

# **OPERATION THEATRE UTILIZATION AND EFFICIENCY OF VENKATESHWAR HOSPITAL**

By Lt Col SP Singh

PG/17/054

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# INTRODUCTION

- Utilization and efficiency is a multiterminal construct and a measure of hospital performance.
- Creating OT facility requires sizable budget.
- OT, a primary source of revenue generation about 50%-60%.
- Maintaining OT Complex requires considerable expenditure.
- Earning profit by hospital is a reality and OT plays a major role in it.
- In best of the hospitals, 30%-35% of weekdays' full capacity of OT is not utilized.
- Demand for surgical services are on the raise but not the margins due to competition.

# KEY ELEMENTS FOR EFFICIENT USE OF OT

1. Effective management, good communications, trained staff, appropriate facilities, equipment and operational layout
2. Good utilization depends on a complex interaction between the availability of personnel and resources and on the attitudes and good practice of all staff involved.
3. Efficiency in theatre is inevitably influenced by a huge range of surrounding resources such as pre-operative planning and assessment, beds, theatre sterile supply unit (TSSU) capacity and staffing levels in other disciplines.
4. Good system of planning and scheduling in theatre will enable more work, including emergencies, to be carried out at a reasonable time, improves the patient-doctor experience and improve employee satisfaction and morale.

5. Improve profits through better decision making, reduced costs.
6. Performance management improvement based on access to real time, enterprise wide data.
7. Maximized resource utilization through reduction of scheduling gaps and delays.
8. Stream lined workflow by elimination of redundant and manual processes.
9. Supply cost reduction through standardizing product use and choices, increasing contract compliance and taking advantage rebate opportunities.
10. Enhanced care delivery to better integration of and access to patient care data.

# HOSPITAL PROFILE



# HOSPITAL PROFILE

At Venkateshwar Hospital, state of the art technology and dedicated medical practitioners have been brought together under one roof for giving ethical medical care.

**Vision:** To position ourselves in the lead role on the global healthcare map.

**Mission:** To achieve global excellence in healthcare with evidence based ethical clinical practices by the team of highly skilled professionals by using cutting edge technology

**Commitment:** To constantly upgrade our human & technological resources in order to keep pace with best global development in medical science.

# RESEARCH METHODOLOGY

**RESEARCH OBJECTIVES:** To find out gap between allotted time and actual time taken for the surgery, utilization of OT hours of operation theatre of Venkateshwar Hospital, Dwarka, New Delhi

**METHODOLOGY:** The project is cross sectional aimed at checking the utilization and efficiency of operation theater of Venkateshwar Hospital, Dwarka, New Delhi. In this study the convenient sampling method have been used. The summary of research methodology is as under :-

1. **Type of Study:** Retrospective and Prospective.
2. **Location of Study:** Venkateshwar Hospital, Dwarka, New Delhi.
3. **Type of Data:** Secondary ( from hospital records ).
4. **Study Duration:** Study is conducted Mar-May 2019.
5. **Data collection Method:** From hospital OT registers.
6. **Sampling Technique:** Systematic Random Sampling.
7. **Sample Size:** 180 cases analyzed.
8. **Data Analysis:** Excel is used for data analysis.

# EXPECTED OUTCOMES/ DELIVERABLES

1. Whether proper and judicious scheduling of cases and adhering strictly to the schedule is done.
2. Whether time taken for the surgery is as per the time allotted
3. Whether staffing of operation room in terms of anesthetics, nurses and other supporting staff is at par with medical activity.
4. Whether multi tasking of OT staff affects efficiency and satisfaction in performance of specific tasks.
5. Whether cancelation/ postponement of surgery affects utilization and efficiency of OT.
6. The importance of streamlining of workflow and standardization of surgical procedure equipment.
7. Whether formal training provided to OT staff to improve upon the utilization and efficiency of OT

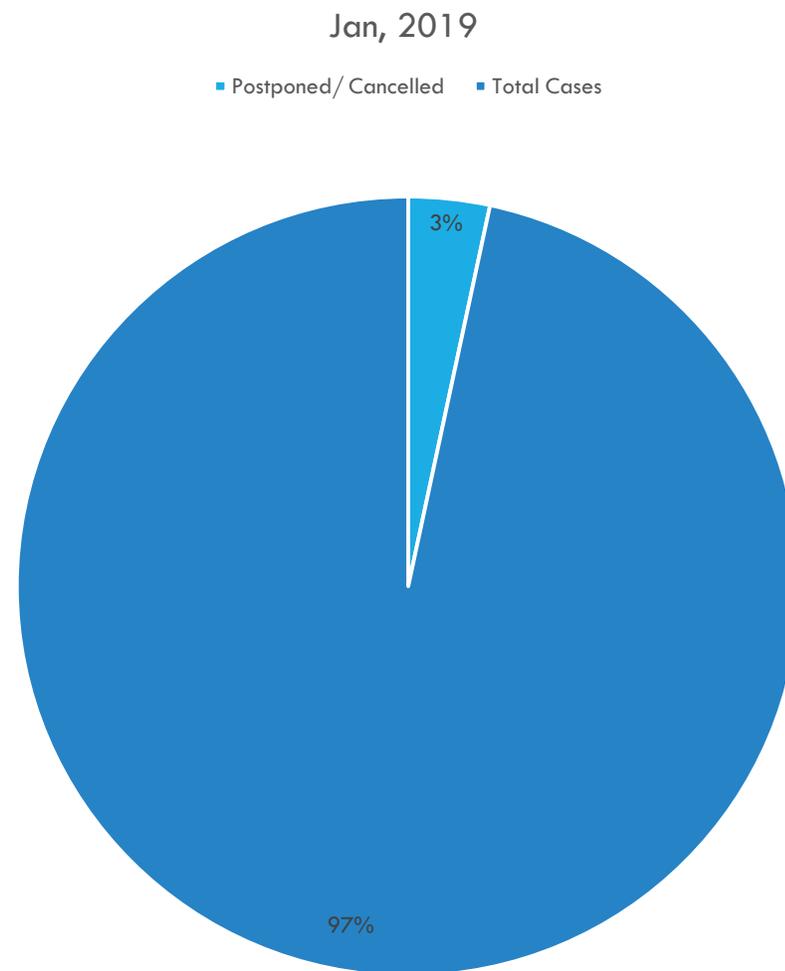
# LIMITATIONS OF THE STUDY

1. The time factor was a major limitation on the scope of and extensiveness of the study as the study was to be completed in a fixed limited time frame.
2. Results of the study are subjective in nature however, they show utilization and efficiency of OT in Venkateshwar Hospital.
3. The data has been taken from the hospital OT register which may have certain errors at the time of recording the facts.
4. Only two cases of surgery per day have been taken for the duration of three months for the purpose of finding out relation between allotted time and time taken for the surgery.

# DATA ANALYSIS AND INTERPRETATION

## Postponement/ Cancellation of surgery Jan 2019

Postponed/ Cancelled	19
Total Cases	547

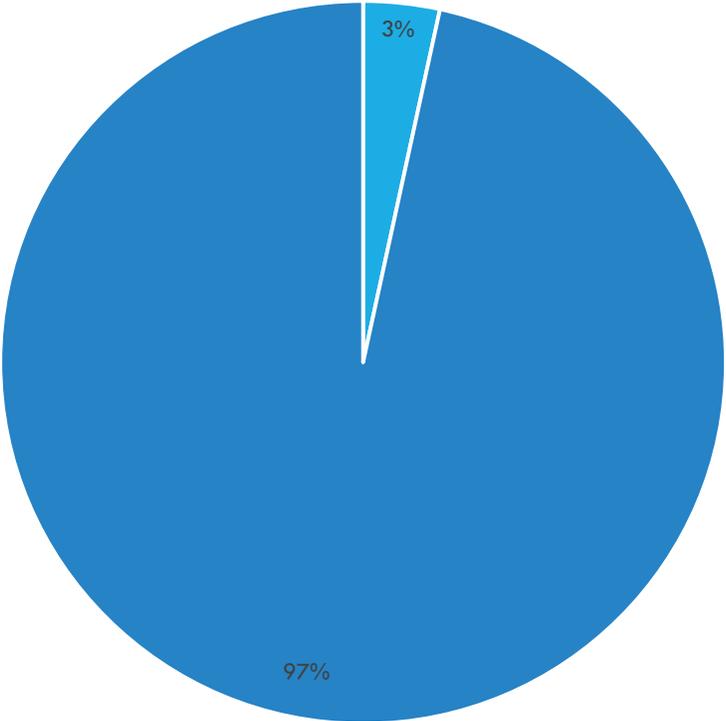


# Postponement/ Cancellation of surgery Feb 2019

Feb, 2019

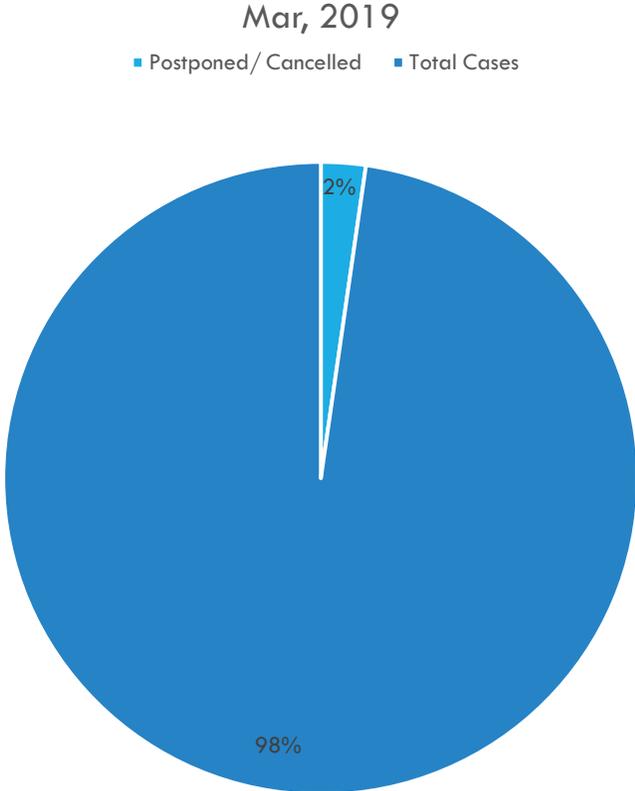
■ Postponed/Cancelled ■ Total Cases

Postponed / Cancelled	18
Total Cases	511



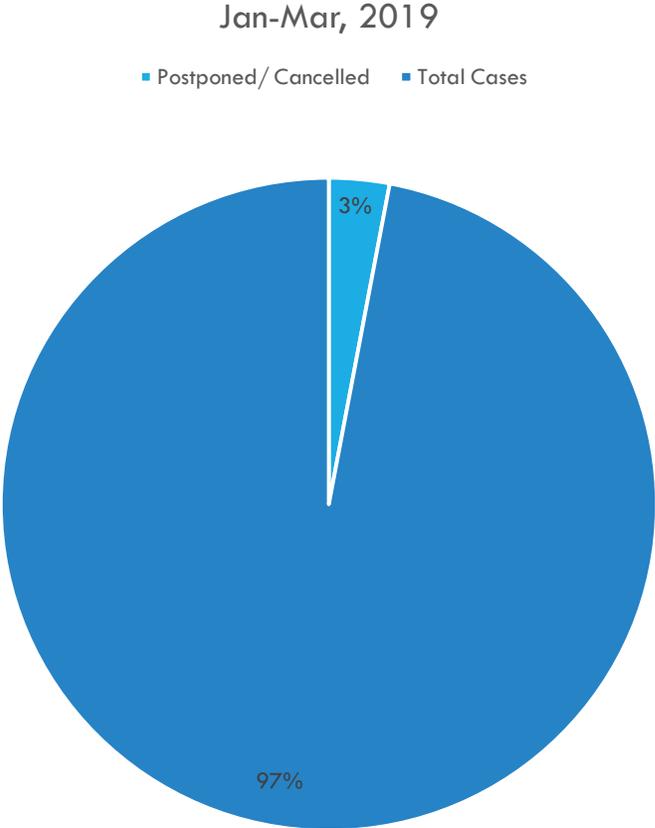
# Postponement/ Cancellation of surgery Mar 2019

Postponed / Cancelled	14
Total Cases	602



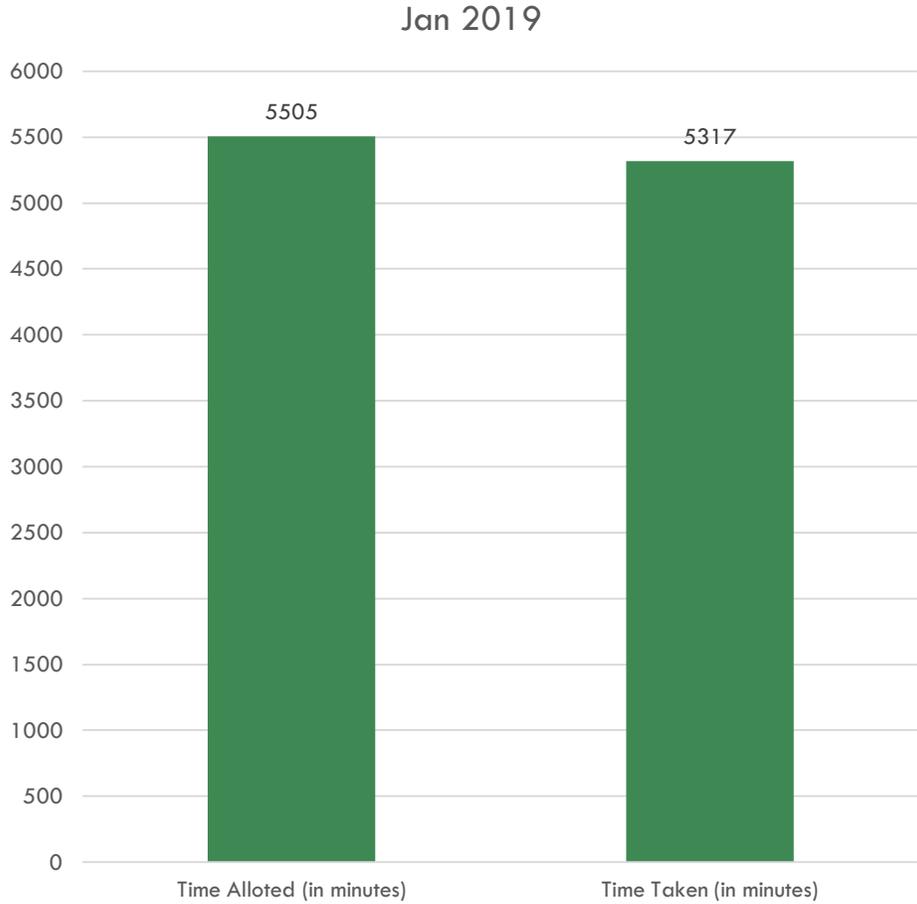
# Postponement/ Cancellation of surgery Jan-Mar 2019

Postponed / Cancelled	51
Total Cases	1660



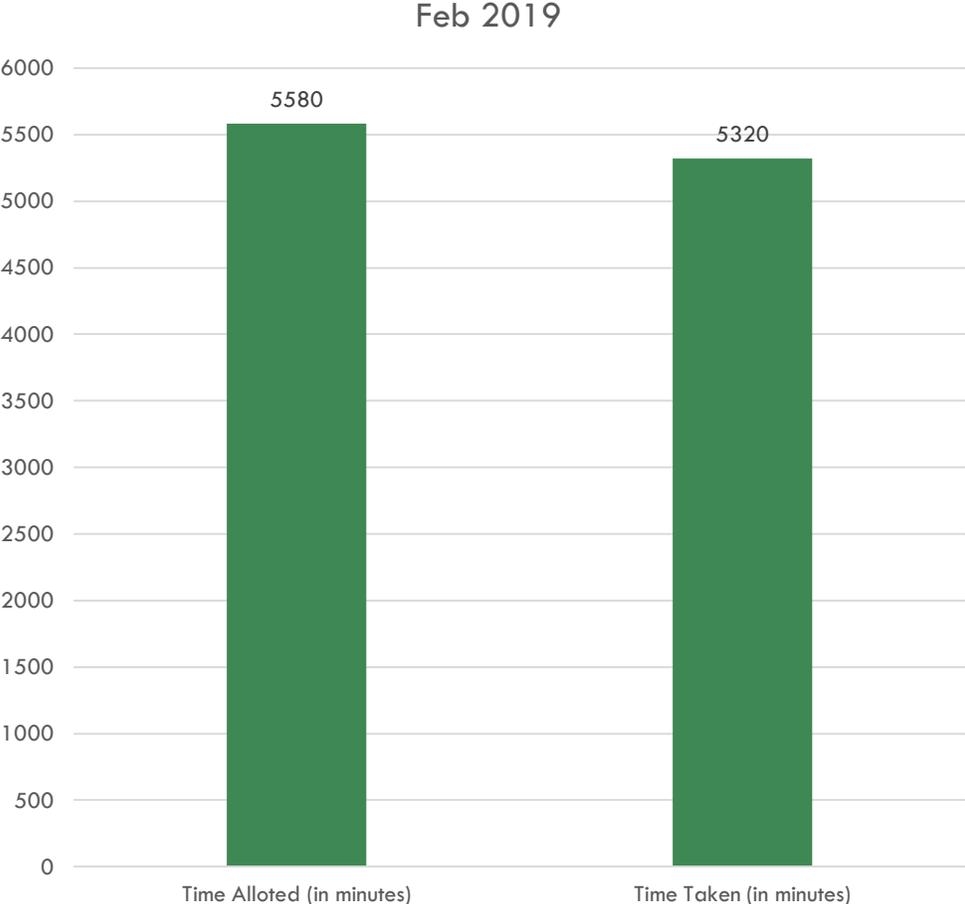
# Time allotted-Time Taken for the surgery Jan 2019

Time Alloted (in minutes)	5505
Time Taken (in minutes)	5317



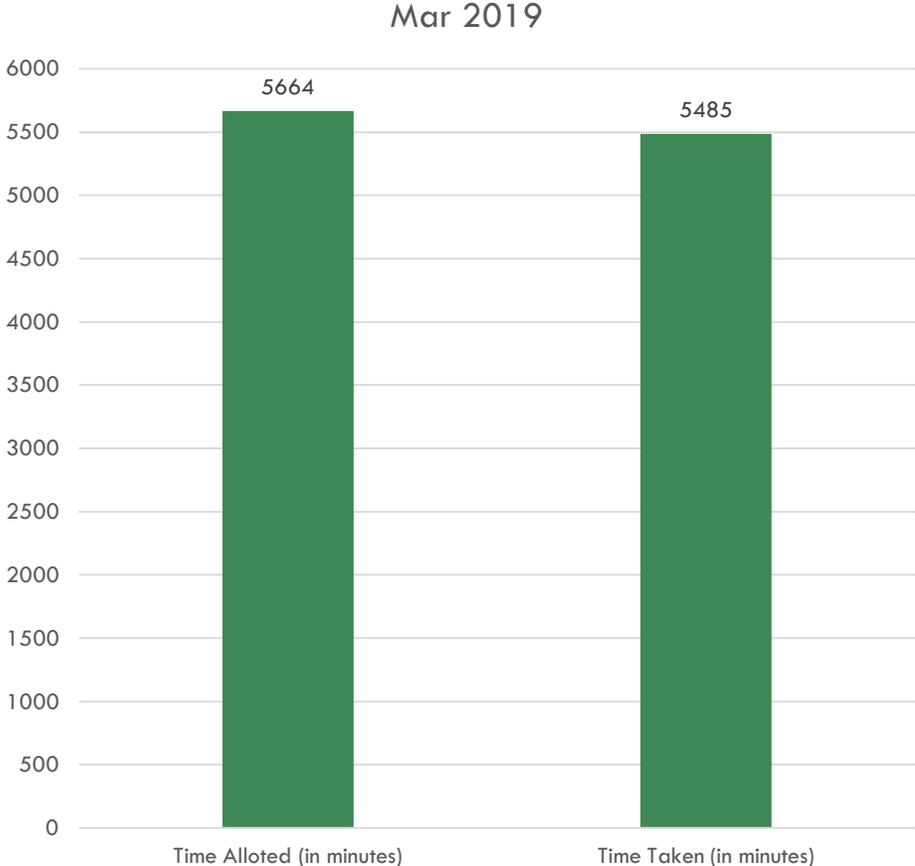
# Time allotted-Time Taken for the surgery Feb 2019

Time Alloted (in minutes)	5580
Time Taken (in minutes)	5320



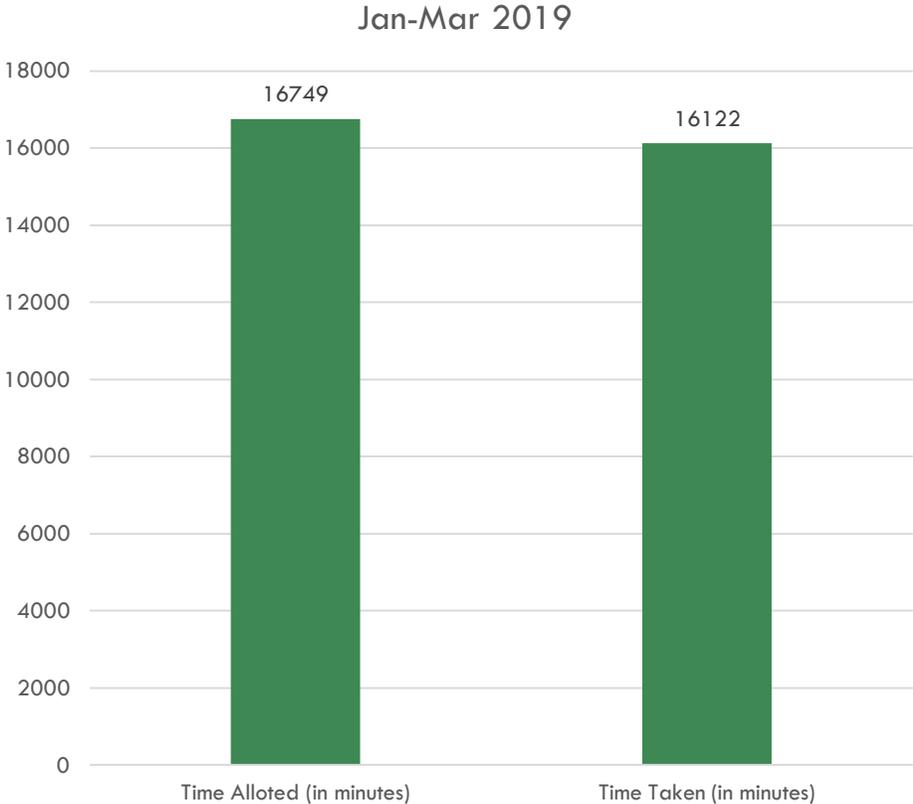
# Time allotted-Time Taken for the surgery Mar 2019

Time Alloted (in minutes)	5664
Time Taken (in minutes)	5485



# Time allotted-Time Taken for the surgery Jan-Mar 2019

Time Alloted (in minutes)	16749
Time Taken (in minutes)	16122

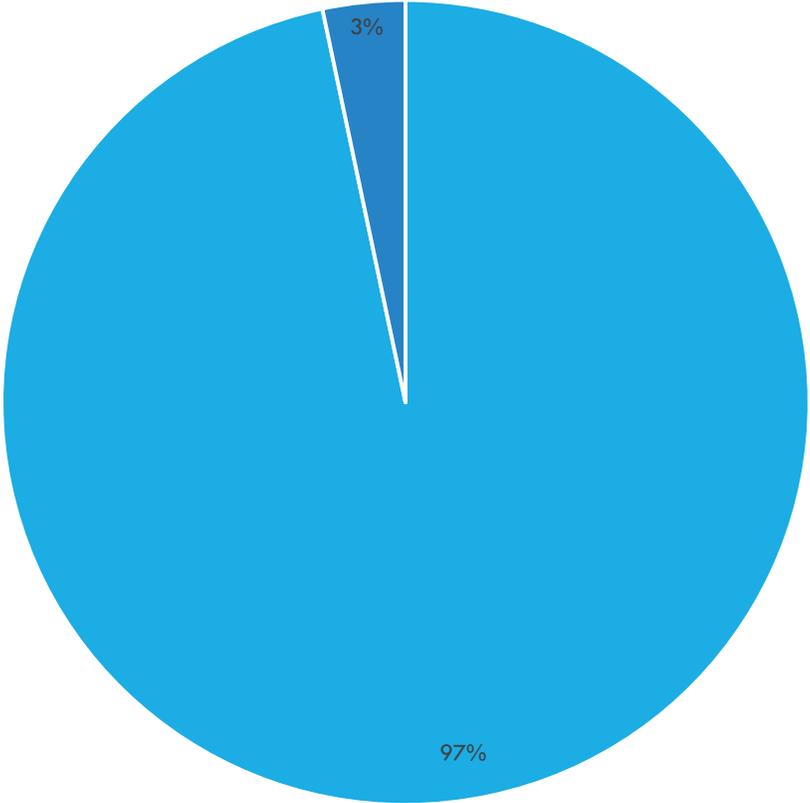


# Unutilized OT Time Jan 2019

Jan 2019

■ Time Alloted ■ Unlitised Time

Time Alloted	5505
Unlitised Time	188

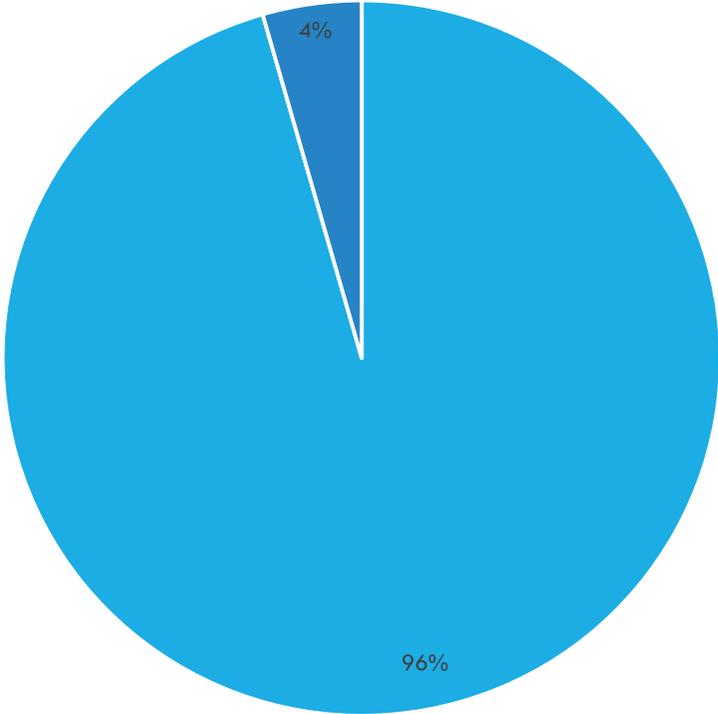


# Unutilized OT Time Feb 2019

Feb 2019

■ Time Alloted ■ Unlitised Time

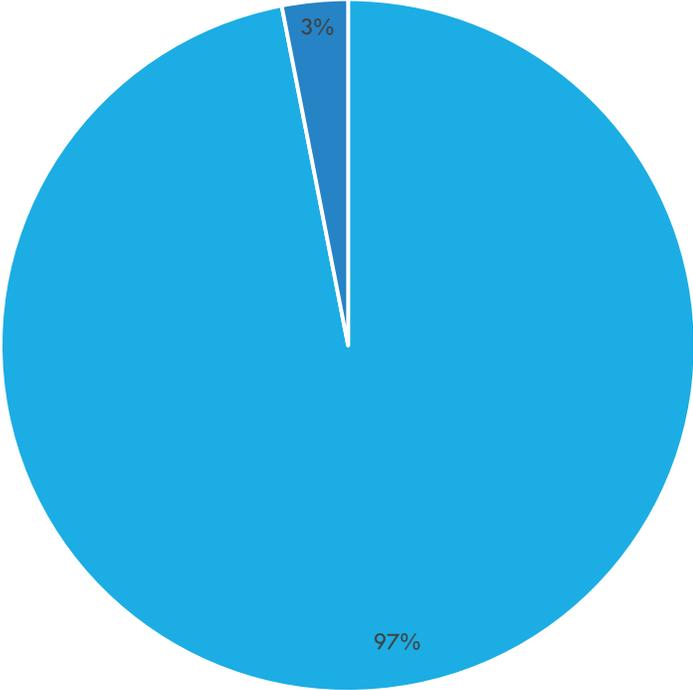
Time Alloted	5580
Unlitised Time	260



# Unutilized OT Time Mar 2019

Mar 2109

■ Time Alloted ■ Unlitised Time

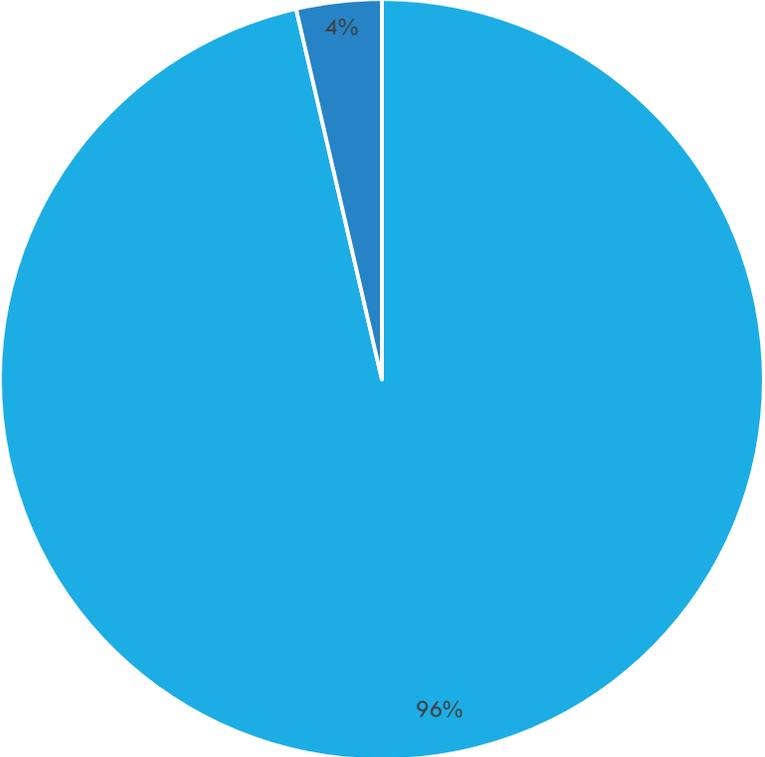


Time Alloted	5664
Unlitised Time	179

# Unutilized OT Time Jan-Mar 2019

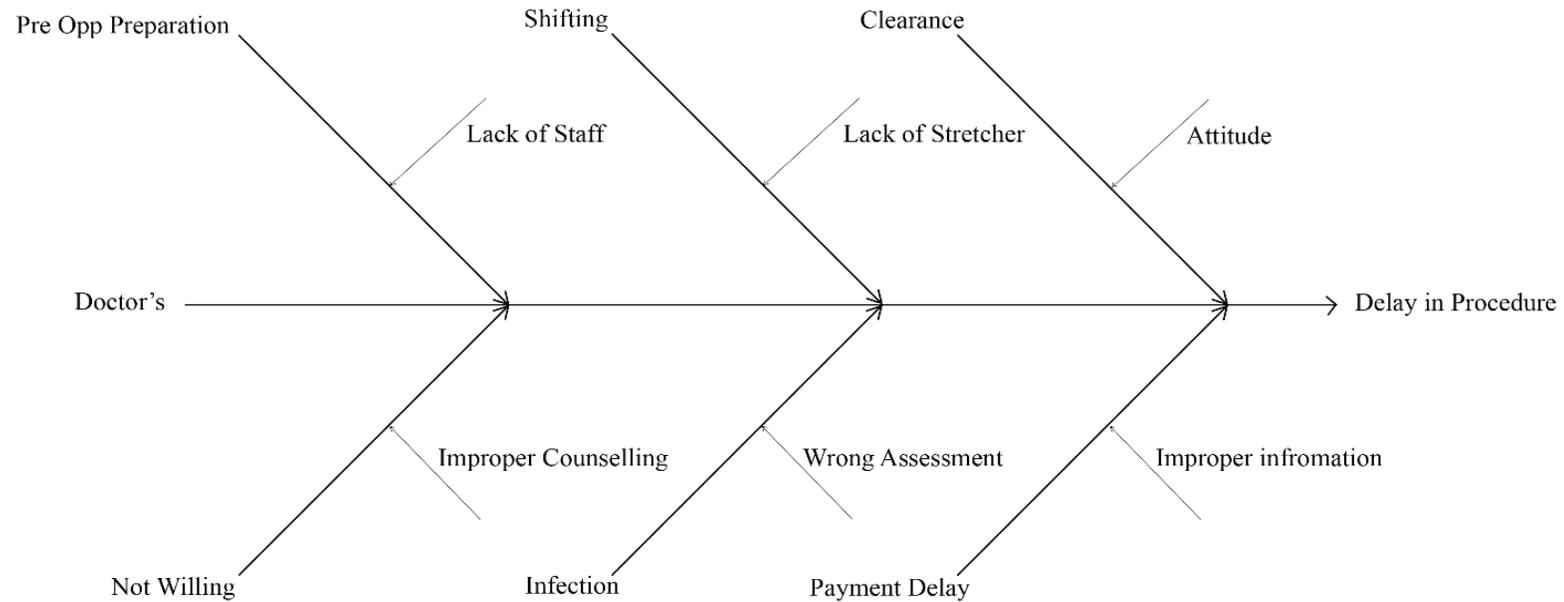
Jan-Mar 2109

■ Time Alloted ■ Unlitised Time



Time Alloted	16749
Unlitised Time	627

# ROOT CAUSE ANALYSIS



Counselling by this analysis: delay in procedure can be minimised by proper counselling, changing attitude of employees towards their duties and proper allotment of patient transfer trollies.

# RESULTS

1. Proper and judicious scheduling of cases and adhering strictly to the schedule is done.
2. Time taken for the surgery is largely as per the time allotted
3. Staffing of operation room in terms of anesthetics, nurses and other supporting staff is at par with medical activity.
4. Multi tasking of OT staff is going on without affecting efficiency and satisfaction in performance of specific tasks.
5. Cancellation/ postponement of surgery affects utilization and efficiency of OT.
6. Workflow is streamlined and standardization of surgical procedure equipment is in place.
7. No formal regular training is being provided to OT staff to improve upon the utilization and efficiency of OT but is incorporated in induction training.

# RECOMMENDATIONS

1. By better counselling of the patients and their attendants, management of doctors, OT staff, timely diagnostic reports and OT support services, the cancellation/ postponement of surgeries can further be reduced from 3%. However, it can never be brought down to 0%.
2. The time allotted for the OT procedure is found to be on the higher side than utilization time by 4% which can be reduced by judicious allocation of time for the particular surgery. In this time demanded by the surgeons need to be taken care of.
3. Staffing of OT is presently sufficient. However, care should be taken by the HR Department to cater for extra OT staff in stand by mode to improve upon the utilization of OT.
4. Being economical to the hospital, multitasking of the OT staff is in practice, however, at the same time it affects efficiency and performance satisfaction. Hence, limited multitasking be resorted.
5. Although, OT staff is educated about the efficiency and utilization of the OT during induction training but it can be further improved if formal training for this specific purpose is scheduled for time to time.



**THANK YOU.  
ANY QUESTIONS?**