Study on Waiting Time for a Patient to be Transferred from Day-care to OT in a Tertiary Care Hospital

By

Anish Chhetry

Dissertation submitted in partial fulfillment of the requirements of the degree

MBA Hospital and Health Management

Academic year, 2018-2020

The IIHMR University, Jaipur

1, Prabhu Dayal Marg, Sanganer, Airport
Jaipur 302029, Rajasthan
Ph: 0141 3924700, Fax: 3924738
Website: **www.iihmr.edu.in**

Study on Waiting Time for a Patient to be Transferred from Day-care to OT in a Tertiary Care Hospital

By

Anish Chhetry

Dissertation submitted in partial fulfillment of award of

MBA Hospital and Health Management

Academic year, 2018-2020

Tertiary Care Hospital

The IIHMR University, Jaipur

1, Prabhu Dayal Marg, Sanganer, Airport
Jaipur 302029, Rajasthan
Ph: 0141 3924700, Fax: 3924738
Website: **www.iihmr.edu.in**

ACKNOWLEDGEMENT

The internship opportunity has been a novel experience for learning and professional development about the Hospital Industry. This study helped in understanding and learning the hospital setup, its various departments, their functions and their interrelation. I consider myself lucky to be provided with such an opportunity. I want to express my deepest gratitude to all of them who have made this endeavor possible.

It is my pleasure to be indebted to various people who supported me. I would like to thank Dr. Shaveta Dewan , Dr. Kirti, and the Day care staff for their help and guidance.

I would further like to extend my thanks to the management, Medical, paramedical staff of the Tertiary care Hospital for providing all the support and information required to complete my training.

My deepest gratitude to my mentor Dr. Sameer Phadnis of IIHMR University for their valuable guidance and advice for my successful completion of my internship.

I would also like to thank to all those who left their mark in the project and helped me in spite of their busy schedule and hectic work hours.

A STUDY ON WAITING TIME FOR A PATIENT TO BE TRANSFERRED FROM DAYCARE TO OT IN A TERTIARY CARE HOSPITAL

SUBMITTED BY - ANISH CHHETRY
MBA HM 23
HEALTH

GUIDED BY- DR. SAMEER PHADNIS

ABSTRACT-

A STUDY ON WAITING TIME FOR A PATIENT TO BE TRANSFERRED FROM DAYCARE TO OT IN A TERTIARY CARE HOSPITAL

INTRODUCTION-

Day surgery is now established practice with rates still increasing around the world and has greatly evolved since the early days of the specialty which saw minor procedures carried out on fit patients. Now due to advances in anesthesia and surgical techniques, day surgery is the standard pathway of care for many complex patients and procedures traditionally treated through inpatient pathways.

Day surgery represents high-quality patient care with excellent patient satisfaction. Shorter hospital stays and early mobilization reduce rates of hospital-acquired infection and venous thromboembolism. Patients overwhelmingly endorse day surgery, with smaller waiting times, less risk of cancellation, lower rates of infection, and the preference of their own surroundings to convalesce.

The term Day care surgery or ambulatory surgery refers to the practice of admitting the patient into the hospital, selected carefully, for a planned non-emergency procedure and discharge within hours of that surgery. The forthcoming era will see an increase in the patients and physicians opting for this surgical trend. The relative shortage of beds and scarce economic resources due to increase in the patient population has boosted this concept, thus allowing more surgical procedures to be performed on day-care basis. Anesthesia for a day care surgery is an important factor, which because of the advancement in techniques and new drugs have contributed to the progress of ambulatory surgeries.

HISTORY OF DAY CARE-

The term Daycare surgery or ambulatory isn't a new concept of surgery. It dates back to the 19th Century, when a surgeon named Dr, James Henderson Nicoll brought to the limelight that there were many surgeries that didn't require a hospital stay. The attempt to describe ambulatory surgery was when the surgeon reported cases of more than 9000 patients who were undergoing such surgeries. The concept of Day care surgeries has been practicing from a long time in the developing countries. However a developing country like India has seen a steady rise in the preference for same day surgery. Developing countries performs more than 50% of day care surgeries whereas India only 15% of day care surgeries are performed. This concept not only reduces the hospital resources being used but also cuts down the out of pocket expenditure of patients.

OBJECTIVES-

- To estimate the average wait time of a patient for an ambulatory surgery in Medanta Daycare Unit
- To ascertain the reason for the delay in being transferred to OT.

METHODOLOGY-

Study Site -Day Care Ward Medanta Medicity, Gurgaon.
Study period - 3 months (March 2020-May 2020)
Study Population - 145 Day Care patients
Inclusion Criteria:-

- Patient admitted in Day care for a period of 2 weeks.
- Patient from following department - Breast Clinic, Dental, ENT H&N,GI, Gynecology, H&N Oncology, Plastic, Respiratory, Urology, Vascular.

Exclusion Criteria:-

- Cancelled patients (both from the patient as well as the concerned department)
- Pediatric.

Sample size – 145 Day care patients
Study Design - It was an Observational Cross- Sectional Descriptive type of study wherin the patient would be tracked from the time the patient arrived at the Day care Ward of the Hospital till the patient was transferred to the OT.
Data Type - Primary Data
Data Analysis- Quantitative
Data Collection method- Observing and recording TAT.
Data Collection tool- Checklist
Sampling Technique- Convenient Sampling

CONCLUSION-

- The waiting time for procedure of GI is the maximum followed by the other procedures. The maximum number of delay was found in the department of GI,
- The GI has the highest number of cases so the patients have a longer wait time and have a comparatively longer wait queue for the procedure to be done.

INTRODUCTION TO THE HOSPITAL

Medanta –

The Medanta Medicity Hospital located in the hearts of Gurgaon, Haryana is one of the renowned brands of Hospital founded with the sole purpose to provide World class health facilities and reduce the out of pocket expenditure. It was set up with the vision of one of the famous known Cardiac Surgeon in India, Dr. Naresh Trehan.

This Multi speciality hospital has been spread across an enormous 45 acres. of land. The hospital has 1600+ beds for more than 22 super specialities, all under the same roof. The idea behind dedicating each floor to a particular specialization to guarantee that they work as an independent clinics, but then in the need of an hour can team up to provide the best services to the patients It has a total of 45 Operation Theatres.

The Hospital is primarily known fro an institute specializing in the department of cardiology. There are 32 various departments functioning under a single roof and caters to over 20 specialities.

The hospital offers a wide variety of choices for the patients to opt for, a cross specialization committee such as Tumor Board decides the best course of action.

The key to the vision of Dr. Naresh Trehan was an integrated institute where the entire hospital under one roof,

The architectural design for this particular hospital is in contrast to the standard set for medanta. The building has been stratiscally built, divided horizontally and each institute has been allocated the entire floor.

The hospital was designed in a manner that they tried to provide the patient with the visual connection to the outside world. This was achieved by trying to bring natural light and viewing window to every patients private space.

At the heart of Medanta they have placed a high hand carved sand stone tree of 21 foot high. It is basically a wish prayer tree, placed in the public lobby. There are no written instruction but the tree model speaks it all. There are bowls with sacred threads placed near to it, where the patients tie the mauli with a wish for someones speedy recovery.

VISION OF MEDANTA-

A vision that first came to Dr. Naresh Trehan, while practising surgery at the NYU Medical Center in the USA. For every 1000 Indian patients he treated there, another 1000 couldn't even afford to fly down. That's when he realised that India needed to have an advance multispecialty medical institution of its own. An institution which not only treats, but trains and innovates too, while providing international standards of technology, infrastructure, clinical care, and a fusion of traditional Indian and modern medicine.All at one-tenth the cost.

Mission:-

Medanta is established with the sole mission to deliver world-class, holistic and affordable healthcare and to build a dynamic institution that focuses on the development of people and new knowledge.

Background

1. Introduction:

The term ambulatory surgery refers to the process of performing a surgery that is not an emergency procedure. The patient can be discharged within hours after the procedure has been done and need not stay back at the hospital.

However, in order to make the process of daycare swift, there are various significant work to be done before the surgical procedure. The notes are written down at the time of admission, the daycare staff being enquired about the availability of bed, informing the staff of the patient being admitted for daycare, the consultant checking on the patient once they arrive at the day care facility. The Pre Anesthesia Consent team arrives at the patients' bed for informing about the procedure to be done and if the patient is aware about the procedure.

The last minute cancellation results in an unproductive use of resources, not in the patient interest, or the hospital.

Operating rooms plays the major key role in providing patient care within the hospital. The operating rooms has a direct impact on the effects of the surgeries done in the hospital. Therefore the Operating rooms must be managed efficiently. The efficient management of operating room doesn't mean an increase in the number of OT rooms with an increase in the rising number of operations.

There are various facilities that the hospitals are providing which requires a prior registration or booking, and efficient management of these resources plays an important role in the smooth functioning of the workload between the diagnostic and supporting department. The major problem faced by the hospital is the sudden cancelation of surgeries. The patient has to be thoroughly examined before shifting the patient for the procedure. However when the patient surgery is cancelled in the very last moment, leads to the waste of workforce, the surgical equipment's being unutilized. The cancelation of surgeries puts a burden not only on the hospital but also on the patient and the family. Operation cancellation refers to the cases that were supposed to be performed on that but couldn't due to some last minute problem.

Even the Operation delay lays a negative impact upon the patient and the attendant. The patient when being to wait for a long duration may start to feel anxious and be done with the surgery. The surgeons have a fixed operating rooms and specific theatres for performing for their elective procedures.

Research Question:

What is the average wait time for a patient to be shifted from Day care to OT?

OBJECTIVES-

- To estimate the average wait time of a patient for an ambulatory surgery in Medanta Daycare Unit
- To ascertain the reason for the delay in being transferred to OT.

LITERATURE REVIEW:-

This study is a Review article done by Prof. Jyotsna Wig[1]. It was published under the Indian Journal of Anaesthesia, 2005. The article gives us a brief description of the model of outpatient surgery even in India. However the Ambulatory surgery dates back to the 19th Century and was first performed by Dr. James Nicoll. The positive feedback from the patient and with advancement in surgical technologies the popularity of ambulatory surgery has enhanced even in India. However patient's safety should not be compromised in the name of fast tracking and cost containment. However, in India, with problems of financial constraints, insufficient grants for health care, lack of adequate money for improvisation of theatres and recovery rooms, and social factors, we are not able to cash on all the advantages of day care surgery in our hospitals.

The study Improving Patient Satisfaction by Addressing Same Day Surgery Wait times highlights about the patients satisfaction regarding the process of same day surgery and the amount of time they had to wait to be taken for the process of surgery. This was published in 2008 under the Journal of Perianesthesia nursing by Karen Freeman, RN, MSN, Sharon A. Denham, RN, DSN[2] .The study tries to highlight the problem patients might face due to longer surgical wait times and try to bring out suggestions which will help with patient satisfaction. The length of

waiting time is a primary complaint of patients in same day surgery, with a potential to induce additional stress for those patients who are already nervous. The study also highlights that waiting times longer than 15 minutes have been rated as an important factor that may account for 94% of patient dissatisfaction.

The article Day Surgery was a study based on the norms of performing elective surgery and was published in East and Central African Journal of Surgery by I. Kakande, G. Nassali, O. Kituuka[3].In India, among all surgical specialties, less than 15% of cases operated upon are true cases. The bulk of these patients come from specialties of ophthalmology and ENT, followed by Gynecology and General Surgery. The other super-specialties only contribute a very small fraction. There is a principle of ambulating the surgical patient as early as possible, in the modern day hospitals. This idea has gone a step further by discharging the post-operative patient home as soon as the critical period or immediate post-operative nursing needs have been met with. This has led to the concept of day care surgery.

Feasibility of day care surgery study was carried out by J.B Hedawoo along with Amrin Sheikh[4] in a Tertiary Health center in a medical college in Nagpur. It was published in the year, 2016 under Al Ameen Journal of medical sciences. Day surgery implies that the patient is admitted, operated on and discharged on the same working day. The study focuses on feasibility and advantages of daycare surgery in tertiary health center. The situation has, however, changed and an impressive growth in day surgery has been recorded during the last two decades, following the development of short-acting anesthetics and new surgical techniques

METHODOLOGY-

Study Site -Day Care Ward Medanta Medicity, Gurgaon.
Study period - 3 months (March 2020-June2020)
Study Population - 145 Day Care patients
Inclusion Criteria:-

- Patient admitted in Day care for a period of 2 weeks.
- Patient from following department - Breast Clinic, Dental, ENT H&N,GI, Gynecology, H&N
  Oncology, Plastic, Respiratory, Urology, Vascular.

Exclusion Criteria:-

- Cancelled patients (both from the patient as well as the concerned department)
- Pediatric.

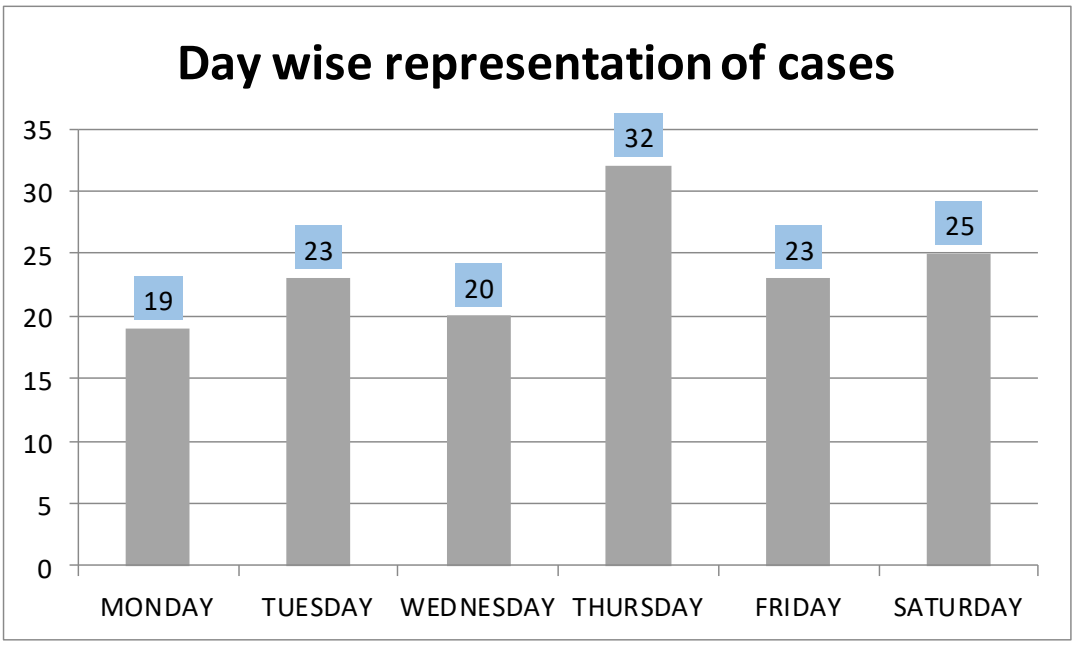
Sample size – 145 Day care patients
Study Design - It was an Observational Cross- Sectional Descriptive type of study wherin the patient would be tracked from the time the patient arrived at the Day care Ward of the Hospital till the patient was transferred to the OT.
Study type- Quantitative study
Data Type - Primary Data
Data Analysis- The analysis was done with the help of excel and interpretation was done using tables and graphs
Data Collection method- Observing and recording TAT.
Data Collection tool- Checklist
Sampling Technique- Convenient Sampling

Analysis-

Table-1 Day wise representation of cases

Day	No of cases
MONDAY	19
TUESDAY	23
WEDNESDAY	20
THURSDAY	32
FRIDAY	23
SATURDAY	25

Graph 1:-



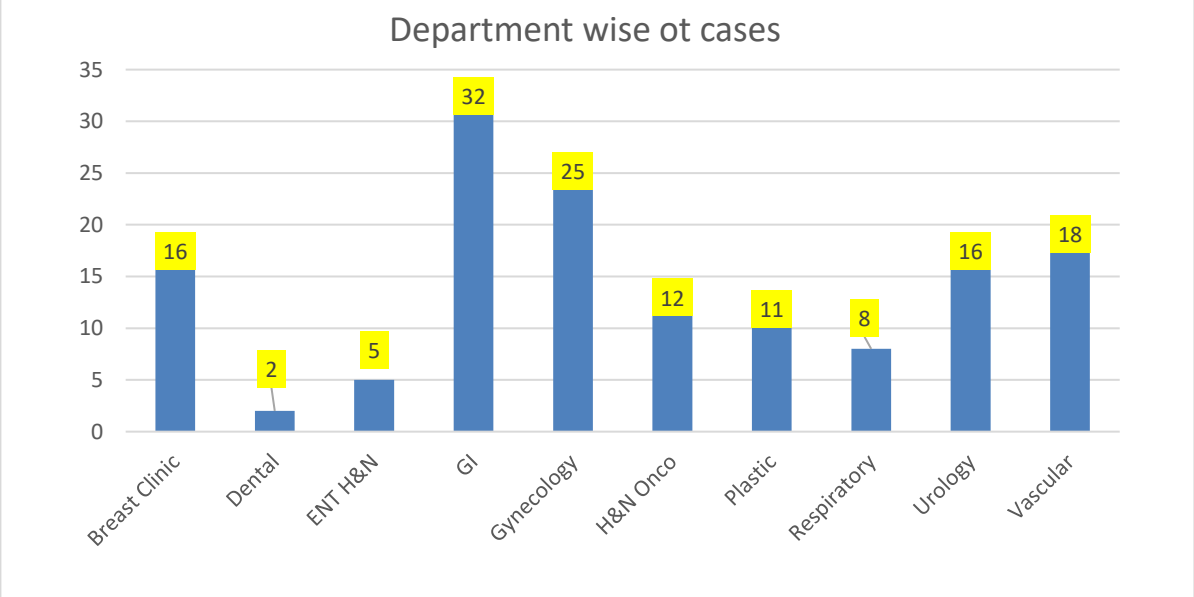
Inference-

The above graph depicts that the highest number of surgeries are done on Thursday with total number of cases being 32, Saturday had the second highest cases followed by Tuesdays and Friday. The lowest cases were seen on Monday in Day care OT.

Table 2:- number of cases based on different departments.

Department	Number of cases
Breast Clinic	16
Dental	2
Ent, H&N	5
GI	32
Gynecology	25
H&N oncology	12
Plastic surgery	11
Respiratory	8
Urology	16
Vascular	18

Graph 2-



Inference: -

The most cases in Daycare OT are that of GI, Gynecology, and vascular with cases 32, 25 and 18 simultaneously. On the contrary the dental department saw the minimum case among other departments.

Table 3:

Average wait ime in the concerned Depatment

Department	Mean time
Breast Clinic	153
Dental	194
ENT H&N	242
GI	169
Gynecology	182
H&N Oncology	161
Plastic	161
Respiratory	187
Urology	207
Vascular	114

Graph-

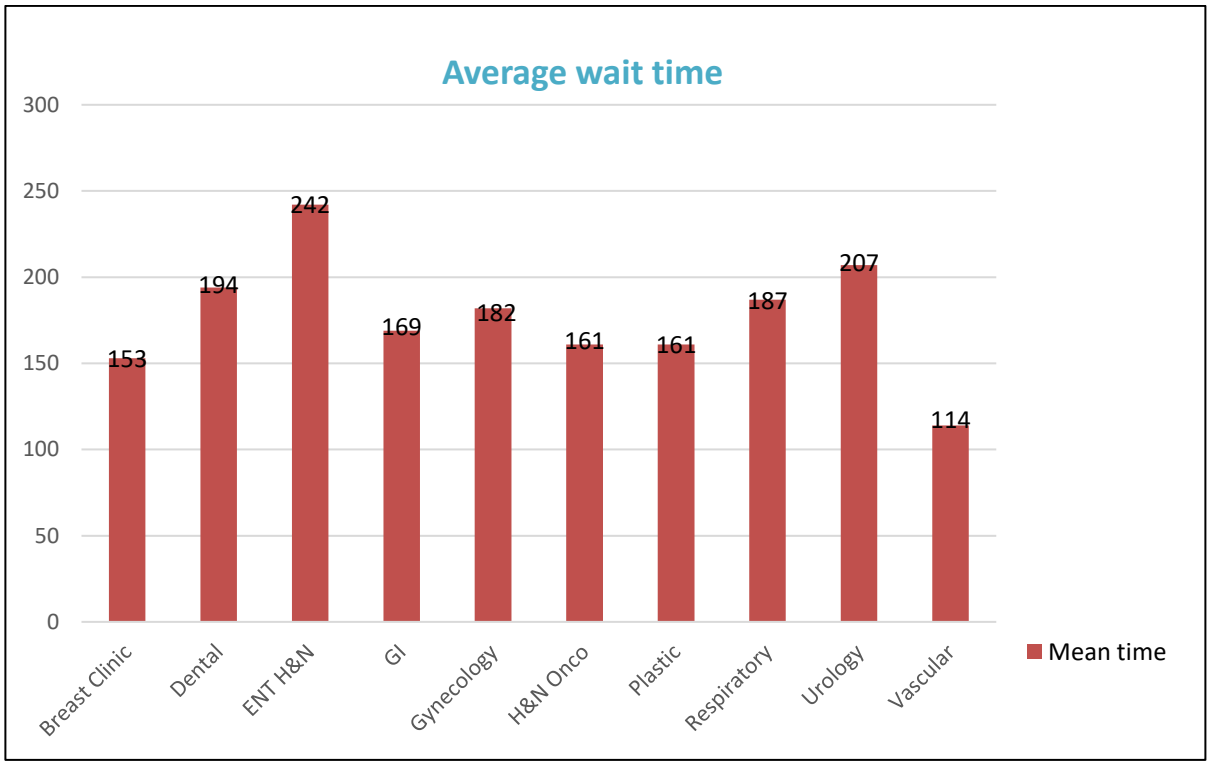


Table 4
The Minimum and maximum time taken for a patient to be shifted from Daycare ward to Day care OT

Department	MINIMUM TIME	MAXIMUM TIME
Breast Clinic	58	269
Dental	173	215
ENT H&N	130	380
GI	50	424
Gynecology	45	342
H&N Oncology	60	370
Plastic	32	409
Respiratory	119	269
Urology	69	493
Vascular	31	560

Graph 4

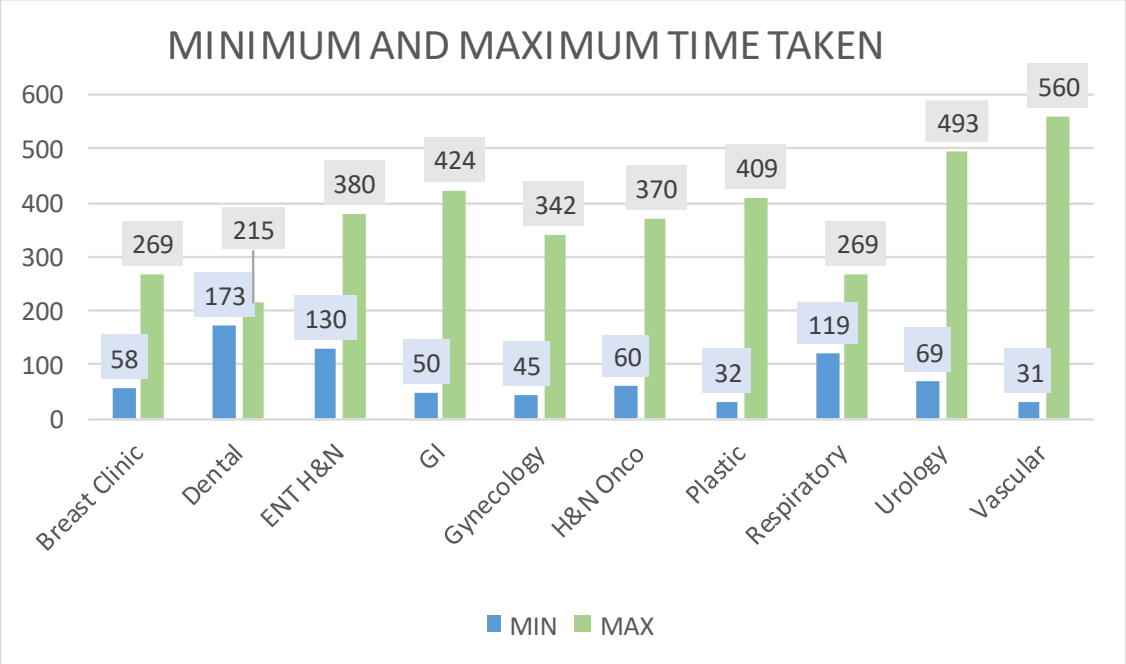
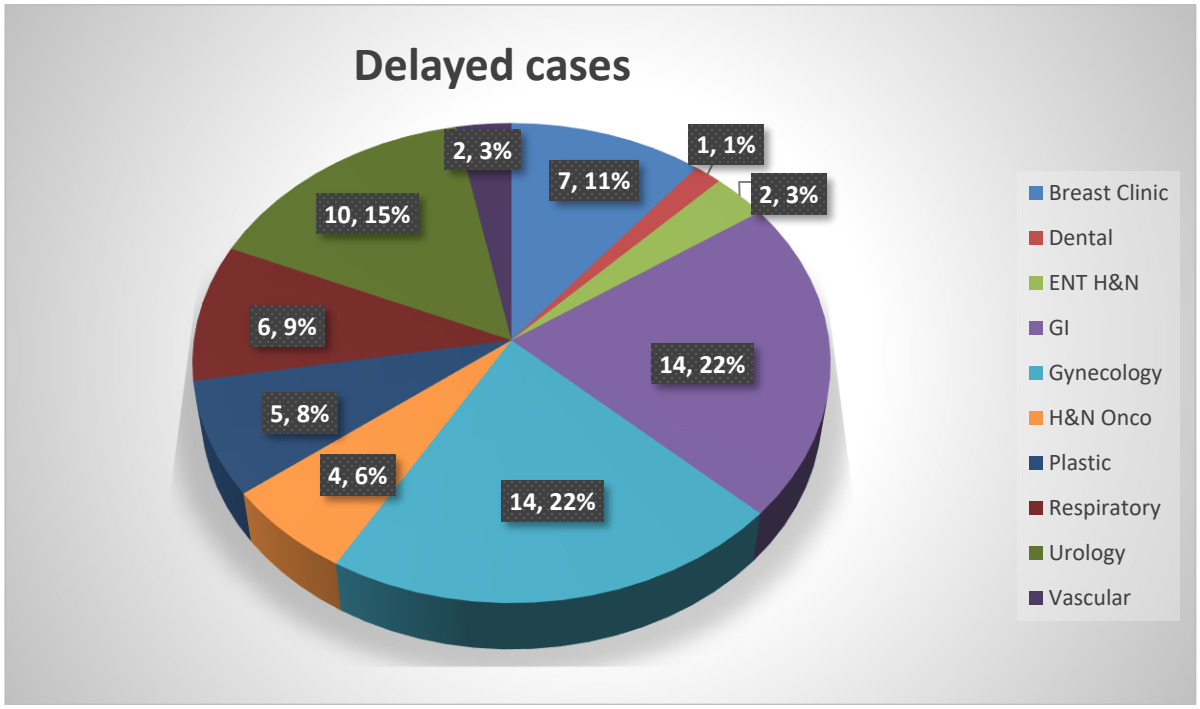


Table 4: Total number of delayed cases department wise and the average delayed time for those cases.

Department	Number of delay	Average Delayed time
Breast Clinic	7	237
Dental	1	194
ENT H&N	2	308
GI	14	257
Gynecology	14	247
H&N Oncology	4	258
Plastic	5	284
Respiratory	6	208
Urology	10	260
Vascular	2	406

Graph-



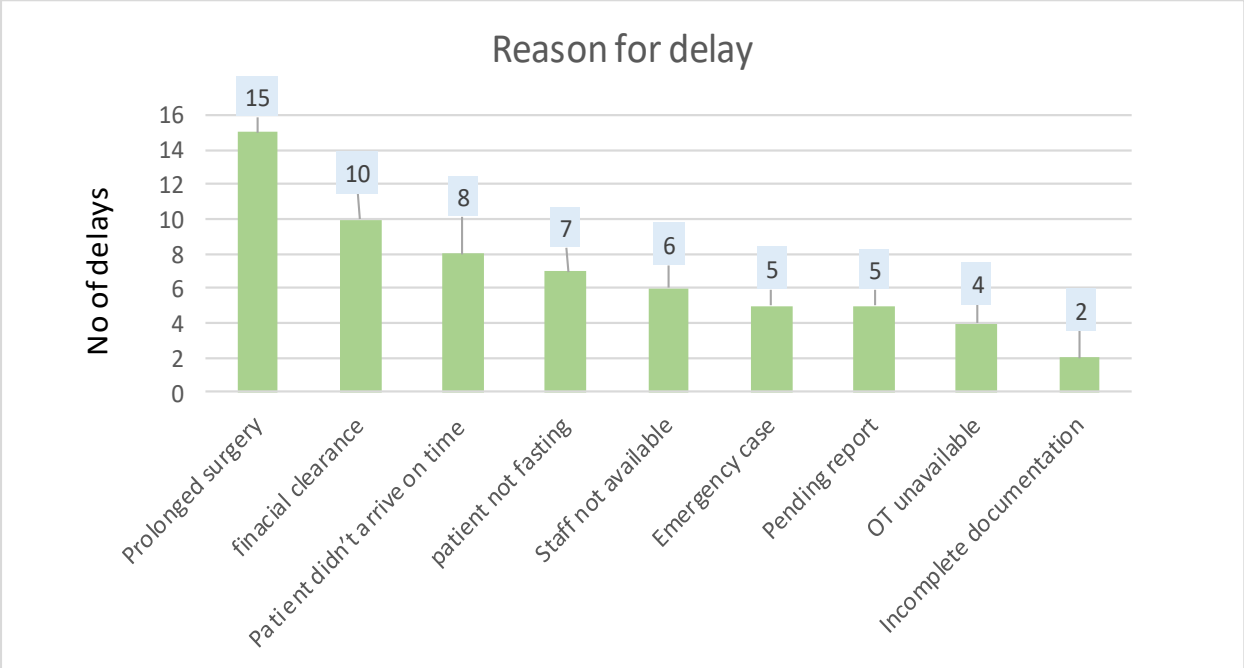
Inference- The departments of Gynecology and Gastro Intestinal contributes to 22% of delayed cases equally in the Day Care unit. Urology and Breast Clinic contributes to 15% and 11% of delayed cases in Day Care.

Reason for delay

Table

Reason	Number of cases
Prolonged surgery	15
Financial clearance	10
Patient didn’t arrive on time	8
Patient not fasting	7
Staff not available	6
Emergency case	5
Pending report	5
OT unavailable	4
Incomplete documentation	2

Graph



There may be instances where the average surgical time exceeds than the normal time required for the surgery due to some unexpected surgical complications. These kinds of complications sometimes results in the increase in the waiting time for the other patients also increases. The juniors under certain doctors are allowed to perform some training procedures especially for laparoscopic or robotic procedures.

There would be quiet number of patients who would be admitted in the department of GI, Gynecology, Breast Clinic and Urology for their planned procedure to be done. The patient would have to wait for long hours due to the high number of cases for a procedure on the single day. There would be cases ranging from mild procedures to complicated procedures that need to be operated.

The waiting patients become very anxious if they have to wait for longer times as they would want to be done with the procedure and be discharged.

The study however emphasizes on finding the departments which causes the most delays in the surgery and increase waiting time.

The reasons for such delays were to be found out to understand the root cause of the delay which affects not only the hospital efficiency but also the patients when kept in day care ward for a long time start becoming anxious as they want to get done with the procedure for which it has been waiting for a pretty long time.

The other reasons for an increase in wait time by the patients

- The Day care Patient didn't arrive on time
- Financial Clearance
- Patient was not empty stomach
- Prolonged ongoing Surgery
- Major cases over minor cases
- Unavailability of OT
- The patient being medically unfit
- Non availability of staff to shift
- Improper Counseling

Conclusion: -

The finding in this study helped us understand that the maximum number of cases were admitted under the department of Gastro Intestinal (32), Gynecology (25) , Vascular(18), Breast(16) and urology (16).

The departments with highest cases were also seen to have the maximum delayed cases leading to patient dissatisfaction. The department of Gastrointestinal and Gynecology contributed to 22% delayed cases individually, followed by Urology 15 %, Breast Clinic 11 %. The vascular department in spite of having the third highest number of cases had only 3% of delayed cases.

Causes: -

- The patients didn't arrive on time to the day care ward for the initial assessment.
- The surgeon, anesthetics were busy with other ongoing surgery
- Delay in financial clearance
- Patient did not come empty stomach for the surgery
- Non availability of staff for shifting the patient
- Prolonged ongoing of major surgery

- Lack of availability of OT due to over booking
- Long in surgeries planned by surgeons

SUGGESTIONS

- A call from the hospital a day prior to the scheduled surgery
- Emphasis on Prior financial clearance
- Proper Scheduling of surgeries
- Proper patient Counseling
- Increase in manpower
- Proper communication between the hospital staff and the patient's attendant

REFERENCES

1. 10. Wig J. The current status of day care surgery..... A review [Internet]. Core.ac.uk. 2005 [cited 21 June 2020]. Available from: https://core.ac.uk/display/87997404

2. Freeman, K., & Denham, S. A. (2008). Improving patient satisfaction by addressing same day surgery wait times. *Journal of perianesthesia nursing: official journal of the American Society of Perianesthesia Nurses*, *23*(6), 387–393. https://doi.org/10.1016/j.jopan.2008.08.003

3. Kakande I, Nassali G, Kituuka O. Day Surgery: The Norm for Elective [Internet]. Bioline.org.br. 2005 [cited 21 June 2020]. Available from: http://www.bioline.org.br/pdf?js05020

4. 11. Hedawoo J, Sheikh A. Study of feasibility of daycare surgery in Tertiary Health center [Internet]. Ajms.alameenmedical.org. 2016 [cited 21 June 2020]. Available from: http://ajms.alameenmedical.org/ArticlePDFs/14%20AJMS%20V9.N2.2016%20p%20139-142.pdf