

Outreach customer relationship management to improve patient footfall, retention and measure marketing performance

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Introduction

- The changing dynamics of the health industry including increased competition and adoption of new technologies points to the need for increased marketing involvement.
- Marketing methods and tools have to be formulated based on carefully thought strategies, whose success depends on how well the healthcare provider are able to satisfy the needs of customers.
- Consumers have a myriad of providers to choose from, because of which the providers have to find effective ways to reach their target customers and engage with them to build a sustainable relationship.
- Outreach OPD is one of these marketing methods wherein the hospital sends their doctors to provide consultations to targeted communities of tier 2 and 3 cities in the region of North and Northeast India.
- Outreach activity enables hospital to scale up its reach, build their credibility, improve brand awareness and increase patient footfall by referring those patients who need to avail specialised health services.

- Recently, an approach that has helped hospitals to maximize benefits from marketing activities is Customer Relation Management. It is a way to manage relations with prospective and current customers and is known to :
 - Help in synchronizing marketing and sales activities
 - Help in generation of customer knowledge, database construction, campaign managements, lead conversion, developing and maintaining customer relations, and cost reduction.
 - Increase customer acquisition, retention, and satisfaction
- Irrespective of the marketing method one follows, it's important to measure the outcome of those methods. Without being able to evaluate the outcomes of marketing initiatives, it will be difficult to understand their impact and effectiveness. The performance indicators can be designed for any such marketing activity and can be continuously monitored and improved.
- In this study an attempt is made to design and implement CRM process to build and maintain relation with outreach patients, with an intention of improving patient footfall, retention, and generate knowledge which will be useful to monitor and eventually evaluate the performance of Out-reach OPD activity and formulate strategies accordingly.

Background

The hospital has been conducting outreach OPDs for many years now. A descriptive cross-sectional study was conducted from 06th Feb'20 to 10th Feb'20 in the hospital to calculate the Outreach OPD to IPD conversion percentages of past 4 months followed questioning outreach patients about their OPD experience in order to find effective ways of improving conversion rates from Outreach OPDs.

It was found that:



Conversion percentages for the months of Oct'19, Nov'19, Dec'19 and Jan'20 were 0.47%, 0.17%, 0.38% and 0.51% respectively, which were continuously less than ideal.



Majority of the patients had visited hospital's outreach OPD because of doctor's expertise, unavailability of advanced care in their cities, and hospital's brand name.



Outreach patient records were insufficient to track each patient uniquely.



Doctors' visits happen once in a month to their city, that leads to long waiting time.



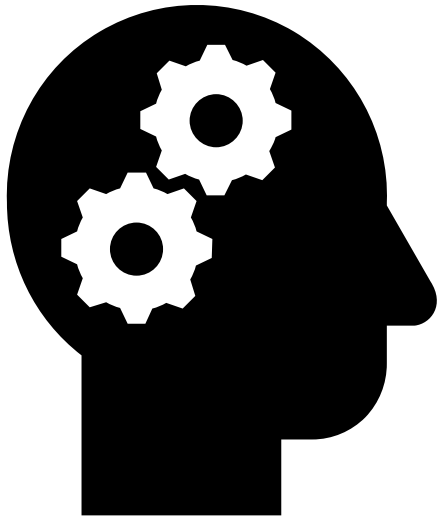
Inability to contact hospital post OPD, inability to receive desired appointment and financial issues were the top three reasons for not continuing treatment with the hospital.



43% of the participants rated their outreach experience to be average.

The results of this study are taken into consideration for the current research.

Rationale



- The ultimate goal of any marketing activity is to **increase patient footfall and revenue** in the most efficient and effective manner.
- Measurement of marketing performances is an integral function of any healthcare institution, as they help senior professionals **to analyse and evaluate whether the marketing goals are being met or not.**
- It is significant to decide **if the activity is profitable or it needs improvement.**
- If the marketing activity needs improvement, suitable interventions should be identified and implemented to increase marketing performance.
- Measuring the performance will help the hospital to understand success of outreach program over time. It will enable the management to justify the expenditures made on outreach marketing activity. Determining conversion rates, ROIs etc will help identify areas of improvement leading to formulation of fine-tuned strategies and optimisation of resources.



Problem Statement

- No tracking and follow up of outreach OPD patients.
- No monitoring and evaluation of performance of Outreach OPD activity.

Research Question

- How can we track Outreach OPD patients and build relation with them to improve patient footfall and retention?
- What is the effectiveness of outreach OPD marketing activity?



Objectives

- To design and implement CRM process for Outreach patients.
- To assess the effectiveness of CRM process.
- To determine the effectiveness of outreach OPD marketing activity.

Methodology

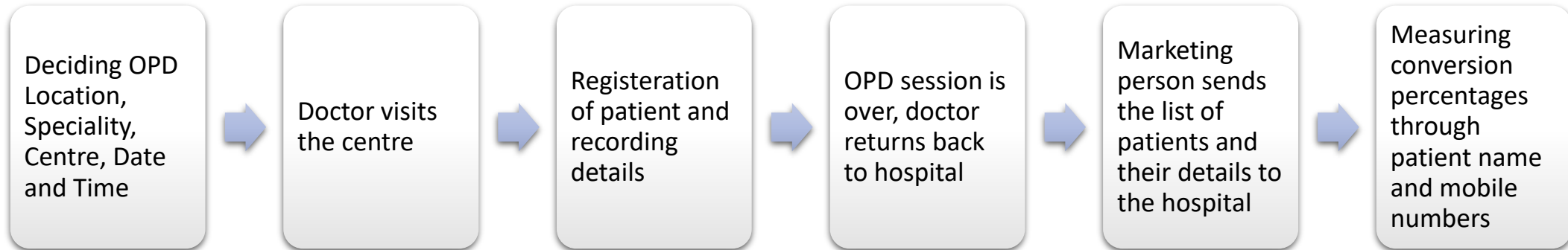
- **Research Type:** Operations Research
- **Study Design:** Interventional Study
- **Research Method:** Mixed method (Qualitative and Quantitative)
- **Study Setting:** The study is conducted in Medanta, The Medicity Gurugram. The Outreach OPDs are done in regions of North and North-east India.
- **Study Period:** 3 months
- **Study Population:** Patients who visit outreach OPDs to receive medical consultations

The study was conducted in five phases, and four other teams of hospital's management, namely, Marketing team, IT team, OCC team and MT team have contributed at different steps.

Phases of Project	Project Timeline (in weeks)							
	1	2	3	4	5	6	7	8
<i>Assessing current scenario</i>								
<i>Planning Intervention</i>								
<i>Implementation</i>								
<i>Monitoring</i>								
<i>Evaluation</i>								

1. Assessing Current Scenario

- The present situation of Outreach OPD marketing activity was understood by interviewing marketing manager and field executives. Secondary data was retrieved from the hospital's MIS.
- The hospital has been conducting outreach OPDs in more than 35+ cities of North and North East India for many years now.
- The location and speciality of the OPD to be conducted is decided based on three major factors:
 - ❑ prevalence of the disease in that area,
 - ❑ requests coming from influential doctors of that area, and
 - ❑ connection of hospital's doctor with that area/region



- Past month conversion percentages and reasons for less than ideal conversions (as mentioned in background) were studied and assessed.

2. Planning Intervention

In this study, the intervention is to setup a CRM process. Based on the findings made in first phase, a CRM process was designed which would:

- ☐ *Ensure complete outreach patient records*
- ☐ *Allow tracking those patients*
- ☐ *Identify patients who need assistance*
- ☐ *Offer them assistance*
- ☐ *Monitor and measure the success of the process*

S. No.	Offerings	Example
1	Priority appointment through telemedicine	Patient is asked to undergo certain diagnostics. He/ She can be followed up to arrange tele consult and coordinate results for the same.
2	Coordination for admission/ bill estimate/ other patient queries.	As per the doctor's recommendation, patient agrees to get admitted. He/ She can be helped with scheduling dates for procedure, admission process etc.
3	Priority appointment in-person at Medanta	In case of another in-person consultation requirement, patient can be assisted with priority appointment scheduling.
4	Resolving distance, financial, or other issues	Patient cannot afford to pay the full bill as per the estimate. He / She can be introduced to hospital's Finance Help Desk.



With the help from IT team a new feature for registering patients and recording patient details from outreach facilities was created into the existing hospital apps: ***Executive App and EMR App.***



The field executives can login into these apps at outreach facilities to do following tasks- registration, finding an existing patient, new visit generation (episode) creation, uploading prescriptions etc

Actions

ta Gurgaon

Cash counter OPD/Second Floor/cash counter

Master Patient Index

Find Patient >

Register a patient >

OP Patient Management

Book Appointment >

Direct Charges >

New Visit Registration >

Place Orders >

Visit Cancellation >

OP Visit Billing

Cancel Bill >

Actions Diary Messages Tasks Preferences

Register a patient

Patient demographics

PREFIX
Ms.

PATIENT NAME *
Rituparna
Das

GENDER *
MALE FEMALE

DATE OF BIRTH / AGE *
DATE AGE
29 Years

New Visit Registration

Ms. Rituparna Das 29Y F
MM01551551

Dr Amit Misri
Cardiology Clinic
Cardiology, First Visit

Visit billing

Visit charges INR 0.00

Discount Applied Discount - INR 0

Net Amount INR 0.00

Patient Payable INR 0.00

COMPLETE

Ward actions

Billing summary
Get financial status of the patient

Record patient orders or notes
Raise orders, record notes or initiate workflows for patients directly

Upload Document
Scan and upload documents like consultation summary, external lab report, referral letter etc., against patient

Ward Acknowledgement
Acknowledge Pharmacy dispensed items for a patient on receipt at the ward

Upload Document

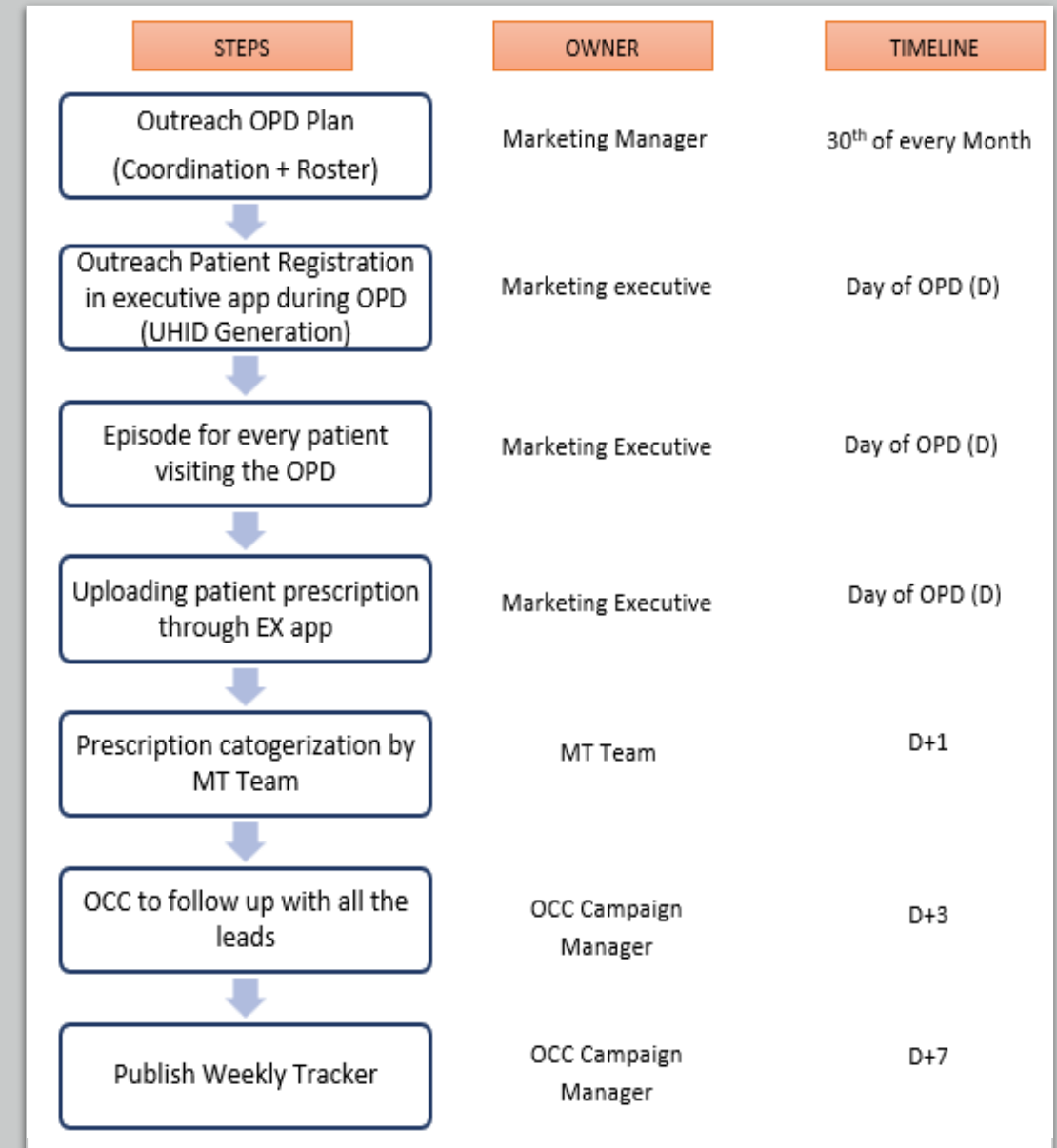
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Click & Upload

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Final Process

- On the OPD day, marketing executive registers outreach patients through Hospital's Executive App, followed by an episode creation.
- Post consultation, prescription of each patient is scanned by the marketing executive and uploaded in the HIS through EMR App.
- Later MT team reads the prescription and categorises the leads into 5 categories: IP/Surgery advised, Cross Referral advised, Medical Management/Follow up, Laboratory Investigation advised, and Radiological Investigation advised and fill other in the database as per the defined format.
- The updated list after every session is further sent to OCC team for follow up. The prospective leads are then identified, and followed up over a telephonic conversation.
- Assistance is provided if needed by the patient
- The follow up progress is updated in the list until the case is closed.



3. Implementation

The marketing executives who would be in the field were trained to use the applications. User manual was created, and online trainings were done in 3 groups. They were guided step by step to use the app and were given SOP for the same. Following the training sessions, a pilot study was done to smoothly implement the project.

The CRM process was launched and made mandatory for all Outreach OPDs in all the cities, effective from 1st March 2020.

4. Monitoring

An interactive dashboard was designed to continuously monitor the progress of the CRM and Outreach activity. Weekly progress reports were prepared and sent to the CEO, Chairpersons, Doctors, Marketing Head, and Senior Project Manager. Following metrics were selected to be constantly measured:

- *Compliance % to upload patient prescriptions*
- *Outreach OP to IP conversion*
- *Outreach OP to OPD conversion*
- *Outreach OP to Tele-consult conversion*
- *% of queries responded (through calls)*
- *% of patients “Not interested”*
- *% of people who had “good and above experience”*

OUTREACH OPD CRM DASHBOARD

Metrics Table

Filters that can be applied as per the needs

Specialty

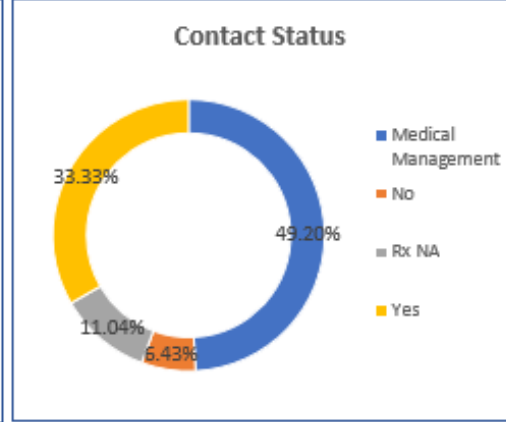
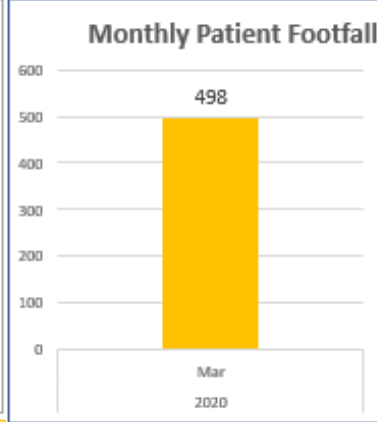
- Cardiology
- CTVS
- Gastroenterology
- Head & Neck On...
- Internal Medicine
- Int...
- Im...
- al
- Nephrology
- K.I

Region

- Assam & NE
- Bihar
- Delhi NCR
- Haryana
- Jammu
- Punjab
- Rajasthan
- IIP

Dr name

- Dr Abdul Muniem ...
- Dr Amit Kumar M...
- Dr Amit Misri
- Dr Anirban Deep ...
- Dr Ashish Nandw...
- Dr Atma Ram Ba...
- Dr Attique Vasdev
- Dr Bhuvan Chugh



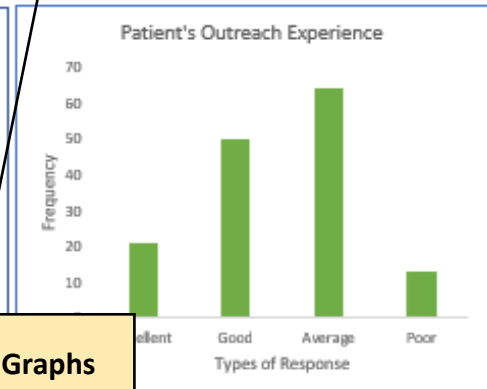
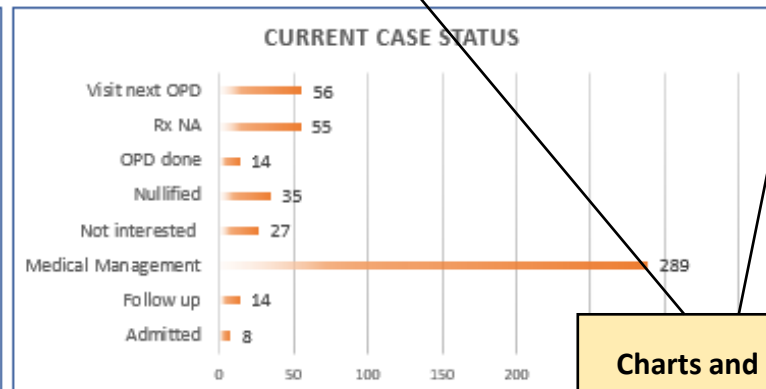
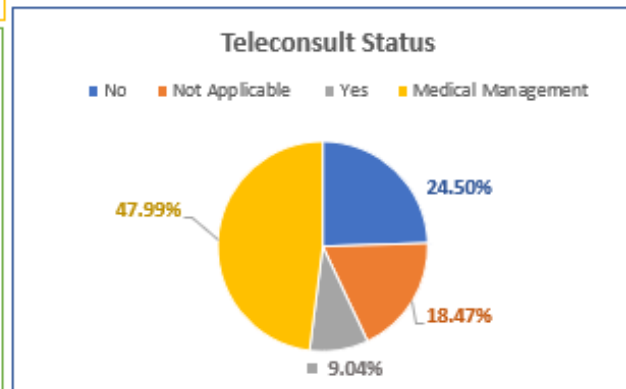
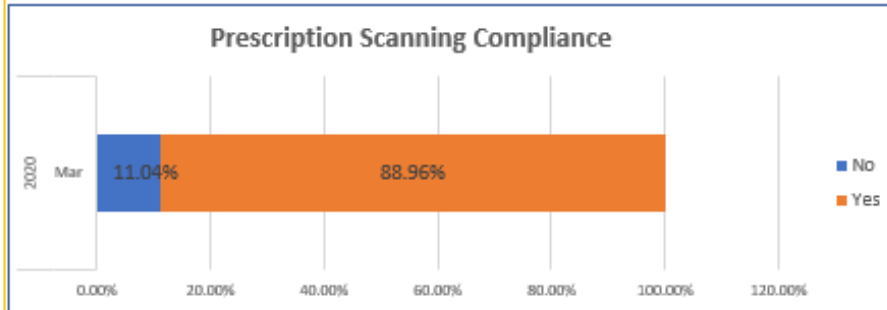
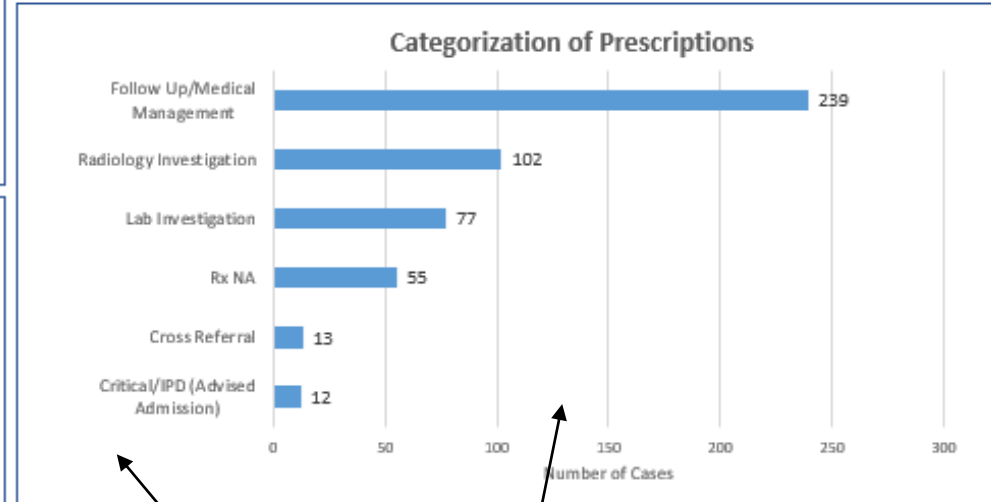
Key Metrics	Values
Outreach to IP conversion	2%
Outreach to OP conversion	3%
Outreach to Teleconsult conversion	9%
In progress follow ups	3%
Not interested cases	5%
Planned Repeat Visits	11%
% Calls made	33%
% Patients with excellent experience	28%

Total Patients Registered

498

No of OPD sessions

25



Charts and Graphs for analysing data

Dashboard for Monitoring CRM Process

5. Evaluation

After conducting 25 sessions of OPD of 16 different specialities, in 9 different states, the evaluation phase had begun to see if the intervention led to improvement in patient footfall and also to measure marketing financial KPIs



Study Population: All patients who have visited outreach OPD centres between during 1st March'2020 to 21st March'2020 and received consultations. Patients from outreach OPDs of all specialities and all cities were included.



Sample Size: 498



Sampling Method: Complete enumeration, as all the patients who fall under the inclusion criteria have been included.



Data collection: Secondary data is retrieved from HMIS, which has been generated through CRM process.



Information about the marketing expenditure was collected from marketing department whereas the revenue generated (from all streams: OPD, IPD, Pharmacy, Telemedicine) was retrieved from the billing records by mapping internal movement of patients.



Data Analysis: Data was analysed with the help of MS Excel features like Pivot tables, Formulas etc. Marketing KPIs were calculated based on the formulas derived from literature review

Results and Interpretations

The findings have been categorised under following three categories:



Post Intervention
improvement



CRM Process Monitoring



Marketing performance KPI's

I. POST INTERVENTION IMPROVEMENT

1. Patient record creation

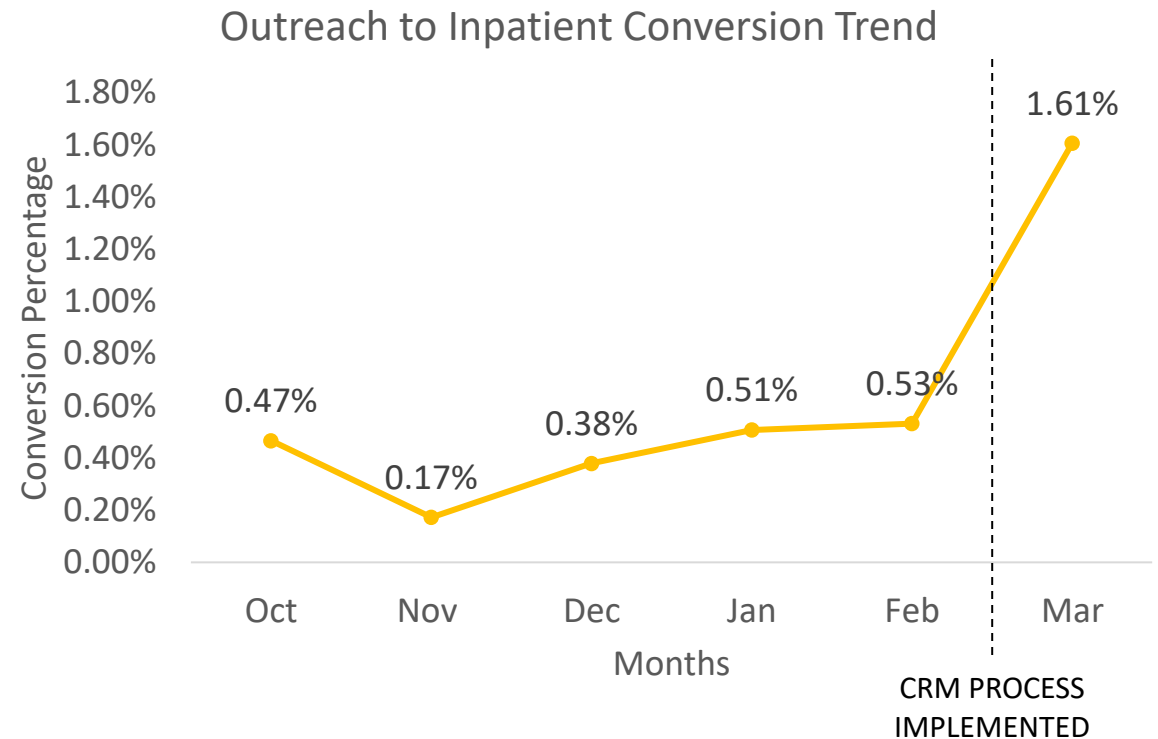
Outreach database of 498 patients was created which stored accurate records of all the patients and their visits to the OPD centre and hospital. These patients can now be uniquely identified whenever they visit hospital or OPD centre.

2. Telemedicine Opt-ins

The intervention also led to 9% of the outreach patients availing telemedicine services. Prior to the intervention, telemedicine service was not opted by the outreach patients.

3. Trend in Outreach to Inpatient Conversions

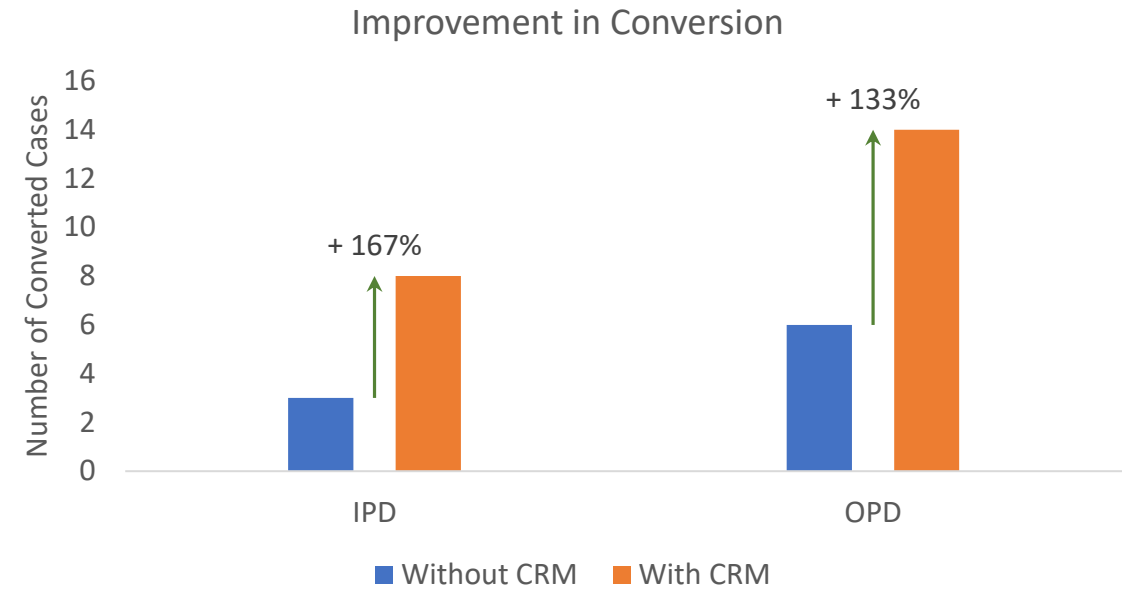
The number of outreach-to-inpatient conversions have been very low from Oct'19 to Feb'20, the lowest being in November i.e. **0.17%**. Post intervention in March '20, the conversion percentage was found to be **1.6%**, the highest in 6 months, thus indicating that the intervention has improved conversion rates.



4. Conversion improvement through CRM in March:

During the study period, the IPD and OPD conversion rates in the absence of CRM would have been 0.6% and 1.2% respectively. But, due to patient follow-ups, the actual IPD and OPD conversion rates were 1.6% and 2.8% respectively.

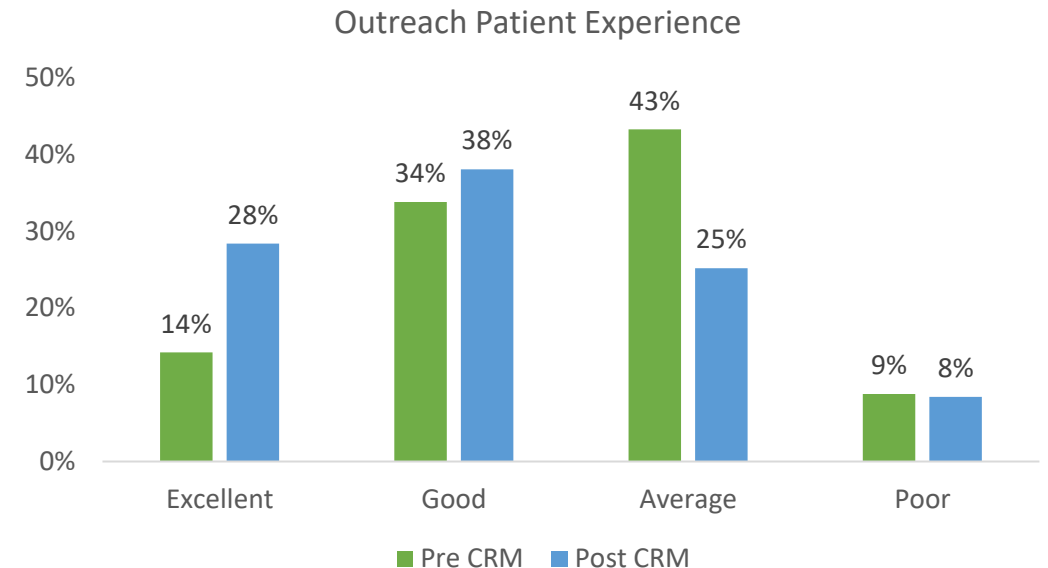
The IPD conversions were improved by 167% whereas OPD conversions were improved by 133% due to CRM. This suggests that CRM initiative improved both OPD and IPD conversion percentages.



5. Improvement in Outreach Patient's Experience:

Around 28% of the patients said that their experience with the Outreach services has been excellent followed by 38% of the patients who said their experience has been good.

Percentage of patients who have rated their experience as Excellent and Good post intervention is more than those in the previous month.



II. CRM PROCESS MONITORING

1. Patient Registrations

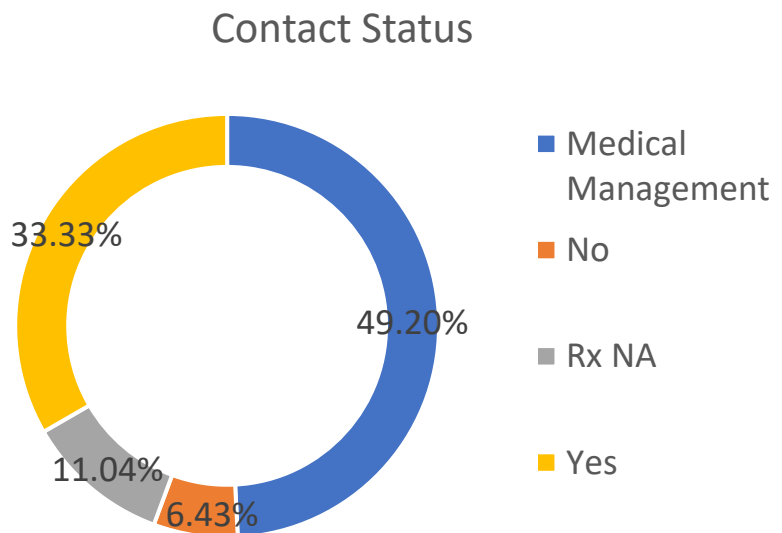
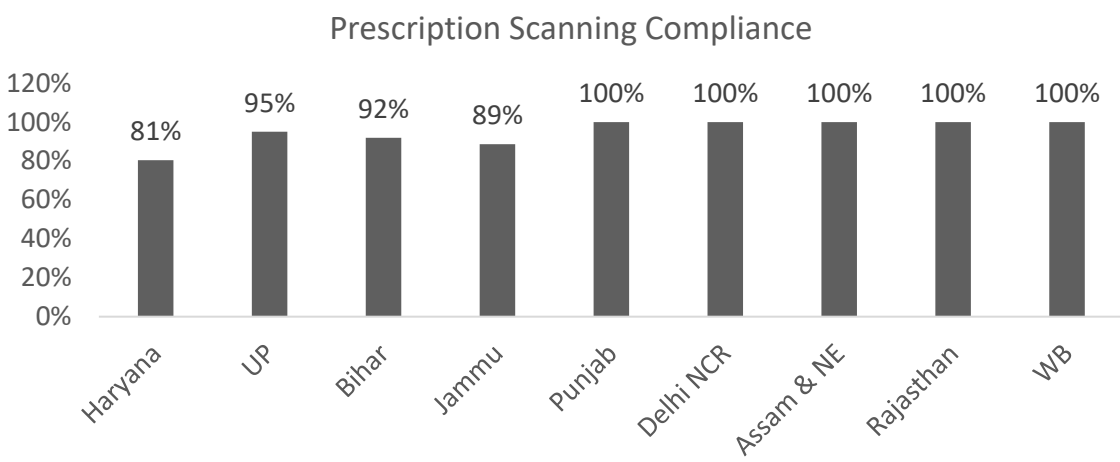
It was found that the app for registration was being used in 100% of the OPD sessions. All 498 patients who had made visits to these OPD centres were registered in the HMIS through the app.

2. Prescription Scanning Compliance

In 5 out of 9 regions, compliance to prescription scanning was found to be 100%. In remaining 4 regions: Haryana, UP, Bihar and Jammu non-compliance was reported. The maximum non-compliance was reported in Haryana (19%), followed by Jammu (11%), Bihar (8%) and UP (5%). Low compliance in these regions could be attributed to poor net connectivity, app related issues, missing out on patient by marketing person etc.

3. Patient Tracking

Out of all the cases, the prescriptions were not found for 11% of the patients. In 49% cases, patients were not contacted as they were under medical management. The team could only reach to 33.3% of the patients as in remaining 6.4% cases, the contact numbers were either invalid, wrong, or not reachable.



4. Prescription Categorisation

Majority of the cases were of medical management. In 39% of the cases patients were asked to get radiology or laboratory investigations done. In very limited cases patients were cross referred. Only 3% of the cases were advised admission. Patients who were cross referred, advised admissions and tests were followed up.

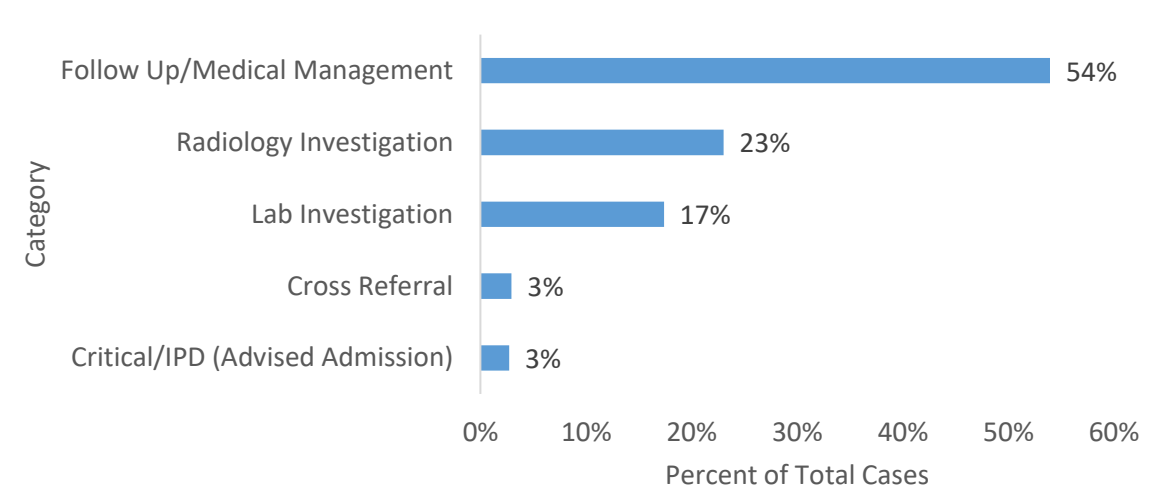
5. Patient Follow ups

The outreach to IP conversion was found to be 1.6% whereas outreach to hospital OPD conversion was 2.8%. Another 2.8% of the patients were still being followed up.

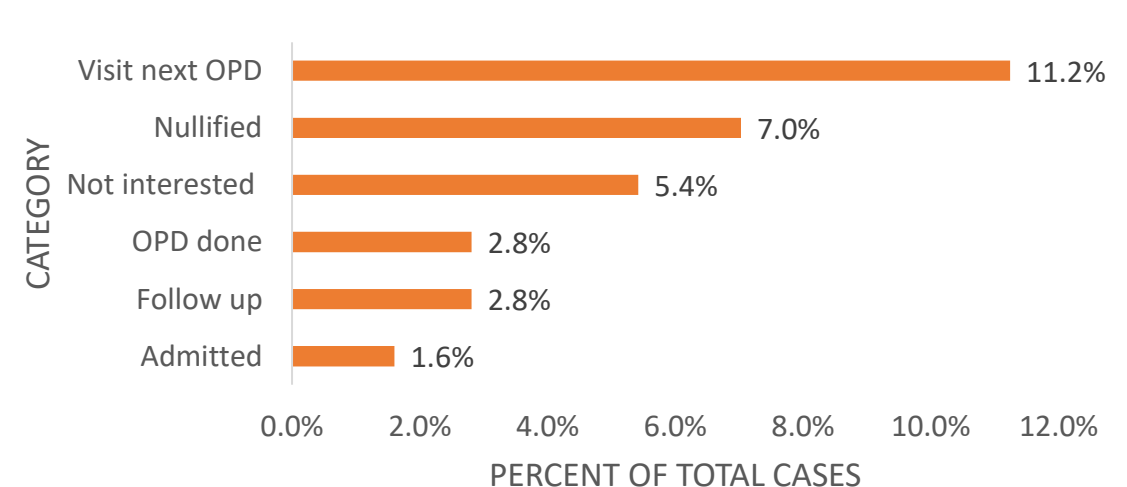
In 5.4% of the cases the patients were not interested and do not wish to be called further.

Similarly, 7% of the cases were nullified because the team couldn't reach to the patients even after attempting thrice. Around 11.2% of the contacted patients planned to make a repeat visit in next outreach OPD.

Categorization of Prescription



Current Case status



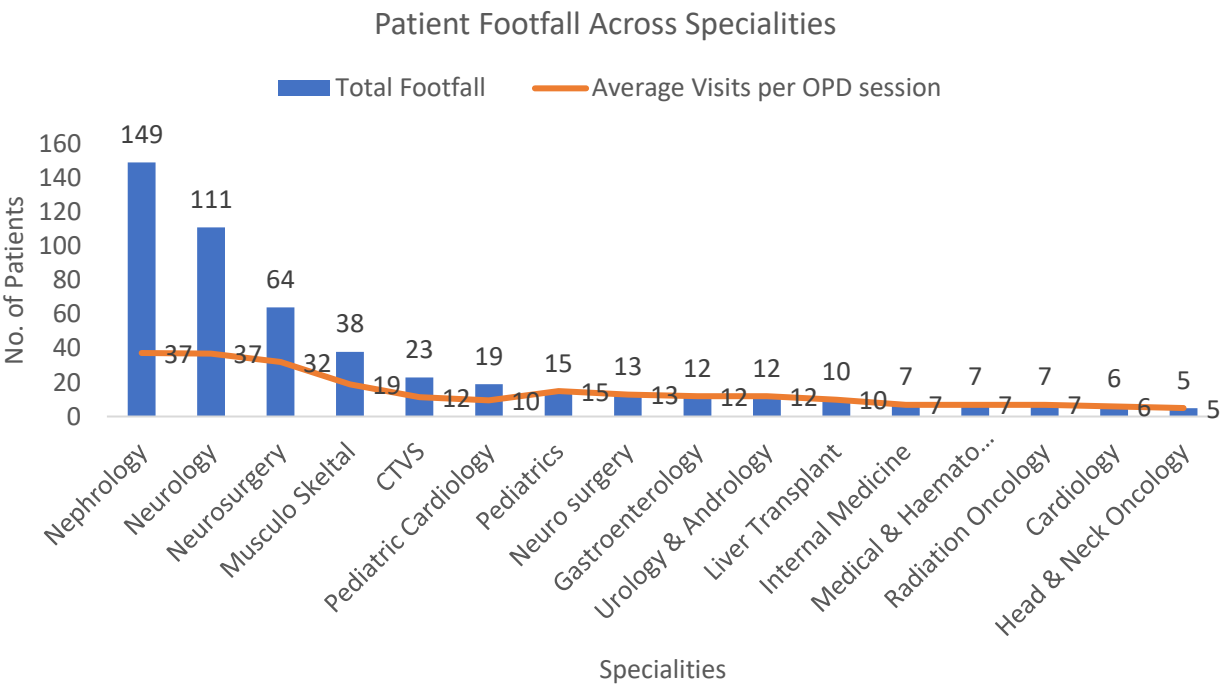
III. MARKETING PERFORMANCE KPI'S

1. Patient Reach

A total of 498 patients were reached and registered in the hospital’s system after 25 OPD sessions of 16 specialities. The maximum average patient footfall was seen in Nephrology OPD and the minimum in Head and Neck Oncology OPD. OPD sessions of other specialties like Neurology, Neurosurgery, Musculoskeletal, CTVS and Paediatric Cardiology witnessed high patient footfall too.

2. Conversions

Around 2.8% of the leads availed hospital’s OPD services, whereas 1.6% of them got admitted in the hospital. 9% of the leads agreed to receive tele-consultations. Overall, 13.4% of the leads became customers.



Conversion Type	Formula	Value
Outreach to OP	Patients who have visited hospital’s OPD / Total Leads * 100	2.8%
Outreach to IP	Patients who have been admitted in the hospital / Total Leads * 100	1.6.%
Outreach to Tele-consult	Patients who have received tele-consults / Total Leads * 100	9%

3. Financial Indicators

Four metrics - Cost Per Lead, Lead Value, Customer acquisition cost and ROI - were calculated as per the given table.

The lead value was found to be 3.23 times of the cost per lead.

Lets say, Rs. 1255 is actual cost borne by the marketing department for generating one lead, then each lead is bringing Rs. 4054 to the hospital.

An average of Rs 9328 is spent for acquiring each customer through outreach activity.

The return is 2.2 times more than the investment made on the outreach marketing in the study period.

Metric	Formula	Value*
Cost Per Lead	Total cost to acquire leads / Total leads	= Rs.625000 / 498 leads = Rs.1255 per lead
Lead Value	Total Sales Value / Total Leads	= Rs. 2018750/498 leads = Rs. 4054 per lead
Customer Acquisition Cost	Total marketing expense / Number of new customers acquired	= Rs 625000 / 67 = Rs. 9328
Return on Investment	(Revenue – Investment) / Investment	= (Rs. 2018750 - Rs 625000) / Rs 625000 = 2.2

* Given expense and sales values are for representation purpose only, and do not mirror actual financial values from the institution where this study was performed.

Conclusion

- A customer relationship management system was successfully developed which led to database creation and lead management.
- Through CRM dashboard, continuous monitoring of CRM process is ensured, which is critical for taking real time decisions. The data will help identify better performing cities, specialties, doctors etc so that better OPD plans can be made in future.
- The results showed that around 20 patients visit each outreach OPD session. Teleconsultations conversion rates suggest strong scope of using this stream for telemedicine promotion and revenue maximization. The intervention has helped in improving patient footfall significantly, as the IPD and OPD conversions post intervention were found to be 1.6% and 2.8% respectively, which is the highest in past 6 months.
- Through the outreach data, it became possible to determine the effectiveness of this marketing activity. A higher ROI and lead value indicate towards the success of the marketing activity and justifies the marketing costs borne by the hospital.
- Overall, introduction of the new process has allowed us to create visibility into success of marketing activities and its strategies towards patient experience & retention.
- Although it's not wise to evaluate the effectiveness of CRM initiative based on a short term study, and it would have been more appropriate to make final conclusions about the same after a substantial period of time, but the given study can definitely provide a direction for the hospital managers and researchers to further work upon.



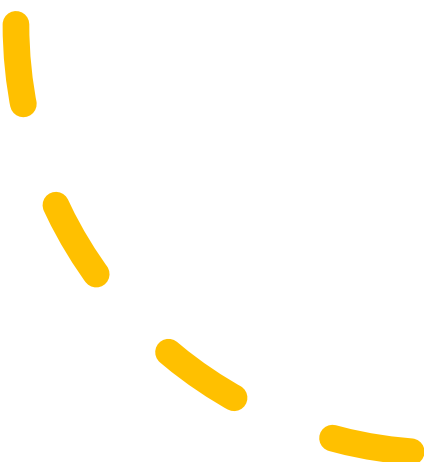
SUGGESTIONS

- Automatic prescription scanning machines (provided by companies like Doxper and Medtrail) can be used. The CRM process can be automated further to remove chances of error and enable smooth functioning.
- Regions where footfall is less in Outreach OPD centres, promotional methods can be used like advertising on Radios etc.
- It is possible that the outreach patient who has already been registered might get register again in the hospital later at the time of admission, leading to two IDs for the same patient, this can be avoided by educating outreach patients and confirming the same at the time of admission



SCOPE OF STUDY

- Once the activity resumes, trends over months can be studied to make strategical changes in the outreach marketing approach.
- Impact on brand awareness and recall can be studied in outreach OPD cities.
- Comparison of financial KPI's of all marketing activities can be done to identify the most profitable marketing method.



Thank You!