SUMMER INTERSHIP RESEARCH REPORT

AND

ONLINE COURSE REPORT

SUBMITTED TO-: DR SANDESH KUMAR SHARMA

SUBMITTED BY-: MEGHA GUSAIN

PART -1

RESEARCH PAPER

PART-2

ONLINE REPORT

S.NO	CONTENT
1	ACKNOWLEDGEMENT
2	COURSE DESCRIPTION
3	OBJECTIVE OF COURSE
4	COURSE CONTENT
5	LEARNING METHODOLOGY
6	KEY LEARNING FROM THIS COURSE

PART - 1

SUMMER INTERSHIP

STUDY ON PATIENT LEAKAGE FROM PHARMACY, LAB AND ADMISSION IN INPATIENT DEPARTMENT

by

MEGHA GUSAIN

SUBMITTED TO

DR. SANDESH KUMAR SHARMA

MBA Hospital and Health Management

2019-2020

ACKNOWLEDGEMENT

This opportunity I had at **Indian Institute of Health Management Research** was an amazing chance for my professional learning and development. I am grateful for getting a chance to work under the guidance of my mentor **Dr. Sandesh Kumar Sharma** who guided my way throughout the internship report. My grateful extended for his valuable time, motivation and imparting me with his tremendous knowledge from the beginning of my internship till the end of program.

CONTENT

A study on patients leakage from Pharmacy, Lab and Admission in Inpatients department

Introduction

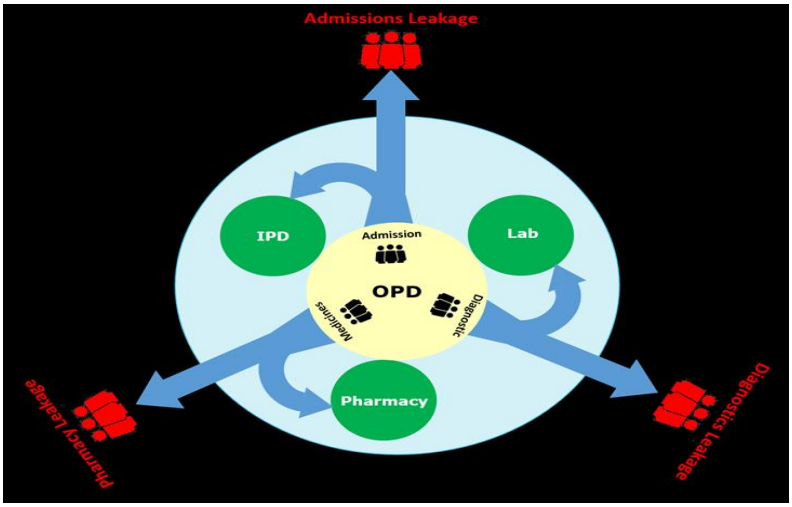
Hospitals are facing two big challenges to stay profitable. First, they have to continuously work to get new patients to discover their hospital. Second, most important aspect, is to get as much revenue from each patient visit. The second one drives both top-line and bottom-line significantly but is also the least understood process due to inherent limitations.

Many hospitals achieve great OPD inflow but very little sales in IP, diagnostics and pharmacy. Typical advised diagnostics in OPD in hospitals ranges from 20% to up to 50% depending on specialty and month of the year. For multi-specialty hospitals, OPD is like a landing place where patients first land. Based on the treatment advised on OPD records (mostly prescriptions), patients can either use pharmacy, diagnostics or IP services inside the hospital or from other providers outside. For example, a patient coming to OPD with chronic pain would need to get scanning, medicines, surgical belts and physiotherapy. Patient could do these either inside the hospital or outside hospital.

Hospital is known as value-based service provider. Main aim of Hospital is to give best by taking less. Hospitals try their best to attract patients, provide different services but still there is low rate of conversion. Why patients are not opting that facilities? To know total conversion percentage of pharmacy, lab and admission, this study was conducted.

Conversion percentage was seen for following services:

- Pharmacy
- Admission
- Lab



RATIONALE:

OPD is like a mirror for every multispecialty hospital. This is first place where patients are addressed. Patients visit OPD for various purposes like consultations, medicine, lab test, day care treatment, admission, post discharge follow up. Based on their health status they choose either of these facilities. Since hospitals are providing all desired facilities like lab, pharmacy admission, they don't want patients to go out to avail these services. Patients can choose any of these services inside or outside hospital based on their need. Hospitals are always worry about loses of patients because of it. So, this study was conducted in Hospital OPD to see how many patients are opting available services in hospitals.

RESEARCH QUESTION:

What is conversion percentage of patients leakage from pharmacy, lab and Inpatients Department?

RESEARCH OBJECTIVES:

- To record conversion percentage of patients to Pharmacy, Lab and Admission in Inpatient department
- To identify specific reasons for existing conversion percentage to pharmacy.
- To suggest initiatives to improve conversion percentage

REVIEW OF LITERATURE:

According to new report of referral management company fibroblast "62% health system are losing at least 20% revenue every year".(1) This is because patients go out for opting services like pharmacy, lab and admission. Patients leakage are biggest problem now a days for every hospital. Many organisations don't know how to fix this problems in spite of they are aware about losses. Many organisations don't care about this.(2) After consultation patients take services and go back. Once patients are out, hospitals are unable to track patients. According to an article Patients leakage Trend "87% hospital executives agree that patients loss is not good for their hospitals, 23% are unable to track patient loss and 20% don't understand why and where it happens".(3) It is difficult to check whether patients opted advised services from hospital or not. There is also no other way to know that patients followed up referral they received. According to another article "Patients leakage can sink hospitals revenues by 20% or more".(source:)Jack O'Brien-"43% hospitals executive says they have lost 10% or more revenue.23% says they don't know how they are losing.19% says they have lost 20% or more". Scott vold CEO of Fibroblast says patients leakage traditional finance challenges CFO face because it poses a risk of value based model.(4,5)

Main reason for loosing patients are hospitals can't force patients to take their services only. Plus hospitals don't have proper tracker to track patients leakage. This tracking work is assigned to staff who is already involving in other work, so don't give importance to this

issue.(6) Once hospitals get know reasons, then they can take tangible steps to fix this problem.

METHODOLOGY:

Process:

Study was conducted in Outpatients department of Synergy Hospital. The four week study was divided into two phases. The study was started on 29th April and got ended on 24th of May, 2019 From 29th April to 1st May process flow of OPD was observed. During 2nd phase, which was from 2nd May to 24th May, data collection was done. Number of patients who were advised for pharmacy, lab and admission were recorded from nurse's counter. Data of the patients who opted for pharmacy were recorded from Synergy Hospital. Data of patients who opted Synergy lab were collected from the lab. Data of patients who got admitted in Synergy hospital were collected from the Inpatients Department of Synergy hospital. From 2nd May to 24th May total 1689 patients were scanned according to nurse's entries. As that data was collected, so the sample size is 1689. Other than this, 100 patients were questioned for reason of not opting Synergy pharmacy. Every day 6-7 patients were questioned and their answers were recorded.

Study Design: Descriptive Cross-Sectional design.

Sampling Method: Non-Probability Convenience Sampling Method.

Study time: Four consecutive weeks.

Sample size: [a]1689

[b] 100

Inclusion criteria: All patients who were advised for pharmacy, lab and admission were considered.

Exclusion criteria: Dialysis walk in patients, Patients on Sundays, Health Check-up patients.

Mode of Data collection: [A]Secondary data

The study was carried out with proper permissions and ethical clearance from respective authorities.

DATA ANALYSIS:

Whole project took 4 weeks to get completed.1689 patients were scanned. According to Synergy management only conversion of Internal Medicine, Orthopaedics, Nephrology, Cardiology to be seen mainly. According to Synergy, conversion should be more than 60%.

A. PHARMACY CONVERSION

[a] Speciality wise conversion was observed. Out of 392 only 180 patients opted Synergy pharmacy. Overall conversion is 45.9%.

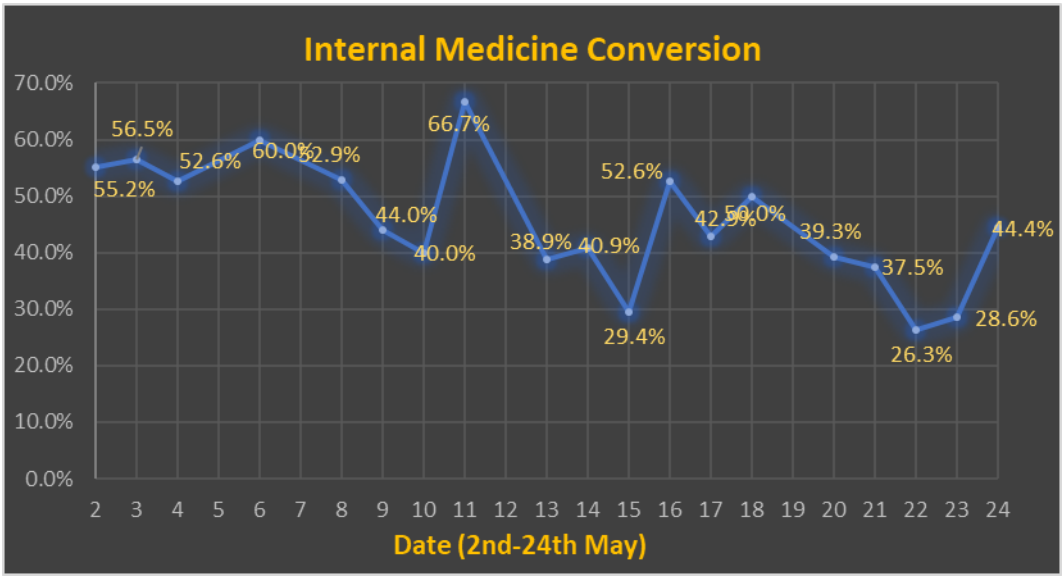


Fig 1 shows internal medicine conversion percentage from 2nd to 24th May. Conversion percentage on 11th is maximum and conversion percentage on 22nd is lowest.

[b] Out of 375 only 173 opted pharmacy. Overall conversion is 46.1%.

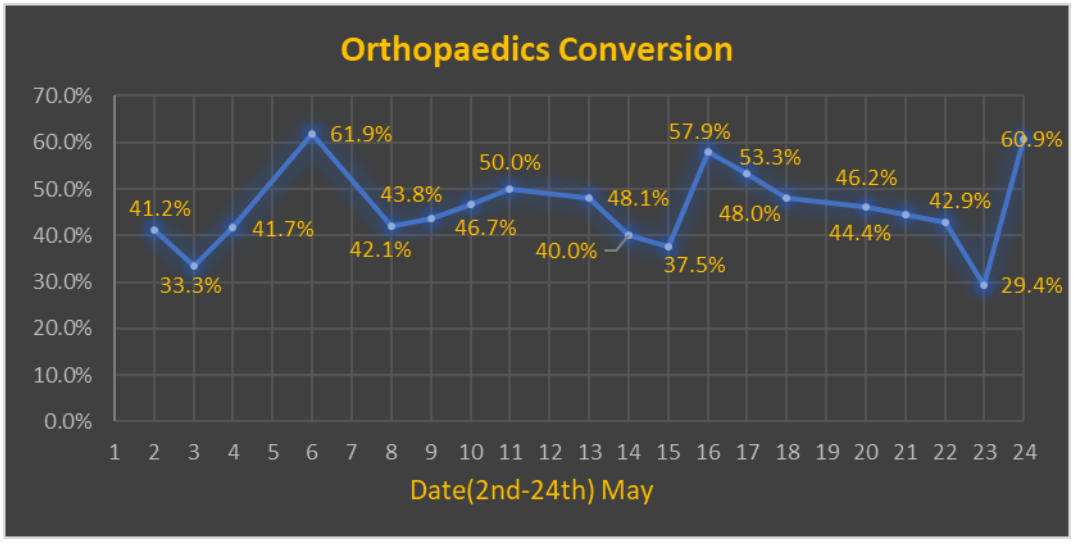


Fig 2. Shows conversion % of Orthopaedics from 2nd to 24th May. On 6th it is maximum and on 23rd it is minimum.

[c] Out of 525 only 214 opted pharmacy. Overall conversion is 40.8%.

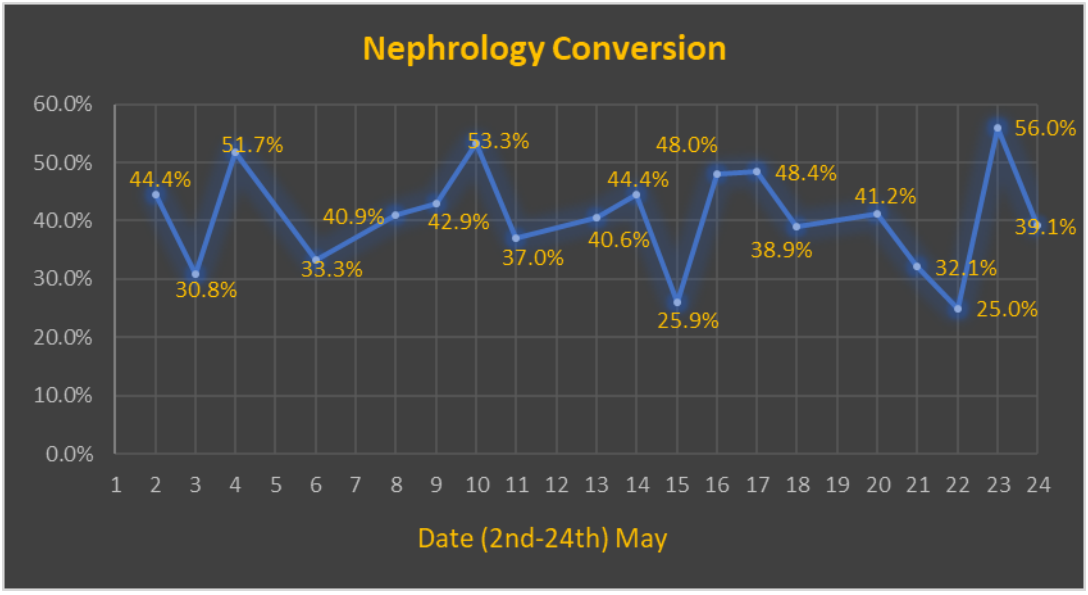


Fig 3. Shows Conversion % of Nephrology from 2nd to 24th May. It is maximum on 23rd and minimum on 22nd.

[d]Out of 285 only 158 patients opted pharmacy. Overall conversion is 55.4%.

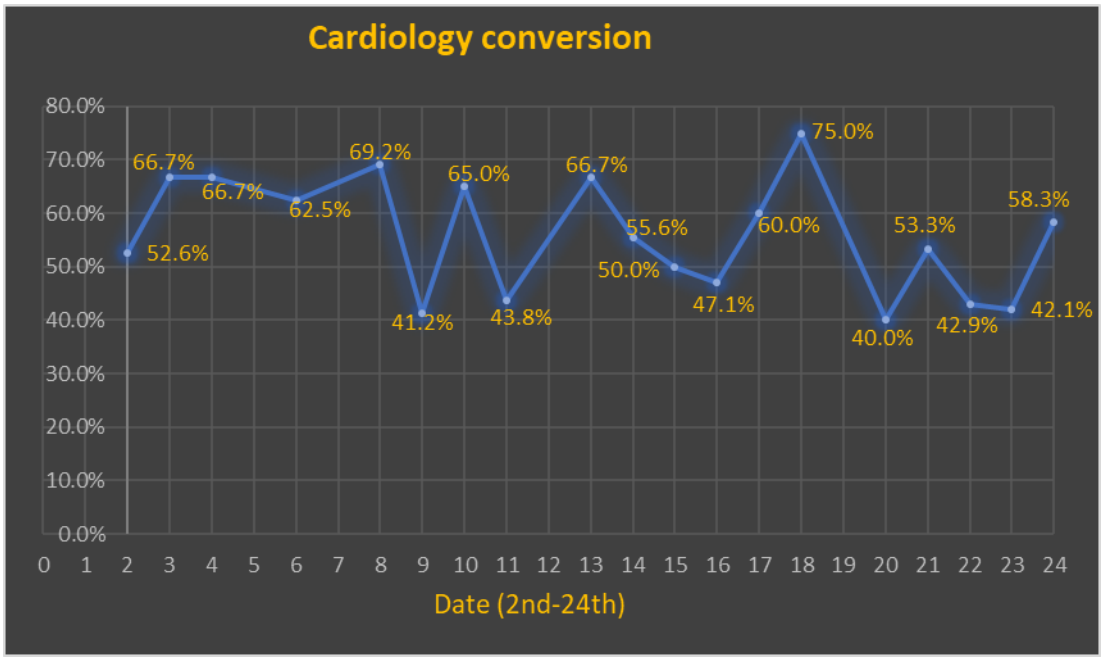


Fig 4. Shows conversion % of Cardiology from 2nd May to 24th May. Conversion percentage is maximum on 18th May and minimum on 20th May.

[e] Out of 502 ,309 patients opted pharmacy. Overall conversion is 61.6%.

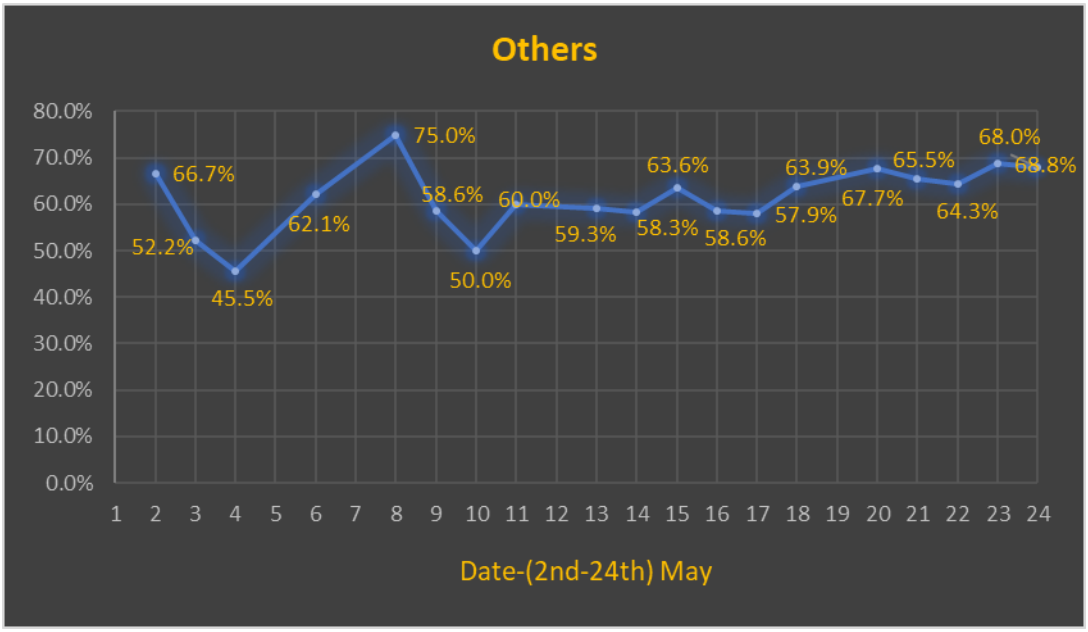


Fig 5. Shows other specialities conversion percentage. Other includes ENT, Ophthalmology and dermatologist. Conversion percentage of others lies between 45.5% to 75%.

B. LAB CONVERSION

Out of 233 advised for lab, only 118 availed lab test services in Synergy hospital. Overall conversion is 49.5%.

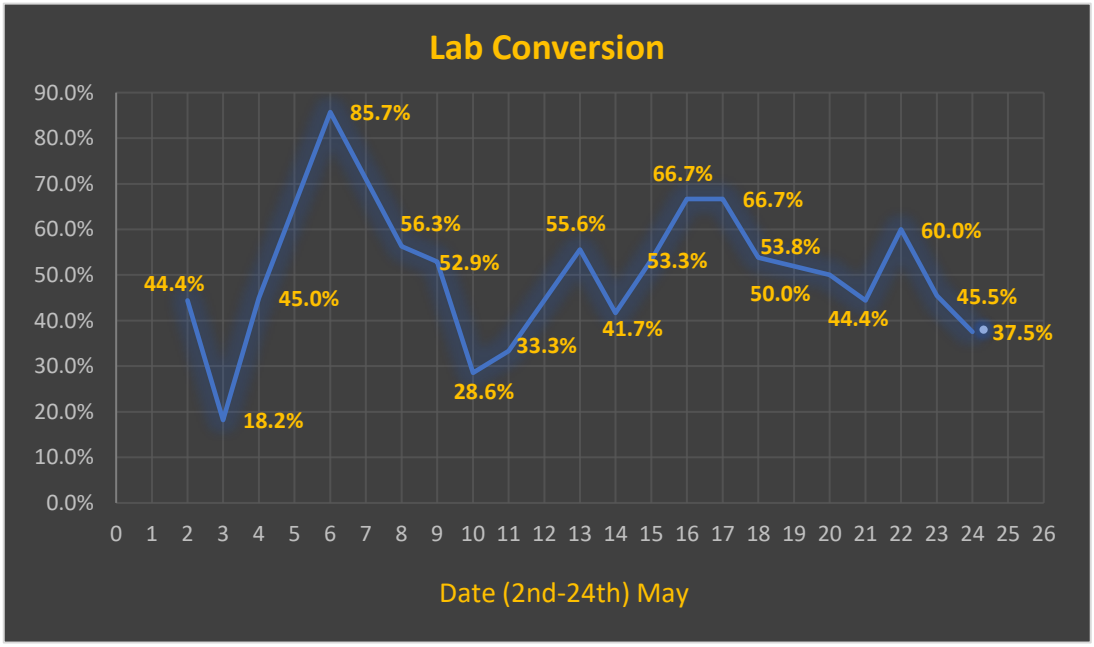


Fig 6. Shows lab conversion % from 2nd to 24th May. Lab conversion percentage lies between 18.2% to 85.7%.

C. ADMISSION CONVERSION

(a) According to my observation 51 patients were advised for admission and out of them only 41 patients took admission. Total conversion is 79%

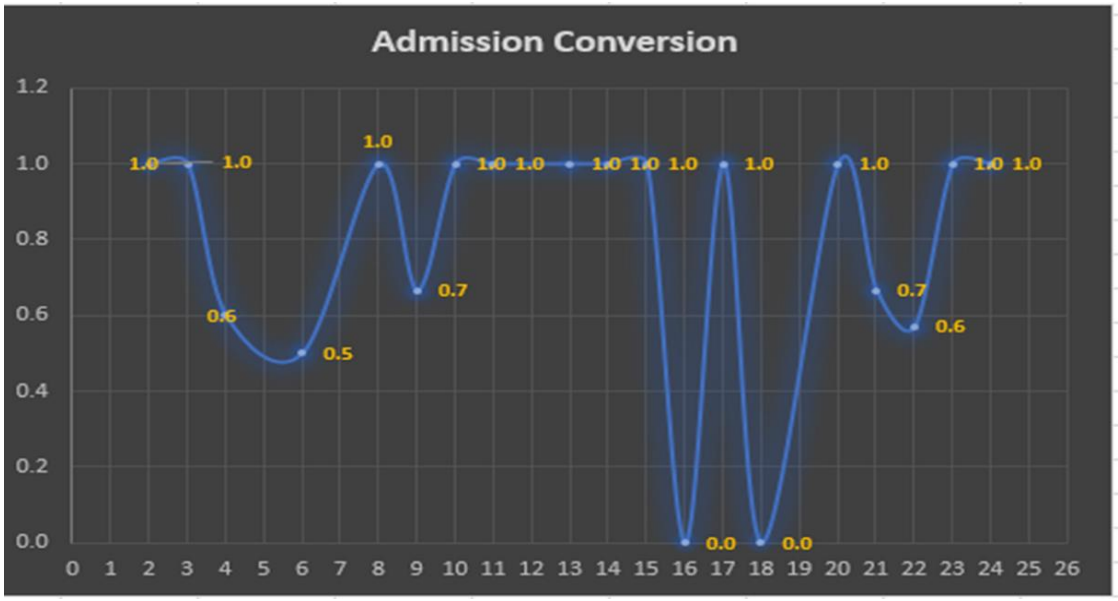


Fig 7. Shows admission conversion % from 2nd to 24th May. On 16th and 18th no admission were recommended.

(b) To make data more useful speciality wise conversion ratio was analysed.

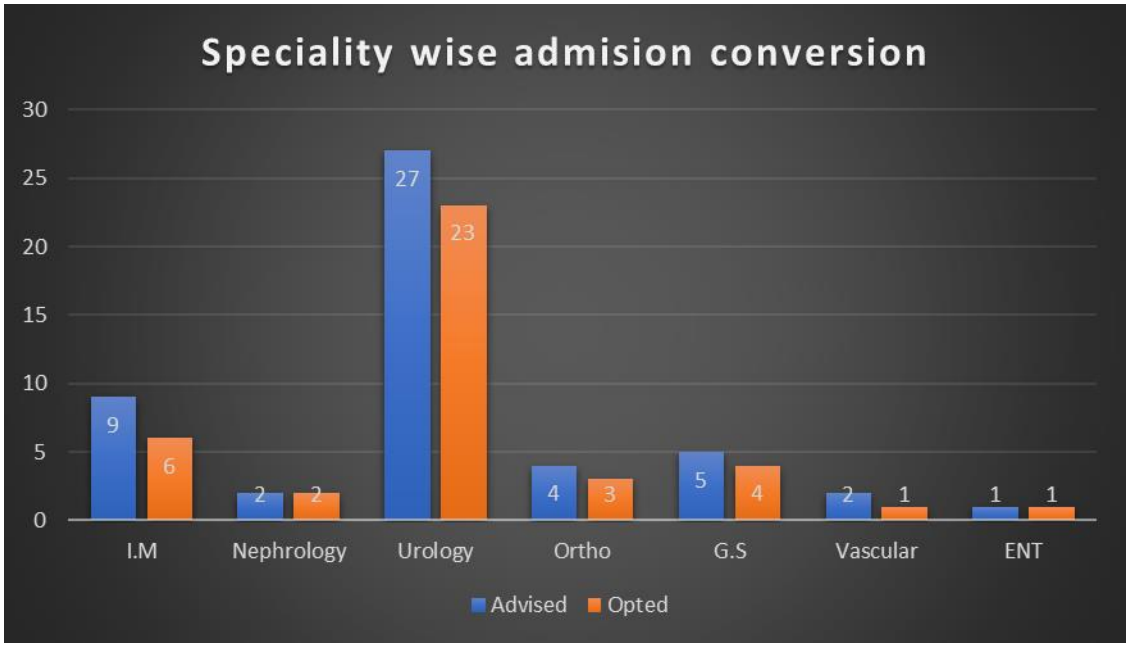


Fig 8. shows speciality wise admission conversion. In Internal Medicine 9 patients are advised for admission but only 6 patients get admitted. In Neurology 2 out of 2 admitted. In Urology out of 27,23rd patients get admitted. In Ortho out of 4 patients 3 get admitted. In General Surgery 5 get admitted. In Vascular 2 get admitted. In ENT 1 out of 1 get admitted.

Two points are clear from speciality wise conversion that:

- Highest conversion ratio is in Urology department.
- Second highest conversion ratio is in Internal Medicine department.

D. REASONS FOR NOT OPTING PHARMACY

Direct observation was done to check whether patients were taking medicines or not. If patients were not opting for pharmacy, then question was asked for reason of not opting Synergy Pharmacy and their answers were recorded.

Inclusion criteria: All patients advised for pharmacy but not opting synergy pharmacy services were considered for this study.

Exclusion criteria: Dialysis walk in patients, Patients on Sundays, Patients not advised for medicine, lab or admission, Patients who were advised for dressing, injections, Patients who visited hospital for health check-ups and walk-in patients who came only for lab or medicines.

Mode of Data collection:

- **Direct observation**: All patients who were advised for medicines were observed.
- **Interview**: Patients who were advised but didn't take medicine were questioned for reason of not taking medicines. Reasons were noted down.

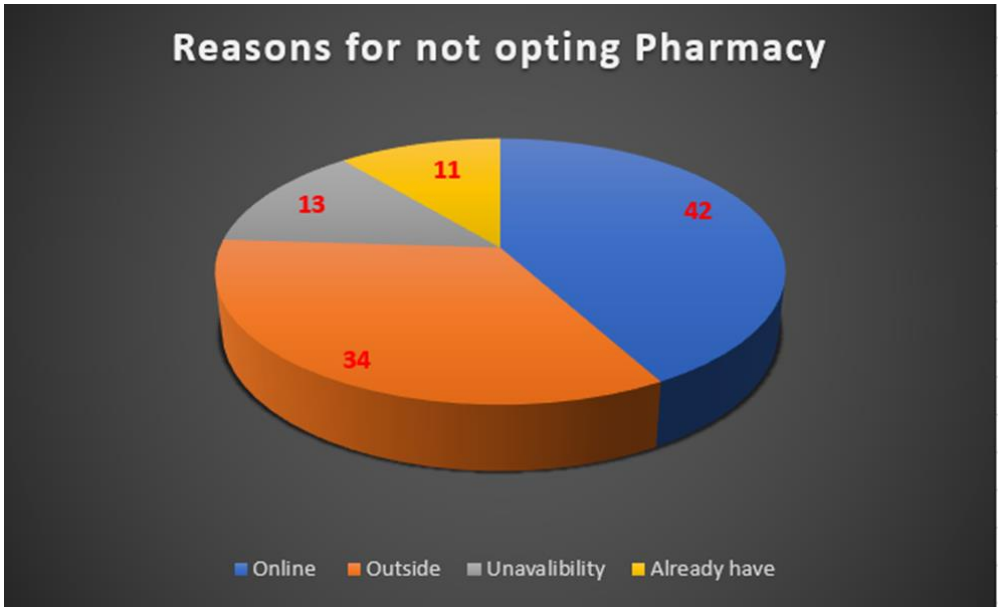


Fig 9. Chart shows number of patients having reasons for not opting Synergy pharmacy.42% patients opted medicines from online,34% took medicines from outside,13% medicines were not available and 11% patients already had medicines.

A sample of 100 patients were questioned. Based on their answers following reasons were concluded:

a) Online purchase (42)
b) Outside purchase (38)
c) Medicines were not available (13)
d) They Already had medicines (11)

Conclusion:

After 4 weeks observation it is concluded that total admission conversion is 79%, which is good as per Synergy hospital standards. Pharmacy conversion is below 60%, so needs improvement. Lab conversion is very low that is 49.5%. Questions were asked for not opting Synergy pharmacy. According to that it is concluded that main reason for not opting pharmacy from Synergy is patient's expectancy of getting discount which they don't get from Synergy Pharmacy.

Suggestions:

- Above data shows that 42% go for online medicine because they expect some discount, so there should be some discount on medicines, as patients expect some discount.
- All-important medicines prescribed by Doctors must be available at pharmacy. This is possible by Initiative of Pharmacy staff to record medicines not available but frequently prescribed by doctors and making them available.
- If specific brand is not available, pharmacy staff should be proactive in convincing the patient for alternative brands by consulting the respective doctor.

References:

1.Indian Journal of Public Health Research and Development 9(1):7 · January 2018
DOI: 10.5958/0976-5506.2018.00002.5
2.https://www.managedhealthcareexecutive.com/user/register

3.https://www.healthleadersmedia.com/finance/patient-leakage-can-sink-your-revenues-20-or-more

4.http://www.healthcarebusinesstech.com/patient-leakage-loyalty/

5.https://hitconsultant.net/2018/10/31/patient-leakage-trends/#.XQZpB4gzbIV

6.https://www.mtatva.com/en/spl-health/reducing-leakage-in-admissions-diagnostics-and-pharmacy-at-hospitals-whitepaper/

PART-2

ONLINE COURSE REPORT

BY MEGHA GUSAIN

SUBMITTED TO- DR SANDESH KUMAR SHARMA

SUBMITTED BY- MEGHA GUSAIN

A REPORT

BY

MEGHA GUSAIN

UNDER THE GUIDANCE OF

DR. SANDESH KUMAR SHARMA

MBA- HEALTH & HOSPITAL MANAGEMENT

2019-2021

Institute of Health Management Research

ACKNOWLEDGEMENT

Foremost, I would like to express my sincere gratitude towards my mentor **Dr. Sandesh Kumar Sharma** for guiding me and helping me throughout my internship period. I could not have imagined a better mentor in this journey.

Last but not least, I thank my family for ushering their blessings on me. I would also like to thank my friends, for keeping me sane during the times of pandemic.

COURSE DESCRIPTION

Lean six sigma is a method that relies on a cooperative team effort to better result by eliminating waste and reducing alteration.

Lean six sigma not only reduce process defects and waste, but also provides a framework for overall organizational culture change .

For good result apply lean six sigma and of tools is necessary.

Lean aims to achieve continuous flow by tightening the linkages between process steps while six sigma focuses on reducing process variation for the process steps thereby enabling a tightening of those linkages .

OBJECTIVE OF THE COURSE

- To learn the strategy of sustainable development.
- To Improve customer satisfaction.
- To Improve Quality.
- To Reduce defects.
- To Reduce wastage.
- To Reduce cycle time.
- To Improve financial structure

COURSE CONTENTS

- Six sigma foundations , principle, roles and responsibilities .
- Quality Tools and Six Sigma Metrics
- Importance of Teams, Types of Teams , and Stages of Team Development
- Decision Making Tools
- Communication Methods
- Lean Foundations and Principles
- Value to the Organization

Learning Methodology

The course is completed in fours weeks, with descriptive videos, ppt lectures, and interview. Each week contents different topics.

Six Sigma Foundations and Principles.

Origin of six sigma by David cook.

Six sigma - It is a method which eliminate and reduce the variation. And use to measure defects and improving the quality of products and services .

Lean- to maximise customer value while minimising waste .

Evaluation of six sigma-

Statistical process control→ business process reengineering → total degree management→ six sigma

Tools-

Eliminate waste and excess cost

Reduce variations and defects

Improve our process and customer experience .

Six Sigma Methodology.

Although there are many process methodologies for six sigma , the most usually is **DMAIC.**

DMAIC consists of **define, measure, analyse, improve, and control .**

It is primarily used in manufacturing, service, and transactional settings .

In the define phase, project goals are set and boundaries established to align with the aims of the organization .

The measure phase establishes our baseline and attempts to localize the vital few are the prime drivers behind the problems we seek to address in our project .

Using the findings of the measure phase, conjectures are formulated of root causes. We can confirm these theories through the collection of data to further localize and understand the sources of the problem
It is very important that we confirm that our process is functioning as it should prior to analysing the problem. Otherwise any results we glean could be invalid .

Our aim here is to demonstrate a positive change to the current state of the process through our adjustments . The improvement phase is really meant as a pilot of the proposed change . To ensure long term affective change on a larger scale, mechanisms must be put into place to ensure the problem stays fixed long after the team has been re-purposed .

Principles of lean

- Value
- Value chain
- Flow
- Pull
- Perfection

Six sigma role and responsbilities

Main thing is to create a strong team contribution of each in the team to lead beneficial. Role and responsibilities of an individuals are also essential to success of the team.

Yellow belt- someone who knows the six sigma very well fundamental understanding of six sigma principles, they will be able to convert with other belt level and exercise to the terminology.

Responsibility of yellow belt are very different than green or black belt. They are likely by champions and stakeholders. Yellow belt plays a

central role and managing resources issue and solution implementations.

Green belt- training is less intense compare to black belt. Training includes all comprehends of six sigma less emphasis on systematic aspects.

Black belt-he/she is experienced and well trained professional. It is project manager/ financial analyser. A typical black belt lead various project , identify the problem quickly and drive the solutions as well.

They review and take necessary adjustment, and work closely to coach to identify and initiate training during the project and after the project.

Master black belt- highly educated to six sigma , someone who already done dozens of black belt work. Mainly work high level operations

Quality tools

There are Many numbers of tools which are used for quality improvement method. In this we discuss some of them. Each of the tool has specific function.

Flow chart and process mapping- are often the first step to understand the process and we can improve them.

Histogram- are the first representation data based on the numbers. It tells us the shape the central and the spread of the data.

Pareto chart- are used to prioritise the problem and root cause.

Cause and effect diagram- basically has three commonly used names used to brainstorming possible root causes of the problems.

Scatter diagram- understand a relation between two variable.

Importance of team

Nearly all quality upgrade work, including Lean and Six Sigma is performed by teams for a better outcome. Many people are unwilling, especially in the beginning to join teams. However, we will see the welfare of teamwork. There are many places where teams perform better than individuals. We all have certain skills and abilities. Working on a team explore different skills and abilities and knowledge.

A key characteristics of good performing organizations is their team work. The facts listed here, aligned with the goals of quality improvement.

It's nearly hard to compete many of these things alone. And if you could, it would take time. A team is a group of people who work together and complete the goal.

In many teams main decisions are taken by the group, . All team members put their review and thought in the decision making, so the team work together.

Many teams are differert functional, that is, they work for different organizational . This gives team members a chance to get to know people in other parts of the organization.

Decision making

After the group has create a large ideas, we will see
a pair tools to help decrease the list and ultimately to make a selection.

Nominal Group Technique is same to the slip method of brainstorming
.

The helper then asks for one idea from each member in sequence. No discussion or evaluation is allowed at this point . When all thought are observed and recorded, discussion begins to clarify and evaluate the team decision making tools .

Purpose of lean

To improve organizational performance by better serving our customers .

By loss and eliminating waste, and reducing cycle time we can decrease fault and respond more fast to the needs of our consumer.

from the beginning to the end of a process including waiting time or other delays . If we can make our work more predictable , reduce change over time and reduce defect we can drastically shorten cycle times. The elimination of waste is a key part of this improvement process . The fundamental definition of waste is anything that does not add value to the product or service. Waste of transportation occurs when we move products around or move them further than necessary without changing them in anyway . When we put components into inventory in the warehouse and later draw them out for production, for example, the transportation involved is a waste

Value to the organisation

There are many areas that profit, but they're sometimes hard and long-term . This may make them a hard to quantify, in organizations that rely heavily on short-term measures of performance . W. Edwards Deming, argued that organizations should focus on creating customers for life . It is much affordable to fit . This is also the best way to grow your business . Culture change, is essential for most organizations. It's also difficult and can take a very long time. If you can create an organization of engaged employees, you'll see a transformation . Satisfied worker, will in turn satisfy and gratify your customers . Through the implementation of many of the Lean tools, an organization can increase capacity, without the addition of new equipment or personnel. Lean, results in great improvements in efficiency . This is a product of the system and the tools, that allow

us to better utilize our resources, focused on the things that add value. Instead of wasting resources, on things that do not need to be done .

Good use of our resources, enables us to better fit our customers. It also allows us to be efficient . In a Lean environment, it's much easier to change directions and respond quickly, to customer and market needs .

The financial benefits of Lean are significant, but they can be hard to measure .

These can include cost savings from better use of resources, increased revenue because of customer satisfaction, better cash flow as a result of reduced cycle time .

Key Learning from the course

From this course I learn:-

- How to find and eliminate waste
- Improving process
- Improving quality
- Improving management and leadership qualities
- Importance of tools
- Importance of teams
- Importance of Decision making tools
- Importance of team work
- Importance of communication