units or specialties.

AVERAGE TIME TAKEN IN HOURS

3 hours 14 minutes

LEFT WITHOUT BEING SEEN PATIENTS

“Left without being seen” refers to patients who present to an emergency patient but left before completing the process as advised by the ophthalmologist. The Aravind Eye Hospital, Madurai reported a 5 ‘left without being seen’ emergency patients (167 emergency patients in January 2022).

2 hours 57 minutes

S. No	DIAGNOSIS	NUMBER OF CLINICS THE PATIENT HAS GONE	INCOMPLETE PROCESS	DATE OF INJURY	VISIT DATE	PRIOR TREATMENT	TOTAL TIME TAKEN	REGISTRATION TIME
1.	BLUNT INJURY	2	CORNEA	11 Jan	11 Jan	no	UNIT 2 – 4 minutes; CORNEA 1 HOUR 38 MINUTES	3.22 PM
2.	BLUNT INJURY	2	CT SCAN	7 Jan	25 Jan	no	UNIT 3 – 2 hours 16 minutes; ORBIT - 1 HOUR 10 MINUTES	1.15 PM
3.	BLUNT INJURY	1	LEFT THE UNIT 2 AT MIDWAY	21 Jan	20 Jan	no	No dilation	1.05 OM
4.	EPITHELIAL DEFECT	1	CORNEA	6 Jan	6 Jan	no	UNIT 1 – 14 minutes	6.02 PM
5.	CLOSED GLOBE INJURY	1	ORBIT	18 Jan	18 Jan	no	PAEDIATRIC – 49 minutes	6.10 PM

CHAPTER 5

RECOMMENDATIONS

RECOMMENDATIONS

1. Every emergency patient should be followed by 1 MLOP till the process ends.
2. All staff should strictly follow the set protocols-all emergency patients should be sent to UNIT 1, which is near by the registration area.
3. Those patients who left without completing the entire process, must be called through telephone and must be said – how serious is the injury.
4. Inside UNIT 1, it is written as EMERGENCY UNIT. Outside of the unit, the unit's name is written – UNIT 1. It should be changed to “EMERGENCY UNIT/ UNIT 1”.
5. In the reception area separate REGISTRATION DESK for emergency cases, should be opened as the patients will not stand in the usual queue.

CONCLUSION

Outpatients with an eye emergency condition completed their process in 3 hours and 12 minutes. Patients who did not undergo dilation or any special investigation completed their process in 1 hour 6 minutes. Dilated patients and patients who must undergo special investigations completed their process in 2 hours 30 minutes. Most people who visited the clinic were pleased with their experience there.

LIMITATIONS

1. The time is calculated from registration to vision at the 1st CLINIC, next from doctors' remarks to next clinic 1st process time. Here we don't know if the patient has gone to eat lunch in-between. That time is not recorded.
2. The exact time when a patient enters a clinic, either unit clinic or specialities, is not known.
 - a. Hence for unit clinics, the time of the 1st process done to the patient is taken as the 'time-the patient enters the unit clinic'.
 - b. For specialities, the time of the last process done to the patient in the previous clinic is taken as the 'time-the patient enters the speciality clinic'.
3. The population study consisted of a sample of only 167 patients.

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