

Factors for Non-Retention of Patients for Recommended Surgical Treatment

By

Ayushi Chaudhary

*Dissertation submitted in partial fulfillment of the requirements of the degree
MBA Hospital and Health Management*

Academic year, 2017-2019



The IIHMR University, Jaipur

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

Factors for Non-Retention of Patients for Recommended Surgical Treatment

By

Ayushi Chaudhary

*Dissertation submitted in partial fulfillment of award of
MBA Hospital and Health Management*

Academic year, 2017-2019

The Calcutta Medical Research Institute (CMRI), Kolkata



The IIHMR University, Jaipur

1, Prabhu Dayal Marg, Sanganer, Airport
Jaipur 302029, Rajasthan

Ph: 0141 3924700, Fax: 3924738

Website: www.iihmr.edu.in

TO WHOMSOEVER MAY CONCERN

This is to certify that **Ayushi Chaudhary**, student of MBA Hospital and Health Management from The IIHMR University, Jaipur has undergone internship training at The Calcutta Medical Research Institute (C K Birla Hospitals), Kolkata from 4 February 2019 to 3 May 2019.

The candidate has successfully carried out the study "**Factors for Non-Retention of Patients for Recommended Surgical Treatment**" designated to her during internship training and her approach to the study has been sincere, scientific and analytical.

The internship is in fulfillment of the course requirements.

I wish her all success in all her future endeavours.

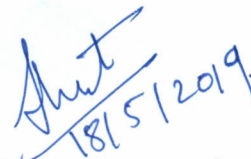


(Col) Dr. Ashok Kaushik

Dean, Academics and Student Affairs

The IIHMR University, Jaipur

18 May 2019



Dr. Shweta Aggarwal

Assistant Professor

The IIHMR University, Jaipur

8th May, 2019

TO WHOM IT MAY CONCERN

This is to certify that Ms. Ayushi Chaudhary, student of The IIHMR University, Jaipur, has successfully completed her training period at our Institute.

She was with the Institute from 4th February, 2019 to 3rd May, 2019 in the Operations Department, as a part of the training required for her academic endeavour.

During this period she has worked diligently in the assigned area and has shown keenness to learn.

We wish her success in all future endeavours.

Thanking you,

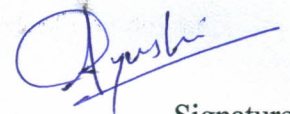
For **The Calcutta Medical Research Institute**



Srijita Mukherjee
Assistant Manager – HR

CERTIFICATE BY SCHOLAR

This is to certify that the dissertation titled “Factors for Non- Retention of Patients for Recommended Surgical Treatment” and submitted by Ayushi Chaudhary under the supervision of Dr. D.K.Mangal for award of MBA in Hospital and Health/ Pharmaceutical / Rural Management in Health and Hospitals of the University carried out during the period from 04th Feb’19 to 03rd May’19 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.



Signature

Declaration

I do hereby declare that, I am a student of 2nd year MBA Hospital and Health Management in IIHMR University, Jaipur, Rajasthan (2017-19).

I would like to state that I have done my dissertation from 1st Feb 2019 to 4th May 2019 from Calcutta Memorial Research Institute (CMRI). I have done dissertation on the topic “Factors for non – retention of patients for recommended surgical treatment” under the guidance of Mr. Bobby Varghese (Unit Head - CMRI). I have completed my project for the completion of my degree.

This project has done by myself and not be submitted to other institute and University or the purpose of Award and Reward.

Ayushi Chaudhary

IIHMR University,

Jaipur

Acknowledgement

I humbly owe the completion of this Dissertation and Internship work to the almighty and my family whose love and blessings will be with me in every movement of my life.

I would like to extend my sincere gratitude to **Mr. Bobby Varghese** (Unit Head - CMRI) and **Mr. Kunal Kumar Sen** (Deputy General Manager - HR) for providing me an opportunity to learn and develop professionally.

I also extend my gratitude to my project mentor **Dr. D K Mangal** (Professor & Dean Research) **Dr. Shweta Agarwal** (Assistant Professor, IIHMR University Jaipur), **Dr. Piyusha Majumdar** (Assistant Professor, IIHMR University Jaipur), **Dr. Vikram Singh Chouhan** (COO, EHCC Hospital) for his valuable suggestions, support and keen interest throughout the study that helped me in completing this work. I thank him for the freedom of thought, expression and trust which was greatly bestowed upon me. I would also like to pay my gratitude to the entire team of The Calcutta Medical Research Institute who has helped me by sparing their valuable time and extended their support and guidance to help me achieve my task successfully.

Ayushi Chaudhary

Table of Contents

SR. NO	TITLE	PAGE NUMBER
1	List of Figures	6
2	List of Abbreviations	8
3	Abstract	9-11
4	Introduction	11
5	Glossary	12
6	Literature Review	13-14
7	Research question	15
8	Study objective	15
9	Methodology • Objective 1 • Objective 2	16 16
10	Auto ethnography	16-17
11	Results (Objective 1)	18-20
12	Findings (Objective 1)	20-21
13	Results (Objective 2)	21-24

14	Conclusion	24
15	Recommendations	25
16	References	25-26

List of Figures:

S.No	Tables and Figures	Title
1	Figure: 1.1	Total ER footfall-IP
2	Figure: 1.2	Total OP- Total IP
3	Figure: 1.3	Total OP- IP (General & Specialty)
4	Figure: 1.4	OP (General)- DP
5	Figure: 1.5	OP (Specialty)- DP
6	Figure: 1.6	Total DP- MM & SM
7	Figure: 1.7	Total DP (Surgical)- Payor wise
8	Figure: 1.8	OP (General)- Non DP
9	Figure: 1.9	OP (Specialty)- Non DP
10	Figure: 2.0	Total Non DP- MM & SM
11	Figure: 2.1	Total Non DP (Surgical)-Payor wise
12	Figure: 2.2	Factors responsible for non-retention of patients for surgical treatment.
13	Table: 1.1	Surgical conversion

List of Abbreviations

1. ER: Emergency
2. OP: Outpatient
3. OPD: Outpatient Department
4. IP: Inpatient
5. DP ward: Diet Paying ward
6. Non- DP ward: Diet Paying ward
7. MM: Medical Management
8. SM: Surgical Management
9. EMO: Emergency Medical Officer
10. NSD: No Defined Step
11. PAC: Pre- Anaesthetic Checkup
12. ARF: Admission Request Form
13. SCC: Service Care Coordinators
14. TPA: Third Party Administrator

Abstract

Research title: Factors for Non-Retention of Patients for Recommended Surgical Treatment

Keywords: Factors, non-retention, surgical treatment,

Research question: What are the factors responsible for non-retention of patients for recommended treatment?

Objective:

- To find out the percentage of patients availed treatment recommended within the facility.
- To identify the factors responsible for non-retention of the patients for recommended surgical treatment

Methodology: Objective 1: The study designs used were observational descriptive, data used was secondary data. The source of data was Hospital Management Information System (HMIS). The study was conducted in the operations department of CMRI hospital, Kolkata. The secondary data was analysed from the period of one year i.e. from April 2018- March 2019.

Objective 2: The study design used were observational descriptive and qualitative designs, the sampling frame was the people who didn't avail the surgical treatment and the type sampling used was purposive sampling. The sample size taken was 140 patients and the technique used was telephonic interview. The primary data was analysed using thematic analysis and was conducted in the operations department of CMRI hospital, Kolkata for the duration of one month i.e. from 1st February 2019- 28th February 2019.

- **Result:** Findings from objective 1 was 35% of patients were admitted through emergency department, 3.5% of patients admitted through Outpatient, 3.64% of patients were admitted out of total OP consultations, 3.13% of patients consulted in general OP were admitted in Diet paying (DP) ward, 1.25% of patients consulted in specialty OP were admitted in Diet Paying ward, 42% of patients were admitted under medical management in DP ward, 57% of patients were admitted in DP ward and undergone surgery. Out of total patients admitted for surgery, 50% were cash patients, 5.3% were TPAs and 2.14% were corporate patients, 27.3% of patients consulted in general OP were

admitted in Non Diet paying (DP) ward, 10.91% of patients consulted in specialty OP were admitted in Non DP ward, 67% of patients were admitted under medical management in DP ward, 33% of patients were admitted in DP ward and undergone surgery, Out of total patients admitted for surgery, 39% were cash patients, 47% were TPAs and 18% were corporate patients. Among surgical departments, It was found that less than 15% patients availed treatment within the facility from ENT, Obstetric Gynecology and Orthopedic i.e. 2%, 8% and 5% respectively. Further from ENT, Gynecology, Neurosurgery and Orthopedic, less than 15% patients i.e. 2%, 6%, 6%, 6% respectively undergone surgery.

Findings from objective 2 were 21 patients had their personal issues, 18 patients didn't avail treatment because of medical conditions, 5 patients were not from Kolkata, 7 patients had financial issues and 2 patients had issues from doctor.

Conclusion & Recommendations:

Conclusion: From the study it was concluded that The major factors responsible for non-retention of surgical treatments are:

1. High estimate
2. Financial issues
3. Doctor related issues
4. Medical condition
5. Nonlocal
6. Personal issues

Among the patients interviewed, "personal issue" was the factor which was answered by majority of patients followed by "High estimate" and "medical condition"

Recommendations:

- Provision of psychological counseling to the patients not mentally prepared for surgery.
- Surgery grade to be fixed for each surgery according to the complexity and duration of surgery.
- Setting up of separate desk for day care procedures wherein the patients doesn't have to wait for long for getting the financial estimate.
-

- Provision of providing counseling and thereby helping patients to make them remind regarding availing of health schemes, if insured.
- Provision of free pick and drop facility to the patients staying more than 10 kilometers away from the hospital.
- Assigning dedicated personnels SCCs (Service Care Coordinators) who will work closely with the patients and assist the surgery advised patients to the estimation desk for financial counseling. This will help in keeping the track of surgery advised patients.

Introduction

For a multi-specialty hospital, it is the Emergency and Outpatient department where patient first steps. Through this, patients are recommended for various treatments which are availed by them either from within the facility or outside. Patient retention depends on patient experience. It's not always the price that accounts the number one driver in all sectors nor is it prestige. It's just feeling good about the visit (Baljit Singh & Amreesh Kaur. (2016) Reducing leakage in admission, pharmacy and diagnostics at hospital. 2106, July 13) Baljit Singh (2016). Reducing leakage in admission, pharmacy and diagnostics at hospital. mTatva, 12(2), 75-83

According to the study, the average rate of conversion in a healthcare industry is 15-18%. Various sources of conversion from healthcare industry (multi-specialty hospitals) are from Emergency department, Outpatient department and Direct. From emergency, the patient is either advised for diagnostic radiology, laboratory tests or admission. Admission can be either for surgical management or medical management. Similarly from outpatient (OP) consultation, patient is either advised for diagnostic radiology, laboratory tests or admission for surgical or medical management. Same is the conversion from patients consulted the doctors outside (Direct). Since the conversion in sectors other than healthcare industry is linear in form. But conversion in healthcare industry is in circular form meaning thereby, patient advised for laboratory tests might be advised for radiology investigation later on and vice-versa and further can be advised for admission for surgical or medical management. This creates various touch

points for the patients for availing services (Berta, W. B., & Baker, R. (2004).Source of conversion in hospital. Health Care Management Review, 29(2), 90-97.)

Glossary:

1. ER: Emergency
2. OP: Outpatient
3. OPD: Outpatient Department
4. IP: Inpatient
5. DP ward: Diet Paying ward
6. Non- DP ward: Non Diet Paying ward
7. MM: Medical Management
8. SM: Surgical Management
9. EMO: Emergency Medical Officer
10. NSD: No Defined Step
11. PAC: Pre- Anaesthetic Checkup
12. ARF: Admission Request Form
13. SCC: Service Care Coordinators
14. TPA: Third Party Administrator

Literature Review

Factors identified for negative influences on retention in care ([Ferdinand C. Mukumbang](#), Joyce Chali, and Brian van Wyk, 2010)

1. Personal history and biological factors that influence the retention-in-care behaviours of the patient.
2. Weight increase as a sign of improved health, medication side effects, and alcohol use were patient factors identified to influence retention-in-care behaviours.
3. Trust in faith healing and the use of other herbal remedies.

Factors associated with non-retention in HIV care in an era of widespread antiretroviral therapy. ([O'Connell S](#), [O'Rourke A](#), [Sweeney E](#), [Lynam A](#), [Sadlier C](#), Bergin C, 2017)

1. All the patients who disengaged from care.

2. Intravenous drug users
3. patients with heterosexual risk were more likely to disengage from care

Nursing staff non-retention: Effective factors (Mohammad Heidari, BaharSeifi, Zahra AbdolrezaGharebagh, 2017)

1. Job stress
2. Social support
3. Job dissatisfaction

Factors affecting retention in complete denture (TalisunupLongkumer, 2017)

- Anatomical (Size of denture, bearing area, parallel ridge walls)
- Physical (Adhesion, cohesion, interfacial surface, tension, atmospheric pressure)
- Physiological (Salvia)
- Mechanical (Undercuts, retentive springs, palatal implants)
- Muscular (Oral musculature, facial musculature)

Factors affecting retention in care of patients on antiretroviral treatment in the Kabwe district, Zambia (Mr. Chemungha F. Mukumbang, 2016)

- Patient factors (Side effects, Weight increase as a sign of good health, Alcohol use)
- Social factors (Stigma and non-disclosure of HIV status, Herbal remedies, Faith healing)
- Health system factors (Staff shortages, Long waiting times, Stock out of ARV drugs, High patient load, Inadequate space for ART clinic Travel distance to ART centers and transportation cost)
- Economic factors (Food shortage Traveling on duty)

Research Question: What are the factors responsible for non-retention of patients for recommended treatment?

Study Objective:

- To find out the percentage of patients availed treatment recommended within the facility.
- To identify the factors responsible for non-retention of the patients for recommended surgical treatment.

Methodology

Objective 1: To find out the percentage of patients availed treatment recommended within the facility.

The study designs used were observational descriptive, data used was secondary data. The source of data was Hospital Management Information System (HMIS). The study was conducted in the operations department of CMRI hospital, Kolkata. The secondary data was analysed from the period of one year i.e. from April 2018- March 2019.

Objective 2: To identify the factors responsible for non-retention of the patients for recommended surgical treatment.

The study designs used were observational descriptive and qualitative designs, the sampling frame was the people who didn't avail the surgical treatment and the type sampling used was purposive sampling. The sample size taken was 140 patients and the technique used was telephonic interview. The primary data was analysed using thematic analysis and was conducted in the operations department of CMRI hospital, Kolkata for the duration of one month i.e. from 1st February 2019- 28th February 2019.

Auto Ethnography

The study was conducted in the period of 3 months i.e. from February 2019 to April 2019. For the first fifteen days, the overview of hospital was done in which all the departments present in the hospital were observed. After 15 days of induction, I was given the operations department wherein I had a participatory observation of the process of admission and the process of providing financial estimate to the patient advised surgery. It was found that when the patient was advised surgery, the patient reaches the estimation desk for financial counseling. The financial counselors then confirm the payor type of the patient to know whether the patient has a Mediclaim or not. If the patient has the Mediclaim, the patient was guided to the TPA (Third Party Administrator) desk for explaining the insurance process. After confirming the payor, if the patient has insurance under WBHS (West Bengal Health Scheme) then predefined packages already there with the hospital wherein the rates of stay, surgery, doctor fee and consumables are

provided by the government of West Bengal and is much lower than the actual rates hospital. Also if the patient is eligible to avail PPN (Preferred Provider Network) in which there are 256 surgical procedures enlisted, also has predefined rates which is much lower than the actual rates of the hospital. It was observed that the patients coming under WBHS and PPN packages, doctors showed unwillingness to do surgeries and sometimes clearly refused for the same. During the process it was also observed that majority of the doctors are visiting consultants practicing their profession in other hospitals as well. Because of this, patients were asked to refer to other hospitals where the doctor gets higher fee as compared to this hospital. Due to this patients who were recommended for surgery, were failed to track by the administration because few doctors used to advice on patients' prescription after tearing the prescription from the prescription pad from where the administration gets carbon paper traced prescription for their information. As a result, carbon paper traced prescriptions were found blank for many doctors most of the time. It was also observed that while providing the financial counseling, the financial counselors used to confirm the surgery grade from the doctor for prescribed surgery. This was done because the surgery grades were not fixed as per the surgery names and the prices of surgeries were on the basis of surgery grade and not on the basis of surgery being performed. As a result, doctors used to assign any surgery grade to any surgery. Apart from this it was also observed that, there were no predefined personnel who assist surgery advised patients to estimation desk for financial counseling. Patients either reaches on their own or doctors used to assist for financial counseling. This was one of the factors where the surgery advised patients were failed to track, as a result many of the surgery advised patients didn't given the financial counseling. Apart from this, the patients coming for financial estimate were recorded in the HMIS (Hospital Management Information System) Of CMRI hospital automatically. I matched those data with the admission and "surgery done" sheet. The MRN (Medical Record Number) of the patients which didn't match with the admission and "surgery done" sheets were identified as those patients who were advised surgery, provided financial counseling and written estimate but didn't avail the surgical treatment from within the facility. These patients were being followed up through telephonic interview wherein they were asked the reasons for not getting their surgery done within the facility and answers were recorded in the excel sheet.

Objective 1

To find out the percentage of patients availed treatment recommended within the facility.

Result: After analyzing the secondary data for the period of one year i.e. from April 2018-March 2019, the following were the outcomes.

ER

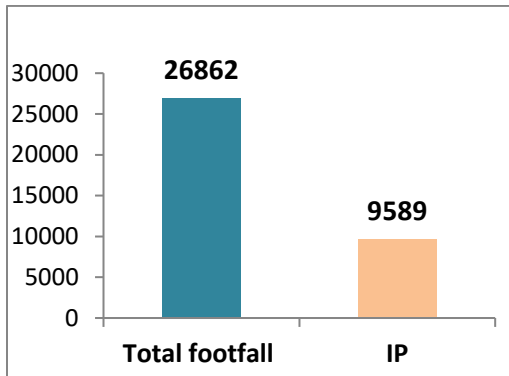


Figure: 1.1 The above graph shows total patients received in ER were 26,862, out of which 9,589 patients got admitted. This shows the conversion from ER accounts to 35%.

Total OP- Total IP

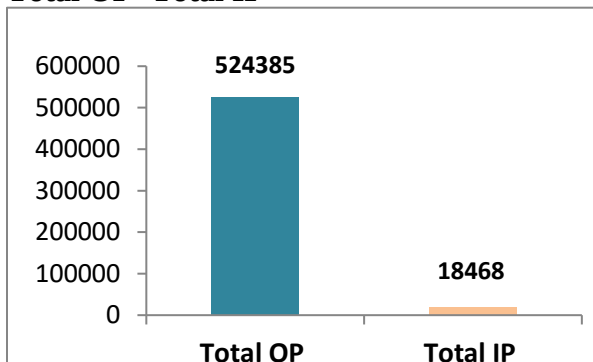


Figure: 1.2

The above graph shows total outpatients came were 524,385, out of which 18,468 were got admitted. This shows the conversion from Total OP to Total IP is 3.5%.

Total OP- IP (General & Specialty)

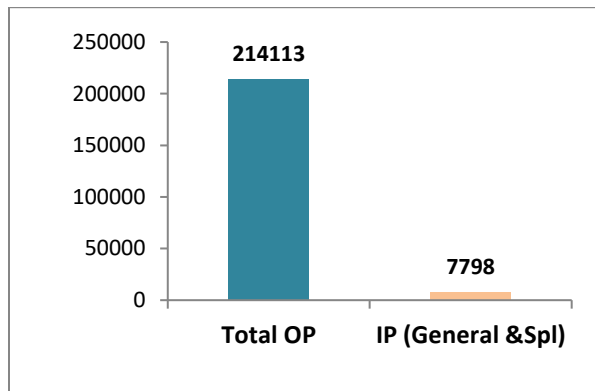


Figure: 1.3

The above graph shows total patients consulted in OP (General & specialty) were 214113, out of which 7798 patients were admitted. This shows the conversion rate from total OP consults to total IP is **3.64%**.

OP (General)-DP

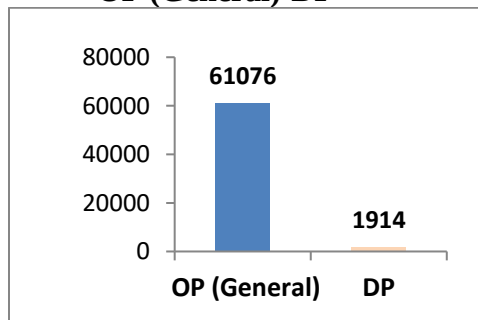


Figure:1.4

Figure: 1.4 shows total patients consulted through General OP were 61076, out of which total patients admitted in DP (Diet Paying) ward depicting the conversion rate from OP (General) to admission in DP ward is **3.13%**

OP (Specialty)- DP

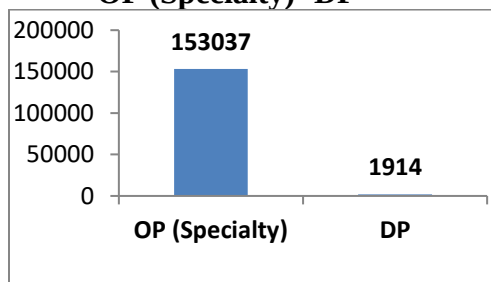


Figure: 1.5

The above graph shows total patients consulted through Specialty OP were 153037, out of which patients admitted in DP (Diet Paying) ward were 1914, depicting conversion from OP (Specialty) to admission in DP ward is **1.25%**.

Total DP- MM & Surgical

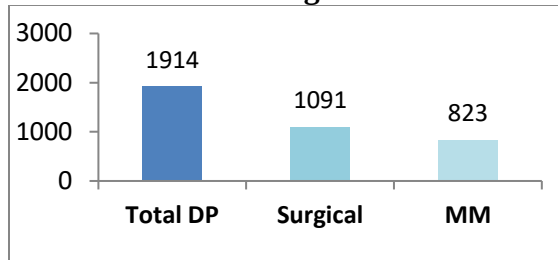


Figure: 1.6

The above graph shows that out of the patients admitted in DP ward, 1091 patients undergone surgery and 823 were admitted for medical management. Out of the total patients admitted in DP ward, 57% of patients admitted in DP ward undergone surgery and 42% admitted for medical management.

Total DP(Surgical): Payor wise

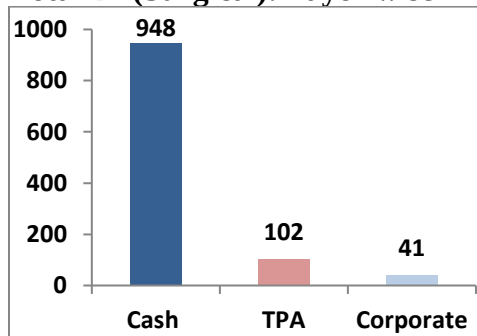


Figure: 1.7

The above graph shows the surgical segmentation from DP ward payor wise. Out of the total surgeries done through DP ward, 50% were cash patients, 5.3% were TPA and 2.14% were corporate patients.

OP(General)- Non DP

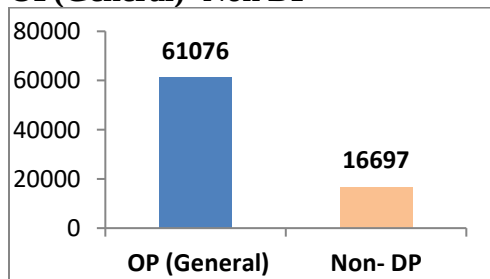


Figure: 1.8

The above graph shows total patients consulted through General OP were 61076, out of which total patients admitted in Non DP(Non Diet Paying) ward depicting the conversion rate from OP (General) to admission in Non-DP ward is **27.33%**

OP (Specialty) - Non DP

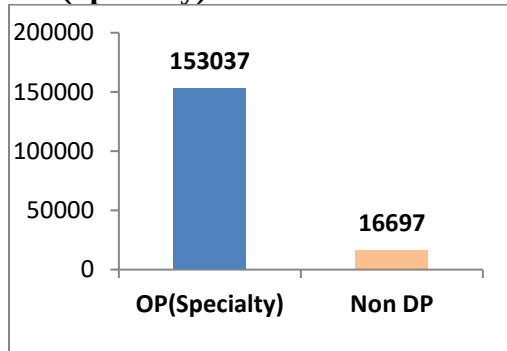


Figure: 1.9

Figure: 1.9 shows total patients consulted through Specialty OP were 153037, out of which total patients admitted in Non DP(Non Diet Paying) ward were 16697 depicting the conversion rate from OP (Specialty) to admission in Non-DP ward is **10.91%**

Total Non DP- MM & Surgical

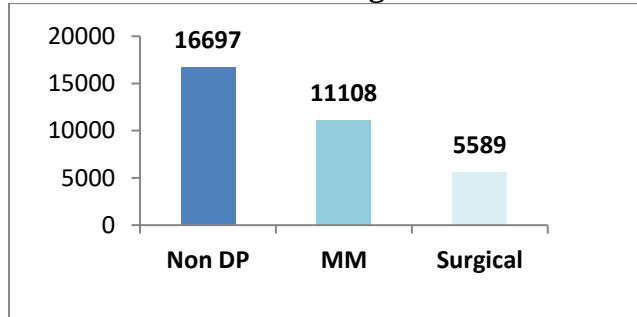


Figure: 2.0

The above graph shows that out of the patients admitted in Non DP ward, 5589 patients undergone surgery and 11108 were admitted for medical management. This accounts for 33% of patients admitted in DP ward undergone surgery and 67% patients admitted for medical management.

Total Non DP (Surgical)- Payor Wise

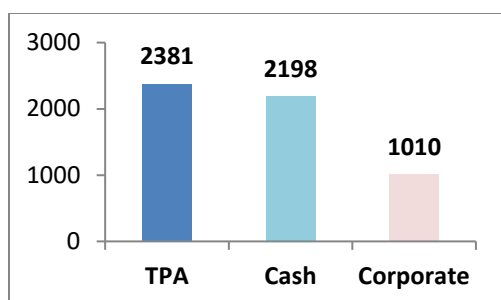


Figure: 2.1

Figure: 2.1 shows the surgical segmentation from Non DP ward payor wise. Out of the total surgeries done through Non DP ward, **39%** were cash patients, **47%** were TPA and **18%** were corporate patients.

Surgical Departments	OP consults	IP	OP-IP Conversion %	Surgeries done	% of surgeries done through OP	Surgical				Non- Surgical			
						DP	Non DP	DP% in Total OP	Non DP % in total OP	DP	Non DP	DP% in Total OP	Non DP% in Total OP
Cosmetic Surgery	3545	602	17%	1613	46%	377	1236	11%	35%	7	21	0.2%	0.6%
E.N.T.	9656	218	2%	175	2%	37	138	0%	1%	3	50	0.0%	0.5%
General Surgery/GI	8507	1632	19%	1432	17%	267	1165	3.13%	14%	25	214	0.3%	2.5%
Paediatric Surgery	360	78	21.6%	96	27%	1	95	0.2%	26.3%	0	10	0.0%	3%
Obstetrics Gynaecology & Gynae Oncology	15384	1218	8%	985	6%	106	879	1%	6%	19	165	0.1%	1.1%
Neurosurgery	4527	577	13%	260	6%	27	233	1%	5%	15	329	0.3%	7.3%
Orthopaedic	18030	979	5%	996	6%	116	880	1%	5%	26	128	0.1%	0.7%
Interventional Radiology	167	73	44%	341	204%	62	279	37%	167%	11	2	6.6%	1.2%
Total	60176	5377	9%	5898	10%	993	4905	2%	8%	106	919	0.2%	1.5%

Table: 1.1: Surgical conversion

The above table shows the conversion rates from total number of patients consulted in surgical department are admitted and get their surgery done. Also, to determine the percentage of patients admitted in DP (Diet Paying) ward for surgery. From the table it is observed that the figures highlighted with red color are the area of concern and requires quick action.

Among surgical departments, It was found that less than 15% patients availed treatment within the facility from ENT, Obstetric Gynaecology and Orthopedic i.e. 2%, 8% and 5% respectively.

Further from ENT, Gynaecology, Neurosurgery and Orthopaedic, less than 15% patients i.e. 2%, 6%, 6%, 6% respectively undergone surgery.

Findings

- 35% of patients were admitted through emergency department.
- 3.5% of patients admitted through Outpatient.
- 3.64% of patients were admitted out of total OP consultations.
- 3.13% of patients consulted in general OP were admitted in Diet paying (DP) ward.
- 1.25% of patients consulted in specialty OP were admitted in Diet Paying ward.
- 42% of patients were admitted under medical management in DP ward.
- 57% of patients were admitted in DP ward and undergone surgery.
- Out of total patients admitted for surgery, 50% were cash patients, 5.3% were TPAs and 2.14% were corporate patients.
- 27.3% of patients consulted in general OP were admitted in Non Diet paying (DP) ward.
- 10.91% of patients consulted in specialty OP were admitted in Non DP ward.
- 67% of patients were admitted under medical management in DP ward.
- 33% of patients were admitted in DP ward and undergone surgery.
- Out of total patients admitted for surgery, 39% were cash patients, 47% were TPAs and 18% were corporate patients.
- Among surgical departments, It was found that less than 15% patients availed treatment within the facility from ENT, Obstetric Gynaecology and Orthopedic i.e. 2%, 8% and 5% respectively. Further from ENT, Gynaecology, Neurosurgery and Orthopaedic, less than 15% patients i.e. 2%, 6%, 6%, 6% respectively undergone surgery.

Objective 2

To identify the factors responsible for non-retention of the patients for recommended surgical treatment.

Result: After conducting the telephonic interviews, the factors responsible for non-retention of the patients for recommended surgical treatment are as follows:

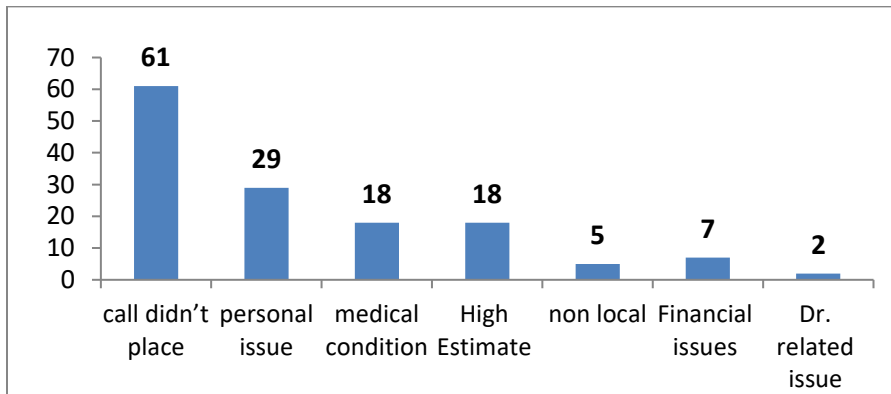


Figure 2.1: factors responsible for non-retention of the patients for recommended surgical treatment

The above graph shows that 61 patients were failed to be interviewed due to calls issues, 21 patients had their personal issues, 18 patients didn't avail treatment because of medical conditions, 5 patients were not from Kolkata, 7 patients had financial issues and 2 patients had issues from doctor.

Themes	Sub- Themes
Personal issues	• Academic issues • Place constraints • Not yet decided • Family issues
Medical condition	• Patient was on medication • Patient was pregnant • Investigation reports found normal • Patient was suffering from multiple medical problems.
High estimate	• Surgery rate was high
Doctor related issues	• Rude behavior of the doctor • Refused to do surgery under PPN (Preferred Provider Network) package.

The reasons for the factor “**calls didn’t place**” includes international number, wrong number, didn’t answer the call, invalid number and switched off.

- International number- Because of international number, the patients were failed to contact.
- Wrong number- There were many patients when contacted, were not of those patients. Hence those were the wrong numbers.
- Didn’t answer the call- There were majority of patients who didn’t pick the call after more than one attempt.
- Invalid number- There were patients to whom the calls were failed to place because those numbers didn’t exist.
- Switched off- Many patients contact number found to be switched off, hence failed to be interviewed.

Personal issues include academic issues, place constraints, not yet decided and family issues.

- Academic issues- There were patients who did not retained for availing surgical treatment because of exams.
- Place constraints- There were patients who availed the surgery recommended from nearby hospital that was close to their home and so affected the retention for recommended surgical treatment within the facility.
- Not yet decided- There were patients who were found baffled regarding whether to go for surgery or can be cured through medication.
- Family issues- there were some patients who didn’t avail surgical treatment because of family issues like, waiting for patient’s son to reach and accordingly will proceed on the basis son’s decision, patient got his surgery done from the hospital near to his relative for post- operative care.

The factor “Medical condition” includes patient was on medication, patient was pregnant, investigation reports found normal and patient was suffering from multiple medical problems.

- Patient was on medication- There were patients who were already on some medications, which need to be completed before undergoing the recommended surgical treatment.
- Patient was pregnant- Majority of patients were pregnant with estimated date of delivery after more than one month.

- Investigation reports found normal- There were patients who were recommended surgical treatment along with recommended investigations but after seeing the investigation reports, doctor didn't feel the need for surgery.
- Patient was suffering from multiple medical problems: There were patients who were suffering from other medical problems like skin infection which was supposed to be treated first before going for recommended surgical treatment.

The factor "High estimate" includes high surgery rate.

- High surgery rate- When interviewed the patients, it was found that many patients availed surgical treatment from other hospitals at cost lower than what was estimated in the CMRI hospital.

The factor "Doctor related issue" includes rude behavior and refused to do surgery under PPN package.

- Rude behavior- One of the factor which affected the patient retention for recommended surgical treatment was rude behavior of the doctor towards the patient.
- Refused to do surgery under PPN package- It was found that there were doctors who do not want to do surgery under PPN package because of involvement of low doctor fee.

Conclusion

From the study it was concluded that the conversion rate from OP to IP is 3.64 % which is approximately 4%. Since the number of patients consulted in General OP were 61076 and 153037 in specialty OP. Out of total patients consulted in general OP, 3138 got admitted and out of total patients consulted in specialty OP, 4660 were admitted. So the rate of conversion from general OP was 1.46% and from specialty OP was 2.14% that accounts to 4% conversion rate from Total OP consults to IP which is very as compared to average rate of conversion in healthcare industry i.e. 15-18%.

The major factors responsible for non-retention of surgical treatments are:

1. High estimate
2. Financial issues
3. Doctor related issues

4. Medical condition
5. Personal issues

Among the patients interviewed, “personal issue” was the factor which was answered by majority of patients followed by “High estimate” and “medical condition”.

Recommendations

- Provision of psychological counseling to the patients not mentally prepared for surgery.
- Surgery grade to be fixed for each surgery according to the complexity and duration of surgery.
- Setting up of separate desk for day care procedures wherein the patients doesn't have to wait for long for getting the financial estimate.
- Provision of providing counseling and thereby helping patients to make them remind regarding availing of health schemes, if insured.
- Provision of free pick and drop facility to the patients staying more than 10 kilometers away from the hospital.
- Assigning dedicated personnels SCCs (Service Care Coordinators) who will work closely with the patients and assist the surgery advised patients to the estimation desk for financial counseling. This will help in keeping the track of surgery advised patients.

References

- Berta WB, Baker R. Sources of conversion in hospital. Health Care Management Review. 2004 Apr 1;29(2):90-7.
- Angst J, Sellaro R, Stassen HH, Gamma A. Diagnostic conversion from depression to bipolar disorders: results of a long-term prospective study of hospital admissions. Journal of Affective Disorders. 2005 Feb 1;84(2-3):149-57.
- Ormiston JP, Huang GJ, Little RM, Decker JD, Seuk GD. Retrospective analysis of long-term stable and unstable orthodontic treatment outcomes. American Journal of Orthodontics and Dentofacial Orthopedics. 2005 Nov 1;128(5):568-74.

- Singh P, Grammati S, Kirschen R. Orthodontic retention patterns in the United Kingdom. *Journal of orthodontics*. 2009 Jun 1;36(2):115-21.
- Prabhakar U, Maeda H, Jain RK, Sevick-Muraca EM, Zamboni W, Farokhzad OC, Barry ST, Gabizon A, Grodzinski P, Blakey DC. Challenges and key considerations of the enhanced permeability and retention effect for nanomedicine drug delivery in oncology.
- Shader K, Broome ME, Broome CD, West ME, Nash M. Factors influencing satisfaction and anticipated turnover for nurses in an academic medical center. *Journal of Nursing Administration*. 2001 Apr 1;31(4):210-6.
- Gentles TL, Mayer Jr JE, Gauvreau K, Newburger JW, Lock JE, Kupferschmid JP, Jonas RA, Castañeda AR, Wernovsky G. Fontan operation in five hundred consecutive patients: factors influencing early and late outcome. *The Journal of thoracic and cardiovascular surgery*. 1997 Sep 1;114(3):376-91.
- Bartram T, Joiner TA, Stanton P. Factors affecting the job stress and job satisfaction of Australian nurses: implications for recruitment and retention. *Contemporary nurse*. 2004 Oct 1;17(3):293-304.