Time Utilization of Operation Theatre

By

Prateek Lehri

Dissertation submitted for the partial fulfillment of the

MBA Hospital and Health Management

Academic year, 2015-2017

The IIHMR University, Jaipur

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INSTITUTE OF HEALTH
MANAGEMENT RESEARCH
(WHO Collaborating Centre for District Health System Based on Primary Health Care)

IIHMR UNIVERSITY

TO WHOMSOEVERMAY CONCERN

This is to certify that **Dr. PRATEEK LEHRI** student of MBA Hospital and Health Management from The IIHMR University, Jaipur has undergone internship training at **SPS HOSPITAL, LUDHIANA** from **February 2017** to **May 2017**.

The Candidate has successfully carried out the study designated to him during internship training and his approach to the study has been sincere, scientific and analytical.
The Internship is in fulfillment of the course requirements.

I wish him all success in all his future endeavors.

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PUNJAB'S FIRST INTERNATIONALLY ACCREDITED HOSPITAL

SPS HOSPITALS
SATGURU PARTAP SINGH HEALTH CARE

The certificate is awarded to

DR. PRATEEK LEHRI

In recognition of having successfully completed his Internship in the department of

OPERATIONS

and has successfully completed his Project on

TIME UTILIZATION OF OPERATION THEATRE

February 2017 - May 2017

SPS HOSPITAL, LUDHIANA

He comes across as a committed, sincere & diligent person who has a strong drive and zeal for learning

We wish him all the best for future endeavors

Deputy Medical Superintendent

DR. SHANU DEORA
Deputy Medical Superintendent
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CERTIFICATE BY SCHOLAR

This is to certify that the dissertation titled **TIME UTILIZATION OF OPERATION THEATRE** and submitted by **Dr. PRATEEK LEHRI** Enrollment No **IIHMR-U/01/2015-17/0320**under the supervision of **Dr. S.D GUPTA** for award of MBA in Hospital and Health Management of the University carried out during the period from **FEBRUARY 2017**to **MAY 2017**embodies my original work and has not formed the basis for the award of any degree, diploma associate ship, fellowship, titles in this or any other institute or other similar institution of higher learning.

Prateek Lehri

Signature

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CERTIFICATE BY SCHOLAR

This is to certify that all ethical issues have been considered while collecting data for my dissertation titled **"TIME UTILIZATION OF OPERATION THEATRE"**

Signature of student

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I owe a great debt to all professionals at **SPS HOSPITALS, LUDHIANA** for generously sharing their knowledge and time, which inspired me to do my best at this project study.

My heartfelt gratitude to **Dr. Shally Deora (Deputy Medical Superintendent)**, **Dr. Gurpreet Kaur (Senior Executive- Operations) and Sis. Jaspreet (In charge - OT)** for showing their keen interest in the study and for sharing their views in spite of their very busy schedule. It has been my privilege to work under their dynamic supervision at the Hospital.

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ABBREVIATIONS

ENT	Ear Nose Throat
GI	Gastrointestinal
GYNAE	Gynecology
JCI	Joint Commission International
NEURO	Neurology
OT	Operation Theatre
OPTHAL	Ophthalmology
ORTHO	Orthopedic
PAED	Pediatrics
SPS	Satguru Pratap Singh
URO	Urology

ABSTRACT

The prime source of revenue comes from the operation theatre (OT) of a hospital. Nevertheless, the area of OT corresponds to sizeable expenditure for a hospital unit budget which demands maximum utilization of operation theatre to make certain optimal cost-benefit.

OT Utilization can be defined as the measure of hours of theatre time that is actually utilized during elective resource hours and also considers the total number of optional resource hours available for use for optimal utilization of theatre time (Augusto et al., 2010).

An Operation Theatre (OT) is a vital facility of any healthcare unit. This specialized service of the hospital is directed towards lifesaving procedures carried out in strict aseptic conditions under controlled environment. A room in a hospital equipped for the performance of surgical operations is called Operation Theater.

The objective of this study was to assess the overall utilization of operation theaters in terms of hours. To assess the extent to which different departments are utilizing the allocated hours and to identify the proportion of (unplanned or planned) of surgeries and to suggest measures to improve the utilization of the OT of Satguru Pratap Singh Hospital, Ludhiana for the time period of February 2017 to May 2017. The existing study concentrates to understand the pattern and course of Utilization of operation theatre of Satguru Pratap Singh (SPS) Hospital in Ludhiana district of Punjab. This report also suggests the hospital for improving the utilization of operation theatre further.

Of the 663 surgeries cases done, 483(72.9%) were planned and 180(27.1) % were unplanned or were emergency surgeries. Among the departments, General Surgery had the maximum number of surgeries (140) and Pediatric department had the least number of surgeries (22).

CHAPTER ONE

INTRODUCTION

An Operation Theatre (OT) is a vital facility of any healthcare unit. This specialized service of the hospital is directed towards lifesaving procedures carried out under strict aseptic conditions under a controlled environment. The lifesaving or improving procedures are carried out by trained personnel to ensure the cure and healing with maximum comfort and safety of the patients. The OT is the major revenue source (around 50 -60%) for the hospital, therefore, it is advantageous for the hospital to optimize the efficiency of this area. The hospital measures the efficiency of operating theaters in diverse ways in terms of its ability to transform readily available time into earnings. This demands a high quantity of resources and efficient management to verify a well –functioning OT to meet the needs of OT staff, surgeons and to satisfy the hospital patients. In reality, to improve and enhance the effectiveness of operation theaters is a difficult process due to changing health facilities and administration. The quality data is required for evaluation of the performance of OT. However, many hospitals are facing the challenge in maintaining quality information and data required for proper evaluation and monitoring of OT performance. This indicates the need of constant management of OT working in a hospital to enhance the surgical output. In recent years, utilization of operation theaters has gained momentum and had been a priority area for hospital administrators as a measure of efficiency. Utilization of OT is an easy and adequate measure of the theater efficiency and has the capability to create revenue (efficiency increases) as the number of hours for which it is employed increases with it.

OT Utilization can be defined as the measure of hours of theater time that is actually utilized during elective resource hours and also considers the total number of optional resource hours available for use for optimal utilization of theater time (Augusto et al., 2010). The existing study concentrates on understanding the pattern and course of Utilization of operation theatre of Satguru Pratap Singh (SPS) Hospital in Ludhiana district of Punjab. The surgical suite typically consumes a lot of the hospital budget. Operation theater is the department of the hospital where a high cost is incurred. There is a scarcity of data in India on the use of available operating time and the reasons for less than optimal utilization have not been studied.

In order to improve the utilization of operating room, it is essential to know how much time is spent on each of the activities. Since SPS Hospital is JCI accredited hospital, it has reasonably become a center of high activity. It is providing a wide range of operative services, right from basic General Surgery, Cardiac Surgery, ENT surgery, Plastic, Gynecological, Orthopedics & Ophthalmic to super specialty surgical work like Neurosurgical, Gastrointestinal & Laparoscopic & Urological work. SPS Hospital is also providing round the clock emergency services. The surgical suite typically consumes a lot of the hospital budget. Operation theater is the department of the hospital where a high cost is incurred. The utilization of operation theater will not be achieved if the resources are not used effectively. Effective management is necessary for making the operation theater efficient to meet the high revenue generation for the hospital and improving the patient flow and reducing the waiting list. Optimal use of the capacity of Operation Theater can be achieved by proper scheduling, proper timing, and adherence to the SOP's of the hospital. It is imperative that the operation theater is an important department which can give most of the revenue to the hospital if properly utilized.

To assess the different types of surgeries and overall utilization of the OT, the present study was considered. This report also suggests the hospital for improving the utilization of Operation Theater further. The establishment renders super-specialty services for a range of medical and surgical fields. Satguru Partap Singh Apollo Hospitals is a center of excellence for Cardiac Sciences (cardiac surgery & interventional cardiology), Neuro Sciences (neurology & neurosurgery), Orthopedics and Joint Replacements, Gastro Sciences (gastroenterology and gastrointestinal surgery), Kidney Transplants, Mother and Child Care, Emergency Services and Preventive Healthcare Services.

The hospital has seven OT complexes. These theaters are equipped to handle all surgical cases for the above surgical departments. These theaters are scheduled for six days a week except for public holidays from 9:00 A.M. to 5:00 AM. Scheduling of cases for operation theaters is the closed type of scheduling i.e. OT tables fixed for specific departments. Scheduled cases are usually elective surgeries, though rarely emergencies are performed in scheduled time. Apart from scheduled cases sometimes few surgeries both electives and emergencies are performed, usually referred as unscheduled surgeries.

CHAPTER TWO

REVIEW OF LITERATURE

The utilization of operation theatre is not a new concept for healthcare establishments. In late 1970, the theory of OT utilization exists in the surgical journalism. To satisfy the growing expectations of patients from the hospitals and accomplish the demands from staff, doctors and surgeons the hospitals requires a well-managed and full-functioning operation theatre to maximize the utilization of operation theatre. Cardoen et al. (2010) defines OT utilization as the measure of hours of OT time essentially used during non-compulsory resource hours and the overall number of non-compulsory resource hours available for utilization of the OT time.

Oh et al. (2011) states proper allocation of resources is required to maintain an effective functioning of an OT unit in a hospital. In the opinion of Peltokorpi et al. (2009), weekly analysis of recorded data for accurate records, setting up of operating room policy and regulations, implementation of approved procedures and the strict adherence to these policies are essential factors for an efficient functioning of an operating room. At the same time, Augusto et al. (2010) points that the frequent changes in the administration and health facilities makes the functioning and achieving effectiveness of an operation theatre a difficult procedure. It can be said that for the proper functioning of the operation theatre and for enhancing the level of surgical output in the hospital there is need for constant supervision with proper management of hours and effective allocation of the available resources. The medical literature argues that leadership and management plays a significant role in the adequate functioning and development of an operation theatre. Researchers have indicated that the function of OT within a hospital also depends on provision of surgical and diverse medical services. These services are wide-ranging such as time utilizations, sterilization, equipment, control of infections, drugs, etc. The studies on OT functioning and development revealed that the measure of time utilization of OT has been of great interest among various academicians and researchers. Time scheduling in operation theatre is useful to increase the OT efficacy in relation to requirement planning, ease of access to equipment and even working on the internal environment of a hospital. Furthermore, infection control and cost factor are essential in the planning of OT development or facility expansion.

CHAPTER THREE

RESEARCH METHODOLOGY

This chapter explains the design of the research, the process of collecting the information and related data to the topic under study. The methodology also describes how the collected data is analyzed that helps the researcher to explore the ways to overcome the challenges in the research problem. Research Methodology provides an overview on the used research methods, approaches and strategies for collecting, presenting and analyzing the data to accomplish the research objectives for the research study

AIM

To study the utilization of Operation Theatres in SPS Hospital, Ludhiana

OBJECTIVES

1. To assess the overall utilization of operation theaters in terms of hours
2. To assess the extent to which different departments are utilizing the allocated hours.
3. To identify the proportion of (unplanned or planned) of surgeries
4. To suggest measures to improve the utilization of the OT.

STUDY METHODOLOGY

1. The study on utilization of Operation Theater at SPS Hospital, Ludhiana is a Descriptive type of study.
2. Data Analysis: Data was analyzed with the help of MS-Excel

RESEARCH TIMEFRAME

The period of study: From February 2017 to May 2017.

RESEARCH LIMITATION

1. There is no data available for the cancelation as well absenteeism of patient from planned surgeries.

2. There was no pre- scheduling done one day prior to the day of surgery so it added to poor utilization of O.T.

3. The unplanned surgeries done in emergency also affected the utilization as the surgery planned had to be delayed.

CHAPTER FOUR

ANALYSIS AND FINDINGS

1. Analysis was done with the help of Operation Theater Schedule as well O.T. Record from February to May.

2. Mathematical analysis was done based on comparison of Planned, Unplanned, and Total Surgeries.

3. **The utilization of O.T. was calculated using the below formula:**

$$\frac{\text{Number of hours when O.T. was used}}{\text{Maximum number of hours the O.T. can be functioned}} \times 100$$

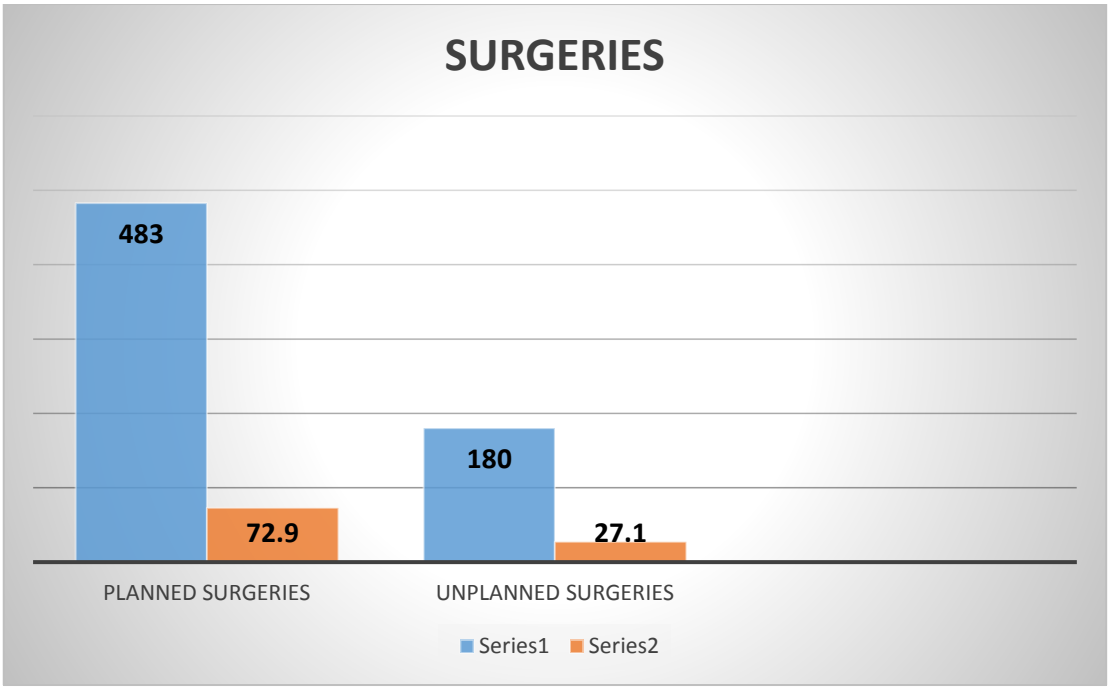
FINDINGS OF THE STUDY:

This section presents the findings of the study.

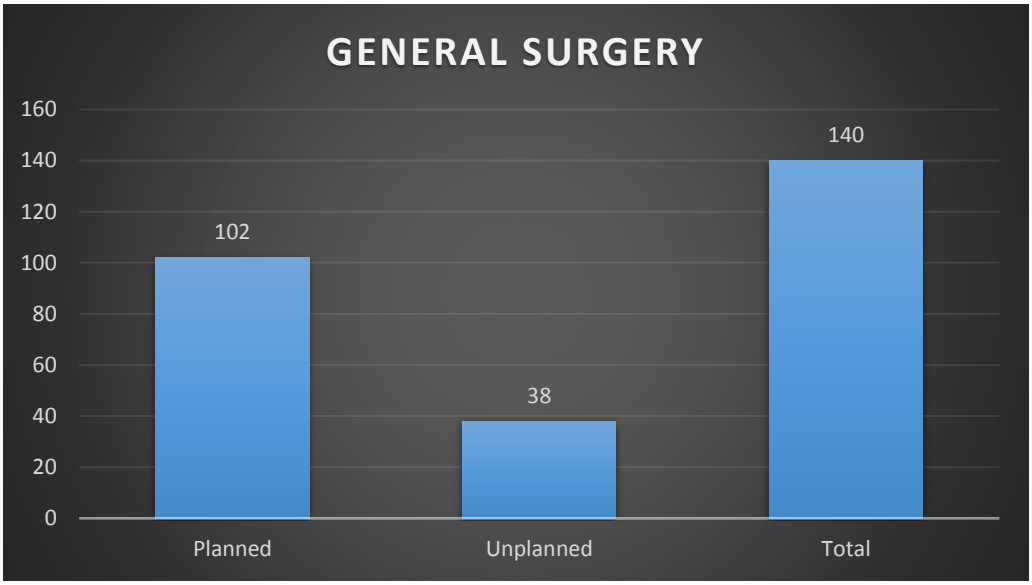
DISTRIBUTION OF PLANNED AND UNPLANNED SURGERIES

Table 1 shows proportion of planned and unplanned surgeries in comparison with total surgeries performed during the study period. It also shows the specialty wise percentage distribution of planned and unplanned surgeries.

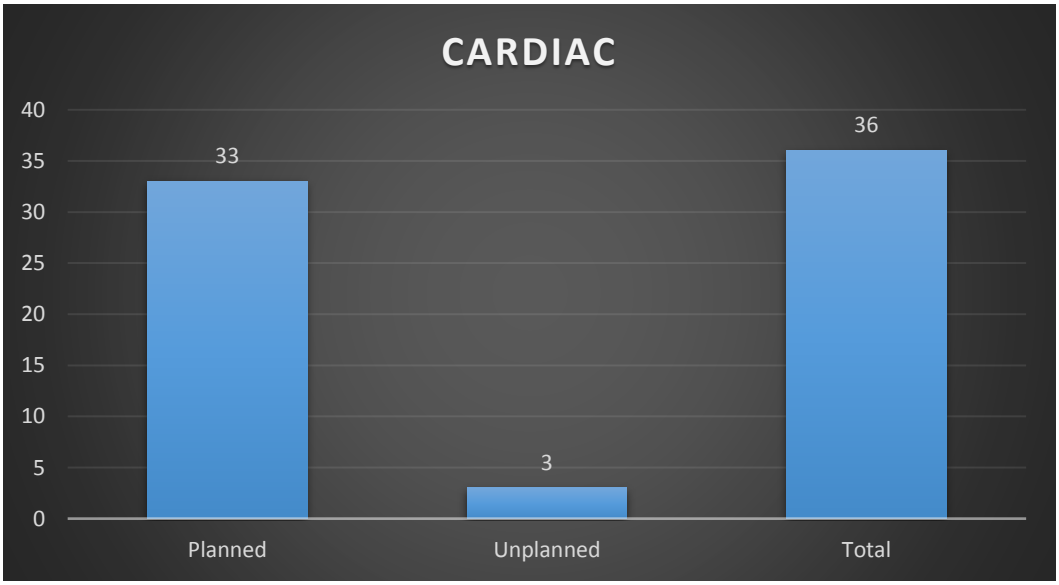
Specialty	Planned	Unplanned	Total	% Planned	% Unplanned
GENERAL SURGERY	102	38	140	72.9	27.1
CARDIAC	33	3	36	91.7	8.3
ORTHO	60	10	70	85.7	14.3
NEURO	35	27	62	56.5	43.5
GYNECOLOGY	32	40	72	44.4	55.6
ENT	51	12	63	81.0	19.0
UROLOGY	63	10	73	86.3	13.7
PLASTIC	40	14	54	74.1	25.9
PAEDIATRIC	15	7	22	68.2	31.8
GASTROINTESTINAL SURGERY	30	7	37	81.1	18.9
OPTHALMOLOGY	22	12	34	64.7	35.3
TOTAL	**483**	**180**	**663**	**72.9**	**27.1**



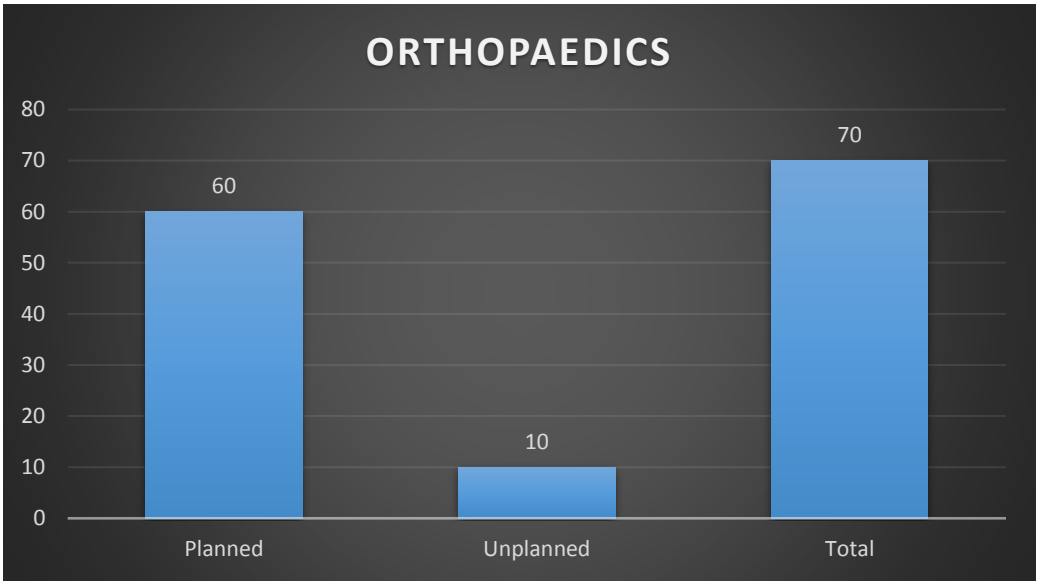
Graph no 1. Shows that there are total 663 surgeries were performed during the study period out of which 483 surgeries were planned and 180 were unplanned that accounts for 72.9 % were planned and 27.1 % were unplanned.



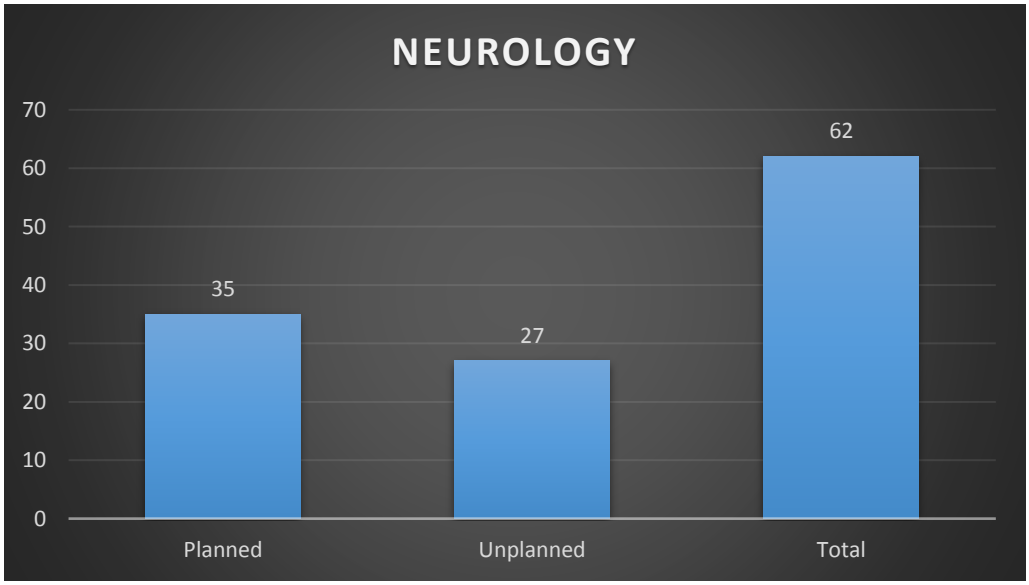
Department wise General Surgery performed total 140 surgeries out of that 102 were planned surgeries and 38 were unplanned that accounts for 72.9 % were planned and 27.1% were unplanned.



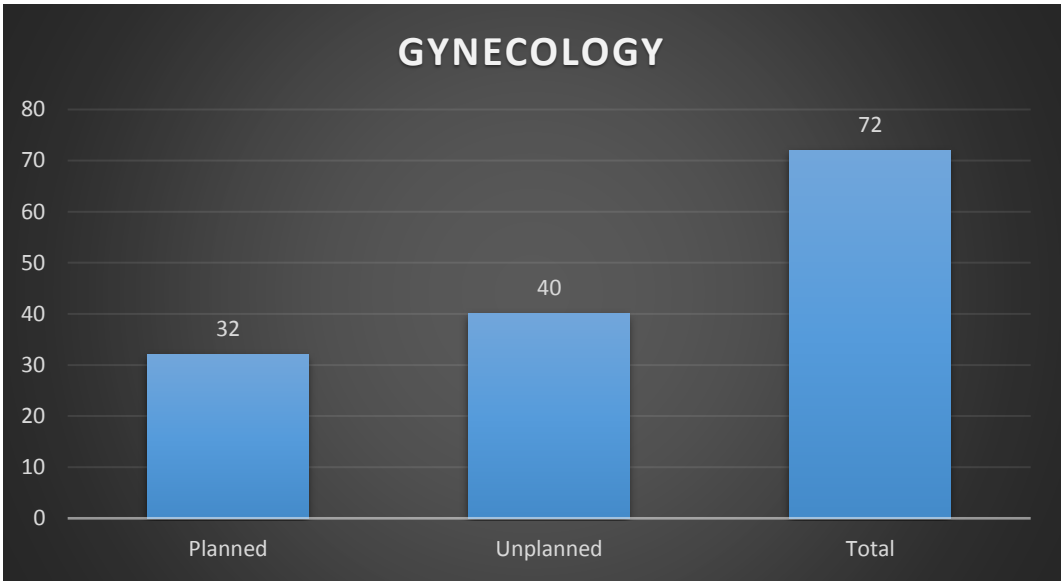
Cardiac performed total 36 surgeries out of that 33 were planned surgeries and 3 were unplanned that accounts for 91.7 %were planned and 8.3 % were unplanned.



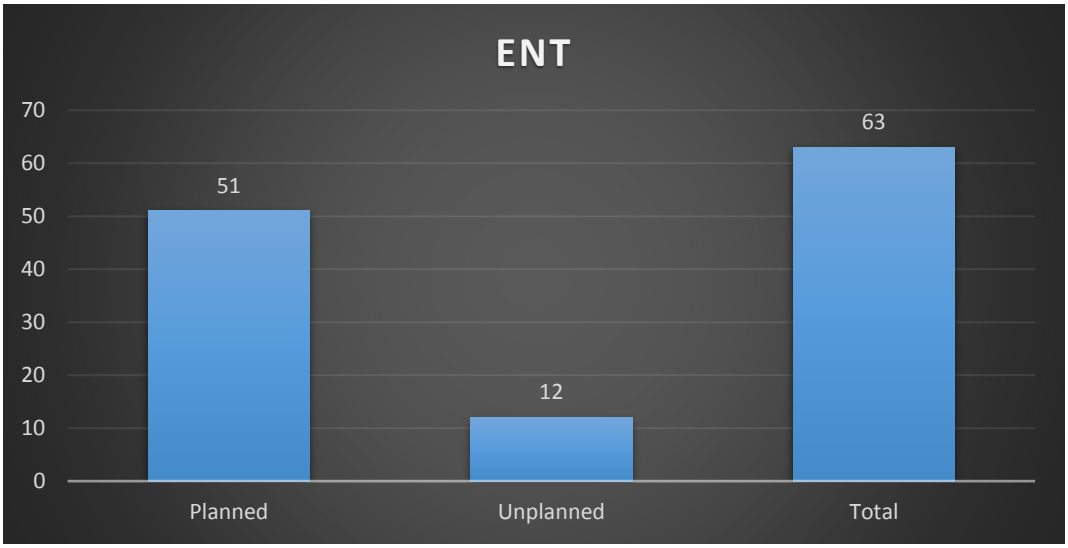
Orthopedics performed total 70 surgeries out of that 60 were planned surgeries and 10 were unplanned that accounts for 85.7% were planned and 14.3% were unplanned.



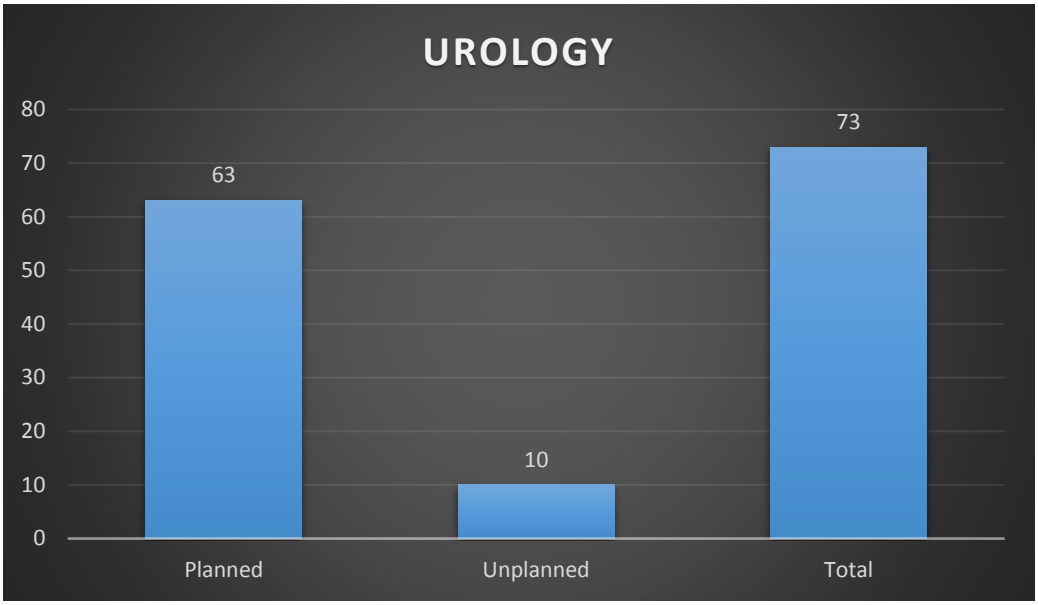
Neurology performed total 62 surgeries out of that 35 were planned surgeries and 27 were unplanned that accounts for 56.5% were planned and 43.5% were unplanned.



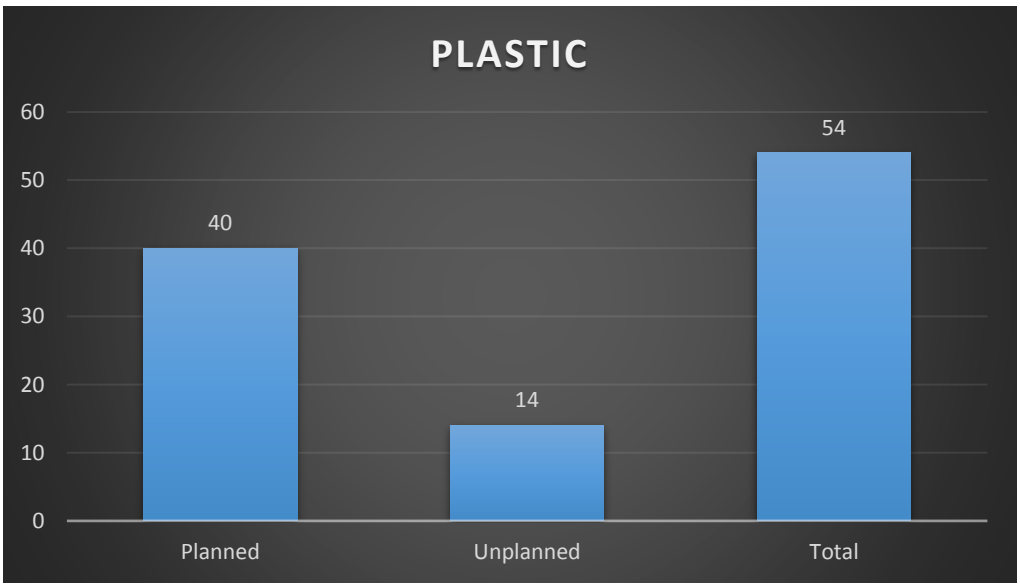
Gynecology performed total 72 surgeries out of that 32 were planned surgeries and 40 were unplanned that accounts for 44.4% were planned and 55.6 % were unplanned.



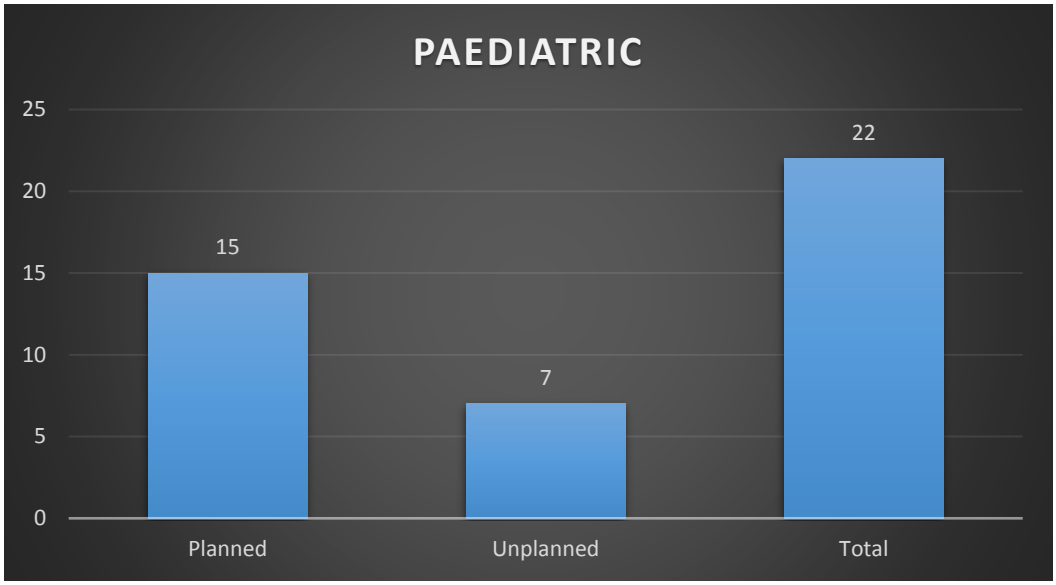
ENT performed total 63 surgeries out of that 51 were planned surgeries and 12 were unplanned that accounts for 81.0 % were planned and 19% were unplanned.



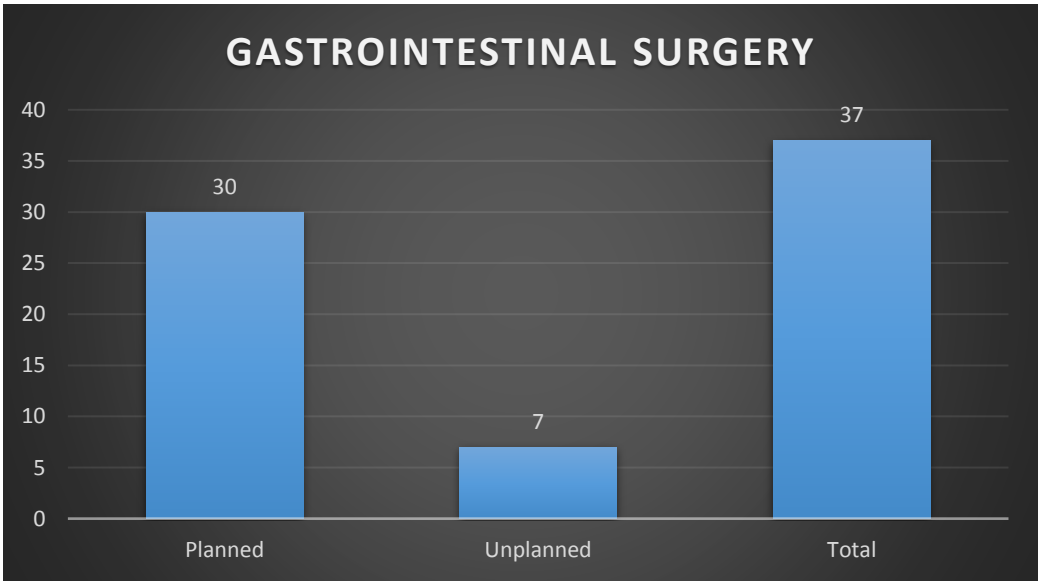
Urology performed total 73 surgeries out of that 63 were planned surgeries and 10 were unplanned that accounts for 86.3 % were planned and 13.7 % were unplanned.



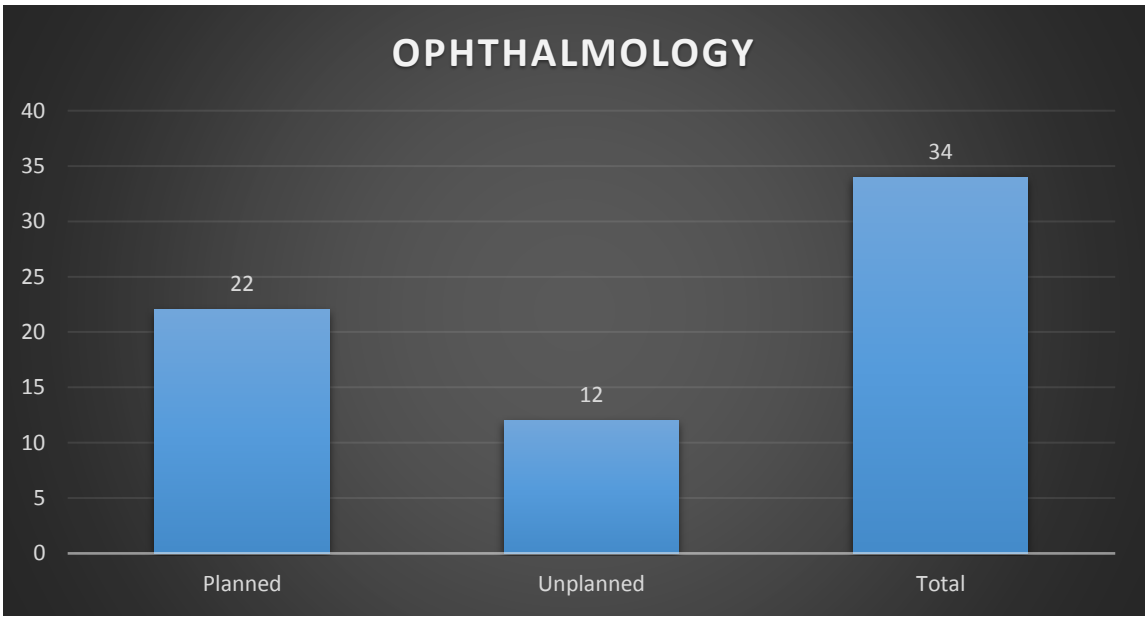
Plastic Surgery performed total 54 surgeries out of that 40 were planned surgeries and 14 were unplanned that accounts for 74.1% were planned and 25.9% were unplanned.



Pediatric performed total 22 surgeries out of that 15 were planned surgeries and 7 were unplanned that accounts for 68.2% were planned and 31.8% were unplanned.



Gastrointestinal performed total 37 surgeries out of that 30 were planned surgeries and 7 were unplanned that accounts for 81.1% were planned and 18.9 % were unplanned.

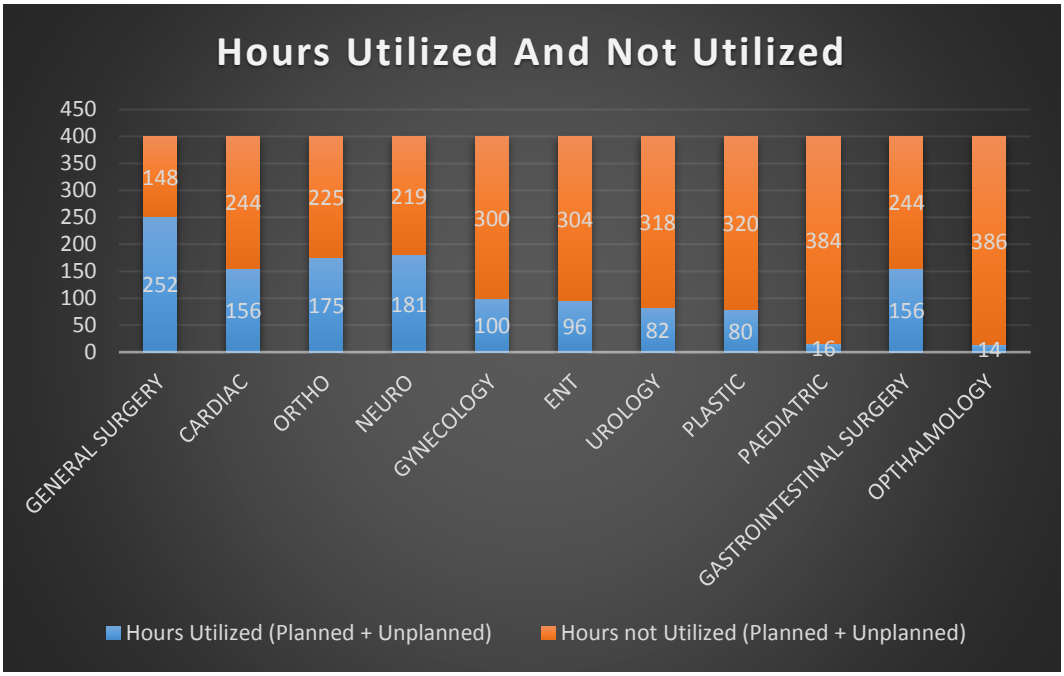


Ophthalmology performed total 34 surgeries out of that 22 were planned surgeries and 12 were unplanned that accounts for 64.7% were planned and 35.3 % were unplanned.

HOURS UTILIZATION:

To find out the hour utilization for different specialties each specialty was taken separately. After calculating surgery time for each surgery for that specialty total used hours were drawn that were for both planned and unplanned surgery. These utilized hours were deducted from total available hours for that unit and un utilized hours were drawn. Then separate percentage was calculated from both the utilized and not utilized hours. Details shown in the table given below.

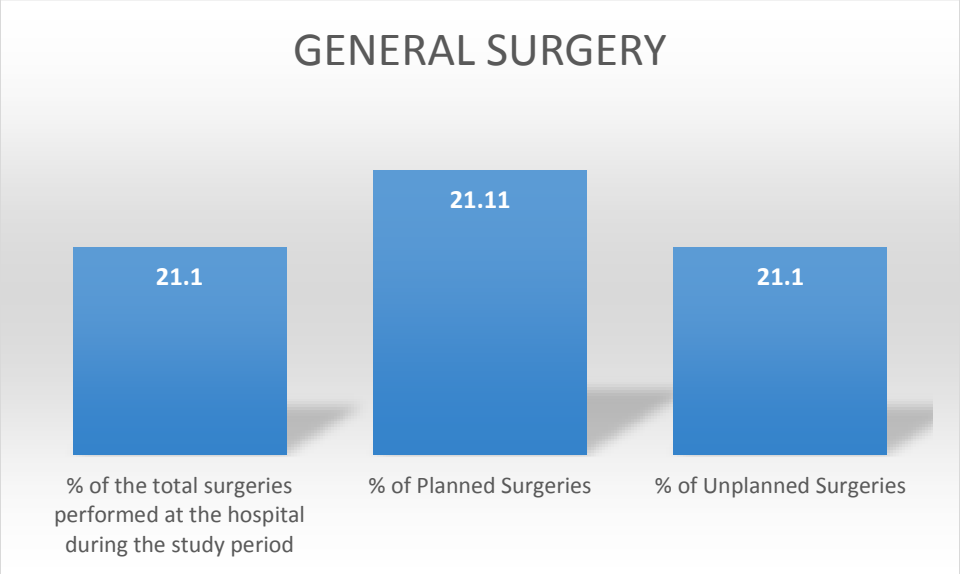
Specialty	Total Hours in the study period	Hours Utilized (Planned + Unplanned)	Hours not Utilized (Planned + Unplanned)	%Utilized	% Not Utilized
GENERAL SURGERY	400	252	148	63	37
CARDIAC	400	156	244	39	61
ORTHO	400	175	225	43.75	56.25
NEURO	400	181	219	45.25	54.75
GYNECOLOGY	400	100	300	25	75
ENT	400	96	304	24	76
UROLOGY	400	82	318	20.5	79.5
PLASTIC	400	80	320	20	80
PAEDIATRIC	400	16	384	4	96
GASTROINTESTINAL SURGERY	400	156	244	39	61
OPHTHALMOLOGY	400	14	386	3.5	96.5



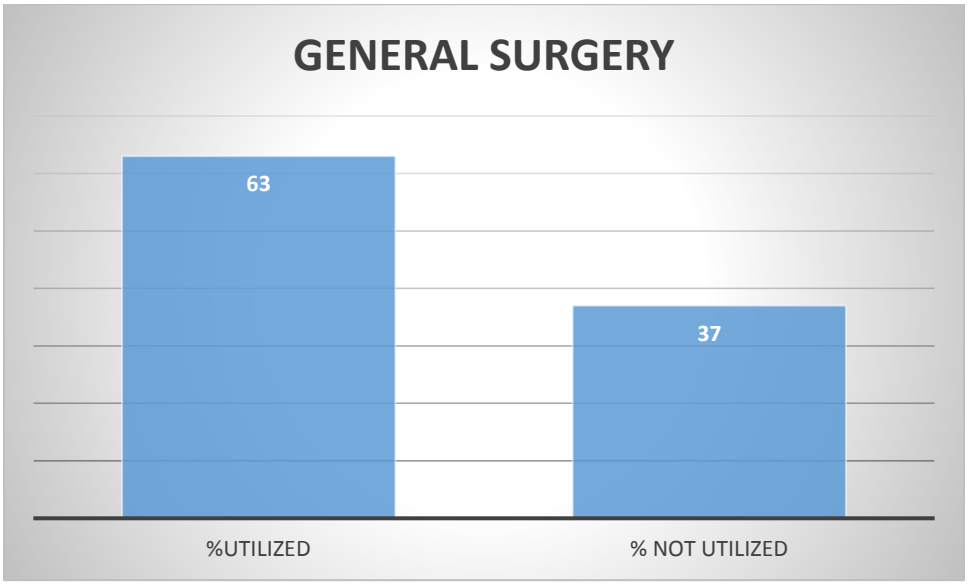
Distribution of hours utilized and not utilize

1.GENERAL SURGERY:

a. Total 140 surgeries were performed in this department, out of which 102 (72.9 %) surgeries were planned and 38 (27.1%) were unplanned. The general surgery department adds up to 21.11% of the total surgeries performed at the hospital during the study period. The unplanned surgeries between study period were 180out of which 38 surgeries was for the General Surgery department which is 21.1 % of the total unplanned surgeries. The planned surgeries between study period were 483 out of which 102surgeries was for the General Surgery department which is 21.1% of the total planned surgeries.

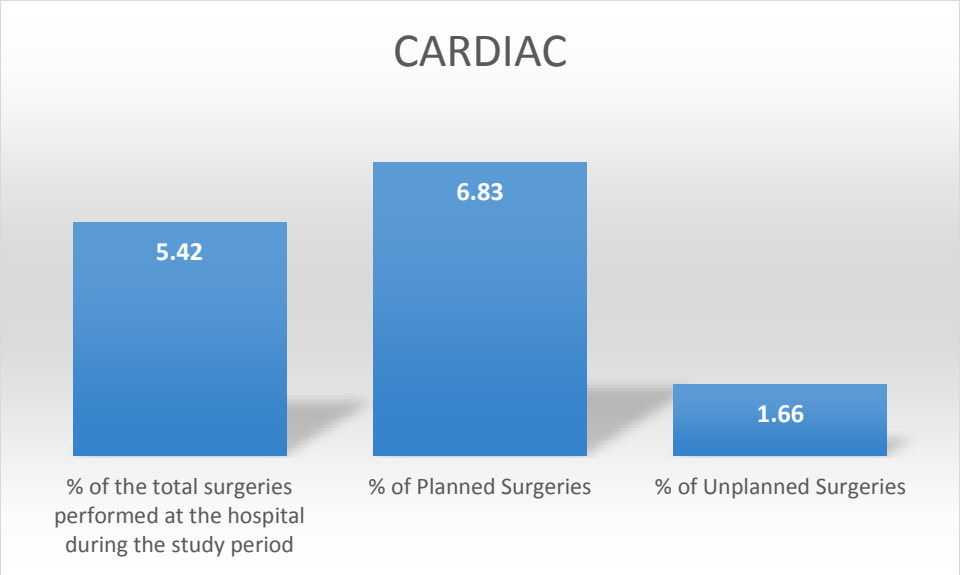


b. Coming to the utilization of O.T. in terms of hours allocated. The total hours allocated during the study period were 400 hours. Out of which the department has utilized 252 hours and remaining 148 hours has not been utilized which amounts to 37% and the percentage utilized by the department is 63 % which is the highest as compared to the other departments during the study period.

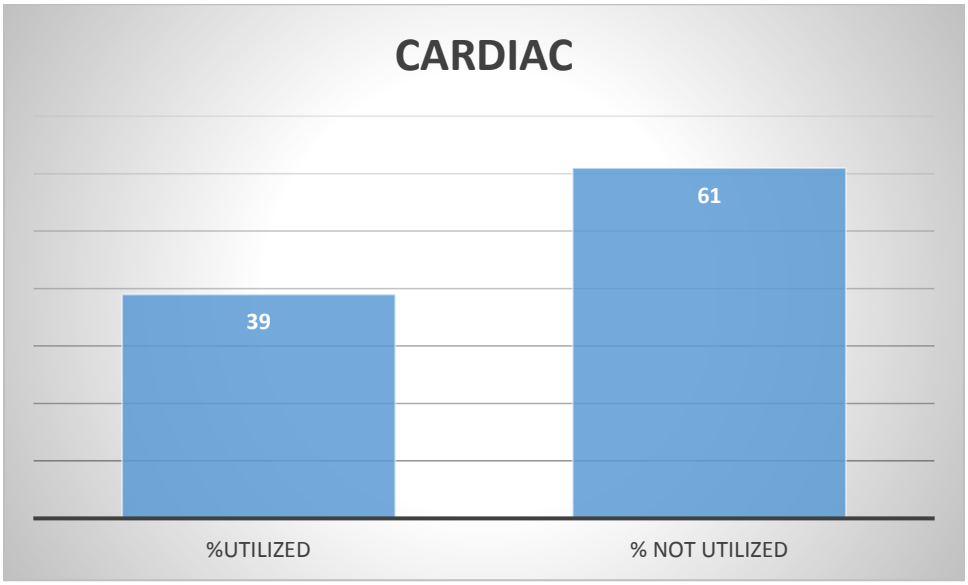


2.CARDIAC:

a. Total 36 surgeries were performed in this department, out of which 33 surgeries were planned and 3 were unplanned which amounts to 8.3% surgeries and on the other hand the planned surgeries were 91.7%. The Cardiac surgery department amounts to 5.42% of the total surgeries performed at the hospital during the study period. The unplanned surgeries between study period were 180 out of which 3 surgeries was for the Cardiac department which is 1.66 % of the total unplanned surgeries. The planned surgeries between study period were 483 out of which 33 surgeries was for the Cardiac Surgery department which is 6.83% of the total planned surgeries.

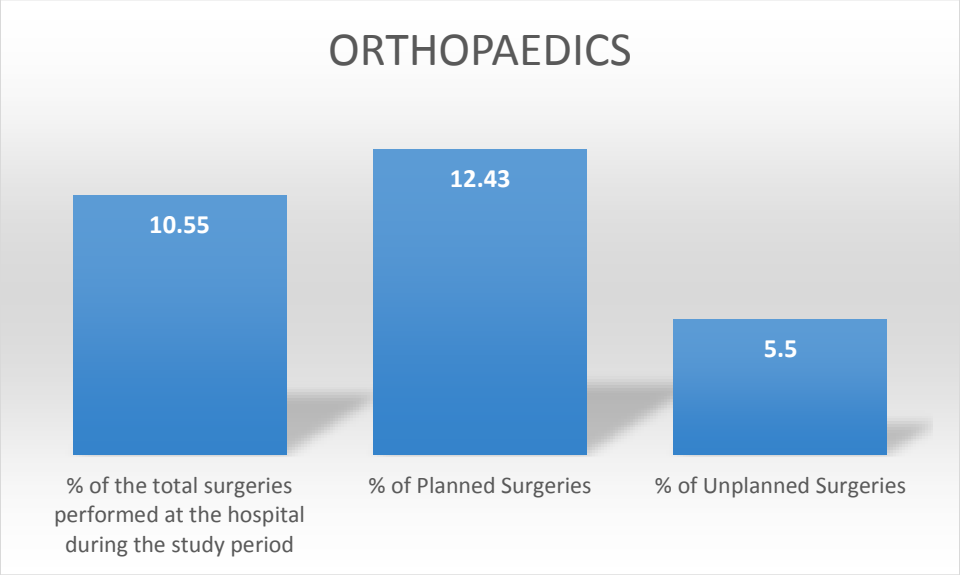


b. Coming to the utilization of O.T. in terms of hours allocated. The total hours allocated during the study period were 400 hours. Out of which the department has utilized 156 hours and remaining 244 hours has not been utilized which amounts to 61% and the percentage utilized by the department is 39%.

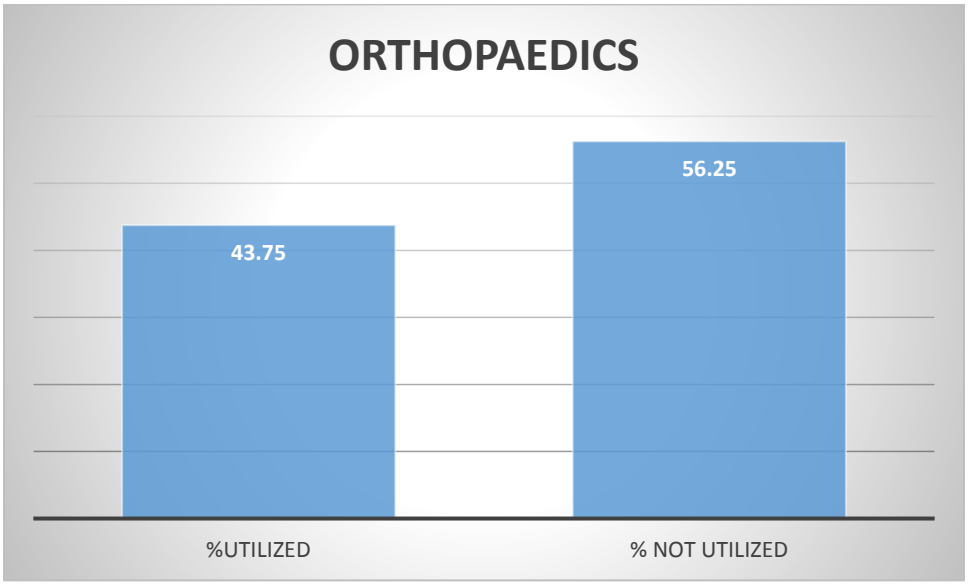


3.ORTHOPEDICS:

a. Total 70 surgeries were performed in this department, out of which 60 surgeries were planned and 10 were unplanned which amounts to 14.3 % surgeries and on the other hand the planned surgeries were 85.7%. The orthopedic surgery department amounts to 10.55% of the total surgeries performed at the hospital during the study period. The unplanned surgeries between study period were 180 out of which 10 surgeries was for the orthopedic Surgery department which is 5.5 % of the total unplanned surgeries. The planned surgeries between study period were 483 out of which 60 surgeries was for the Orthopedic Surgery department which is around 12.43% of the total planned surgeries.

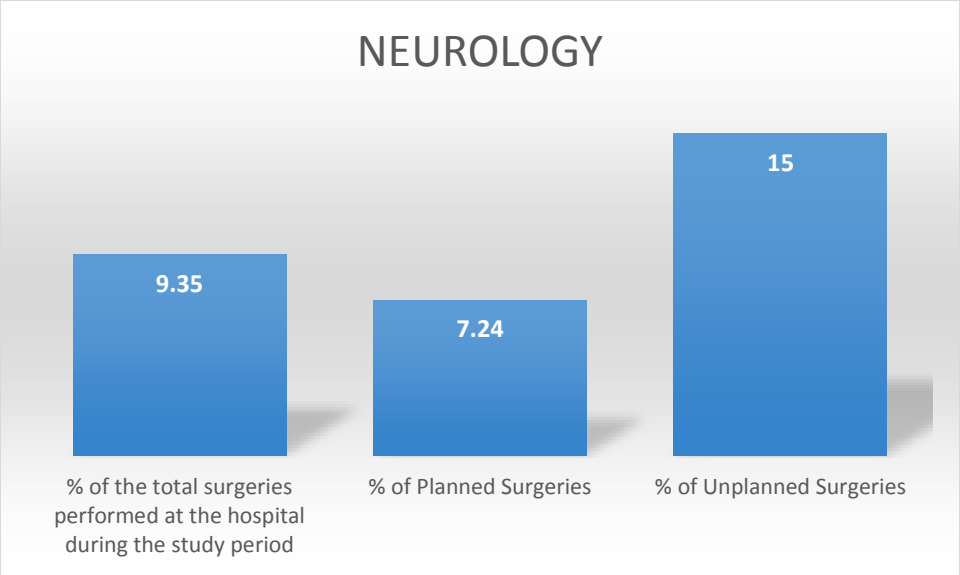


b. Coming to the utilization of O.T. in terms of hours allocated. The total hours allocated during the study period were 400 hours. Out of which the department has utilized 175 hours and remaining 225 hours has not been utilized which amounts to 56.25% and the percentage utilized by the department is 43.75% which is the third highest as compared to the other departments during the study period.

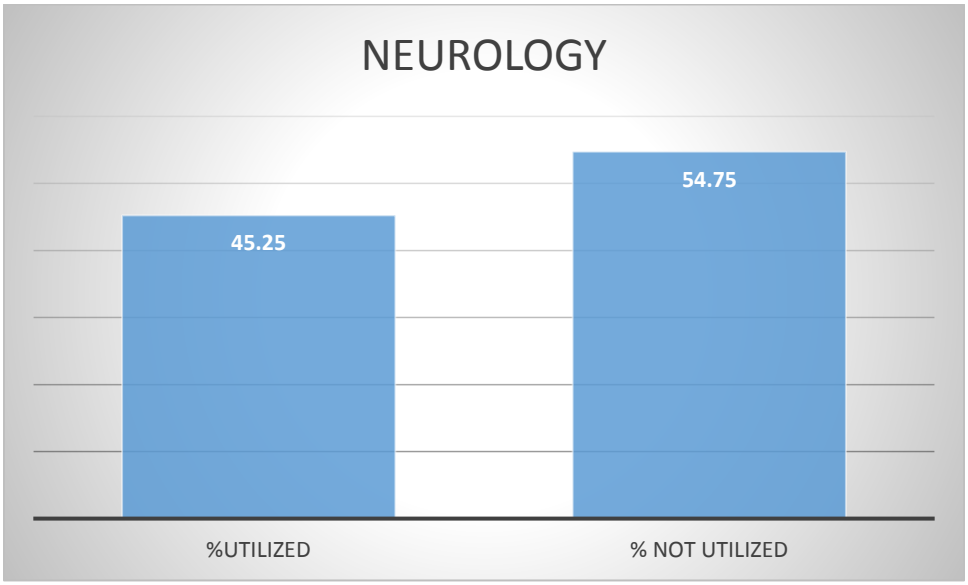


4. NEUROLOGY:

a. Total 62 surgeries were performed in this department, out of which 35 surgeries were planned and 27 were unplanned which amounts to 43.5 % surgeries and on the other hand the planned surgeries were 56.5 %. The Neuro surgery department amounts to 9.35 % of the total surgeries performed at the hospital during the study period. The unplanned surgeries between study period were 180 out of which 27 surgeries was for the Neuro Surgery department which is 15 % of the total unplanned surgeries. The planned surgeries between study period were 483 out of which 35 surgeries was for the Neuro Surgery department which is around 7.24 % of the total planned surgeries

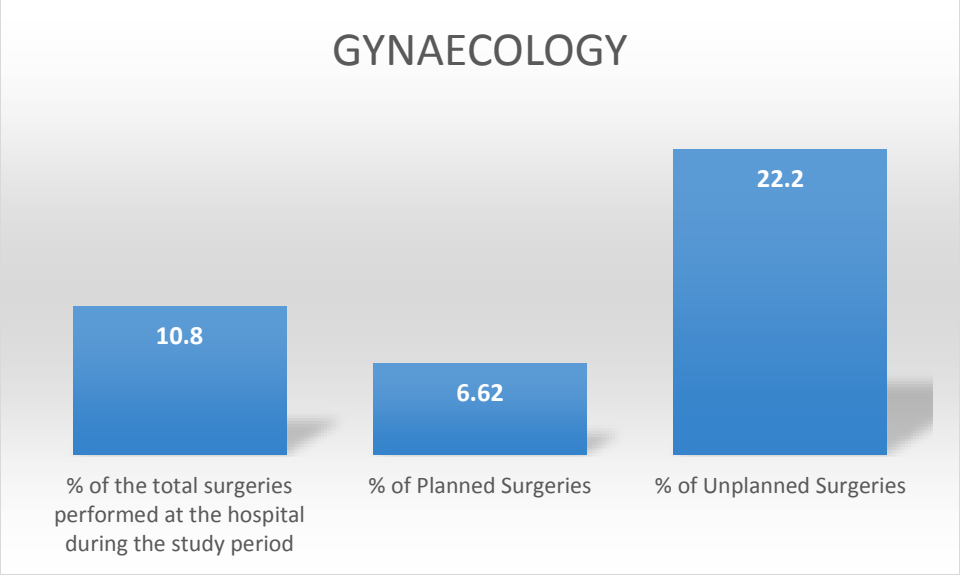


b. Coming to the utilization of O.T. in terms of hours allocated. The total hours allocated during the study period were 400 hours. Out of which the department has utilized 181 hours and remaining 214 hours has not been utilized which amounts to 54.75% and the percentage utilized by the department is 45.25% which is the second highest as compared to the other departments during the study period.

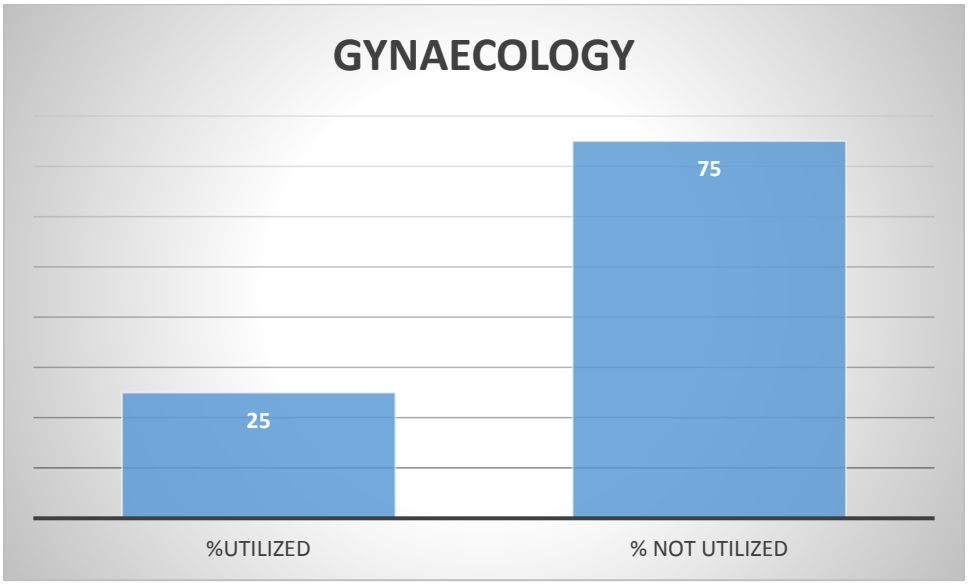


5. GYNECOLOGY:

a. Total 72 surgeries were performed in this department, out of which 32 surgeries were planned and 40 were unplanned which amounts to 55.6 % surgeries and on the other hand the planned surgeries were 44.4 %. The Gynecological surgery department amounts to 10.8 % of the total surgeries performed at the hospital during the study period. The unplanned surgeries between study period were 180 out of which 40 surgeries was for the Gynecological Surgery department which is 22.2 % of the total unplanned surgeries. The planned surgeries between study period were 483 out of which 32 surgeries was for the Gynecological Surgery department which is around 6.62 % of the total planned surgeries.

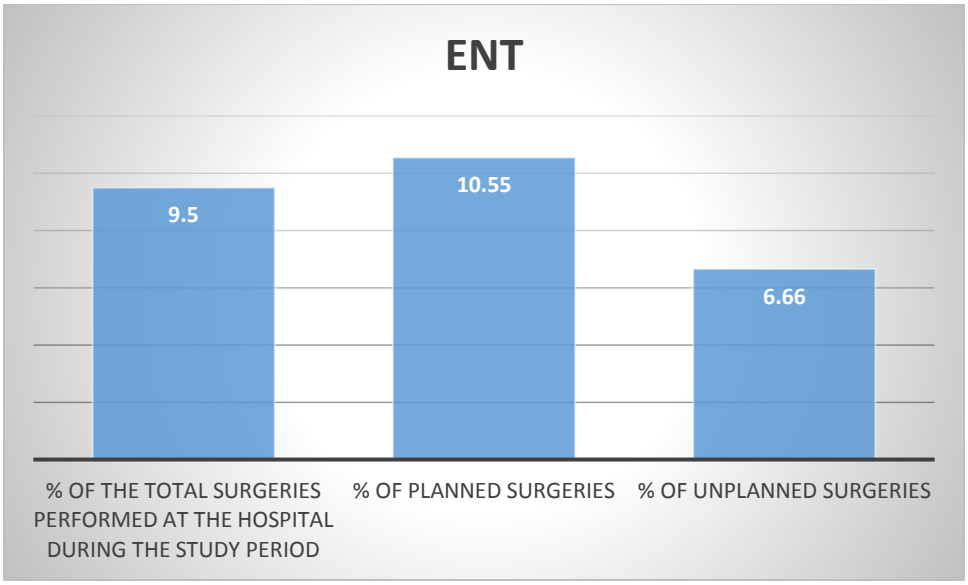


b. Coming to the utilization of O.T. in terms of hours allocated. The total hours allocated during the study period were 400 hours. Out of which the department has utilized 100 hours and remaining 300 hours has not been utilized which amounts to 75% and the percentage utilized by the department is 25%.

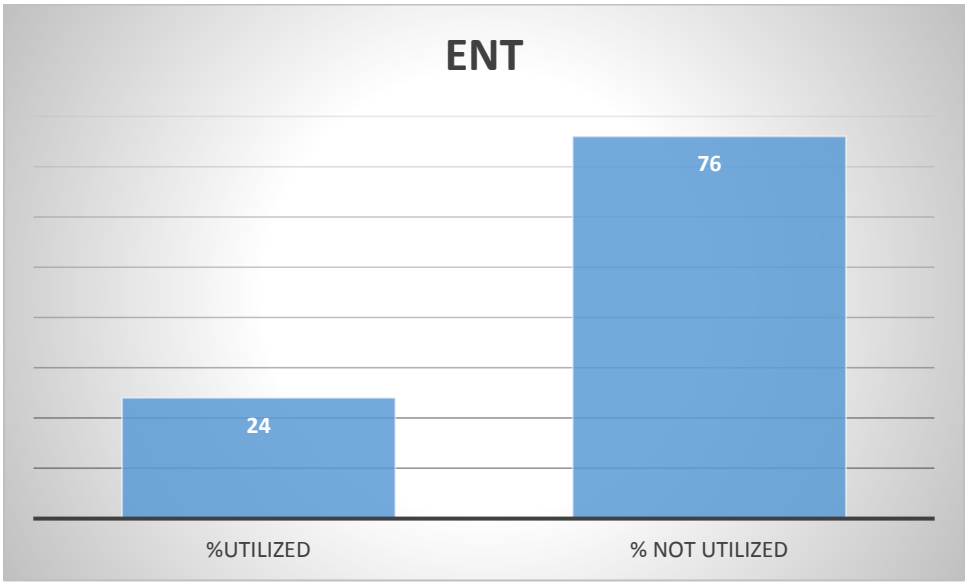


6. ENT:

a. Total 63 surgeries were performed in this department, out of which 51 surgeries were planned and 12 were unplanned which amounts to 19.0% surgeries and on the other hand the planned surgeries were 81.0%. The ENT surgery department amounts to 9.5 % of the total surgeries performed at the hospital during the study period. The unplanned surgeries between study period were 180 out of which 12 surgeries was for the ENT Surgery department which is 6.66 % of the total unplanned surgeries. The planned surgeries between study period were 483 out of which 51 surgeries was for the ENT Surgery department which is around 10.55 % of the total planned surgeries.

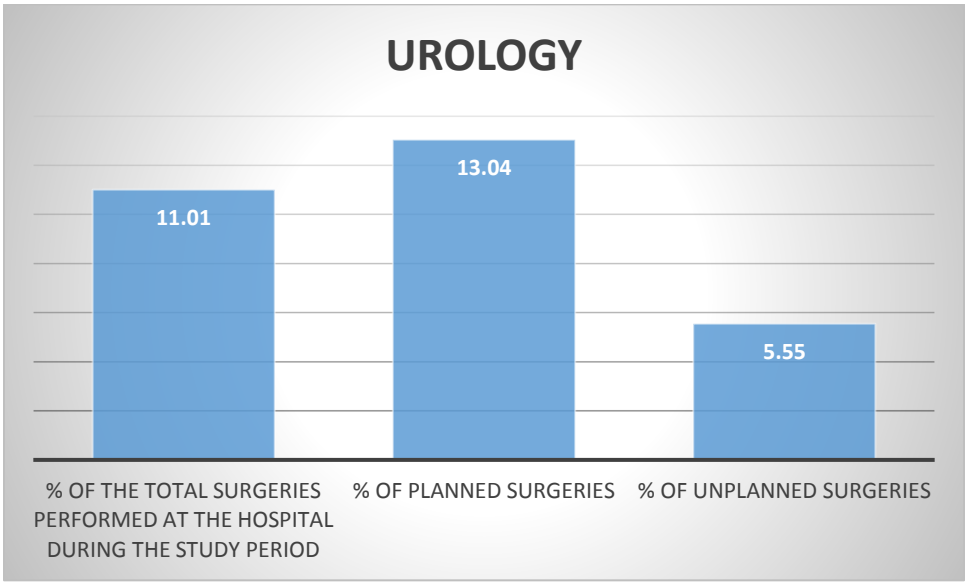


b. Coming to the utilization of O.T. in terms of hours allocated. The total hours allocated during the study period were 400 hours. Out of which the department has utilized 96 hours and remaining 304 hours has not been utilized which amounts to 76% and the percentage utilized by the department is 24%.

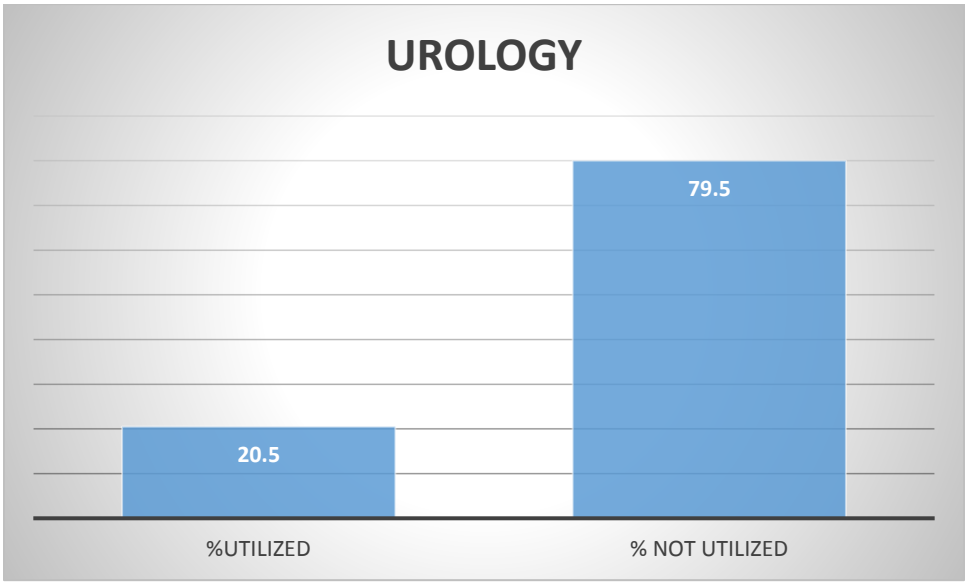


7. UROLOGY

a. Total 73 surgeries were performed in this department, out of which 63 surgeries were planned and 10 were unplanned which amounts to 13.7% surgeries and on the other hand the planned surgeries were 86.3%. The urology surgery department amounts to 11.01 % of the total surgeries performed at the hospital during the study period. The unplanned surgeries between study period were 180 out of which 10 surgeries was for the urology Surgery department which is 5.55 % of the total unplanned surgeries. The planned surgeries between study period were 483 out of which 63 surgeries was for the urology Surgery department which is around 13.04 % of the total planned surgeries.

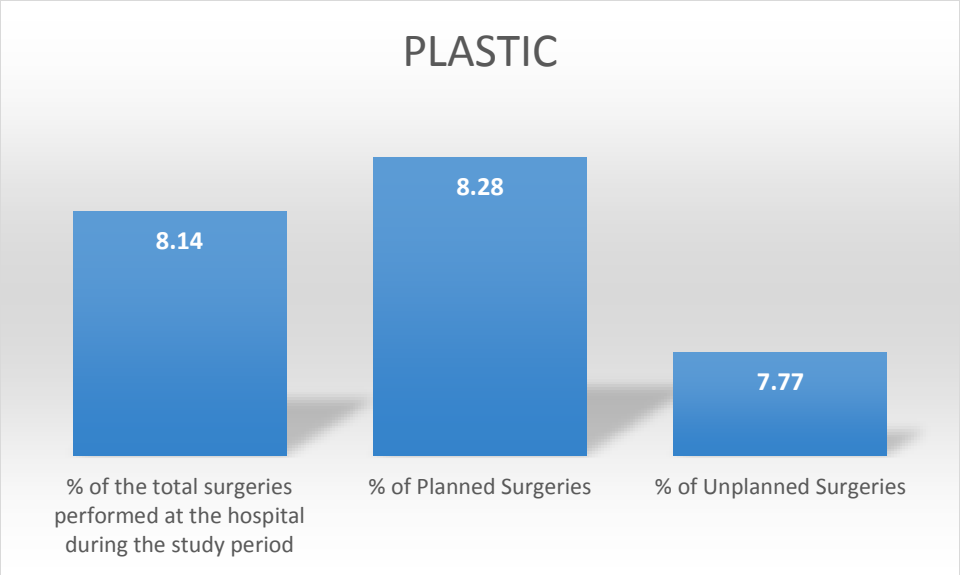


b. Coming to the utilization of O.T. in terms of hours allocated. The total hours allocated during the study period were 400 hours. Out of which the department has utilized 82 hours and remaining 318 hours has not been utilized which amounts to 79.5% and the percentage utilized by the department is 20.5%.

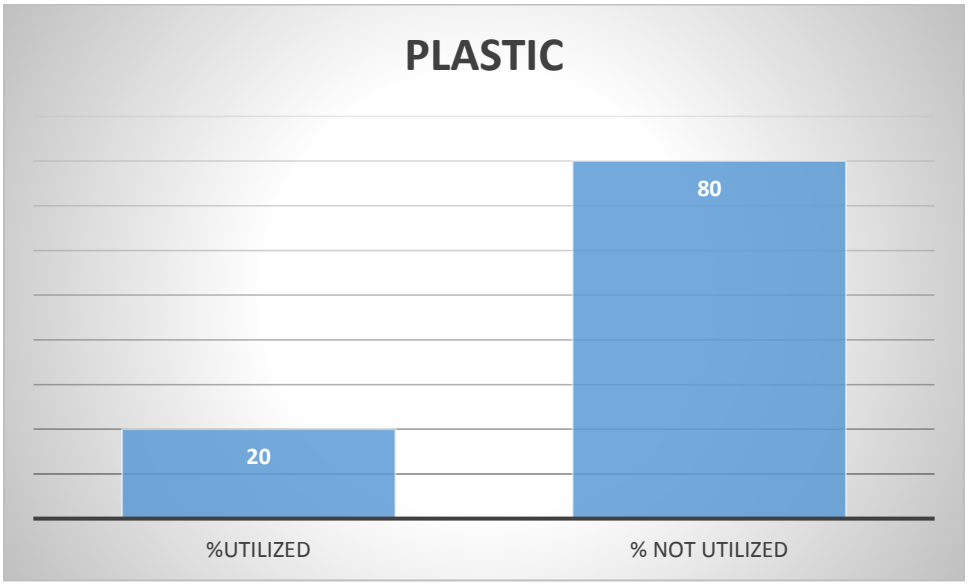


8. PLASTIC

a. Total 54 surgeries were performed in this department, out of which 40 surgeries were planned and 10 were unplanned which amounts to 25.9% surgeries and on the other hand the planned surgeries were 74.1%. The Plastic surgery department amounts to 8.14 % of the total surgeries performed at the hospital during the study period. The unplanned surgeries between study period were 180 out of which 14 surgeries was for the Plastic Surgery department which is 7.77 % of the total unplanned surgeries. The planned surgeries between study period were 483 out of which 40 surgeries was for the Plastic Surgery department which is around 8.28 % of the total planned surgeries.

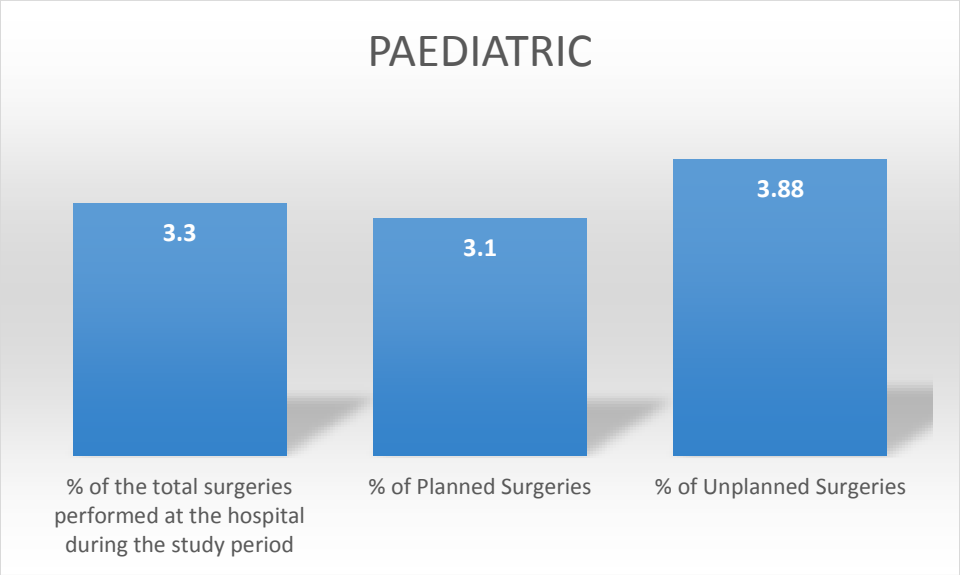


b. Coming to the utilization of O.T. in terms of hours allocated. The total hours allocated during the study period were 400 hours. Out of which the department has utilized 80 hours and remaining 320 hours has not been utilized which amounts to 80% and the percentage utilized by the department is 20%.

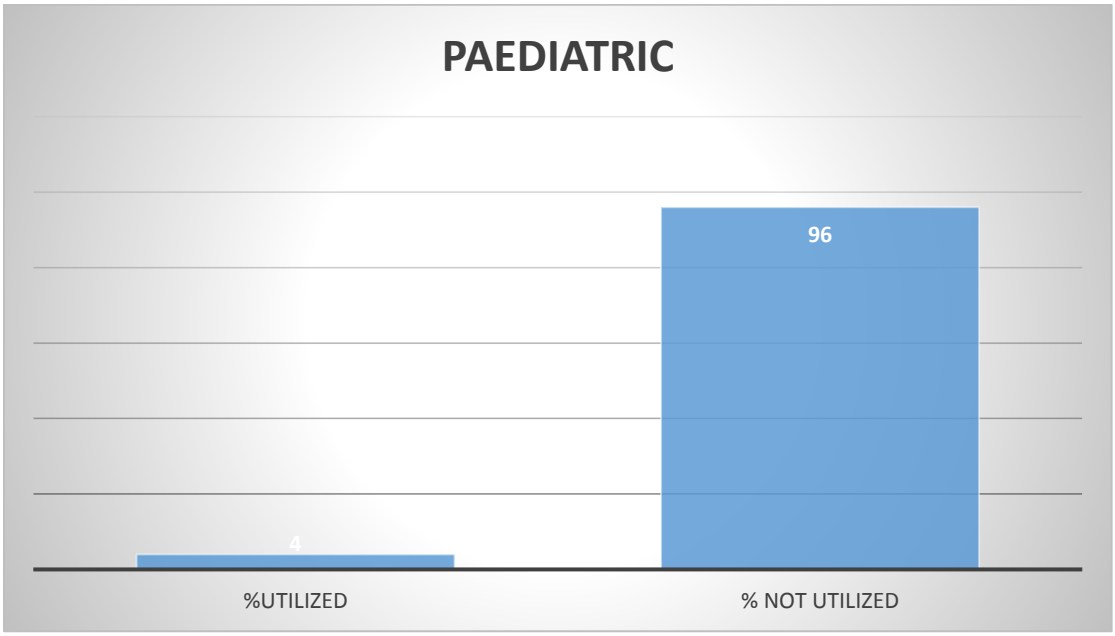


9. PAEDIATRIC

a. Total 22 surgeries were performed in this department, out of which 15 surgeries were planned and 7 were unplanned which amounts to 31.8% surgeries and on the other hand the planned surgeries were 68.2%. The pediatric surgery department amounts to 3.3 % of the total surgeries performed at the hospital during the study period. The unplanned surgeries between study period were 180 out of which 7 surgeries was for the pediatric Surgery department which is 3.88 % of the total unplanned surgeries. The planned surgeries between study period were 483 out of which 15 surgeries was for the pediatric Surgery department which is around 3.10 % of the total planned surgeries.

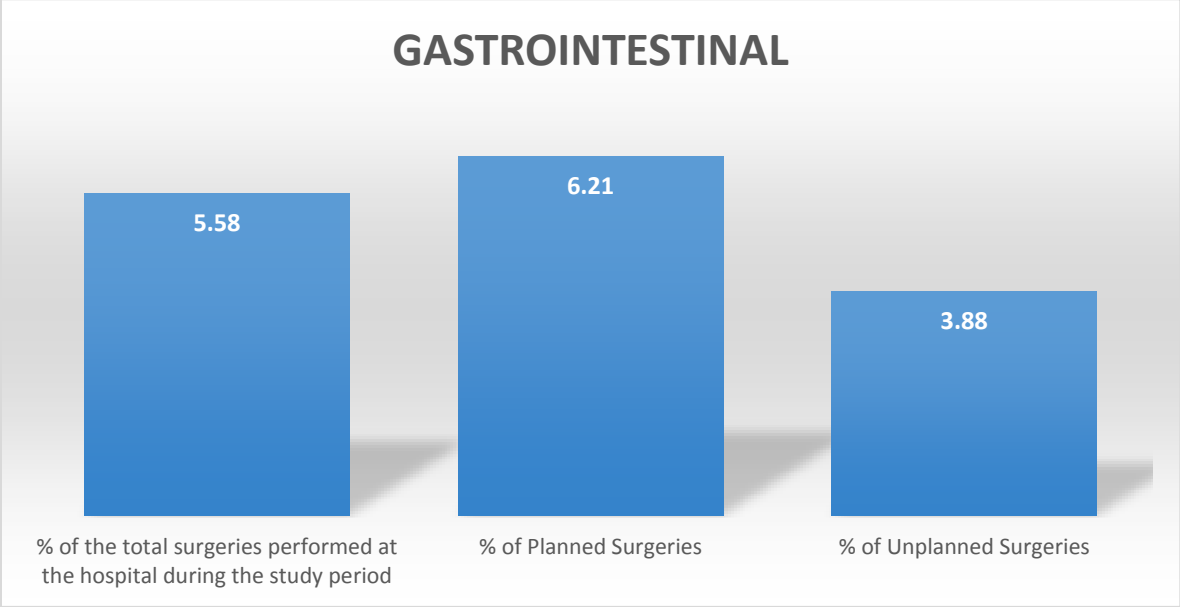


b. Coming to the utilization of O.T. in terms of hours allocated. The total hours allocated during the study period were 400 hours. Out of which the department has utilized 16 hours and remaining 384 hours has not been utilized which amounts to 96% and the percentage utilized by the department is 4 % which is the second lowest as compared to the other departments during the study period.

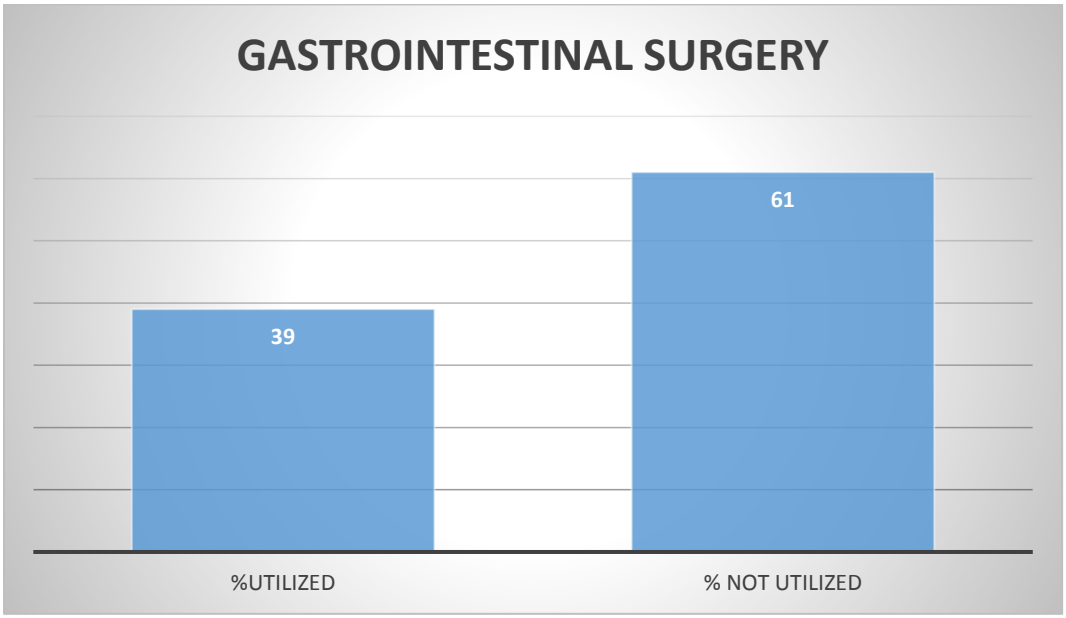


10. GASTROINTESTINAL:

a. Total 37 surgeries were performed in this department, out of which 30 surgeries were planned and 7 were unplanned which amounts to 18.9 % surgeries and on the other hand the planned surgeries were 81.1 %. The GI surgery department amounts to 5.58 % of the total surgeries performed at the hospital during the study period. The unplanned surgeries between study period were 180 out of which 7 surgeries was for the GI Surgery department which is 3.88 % of the total unplanned surgeries. The planned surgeries between study period were 483 out of which 30 surgeries was for the GI Surgery department which is around 6.21 % of the total planned surgeries.

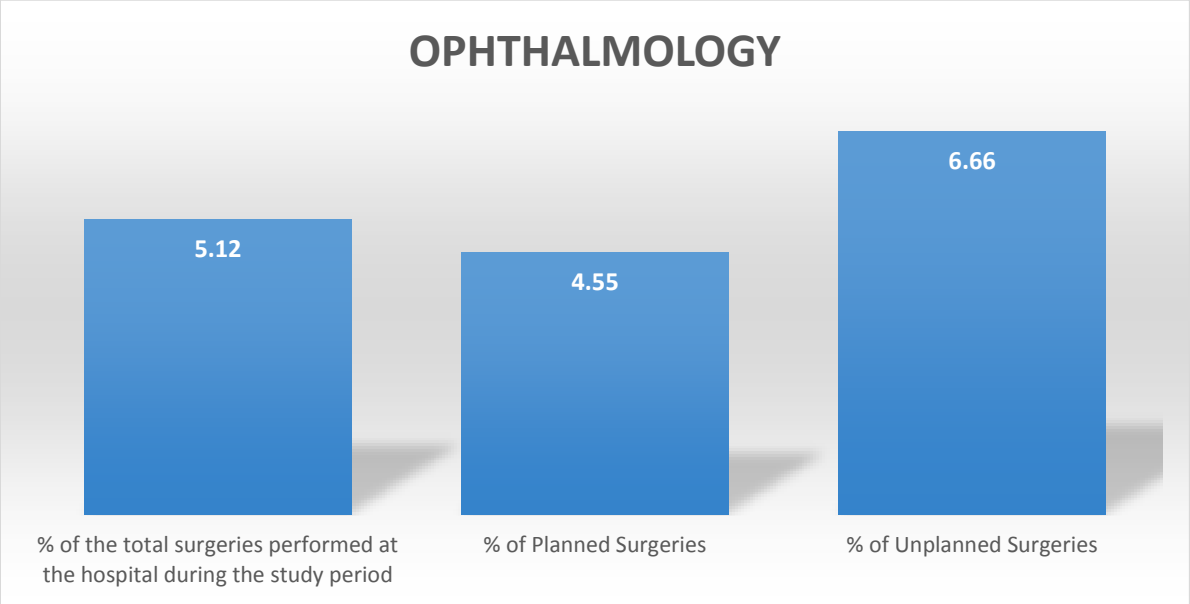


b. Coming to the utilization of O.T. in terms of hours allocated. The total hours allocated during the study period were 400 hours. Out of which the department has utilized 156 hours and remaining 244 hours has not been utilized which amounts to 61 % and the percentage utilized by the department is 39%

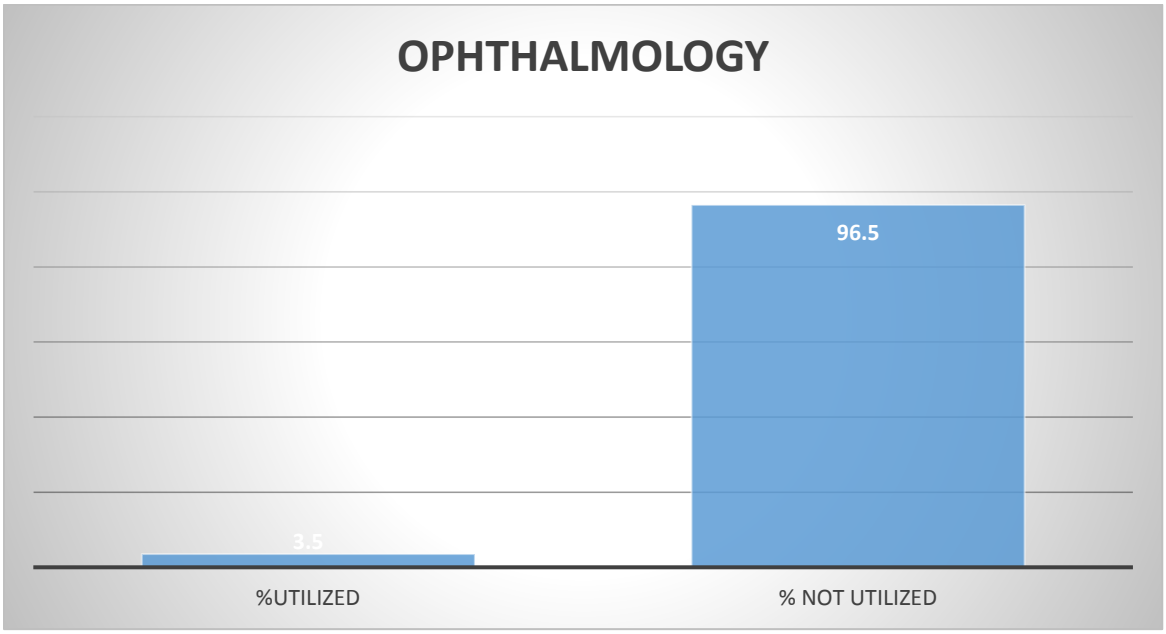


11. OPHTHALMOLOGY:

a. Total 34 surgeries were performed in this department, out of which 22 surgeries were planned and 12 were unplanned which amounts to 35.3% surgeries and on the other hand the planned surgeries were 64.7%. The ophthalmic surgery department amounts to 5.12% of the total surgeries performed at the hospital during the study period. The unplanned surgeries between study period were 180 out of which 12 surgeries was for the ophthalmic Surgery department which is 6.66 % of the total unplanned surgeries. The planned surgeries between study period were 483 out of which 22 surgeries was for the ophthalmic Surgery department which is 4.55% of the total planned surgeries.



b. Coming to the utilization of O.T. in terms of hours allocated. The total hours allocated during the study period were 400 hours. Out of which the department has utilized 14 hours and remaining 386 hours has not been utilized which amounts to 96.5% and the percentage utilized by the department is 3.5% which is the lowest utilized department as compared to the other departments during the study period.



CHAPTER FIVE

CONCLUSION

Of the 663 surgeries cases done, 483(72.9%) were planned and 180(27.1) % were unplanned or were emergency surgeries. Among the departments, General Surgery had the maximum number of surgeries (140) and Pediatric department had the least number of surgeries (22).

Cardiac surgeries accounted for maximum percentage (91.7%) of planned surgeries and lowest percentage (8.3%) of unplanned surgeries, and, Gynecology surgeries accounted for lowest percentage (44.4%) of planned and maximum percentage (55.6%) of unplanned surgeries.

Total 663 surgeries were performed out of which 483 surgeries were planned and 180 were unplanned. The General surgery department amounts to 21.1 % of the total surgeries performed at the hospital during the study period, which is the highest as compared to the other departments during the study period and Pediatric department amounts to 3.3% of total surgeries performed, which is the lowest during the study period.

The planned surgeries between study period were 483 out of which 102 surgeries was for the General Surgery department which is around 29.8 % of the total planned surgeries, which is the highest as compared to the other departments during the study period and 15 surgeries was for the pediatric department which is around 3.10%(lowest during the study period).

The unplanned surgeries between study period were 180 out of which 40 surgeries was for the Gyaenic department which is 22.2 % of the total unplanned surgeries, which is the highest as compared to the other departments during the study period and Cardiac department amounts to 3 (1.66%) of total surgeries performed, which is the lowest during the study period

General Surgery utilized 252 hours which amounts to 63% of OT utilization, which is the highest as compared to the other departments during the study period.

Ophthalmology utilized only 14 hours which amounts to 3.5% of OT utilization, which is the lowest as compared to the other departments during the study period.

RECOMMENDATION

- 2 OTs have not been able to utilize the allocated hours up to the mark and are far away from the other departmental OTs. Both the OTs are in the range of around 3.5% for ophthalmic surgery and pediatric OT is 4% during the study period.

  So it can be recommended that the hospital can consult other pediatric surgeons and ophthalmic surgeons near the hospital that are willing to perform surgeries, either on honorary basis or on call basis at SPS Hospital in order to increase the utilization level of Pediatric Surgery and Ophthalmic Operation Theater.

- The operation theater records are inadequate to know the booking details of theater so a central O.T. booking register should be placed in hospital so that this is available to know the booking details of various OTs.

- Since unplanned surgeries results in delay of planned surgeries and currently the OTs are underutilized, it can be suggested that out of the 7 OTs, one should be allotted completely for unplanned surgeries so that scheduled theaters will not suffer and overall utilization can be achieved.

- More effective use of theatre time is possible if proper scheduling of OT lists is done and delays in surgeries is reduced. The time spent on making room ready can be reduced but at the same time proper attention needs to be given to the aseptic precautions both at the start of the day and in between cases.

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