

Summer Training at



April 2019 - May 2019

Prescription Behavior of Dentists Towards Pain Relieving Medications

by

BRIJESH KANJANI

Under the guidance of

DR. ABHISHEK DADHICH

MBA pharmaceutical management

2018-20



CERTIFICATE

This is to certify that **Mr. Brijesh Kanjani** has undergone Summer Training at **Group Pharmaceuticals Ltd.** from 1st April 2019 to 31st May 2019.

The candidate himself completed the project assigned to him in summer training. His approach to project was sincere and proactive. This Summer Training is in partial fulfillment of the course requirement recommended for the award of MBA in Pharmaceutical Management.

I wish him success in all his future endeavors.



Dr. Abhishek Dadhich
Assistant Professor
Pharmaceutical Management
IIHMR University, Jaipur



Dr. Sandeep Narula
Dean-in-charge (Associate Professor)
Pharmaceutical Management
IIHMR University, Jaipur



Group Pharmaceuticals Ltd

healthy smiles matter

1116 Hubtown Viva,
Shankarwadi, Jogeshwari East,
Mumbai - 400 060.
+91 228722695 / 68182222
mumbai@grouppharma.in

Date: 28.06.2019

TO WHOM SO EVER IT MAY CONCERN

This is to certify that Mr. **Brijesh Kanjani**, student of MBA Pharmaceutical Management, School of Pharmaceutical Management, IIHMR University; Jaipur has completed his Summer Project on "**Prescription Behaviour of Dentists towards Pain Relieving Medications**" from **1st April, 2019 to 31st May, 2019** at **Jabalpur** under the guidance of Mr. Nishant Srivastava, Product Manager.

The candidate completed the project assigned to him as part of his summer internship in our organisation. During the project, he is exposed to various facets of market research in the pharmaceutical industry.

His approach to the project was sincere and we wish him success in his future endeavours.

For Group Pharmaceuticals Ltd.,

Ann Attavar

Executive Director

CIN: U24239MH1980PLC022889

Registered Office

W / 46(B) MIDC, Tarapur Industrial Area,
Palghar - 401506.

+91 80 87655188

gpltarapur@grouppharma.in

ACKNOWLEDGEMENTS

The project report defines and signifies the sheer mannerism in which numerous interacted tasks are performed by a team composed of committee members. Each member bearing their own importance and providing contribution which is nothing short of being invaluable.

The day which marked the beginning of my project report bears a special status to all of us; I begin with the proceedings and support of **Dr. Abhishek Dadhich**, Assistant Professor, School of Pharmaceutical Management, IIHMR-U.

I would also extend my gratitude to **Mr. Laxmikant Sugandhi**, General Manager – Business Development, Group Pharmaceuticals Ltd. and **Mr. Nishant Shrivastava**, Product Manager, Group Pharmaceuticals Ltd.

I also give thanks To **Dr. Sandeep Narula**, Dean-in-charge, School of Pharmaceutical Management, IIHMR-U, Jaipur for their valuable support in the preparation of the project report.

Last but not the least, I wish to remember with the deep sense of gratitude the encouragement provided to me by my faculties, friends and batch mates.

DATE:

BRIJESH KANJANI

PLACE: JAIPUR

MBA PM 10

IIHMR-U/02/2018-20/0128

TABLE OF CONTENTS

ACKNOWLEDGEMENTS	2
COMPANY PROFILE	4
INTRODUCTION	5
THERAPY GAP ANALYSIS	6
RESEARCH OBJECTIVES	8
RESEARCH METHODOLOGIES.....	9
DATA ANALYSIS AND INTERPRETATION	10
ANALYSIS OF RESULTS	14
FINDINGS AND RESULTS	16
MARKETING PLAN	17
STRATEGIC MARKETING.....	17
ANNUAL BUDGET PLAN AFTER THE LAUNCH	18
CONCLUSION.....	21
SUGGESTIONS AND RECOMMENDATIONS	22
REFERENCES	23
ANNEXURE.....	24

COMPANY PROFILE

Group Pharma is an innovative pharmaceutical company having 38 years of proven expertise in dental and oral care. They constantly keep upgrading technologically and streamline our operations to ensure best industry practices.

Group Pharma has three facilities across India, manufacturing multiple dosage forms and adheres to the highest standards. The facility at Tarapur near Mumbai is specially designed and equipped to manufacture moisture sensitive tablets requiring strict humidity control. Group Pharma was the first company in India to manufacture denture cleansing tablets. The facilities have been set up for the manufacture of toothpaste, gels, creams, syrups and mouthwash. The infrastructure, protocol, documentation and procedures at all our factories comply with WHO's current Good Manufacturing Practices (cGMP). Our operations include exporting products to over 40 countries.

The Marketing and Distribution strength is heart of any good business activity. The consistent growth of the company can be orchestrated to success in this area. They have a committed and competent team of 300 Medical Representatives guided by over 70 Field Managers who directly meet over 60,000 Doctors every month. Required marketing and training inputs are guided by the Product and Brand Management team.

At Group Pharma, the fundamental philosophy is – “*giving is receiving* “. Among many, they take pride in the following two projects:

Government Higher Primary School, Nasigere, Malur Taluk-Kolar District, Karnataka- “Group Pharma adopted this school with the objective of making it a happy place for learning. We are achieving this by encompassing numerous aspects of education and learning processes. Group Pharma provided not only the essentials like books, school accessories, ID cards and uniforms but also installed a water purifier, tiled floors, solar panels for power supply throughout the school-day and computers to facilitate newer learning methods.”

Angels Orphanage, Bengaluru- “Group Pharma has taken under its fold an orphanage that takes care of at least 50 kids; aged 5-16 years. This venture is supported not only by Group Pharma financially but also by its employees who regularly visit the orphanage to offer their time and talents.”

INTRODUCTION

Pain management has always been an important part of dental care. Nonopioid analgesics; paracetamol as an antipyretic analgesic and nonsteroidal anti-inflammatory drugs are commonly used in dental pain. Analgesic or pain relievers are prescribed by 100% of dentists, close to 60-70% of dentists prefers non opioid formulations and 9-10% goes for combination therapy of both. Analgesics are an integral part of dental prescription for symptomatic relief as well as post-operative procedures. Treatment of pain in dentistry is focused in achieving the satisfactory level of analgesia at low doses possible.

NSAIDs are very effective in the initial pain with inflammation and they provide excellent analgesia for mild to moderate pain. Because of their analgesic and anti-inflammatory effects these drugs are commonly used in dental pain. NSAIDs effects via inhibiting the cyclooxygenase (COX) enzymes which has primary role in the synthesis of prostaglandins and other eicosanoids. Pain is a protective warning sign activated by tissue damage during different pathological processes. The clinical manifestation of pain is individual, multifactorial and very complex and requires the implementation of sound pharmacological approaches.

The prescription of analgesic drugs and treatment of dental pain is more complex when it is accompanied with other health disorders and diseases. In these cases, quantification of pain and its evaluation and treatment is a convoluted clinical challenge. The main complex challenges are patients with diabetes and other chronic diseases, patients with renal and hepatic insufficiency and patients with opioid addictive disorders.

The characteristic of odontogenic pain is so-called referred pain, which means that the damage located in one part of dental tissue can be projected to another dental tissue. Dental referred pain is a complex clinical phenomenon, which requires a highly experienced dentist to diagnose and locate the primary source of pain. Most clinical indications of analgesic prescriptions relate to the treatment of acute and chronic dental pain and adjunctive intraoperative and postoperative pain. Moreover, in dental practice associated procedures such as dental extractions require the use of pain reliever therapy.

THERAPY GAP ANALYSIS

As the product suggested is generic in nature to the marketing segment, an analysis based on porter's five forces would be appropriate to understand the therapy gap analysis s of the product.



1. Intensity of competition-

- a. There are only a very many competitors in the industry segment.
- b. The segment is of a general therapy commodity product.
- c. There is a low switching costs
- d. The cost of leaving the market is very high.

2. Threat of substitutes

- a. There is a presence of cross product substitution.
- b. The competitor has the ability to import substitutes.

3. Customers' bargaining power

- a. There are only a few large supermarkets.
- b. The product line is homogenous in nature.
- c. Power of the buyer is high.

4. Suppliers' bargaining power

- a. Number of suppliers are moderately available
- b. There is presence of similar product in the market.
- c. There are chances to substitution.
- d. Suppliers have neutral power over the supply chain

5. Threat of new entrants

- a. The cost to enter the industry is not too expensive.
- b. There are many cost benefits if in the business for long time
- c. No technology protection is implied in the sector
- d. There are only a few barriers to entry.

RESEARCH OBJECTIVES

1. To conduct prescription audit among dentists and retailers to understand the prescription habits and potential of different analgesics used.
2. To understand and identify the major key components with an analytical model (PARETO ANALYSIS) contributing towards the oral analgesic segment.
3. A break-even analysis of the suggested molecule.
4. To understand factors influencing different brand prescription in selected molecules.

RESEARCH METHODOLOGIES

A questionnaire was asked to be filled by 200 dentists working in Jabalpur, MP. Open-ended questions were prepared and handed to the doctors for initial analysis. The results were analyzed for absolute frequencies and responses were saved.

The data then obtained was subjected to analysis on excel based platform. quantitative method of PARETO ANALYSIS was applied to applied data and reviewed for most appropriate outcomes. The results then obtained were compared to the industry standards and appropriately results were drawn.

Study Design-The conducted research was Descriptive Study.

Sampling Method-The sampling method was purposive sampling (total population).

Sample Population- The survey included dentists Doctors (Jabalpur). It included a mixture of both MDS as well as BDS doctors.

Sample Size-The survey was conducted on a population of 200 Doctors

Sample Selection- The selection area of sample is throughout the Jaipur city for dentists practicing in the region

Data Collection- Primary data through Semi-Structured Questionnaire and secondary data through Journals, books, Internet etc.

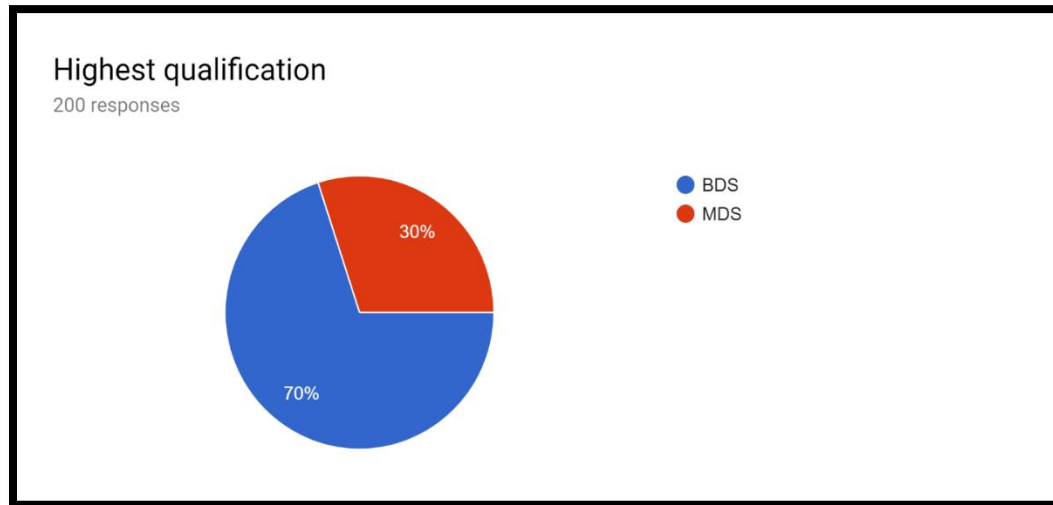
Time Period- 2 months (April and May)

Research Instrument (Tool & Technique)- Research instruments was semi- structured questionnaires consisting of both close ended as well as open ended questions, designed with scope of the given objectives. The information was collected through direct interviews and messages to doctors. Some data was also collected through informal talk with the doctors.

Data Analysis- the gathered data assessed into Microsoft excel and graph formation was also done with the help of Microsoft excel.

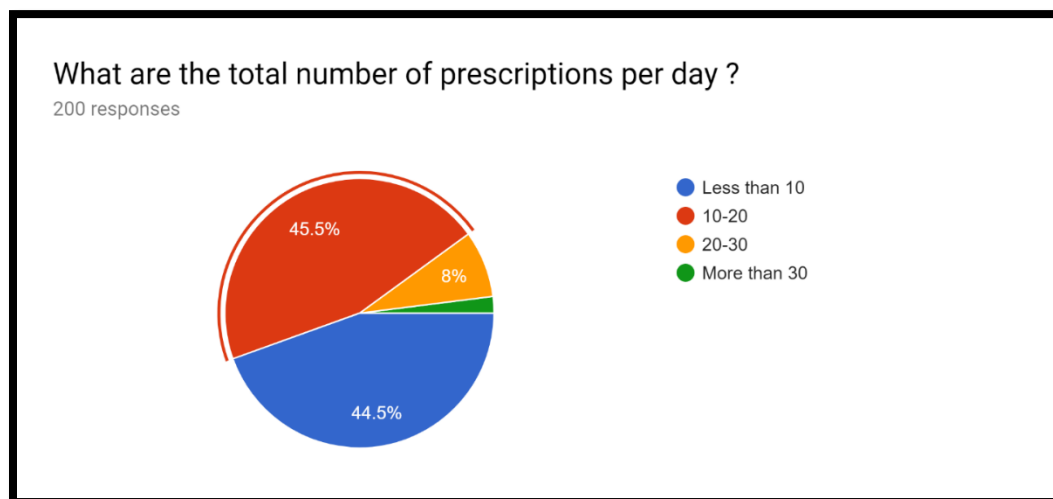
DATA ANALYSIS AND INTERPRETATION

1. Highest qualification of the respondent-



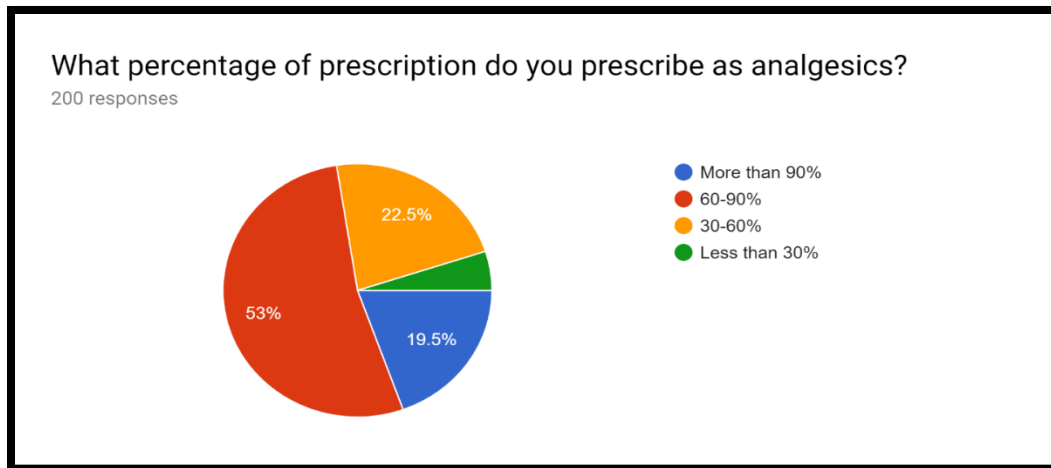
Discussion- Of the 200 respondent dentists, 70% (140) were BDS and the rest 30%(60) were MDS. A fair mixture of both the qualifications was intended to keep in the survey.

2. What are the total number of prescriptions per day?



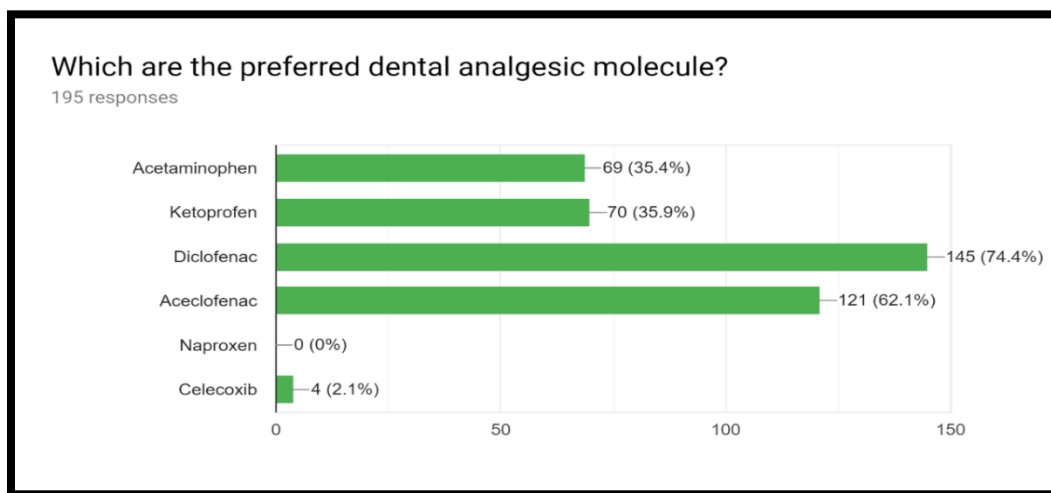
Discussion- Majority of dentist either write less than 10 prescriptions per day or between 10-20 prescriptions per day. A few doctors write more than 20 prescriptions per day. The variance of number in prescription is subjected to the rural or urban loaction of the clinics and hospitals.

3. What percentage of prescription do you prescribe as analgesics?



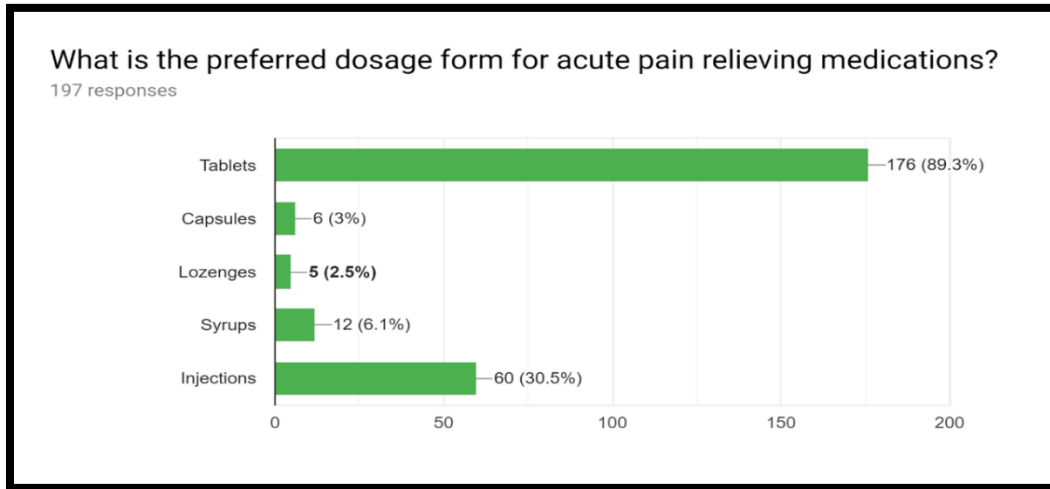
Discussaion- Around 53% of dentists prefer 60-90% times writing an analgesic in their prescription. Around 20% dentists prefer wtitinfg analgesic molecules in almost all of theor prescriptions. There is a only a few doctors who prefer less than 30% of their prescriptions as analgesic molecules.

4. Which are the preferred dental analgesic molecule?



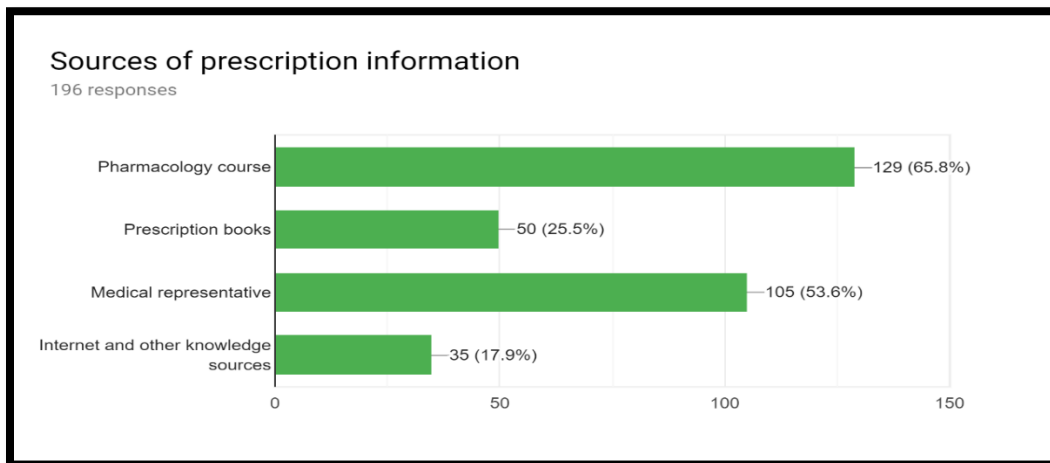
Discussion- It was found that around 74% of dentists prefer diclofenac as their primary analgrsic molecule. Around 64% of dentists also preferred acelofenac as their preferred analgesic molecule. Also 35% of the doctors apreferred acetaminophen and ketoprofen, each. Only four decotors went with the option of higher analgesic such as celcoxib.

5. What is the preferred dosage form for acute pain relieving medications?



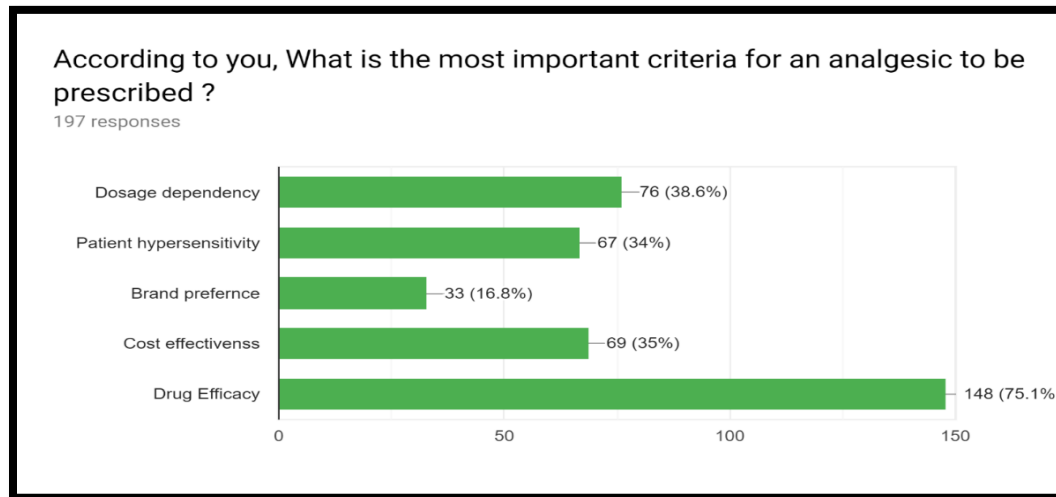
Discussion- Majority of dentist, around 90%, irrespective of the molecule they preferred , chose tablet as their preferred dosage form. Also, 30% of doctors also chose injection as to be a viable mode of delivering analgesic medication to the patients. Very few of the dentists chose other dosage forms such as capsules lozenges and syrups.

6. Sources of prescription information?



Discussion – When asked about the sources of prescription information, most dentists chose either pharmacology course (65.8%) or medical representatives (53.6%) as their primary sources. Some also preferred prescription books (25.5%) and internet (18%) as their primary sources.

7. According to you, what is the most important criteria for an analgesic to be prescribed?

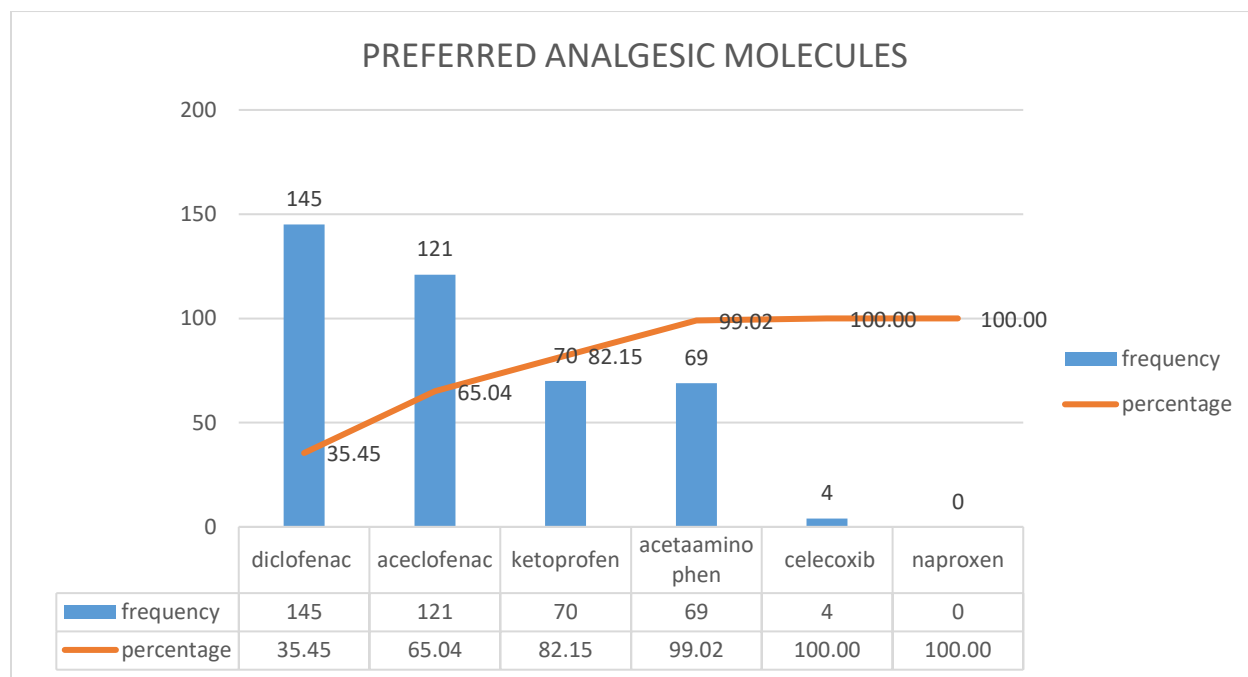


Discussion - Of all the dentists, 75% of dentists chose drug efficacy as to be the most important criteria to be prescribed. Around equal number of dentists (approx. 35%) chose dosage dependency, patient hypersensitivity and cost effectiveness as to be the major prescribing criteria. Only few dentists (17%) chose brand preference as to be the important criteria for an analgesic to be prescribed.

ANALYSIS OF RESULTS

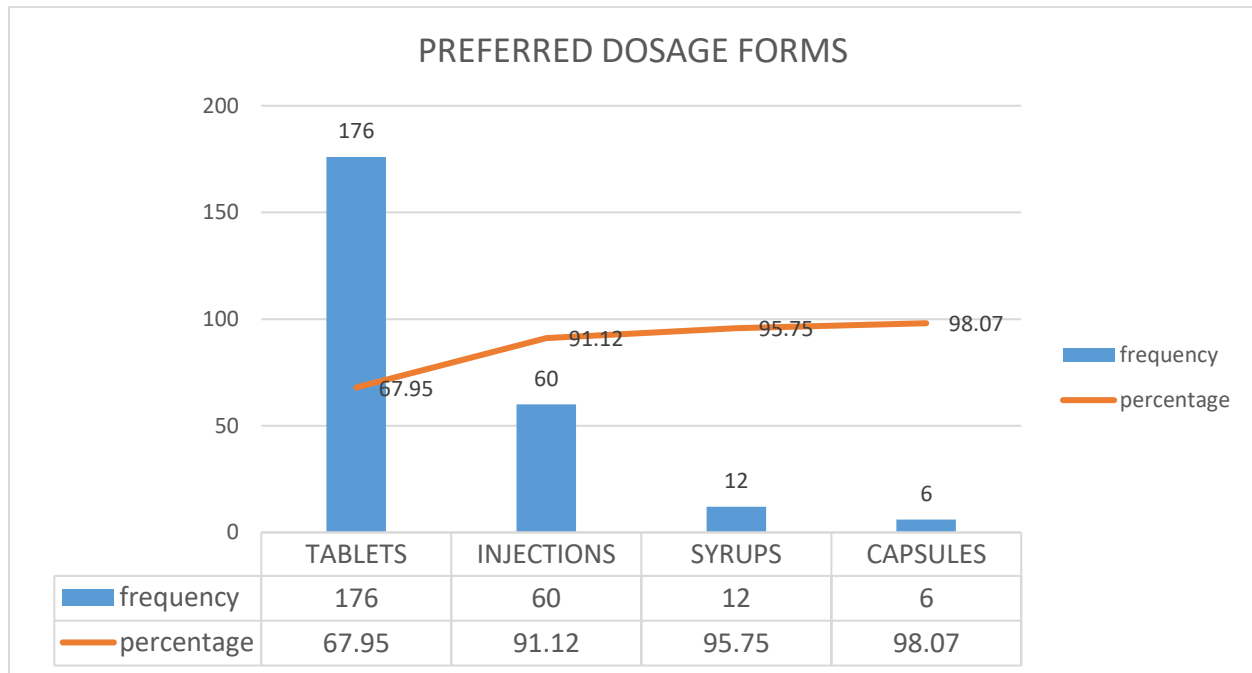
Based on the data obtained, the charts were obtained based on the PARETO ANALYSIS MODEL. The pareto is also referred to as “80/20 rule”, it estimates that 20% of our products account for 80% of our profit. Thus, any of the results under 80% can be taken into consideration for creating a vase marketing plan for the product in the new market.

1. Preferred analgesic molecule



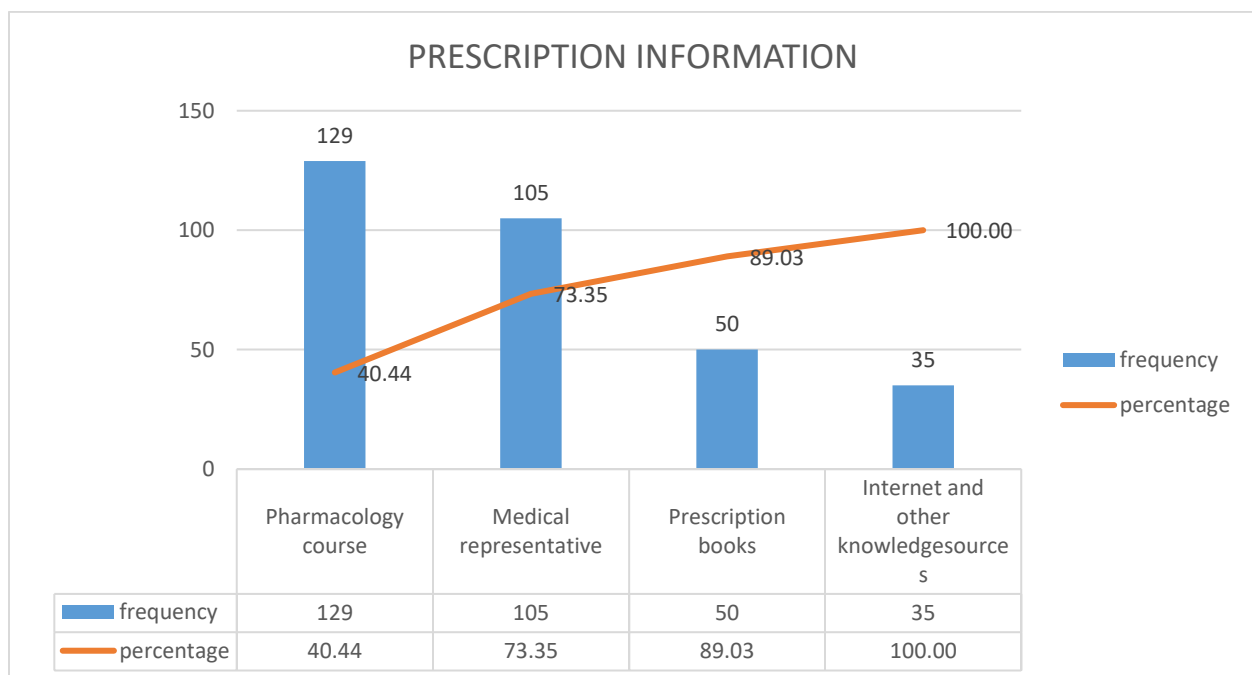
Interpretation- The graph clearly indicates three molecules under the 80% rule, which could be key molecules the company should focus on while entering the analgesic segment. These three molecules viz. Diclofenac or Aceclofenac or Ketoprofen are the mostly preferred by the dentists. approaching these molecules as a line of business would maximize the company’s profits.

2. Preferred dosage form



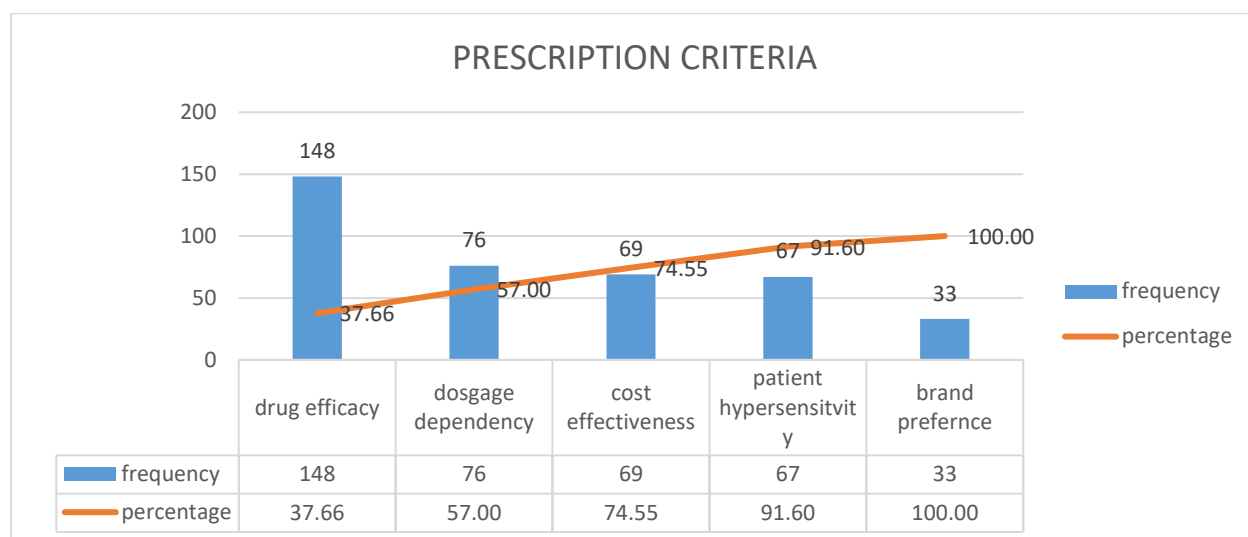
Interpretation- the solid dosage form of TABLET, is highly preferred by all the dentists. Thus, company should invest in analgesic tablets to maximize the profits.

3. Sources of prescription information



Interpretation: most dentists prefer either the pharmacology course i.e. the knowledge they already have or from the medical representative. The company should invest on medical representatives to compete the product in the market. Also investing on to enter prescription books would also have some impact on the sales of the drug.

4. Prescription criteria



Interpretation- There are 3 basic criteria which around 80% of the doctors prefer. They are- Drug efficacy. Dosage dependency, and cost effectiveness. While launching of the drug, company should keep these 3 parameters at almost importance. Drug efficacy could not be neglected.

FINDINGS AND RESULTS

With the primary data obtained, the best fit molecule for the segment was found to be diclofenac or aceclofenac.

Auditing the prescription of the dentists acknowledged the needs off patients as well as of the dentists. While most of the dentists prefer either market representatives as their primary source of information, the also considered drug efficacy to be the most prominent factor for a molecule to succeed.

MARKETING PLAN

PRE LAUNCH PLAN

- promotion on digital platforms
- market promotions
- free samples and gifts

LAUNCH PLAN

- sales competition
- market segmentation
- incentives and bonuses

STRATEGIC MARKETING

STRATEGY

- Brand Strategy
- Competitive Positioning
- Distribution Channels
- Marketing Campaigns
- Marketing Plan And Budgeting
 - Pricing Strategies
 - Sales Strategies

TOOLS

- Corporate Identity
- Customer Relationship Management
 - Messaging
 - Sales Tools
 - Websites

CUSTOMER ACQUISITION

- Customer Retention Strategies And Business Development
 - Direct Mail
 - Email Marketing
 - Online Advertising
 - Publicity
 - Sales Management
 - Tele-marketing
 - Traditional Media

ANNUAL BUDGET PLAN AFTER THE LAUNCH

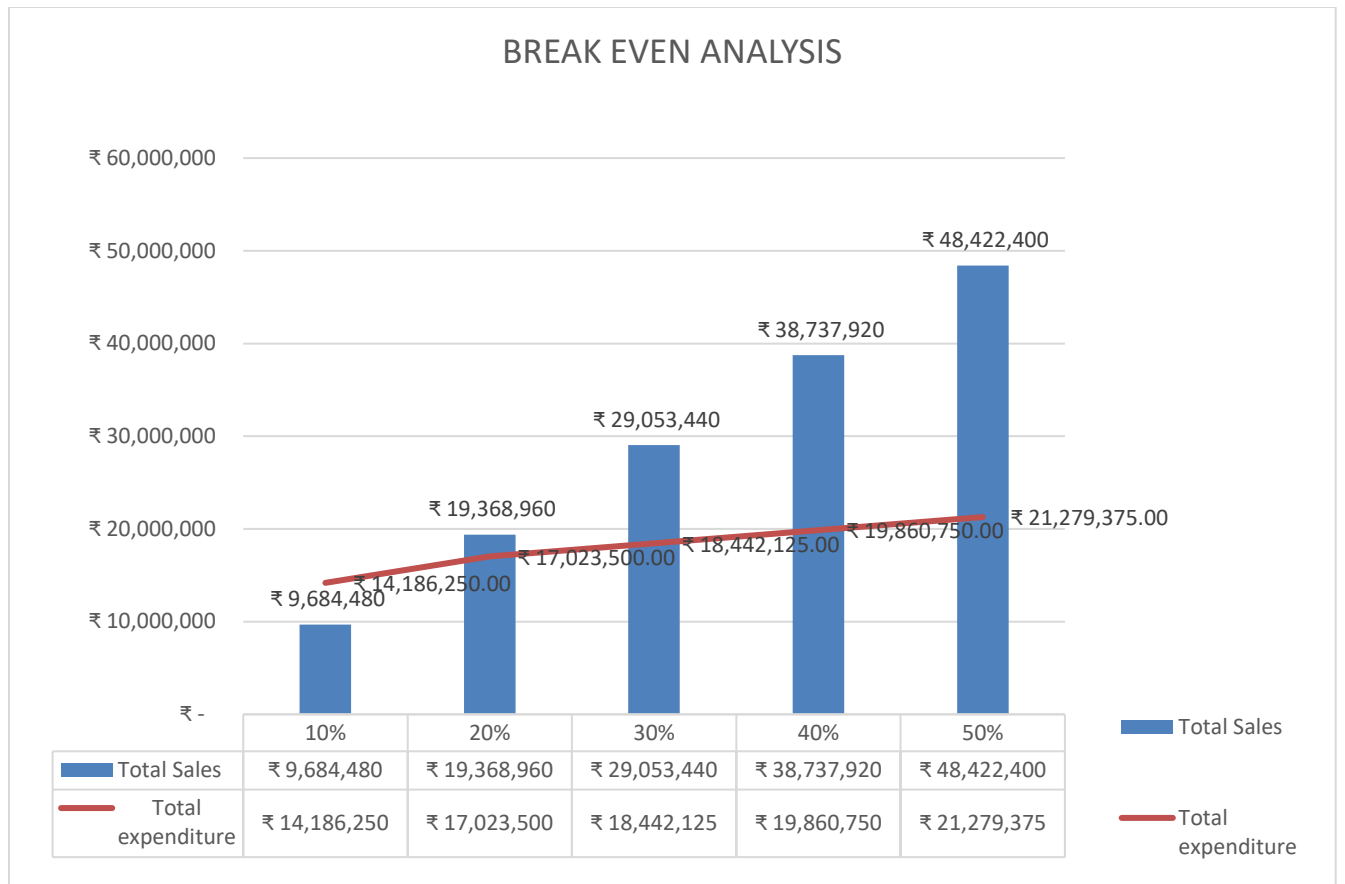
As per the data collected, the simulator budget was formulated for the no. of doctors as in the sample size. Five different success segments were analysed for company's break even and profit analysis for 1st year, 3rd year and 5th year at a nominal growth rate. The cost of the product was assumed to be that of the industry competitor's market cost. different costs were also assumed as pertaining to those of the industry standards.

S No	Number of Doctors	No. Of Visits	Total Visits	Success Rate	Success Visit	Rx/Doctor	No. Of Rx	% Analgesic Rx	Total Sale Strips	Yearly
1	200	4	800	10%	80	200	16000	80%	12800	153600
2	200	4	800	20%	160	200	32000	80%	25600	307200
3	200	4	800	30%	240	200	48000	80%	38400	460800
4	200	4	800	40%	320	200	64000	80%	51200	614400
5	200	4	800	50%	400	200	80000	80%	64000	768000

YEARLY GROSS SALES							
S no	Success Rate	Yearly	Cost Per Strip	Total Yearly Sale 1st Year	Total Yearly Sale 3rd Year (At 5% Growth)	Total Yearly Sale 5th Year (At 5% Growth)	Total Sales
1	10%	153600	20	3072000	3225600	3386880	9684480
2	20%	307200	20	6144000	6451200	6773760	19368960
3	30%	460800	20	9216000	9676800	10160640	29053440
4	40%	614400	20	12288000	12902400	13547520	38737920
5	50%	768000	20	15360000	16128000	16934400	48422400

YEARLY GROSS EXPENDITURE									
S no	Success Rate	Samples	Marketing Aids and Visuals	Activities and Customer Endorsements	Other Incentives and Trade Offers	Total Yearly Expenditure 1st Year	Total Yearly Expenditure 3rd Year (At 5% Growth)	Total Yearly Expenditure 5th Year (At 5% Growth)	Total Expenditure
1	10%	1600000	1600000	800000	500000	4500000	4725000	4961250	14186250
2	20%	1920000	1920000	960000	600000	5400000	5670000	5953500	17023500
3	30%	2080000	2080000	1040000	650000	5850000	6142500	6449625	18442125
4	40%	2240000	2240000	1120000	700000	6300000	6615000	6945750	19860750
5	50%	2400000	2400000	1200000	750000	6750000	7087500	7441875	21279375

BREAK EVEN AND NET PROFIT				
S No	Success Rate	Total Sales	Total Expenditure	Total Profit
1	10%	₹ 9,684,480	₹ 14,186,250	₹ -4,501,770
2	20%	₹ 19,368,960	₹ 17,023,500	₹ 2,345,460
3	30%	₹ 29,053,440	₹ 18,442,125	₹ 10,611,315
4	40%	₹ 38,737,920	₹ 19,860,750	₹ 18,877,170
5	50%	₹ 48,422,400	₹ 21,279,375	₹ 27,143,025



Discussion- As per the simulation done, there are given profit brackets for the different success rate of the product. The success of product depends largely on the marketing strategy and the cost effectiveness of the expenditure done. The higher the success rate more is the profit of the company.

CONCLUSION

Based on the primary data collected and analysis, an investment in the analgesic segment would be profitable to the company, if approached with proper marketing strategy.

Diclofenac or Aceclofenac was suggested to be the most fit molecule to enter this segment. A marketing strategy with effective training and development of both ground team and backhand team is recommended. PUSH strategy be implied on the market to direct the consumers towards the product.

A stimulatory break-even analysis of the product suggests that profit can be strat maximized from after the first year only. With effective pre-launch plans and launch plans, the product will hit the grounds and be success in no time.

SUGGESTIONS AND RECOMMENDATIONS

1. Personalize communication to the physicians.
2. Prioritize sales as a channel with digital selling
3. End to end customer promotions i.e. regular visits and collection of prompt feedback.
4. To keep an eye on stock availability with distributors Stockists and retail outlets.
5. Awareness camps with doctors, arrange conferences, social media awareness.
6. Compare “our brand” with other competitor brands in the market and overcome the challenges faced by doctors and at patient level also.

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Questionnaire

Prescription Behavior of Dentists towards Oral Analgesics

1. Doctor's Name *

2. Hospital Name *

3. Gender *

a. Male

b. Female

c. Other:

4. Age*

5. Experience *

a. Less than 5 years

b. 5- 10 years

c. 10-15 years

d. More than 15 years

6. 6. Highest qualification *

a. BDS

b. MDS

c. Other:

7. What are the total number of prescriptions per day? *
- a. Less than 10
 - b. 10-20
 - c. 20-30
 - d. More than 30
8. What percentage of prescription do you prescribe as analgesics? *
- a. More than 90%
 - b. 60-90%
 - c. 30-60%
 - d. Less than 30%
9. Which are the preferred dental analgesic molecule?
- a. Acetaminophen
 - b. Ketoprofen
 - c. Diclofenac
 - d. Aceclofenac
 - e. Naproxen
 - f. Celecoxib
 - g. Other:
10. What is the preferred dosage form for acute pain-relieving medications?
- a. Tablets
 - b. Capsules
 - c. Lozenges
 - d. Syrups
 - e. Injections
 - f. Other:

11. Sources of prescription information-

- a. Pharmacology course
- b. Prescription books
- c. Medical representative
- d. Internet and other knowledge sources
- e. Other:

12. According to you, what is the most important criteria for an analgesic to be prescribed?

- a. Dosage dependency
- b. Patient hypersensitivity
- c. Brand preference
- d. Cost effectiveness
- e. Drug Efficacy
- f. Other: