STUDY OF WAITING TIME IN OPD FOR PHYSICIANS AND INVESTIGATIONS AT LILAVATI HOSPITAL AND RESEARCH CENTER

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Abstract:-

The goal of this study is to study the process in the OPD of Lilavati Hospital & Research Centre. It includes Factors Affecting Patient flow, Reasons for Delay in patient flow, Ways to improve the patient flow and also Patient waiting time. The purpose of this audit is to assess patient waiting time and doctor consultation time in a Super Speciality Hospital and to formulate strategies to improve the waiting time and consultation time. The utilization of many of the other services provided by the hospital, often depend on how satisfied the patient is with the outpatient services provided. In a competitively managed healthcare environment, long waiting time of patients in an OPD adversely affects the hospitals ability to attract new increased business. It is difficult to sell services if the individuals are dissatisfied with the delayed process and increased waiting time. The service can be improved by effective communication, providing enough man power and educating patient about the importance of taking an appointment before arriving at the hospital. Because of large number of ambulant patients, an efficient and up to the mark Outpatient Department(OPD) in a hospital of critical importance. This is mainly because the cost of OPD services is less than that of IPD services.

Keywords:- Outpatient Department(OPD), Patient Flow, Waiting time, Services.

1. INTRODUCTION:-

Patient waiting time has been defined as "The length of time from when the patient enters the outpatient department to the time the patient actually leaves the OPD". Hospital is a healthcare institution that provides treatment to patients with specialized staff and equipment that play an important role in the society. Hospitals and health clinic can be very different from other work environments. Outpatient department (OPD) is one of the most important wings of the hospital serving as mirror. OPD is visited by large section of community. It is the first point of contact between patient ad hospital staff.

2. REVIEW OF LITERATURE:-

(O'Malley MS, 1983) said the Institute of Medicine (IOM) recommends that, at least 90% of patient should be seen within 30minutes of their scheduled appointment. (Singh H, 1999) (Ofilli AN, 2005) (Ofilli AN) said this is however, not the case in most developing countries, as several studies have shown that patients spend 2-4 hours in outpatient departments before seeing a doctor.

According to (Dansky KH, 1997) (XM, 1994) a source of dissatisfaction with healthcare reported by patients is having to wait a long period of time in the clinic and several studies have documented the negative association between increased waiting time and patient satisfaction with primary care.

Studies conducted by (Rondeau KV, 1998) say that the degree to which the patients are satisfied with the care they received is strongly related to quality of waiting services they experience. Healthcare organizations that strive to deliver exceptional services must effectively manage their clinic wait. Failure to incorporate consumer driven features into the design of waiting experience could lead to patient and provider dissatisfaction. Waiting time refers to the time a patient waits in the clinic before being seen by one of the clinic medical staff.

3. OBJECTIVE OF STUDY:-

- To study the process flow of the patients in the OPD of Lilavati Hospital & Research Centre.
- To study the average waiting time of patients in OPD & for Investigations (Radiology and MRI).
- To identify key factors responsible for longer waiting times in OPD at Lilavati Hospital & Research Centre.

4. RESEARCH METHODOLOGY:-

A study was conducted by recording data in pre-defined format that was provided by Lilavati Hospital & Research Centre. Further observation methodology was used to record the patient waiting time right from his entry to the various reception desks to his exit from the consultant's chamber. Also, an observation was made on the queuing model and the service discipline at the hospital. The format provided by the hospital had a pre designed set of questions that were meant to obtain the time spent on the queue by patient before being seen by a doctor, time spent with the doctor, their views about the time spent on the queue and useful suggestions on how to reduce the time spent on the queue.

The sample size of study is 435 patients.

5. LIMITATIONS OF STUDY:-

- The study is limited to only Lilavati Hospital & Research Centre.
- The sample size used in study is limited to the patients of Lilavati Hospital & Research Centre.
- The study may vary for different hospital to hospital.

6. DATA ANALYSIS AND INTERPRETATION:-

The patients were observed separately as Registered and Non- Registered patients and their waiting time were observed for the formalities at different OPD Counters.

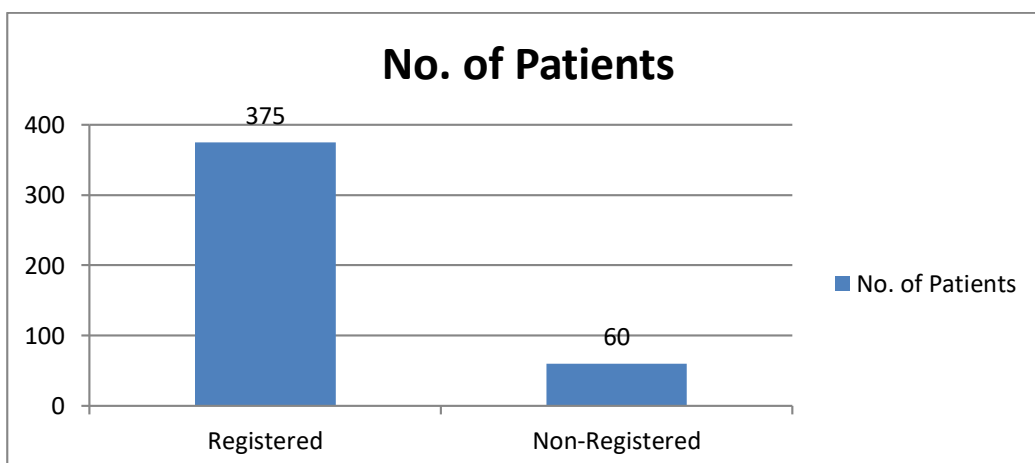### Fig 1 – Total No. of patients observed – Registered and Non- Registered

No. of Patients — Registered: 375, Non-Registered: 60

Table 1 – Waiting time for Registered and Non – Registered Patients at the Registration desk as recorded are as tabulated below:

Time	No. of Registered Patients	No. of Non Registered Patients
0-3 min	324	49
4-6 min	49	8
7-9 min	2	3
Grand Total	375	60

The waiting time was observed to go up to a maximum of 7-9 minutes and minimum of 1 minute in the case of waiting time at the Registration Desk.

Fig 2. Waiting time for patients at Registration Desk
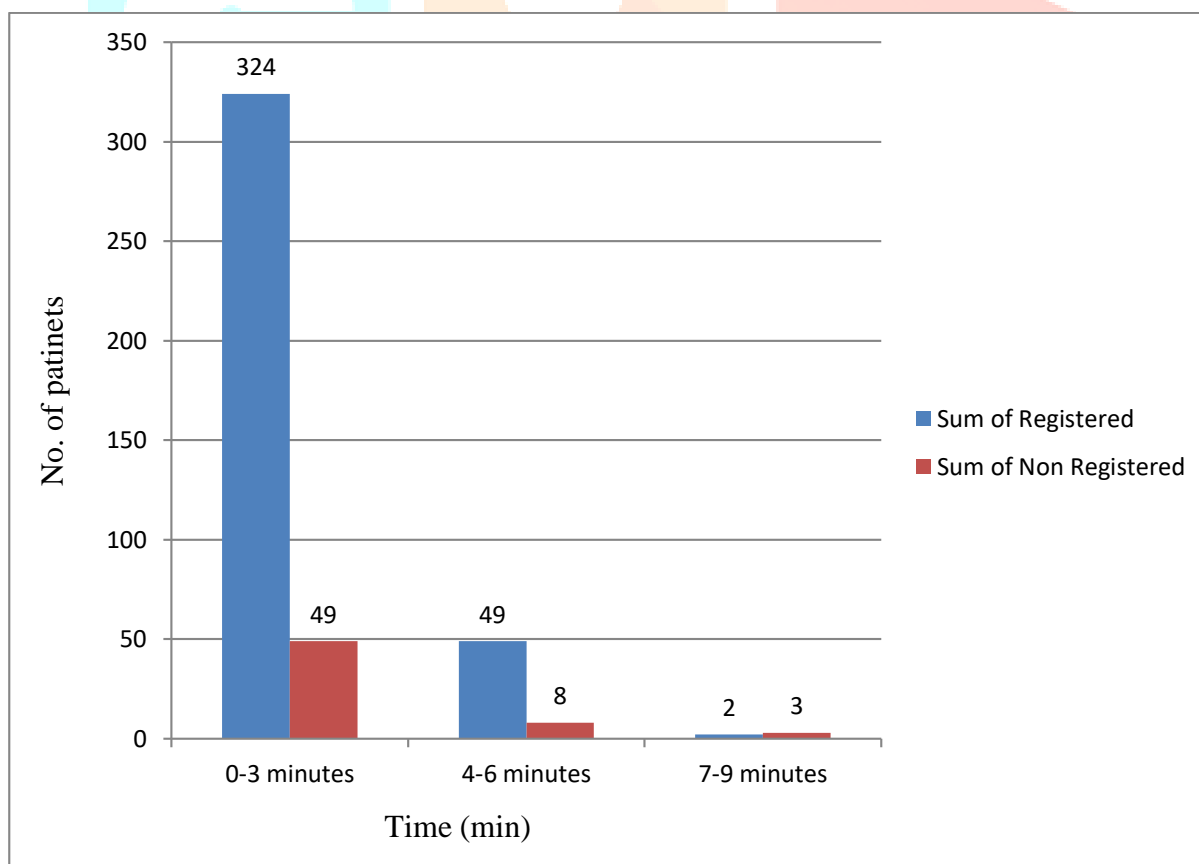
Inference:

As we can see from the graph:

- It shows that larger number of registered patients wait in the queue at the registration desk between 0-3 minutes compared to the non-registered patients.
- But, this looks like a discrepancy.
  So we have taken the ratios of the no. of patients' waiting times since the total numbers of both the types of patients' are different.

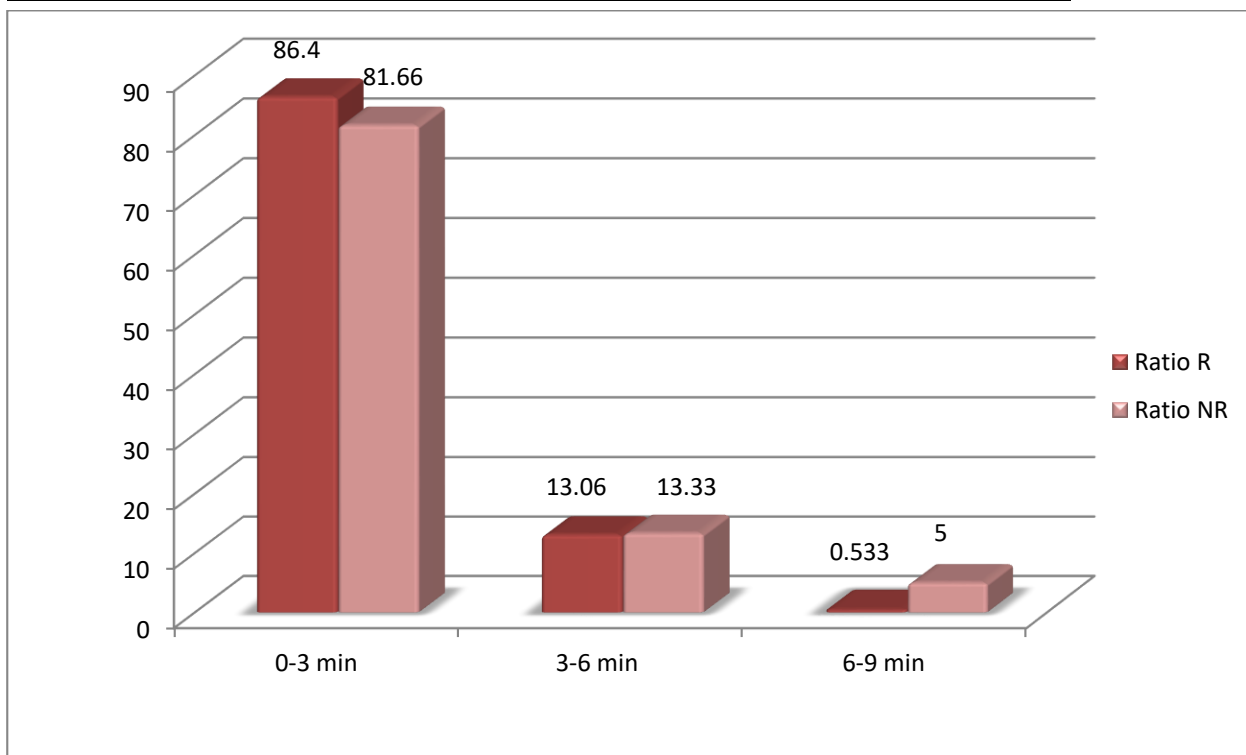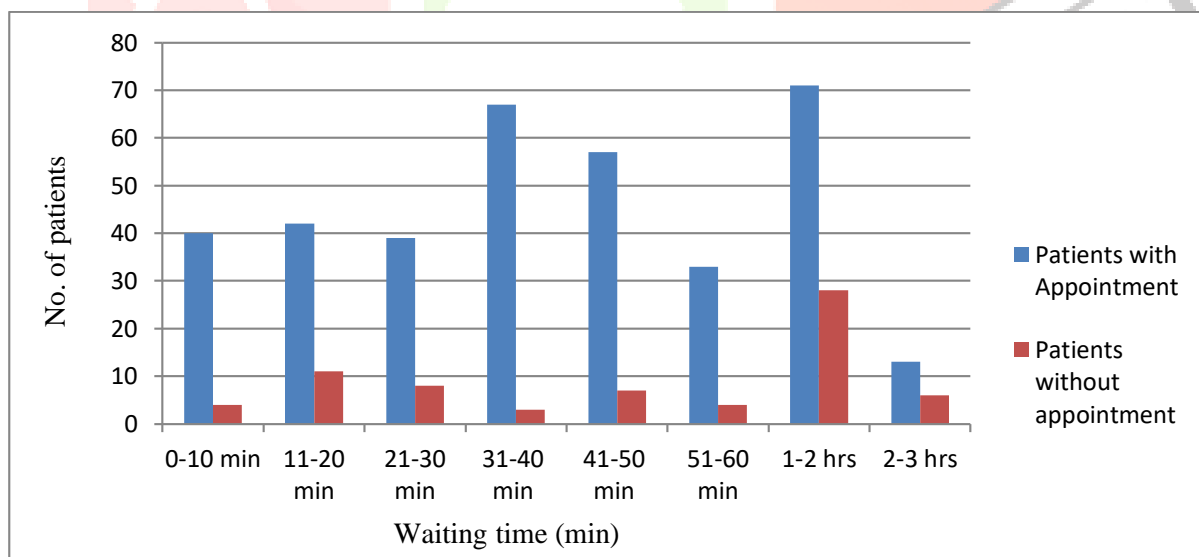**Fig 3 Percentage Ratios Waiting time for patient at Registration Desk**

Table 2 – Waiting time for patients from to get into the Consultation chamber

Waiting time	Patients with Appointment	Patients without appointment
0-10 min	40	4
11-20 min	42	11
21-30 min	39	8
31-40 min	67	3
41-50 min	57	7
51-60 min	33	4
1-2 hrs	71	28
2-3 hrs	13	6
Total	362	71

Fig 4 Waiting time for patients from to get into the Consultants chambers

Inference

- The waiting time for patients has been a maximum of 3 hours.
- Also we can see that there is a larger no patients coming with an appointment and waiting.
- But, this looks like a discrepancy.
- Hence we have also calculated percentage ratios to get a better understanding since the total number of patients with and without appointment are different.

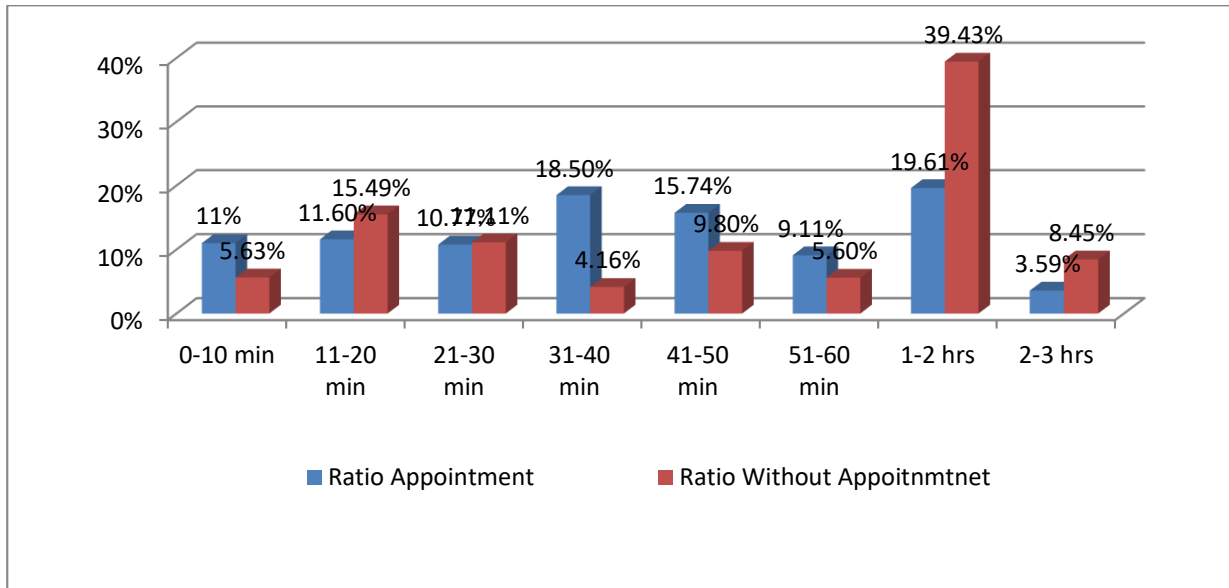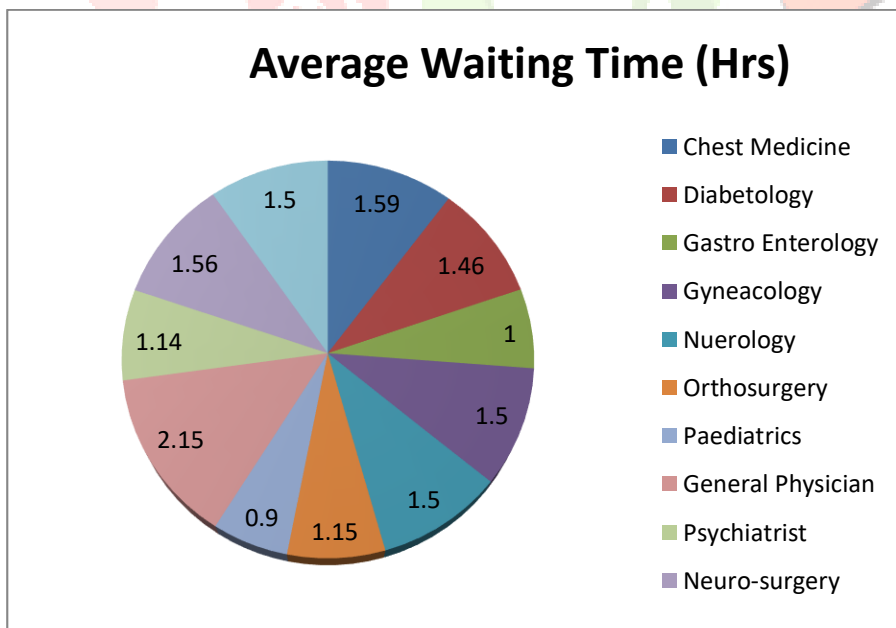**Fig 5 Percentage Ratios Waiting time for patients from to get into the Consultants chamber**

Fig 6 Average Waiting Time

Average waiting time of General Physician OPD (2:15 hr) is the highest followed by Chest Medicine (1:59 hr) and Neuro- Surgery OPD (1:56 hrs) respectively. There are various factors which are responsible for long waiting period for patients in OPD majorly they are;

doctors coming late in the OPD, simultaneous OT scheduling of doctors, wrong information given to the patient about the availability of doctor in the OPD, doctors going on IPD rounds in between the OPD hours etc.

RADIOLOGY

Table 3 – Waiting time for Radiology investigation as recorded are as tabulated below:

Waiting time (Minutes)	No.of patients
0 – 30	28
30 – 60	31
60 – 90	34
90 – 120	13
120 – 150	3

Fig 7 Waiting time for Radiology investigation
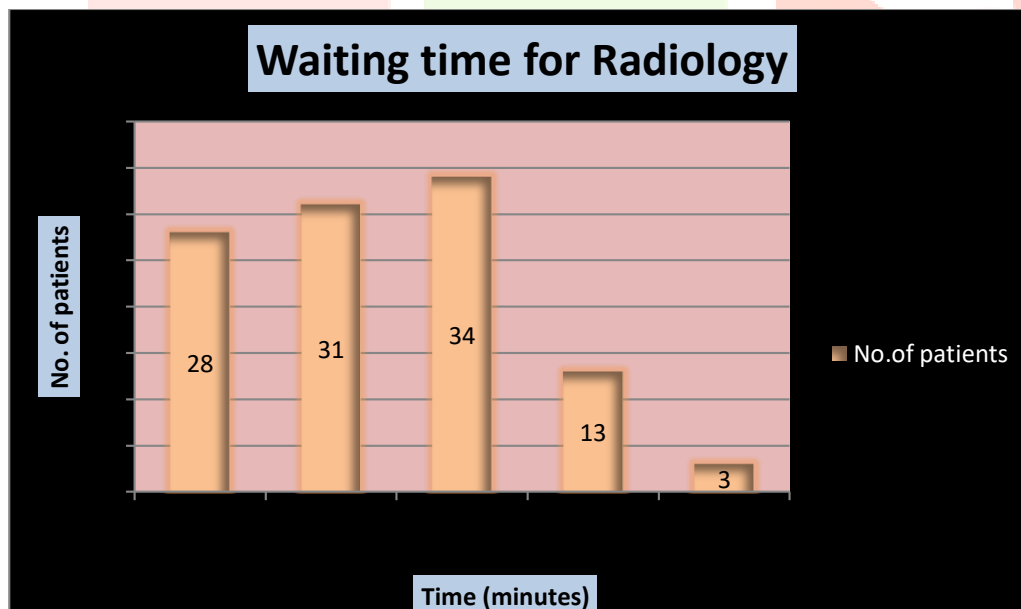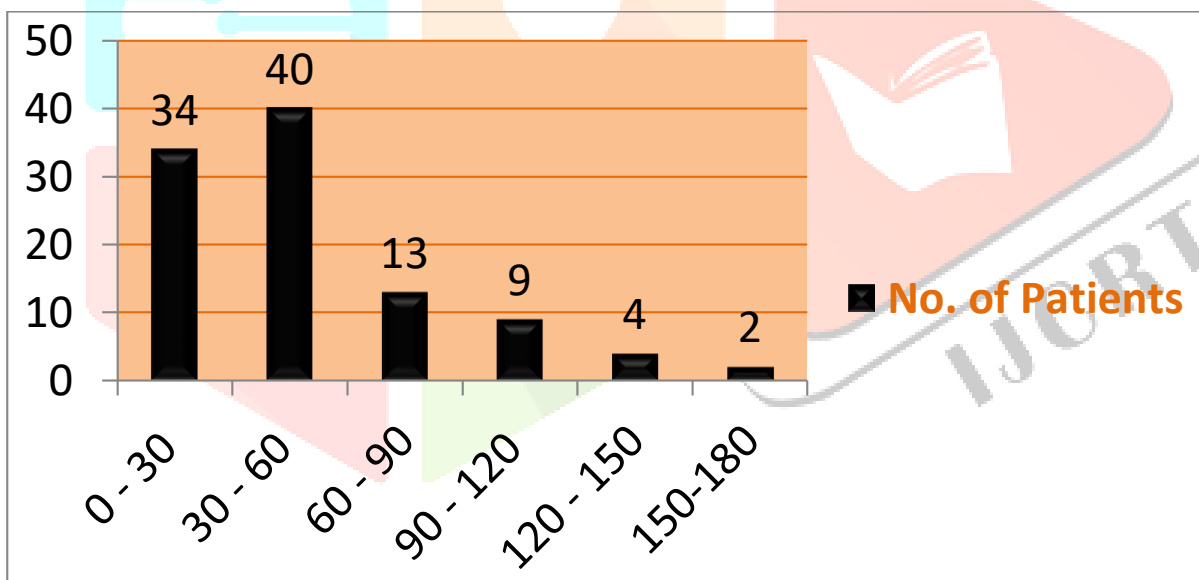

Inferences

- Around 34 patients have a waiting time of 60-90 minutes.

MRI

Table 4 Waiting time for patients for MRI Scans is as tabulated below:

Waiting time (min)	No. of Patients
0 - 30	34
30 - 60	40
60 – 90	13
90 - 120	9
120 – 150	4
150-180	2

Fig 8 Waiting time for patients for MRI Scan

Inferences

- Majority of MRI cases are on appointment basis.
- The waiting time for an MRI is more for cases having specific scans e.g. MRI scans with without contrast take 2hrs
- The reason being they had arrived after their appointment time and had to wait till the patient before them finished the scan.

7. FINDINGS:-

A total of 435 patients' data was recorded on the basis of observation methodology and all of them have been included in the study.

In the study, the waiting time of patients visiting the General Physician is an average of 135 minutes for every patient. Visit to the General Physician was observed to have the maximum waiting time out of all the specialties. This was the time right from when the patient arrives at the registration counter of OPD, proceeds for the billing formalities and enters the consultant's chamber. The highest waiting time here is observed because the consultants were found to not come on time. Also some of them had to go to visit their patients in the morning during daily rounds. Hence the waiting time is the highest for the Physician OPD.

Now let us look at the waiting time for investigations at Radiology and MRI.

A total of 115 patients were observed in the study.

A total of 34 patients had a waiting time between 60-90 minutes. The procedure was time consuming. Also, certain patients had to wait for their turn over and above their appointment times. Certain staff handling normal X-Rays was observed to be taking more time than required for a normal basic x-ray, Such X-rays take not more than 15-20 min but those have exceeded up to 25-30 minutes. Hence for others the waiting time increases.

Similarly, for MRI a study of 168 patients was done wherein their waiting time was observed. MRI schedule was done on the basis of more appointments. The patients were given appointments.

8. CONCLUSION:-

According to the present study, total average waiting time for each patient was estimated to be 92 minutes. A waiting time of 92 minutes is a lot for each outpatient in the hospitals. The models explained above can be effective for reducing these waiting time of the outpatient. The adoption of the model before admission and the process model has more functionality in the hospitals under this study. Since the waiting time of the patient was related to the visit at the consultant's chamber and narrow appointment intervals, a restructuring of this can be done to improve the process. But in the shorter period of doctor's visit, there should be much supervision and control in the healthcare organizations and they should suit the adopted policies.

9. BIBLIOGRAPHY

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