A Study on Analysis of Factors contributing towards Discharge Against Medical Advice (DAMA)

Case of a Multispecialty Hospital in Rajkot, Gujarat

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INTRODUCTION

- Paradigm shift in healthcare sector in India towards **Patient satisfaction** and **Patient-centric models**
- All efforts by hospital administration usually centered around the patient – but in some cases the patient might **refuse** to go forward with care planned leading to **Discharge Against Medical Advice (DAMA)**
- DAMA **incidence** stands at **0.8% - 2.2%** of the total discharges at tertiary care and teaching hospitals throughout the world
- Past literature suggests DAMA increases the risk of **readmission and mortality**, leading to **increased costs and utilisation of resources**, affecting doctor and patient.
- Reasons for DAMA - **financial** constraints, poor **infrastructural** facilities, unsatisfactory **behaviour** of doctor and nursing staff, however legally a doctor **cannot refuse**
- Therefore there is dire need to plan out **strategies** in order to **reduce the prevalence** of DAMA and **improve patient satisfaction** and loyalty

DAMA - Term used in healthcare facility when a patient leaves a hospital against the advice of the treating doctor. While such an incidence may go against patient's health, there are legal and ethical issues that the healthcare facility will have to deal with.

OBJECTIVES

- To analyse the rate of occurrence, potential causes and consequences of DAMA
- To assess the impact of certain interventions in controlling occurrence of DAMA
- To evaluate the impact of retention of the patients going for DAMA on the overall revenue of the hospital

RESEARCH QUESTIONS

1. What is the rate of occurrence, causes and consequences of DAMA in the multispecialty hospital in Rajkot, Gujarat?
2. What is the impact of reduction in DAMA cases on the overall hospital revenue?

LITERATURE REVIEW

AUTHOR	TITLE OF STUDY	SOURCE	SAMPLE	FINDINGS	YEAR AND LOCATION
Nikhil Gautam, J. P. Sharma, et al	Retrospective Evaluation of Patients Who Leave against Medical Advice in a Tertiary Teaching Care Institute	Indian Journal of Critical Care Medicine	Hospital records were screened for over a year. Patient demographics and disease characteristics were noted.	Out of the total patients admitted in the year 2015. 3.3% patients got DAMA. Average hospital stay of these cases was 4 days	2015, North India
Bhooma devi A, Baby T. M, Catakam Keshika	Factors influencing discharge against medical advice (DAMA) cases at a multispecialty hospital	Journal of Family Medicine and Primary Care	The study included all the patients admitted during the course of study	Patients who are above 60 years of age constituted majority of DAMA cases (46%). 31% of DAMA patients left the hospital for affordability issue	May 2017-April 2018, Chennai
Jafar-Sadegh Tabrizi, Asaad Ranai	Discharge against Medical Advice: An Interventional Study	International Journal of Hospital Research	The study enrolled all DAMA patients hospitalized in Sina Hospital of Tabriz (Iran)	Out of the total discharged 4.4% opted for DAMA. Factors contributing were family concerns followed by staff factors, and treatment factors. After some strategies there was 36% reduction	2013, Iran

METHODOLOGY

Study Design

- Descriptive - Interventional
- Prospective

Duration & Setting

- 01/02/2020 to 31/05/2020
- HCG Hospital, Rajkot

Sampling Technique

- All cases (population) included in the duration

Ethical Considerations

- Approved from ethical committee
- Verbal consent

Data Source

- Primary Data

Data Analysis

- Microsoft Excel

Tools

- Direct Observation
- Interaction with consultants & nursing staff
- Patient's medical records and forms
- Counseling of patients and relatives

Data Collection

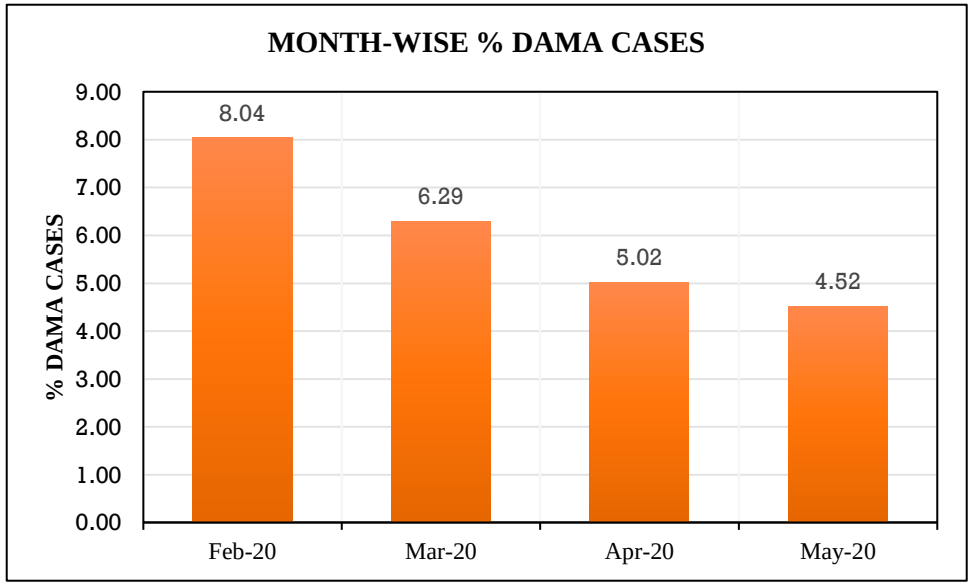
- Descriptive part aimed at identifying the rate and causes of DAMA.
- Second part aimed at implementation of interventions based on the insights from the first part.

Data Collection

- DAMA rate was compared during both phases.
- Impact of retention of such patient on overall revenue was evaluated

RESULTS – Number of DAMA Cases

	Feb-20	Mar-20	Apr-20	May-20	Total
Total Discharges	336	302	239	177	1054
% DAMA	8.04	6.29	5.02	4.52	6.26
DAMA Cases	27	19	12	8	66
% Reduction		**29.63**	**36.84**	**33.33**	**70.73**



- Maximum DAMA cases seen in February: **27 (8.04%)** out of 336 total discharges in that month.
- Compared to February, DAMA cases reduced by **70.7%** in May

Table 1, Figure 1: Month- wise DAMA cases as part of total discharges

RESULTS – Department wise DAMA Cases

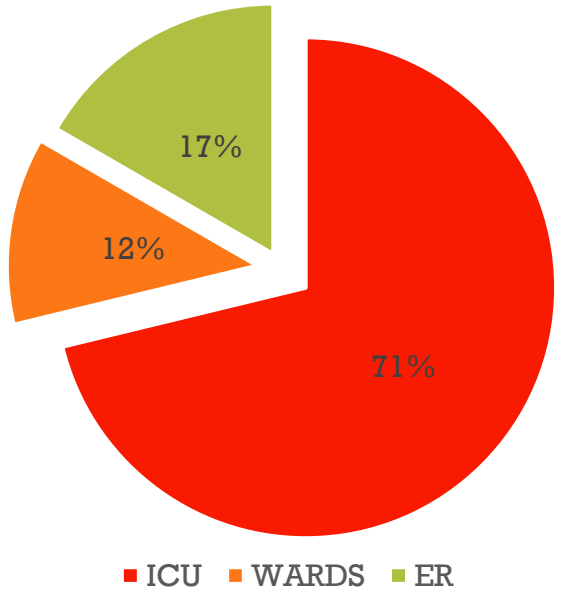


Figure 2: Overall Department wise DAMA cases

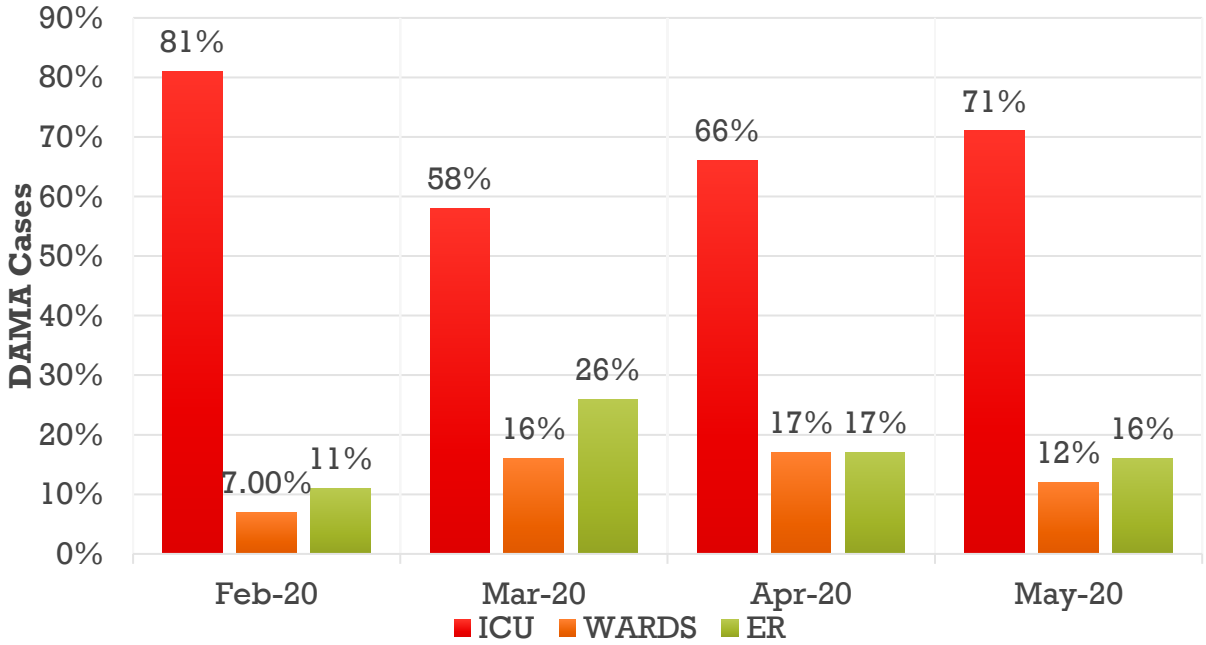


Figure 3: Monthly Department wise DAMA cases

Department wise distribution showed 47 (71%) were from ICU, followed by ER ,8 (17%) and then wards, 11 (12%)

RESULTS – Speciality wise DAMA Cases

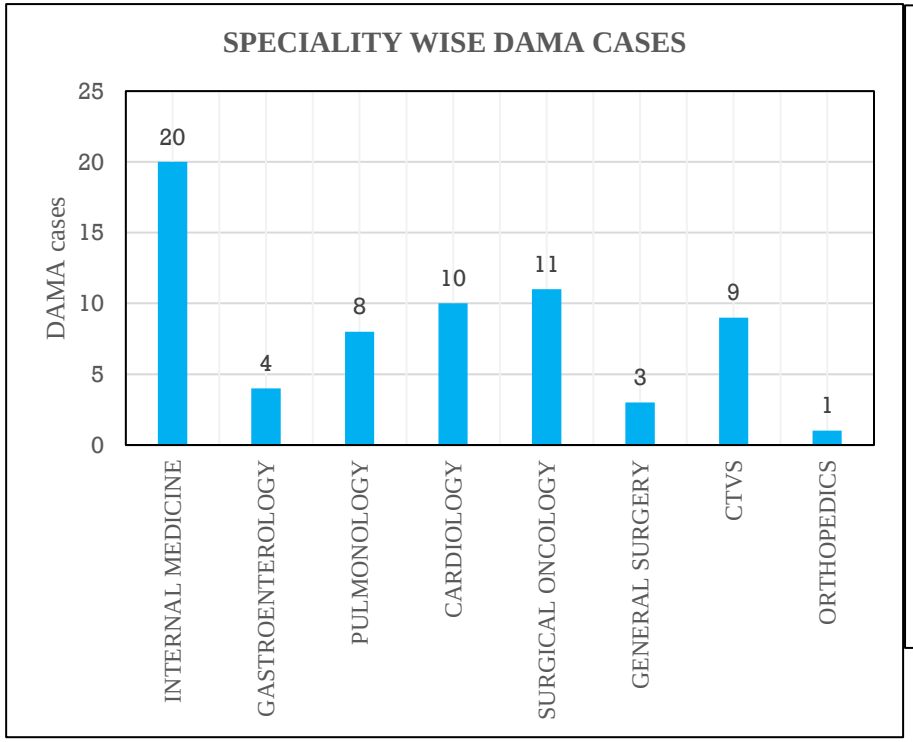


Figure 4: Overall Speciality wise DAMA cases

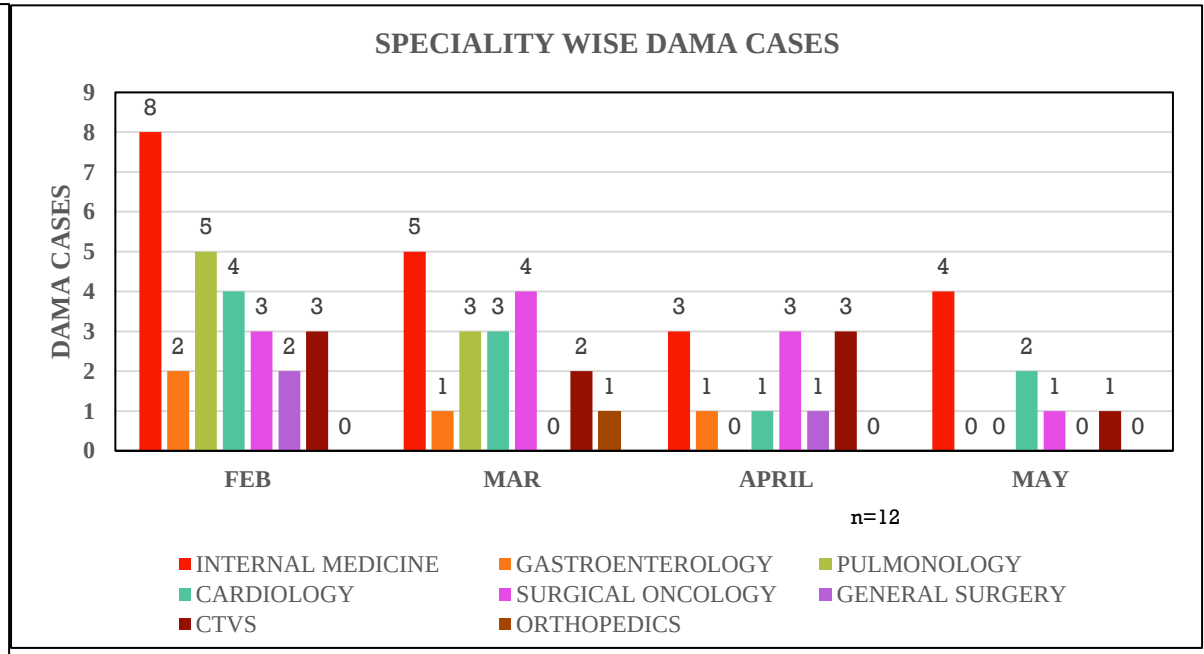


Figure 5: Monthly Speciality wise DAMA cases

The Speciality wise analysis showed: 20 in Internal Medicine and critical care (30.30%) followed by 11 in Surgical Oncology (16.67%) and 10 in Cardiology (15.15%)

RESULTS – Factors causing DAMA Cases

CAUSES	TOTAL
FINANCIAL REASONS	29
POOR PROGNOSIS	11
DISSATISFIED WITH CONSULTANTS	5
DISSATISFIED WITH NURSING/SUPPORT SERVICES	5
TRANSFER TO OTHER HOSPITAL	5
UNWILLING TO PROCEED WITH COP/HOSPITALIZATION	5
PERCEIVED LONG LENGTH OF STAY	3
POOR COMMUNICATION BY HCPs	2
ENVIRONMENT NOT SUITABLE	1
Total DAMA cases	66

Table 2: Major factors contributing towards DAMA

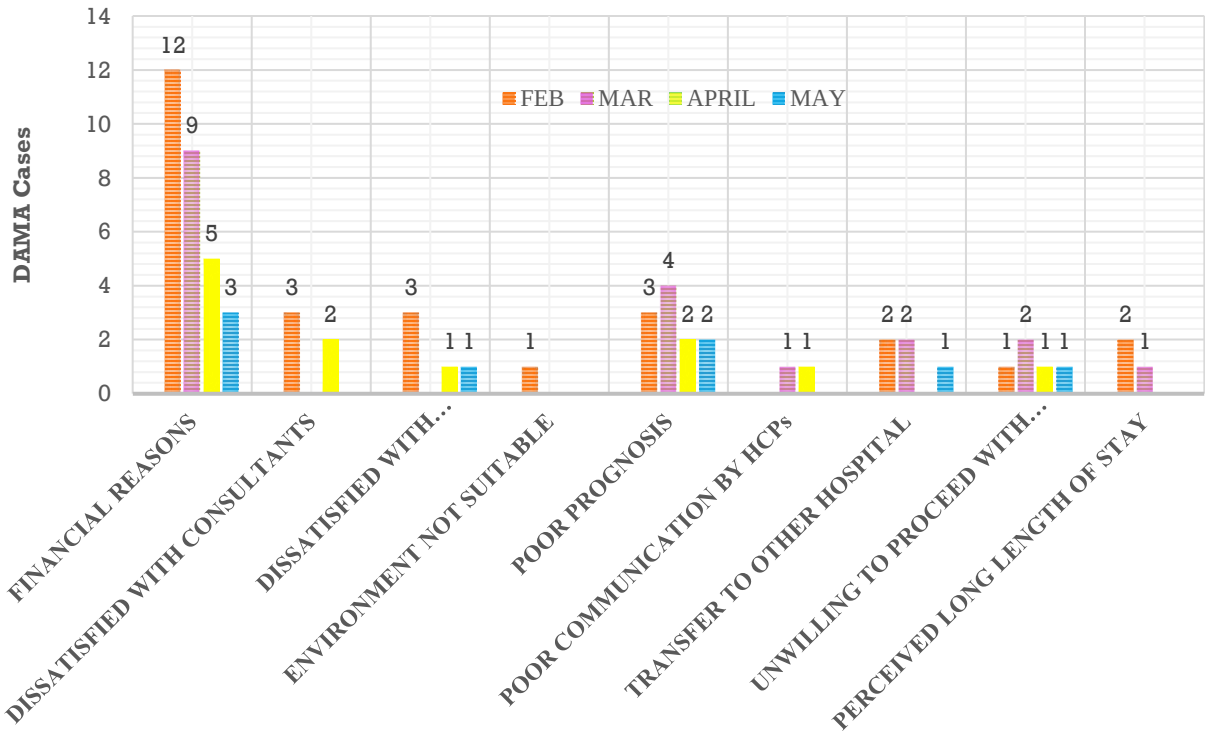


Figure 6: Major factors contributing towards DAMA monthly

The major factors contributing towards DAMA were mainly financial constraints (43.93%), poor prognosis (16.67%) and unwillingness to proceed with the advised care of plan (7.57%).

RESULTS – Factors causing DAMA Cases (2)

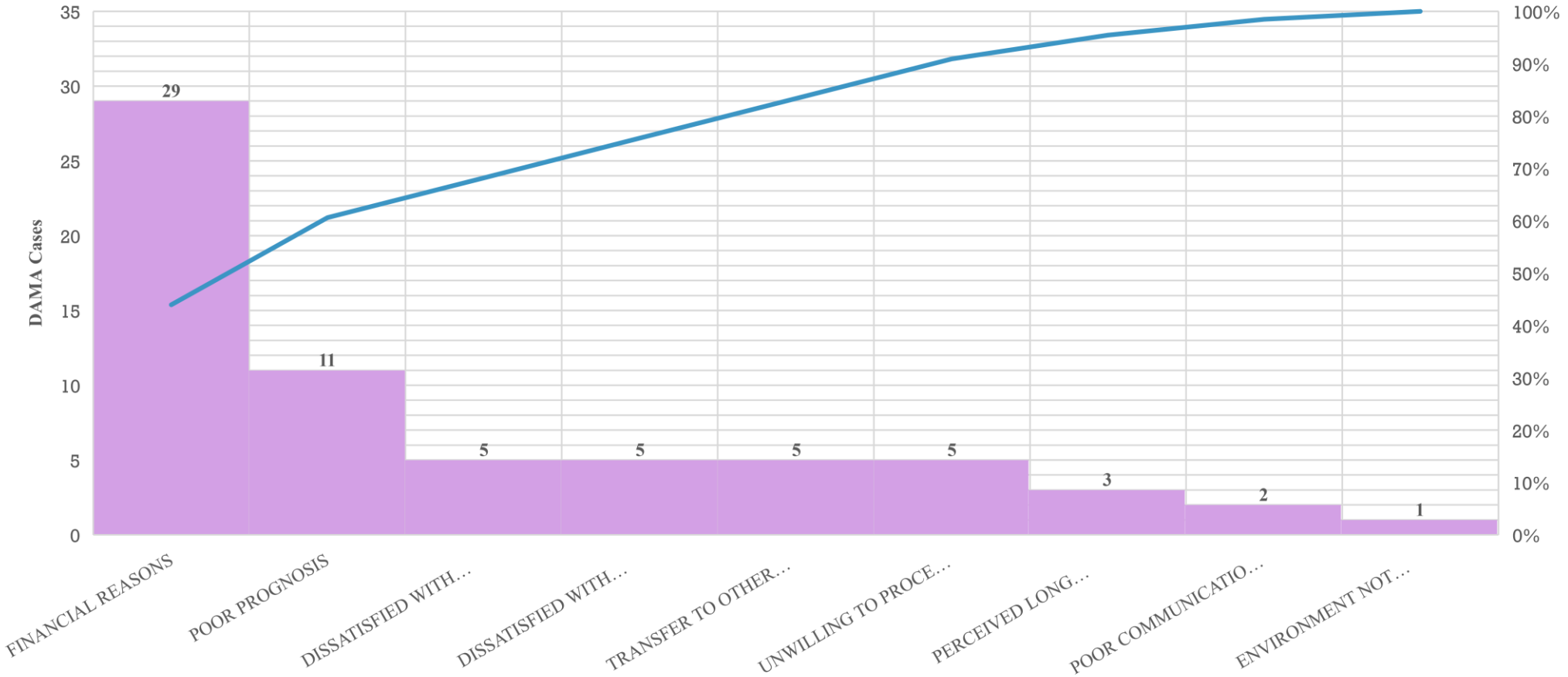


Figure 7: Pareto Chart for Major factors contributing towards DAMA

The Pareto Chart suggests the **first four factors** are causing **80% of the Discharges Against Medical Advice**. So, we should mainly focus on them to bring about a change in occurrence of DAMA.

RESULTS – Consequences of DAMA

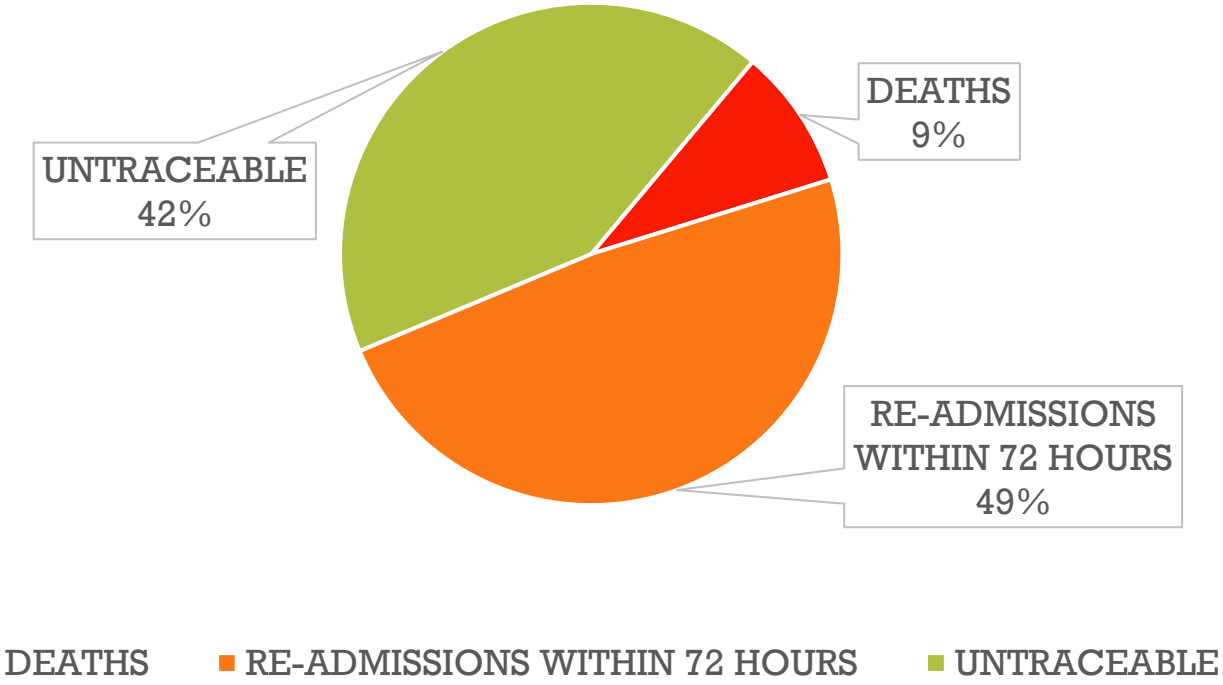


Figure 8: Consequences of DAMA

With regards to the final outcomes for patients DAMA, about 49% cases had readmissions within 48-72 hours of DAMA while in 9% cases, mortality was being reported.

RESULTS – Intervention Outcomes

16.05% Revenue Growth

FACTORS OF DAMA	INTERVENTION DONE
Financial reasons	Counselling and discount provision
Dissatisfied with consultants	Discussion with consultant and training
Dissatisfied with nursing/support services	Training of staff and monitoring
Environment not suitable	Reviewing infrastructure facilities
Poor prognosis	End of life care /counselling
Poor communication by HCPs	Training and monitoring of staff
Transfer to other hospital	Counselling
Unwilling to proceed with cop/hospitalization	Counselling
Perceived long length of stay	Counselling

Table 3: Interventions designed to reduce DAMA rate

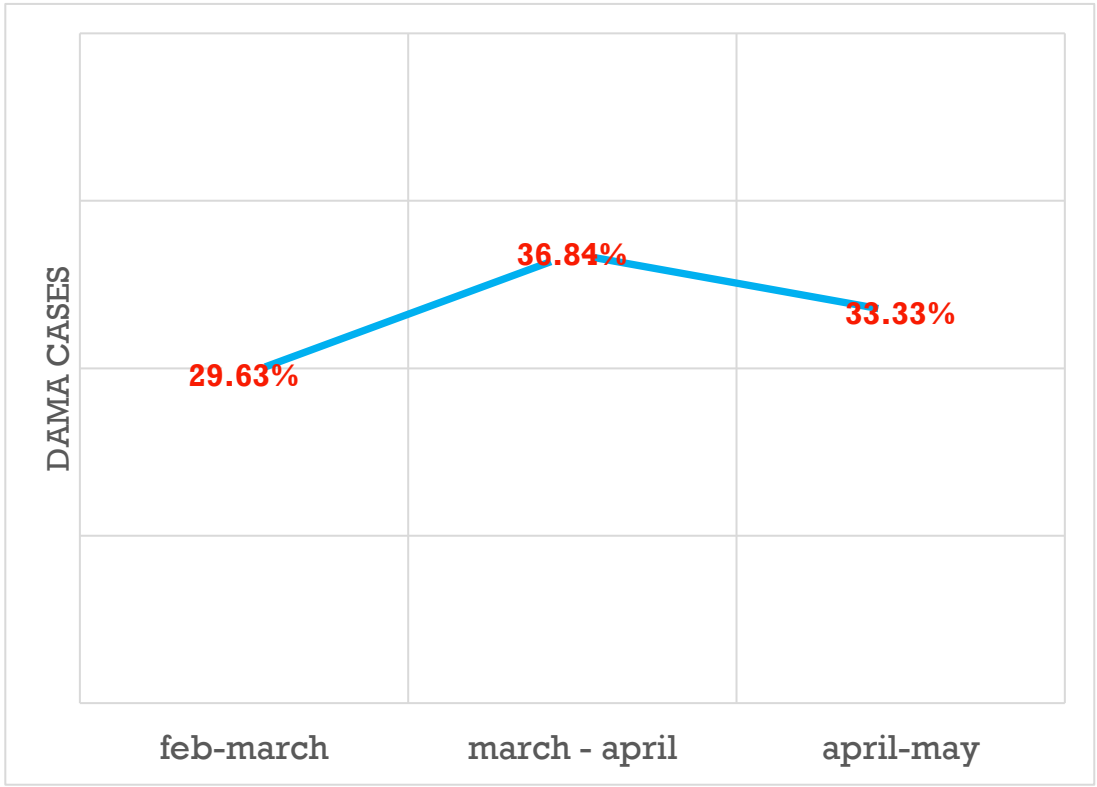


Figure 9: % change in DAMA cases month to month (MoM)

In view of the factors contributing towards DAMA, some **interventional strategies** were devised to retain the patients who were going for DAMA. The overall % reduction in DAMA cases from Feb to May was **70.37%.**

DISCUSSION AND CONCLUSIONS

- DAMA is a **global problem** addressed quite extensively affecting patient, family and involved health care professionals.
- Although the cases have reduced for DAMA, we can clearly see the **factors** affecting the same along with various departments/specialties involved.
- In view of the factors contributing towards DAMA, some **interventional strategies** were devised in order to retain the patients who were going for DAMA - skillful communication with patient's relatives, providing negotiable management options, discussion with the consultants and nursing staff
- After the implementation of interventional strategies, a net reduction of **70.37%** in DAMA cases was observed from Feb to May 2020. Also, a net increase of **16.05%** in revenue was also achieved due to retention of patients who were about to go for DAMA.

Thus, the importance of DAMA should be considered in every hospital and measures should be taken in order to address all consequences and outcomes it may lead to.

Hospital DAMA Form

HCG
adding life to years

HCG Hospitals
LAMA / DOR Information Form
Left against Medical Advice / Discharge on Request

Addressograph

Form 13
MRD

To,

The Clinical Head / Centre Manager

This following patient is Leaving Against Medical Advice (LAMA) / Dishcarged on Request (DOR)

Patient Name :_____ Date : _____

UHID No. :_____ IP No. :_____ Time : _____

Attending Consultant's Name : _____

Provisional Diagnosis : _____

Tick as appropriate ☐ LAMA ☐ DOR ☐ Transfer to other hospital

Administrator's Comment :

Reasons for Leaving :

- ☐ Dissatisfied with physician/Nursing Service/Attendants
- ☐ Financial reasons
- ☐ Environment not suitable
- ☐ Dissatisfied with room service

Informed By :

- ☐ CMA & Nursing Director to give comments
- ☐ Centre Head / Operations to intervene
- ☐ Manager (Operations) to give comments
- ☐ Manager (Operations) to give comments

Other Comments if any : _____

(Please use back side of this form if you want to give further details)

Date & Time _____ Signature of Head, Operations

Date & Time _____ Patient's/Relative's Signature

Name : _____ Relationship to patient : _____

Informed to CM & CMA on Phone by Dr. _____ Date & Time :_____

Action taken by Head - Clinical Services / Centre Head : _____

(Please use back side of this form if you want to give further details)

Date & Time _____ CMA/Centre Head's Signature

CG/HHR/MRD/013/R0/E

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