

**Summer Training at
Kee Pharma Limited
(16th April -26th June, 2012)**

**Study on Doctor's Perception Regarding Natural Topical Product Use in
Arthritis**

**By
Sanjay Singh Shekhawat**

**Under the guidance of
Dr. Harish Sihare**

**Post Graduate Diploma in Pharmaceutical Management
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**Institute of Health Management Research,
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2012**

**INSTITUTE OF HEALTH
MANAGEMENT RESEARCH**

1, Prabhu Dayal Marg
Sanganer Airport, JAIPUR - 302 011, INDIA
Tel. : 3924700, 2791431-32
Fax : 91-141-3924738
E-mail : iihmr@iihmr.org
URL : <http://www.iihmr.org>
Gram : HEALTHINST

Certificate

This is to certify that Mr. Sanjay Singh Shekhawat from Institute of Health Management Research, Jaipur has undergone Summer Training at Kee Pharmaceutical Ltd., Delhi from 16th April, 2012 to 26th June, 2012.

The candidate himself carried out the project. His approach to the study has been sincere, scientific and analytical. This summer training is partial fulfillment of the course requirement is recommended for the award of post graduate diploma in Pharmaceutical management.

I wish him success in all his future endeavors.



Dr. P.R. Sodani
Dean (Academic and Students Affairs)
IHMR, Jaipur



Dr. Harish Sihare
Assistant Professor
IHMR, Jaipur

ACKNOWLEDGEMENT

“Successful passage and outcome of every work comes with dedication, determination and team work. All these turn futile in the absence of visionary guidance.”

I acknowledge and express our heartily gratitude for the help, guidance, co-operation and assistance expanded to us by different individuals.

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I would like to thank **Priyanka Walia (Executive secretary)** for her valuable guidance & time.

I would like to express our special gratitude and thanks to our respondents for giving us such attention and time.

Thanking you,

Sanjay Singh Shekhawat

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Organization Introduction

Kee Pharma Limited is a well-established Delhi based pharmaceutical company that was started in 1957 by Mr. C.R. Motihar. Today, KPL has a 300 strong work force that is made up of professional and dynamic individuals working together as a team to ensure that KPL is an efficient and professionally run organisation.

Kee Pharma is an Innovative, Dynamic and Caring organisation. We strive to provide the best that modern medicine has to offer be it new dosage forms, revolutionary pharmaceutical molecules or biotechnologically engineered cures. Innovative attitude to life drives us to always look for a better and more effective cure. Our Dynamism allows us to cross our nation's boundaries and forage into the global market to find these cures. Our Caring outlook makes us ensure that these cures are available to the people of India through an effective and extensive distribution network and careful pricing. Being a well-established 45-year-old company, we have our feet firmly planted on the ground. We know the importance of Quality, Purity and Effectiveness of medicine. Above all else, we know what it takes to achieve all three and we make sure that we do Every person at Kee Pharma understands the importance of quality, purity and effectiveness and in this understanding, knows at the very bottom of his or her heart that - Life matters...People matter

KPL is made up of Three SBUs

- **Kee Pharma** – This is the oldest division of the company which deals mainly in prescription and life saving drugs. In this division, the doctor segments that are visited and to whom the products are promoted are the Gynaecological, Orthopaedic, Dentist, Surgeon and General Practitioner segments. Hence the entire range of Kee Pharma's products is aimed at these three segments of doctors, thus enabling us to concentrate our efforts and provide these segments with the best and latest in allopathic healthcare. The products that are promoted in this division are Revici Inj., Salsol and Diser.
- **KEE GAD Biogen Pvt. Ltd** is a high-tech biopharmaceutical enterprise which is engaged in manufacturing, marketing and research, of high tech diagnostic reagents and devices, drug delivery system and nano-medicines that are used for the diagnosis, treatment, mitigation and cure of a wide range of human diseases.

The R&D unit of **KEE GAD** is recognized by the Department of Scientific and Industrial Research of the Ministry of Science and Technology, Govt. of India. **KEE GAD** is owned and run by professional Indian stock holders. The production facilities meet the c GMP standards of FDA. The company has put up a plant to manufacture and market Clinical Chemistry Reagents at A-8, Third Floor, Naraina Industrial Area Phase II, New Delhi. License under Drugs Act has obtained for the manufacture of over 30 analytes in the body fluids including blood and urine. The company went into commercial production from 2011.

- **KEE SANA is latest venture of kee pharma dedicated to Rheumatology and orthopaedic**

Product detail

Algaea-X is a topical cream for joint pains and arthritis available for the first time in India. This product is especially beneficial to those who experience discomfort in their muscles, joints or other areas that impact movement, mobility, strength, and flexibility as a result of aging, work or other activities. Approved by the US FDA, it is the result of more than 15 years and over \$35 million dollars of developmental research. It contains Mitol, an extract from brown seaweed. Algaea X also treats joint stiffness, muscle soreness, neck and back pain, strains and sprains, arthritis, tendonitis, frozen shoulder and other inflammation-associated diseases or conditions.

Key Features:

- Delivers soothing topical relief from aches interfering with everyday living and activities.
- Penetrates deep below the skin into muscles and tissue to soothe and heal stiff, sore muscles and joints.
- Non-greasy formulation does not irritate skin and has a mild, pleasant short-lived scent.
- Utilizes potent anti-inflammatory and circulatory promoting properties of a patented algae extract (Mitol) that is the result of more than 15 years and over \$35 million dollars of developmental research.
- Long-lasting anti-inflammatory, anti-oxidant, and other healing properties supported by extensive research.
- Studies have shown Algaea-X to be as effective as some widely prescribed products in providing relief to joint discomfort and stiffness.

Healing Properties:

- Strong anti-inflammatory effects that both heal and protect.
- Significant blood circulation improvements and overall promotion of vascular health heals joints, muscles and surrounding tissue.
- Strong anti-oxidant scavenging of free radicals promotes healthy cellular function.

- Improves joint and muscle function, flexibility, strength and health Especially beneficial to those who as a result of aging, work or other activities experience discomfort in their muscles, joints or other areas impacting movement, mobility, strength, and flexibility.

Disease profile and disease burden of arthritis in Rajasthan

Source:

“HEALTH SYSTEM PERFORMANCE ASSESSMENT”

The World Health Organization (WHO) and the Ministry of Health and Family Welfare (MOHFW), Government of India (GOI) designated the International Institute for Population Sciences (IIPS) to undertake the World Health Survey (WHS) in India in 2003.

- **Arthritis:** It is a chronic inflammatory disease, which affects joints and impairs their functioning. The joints show swelling, redness, raised temperature and pain are the signs of inflammation and arthritis took different forms.
- Among the non-communicable diseases, the **highest prevalence of nine percent** is indicated for arthritis.
- Of the nine percent arthritis patients in Rajasthan, all of them received treatment. The prevalence of arthritis is 11 percent among females compared to 9 percent among males. Comparatively, 60 percent of female and 54 percent of male respondents received treatment for arthritis. There is much variation in the prevalence and treatment of arthritics between rural and urban respondents. The reported prevalence is higher but coverage of arthritis is low at the lower income quintiles compared to higher income quintiles.
- Need and coverage of non-communicable diseases (angina, arthritis and asthma) in Rajasthan, 2003

Characteristics	Need (percentage diagnosed)				Covered (percentage treated)		
	Angina	Arthritis	Asthma	N	Angina	Arthritis	Asthma
Sex							
Male	8.6	8.6	7.8	879	76.2	53.2	80.2
Female	4.5	10.4	6.1	937	54.5	59.2	76.8
Residence							
Urban	6.2	4.7	6.3	415	62.4	64.2	95.4
Rural	6.7	10.1	7.1	1401	69.8	55.9	76.7
Insurance status							
Insured	2.8	7.5	11.8	130	69.1	92.6	94
Uninsured	6.9	9.6	6.6	1686	68.9	54.1	76.5
Income quintiles							
Q1	10.6	12.5	7.9	329	42.7	67.9	70.2
Q2	8.4	15.4	7.5	372	77.2	38.3	77.9
Q3	6.8	8.5	7.0	426	74.3	54.5	71.6
Q4	4.6	5.6	7.0	361	84.2	61.3	86.6
Q5	4.1	6.6	6.0	328	70.6	83.2	88.8
Total	6.6	9.4	7.0	1816	68.9	56.4	78.7

Potential market for Arthritis drug in Rajasthan

- Almost **10% population** is suffering from arthritis in Rajasthan shows a high potential market.
- About **5% urban populations** suffer from arthritis.
- About **1.5% populations** in Rajasthan suffering from arthritis is high income patient; they **can afford expensive and quality medication.**
- About **7% insured** population seeks arthritis medication.
- Women's are most potent share of arthritis patient, compare to men.

Note – Total population in Rajasthan is 6,86,21,012 (Census 2011)

Research Methodology

Problem Statement

The project has been undertaken to know the Doctors preference in Natural Product. The study was done to identify and analyze various factors which constrain Doctor during Prescribe Drug in Arthritis.

Research Objectives

The Key Research Objectives are:

- To know the preference of natural product by rheumatologist and orthopedician in patients of OA, RA and arthritis.
- To find out any competitor brands available and prescribed by doctors.

Research design

Collection of Data

Questionnaire was designed considering the various factors identified, so that the data collected would be in compliance with the information needed. Questionnaire contains both open ended and close ended question.

Sample Design

Target population: A specified rheumatologist and orthopaedic was chosen.

Sample Size: The sample size was 50

Sampling Technique: Non probability convenience sampling was use.

Field Work

The survey was conducted in three districts of Rajasthan

- Jaipur
- Bikaner
- Churu (& Ratangarh)

Data Tabulation and Analysis

Data obtained from the questionnaires was summarized in SPSS.

The data tabulation and analysis went through two tier checks to avoid data entry errors. Microsoft Excel spread sheets were used for the same. The program had inbuilt tools to calculate various statistical variables, that are widely used for simple calculations.

1. Area covered and sample distribution under study

The sample size was 50, covering three district of Rajasthan Jaipur, Bikaner and Churu.

Figure-1 Sample distribution

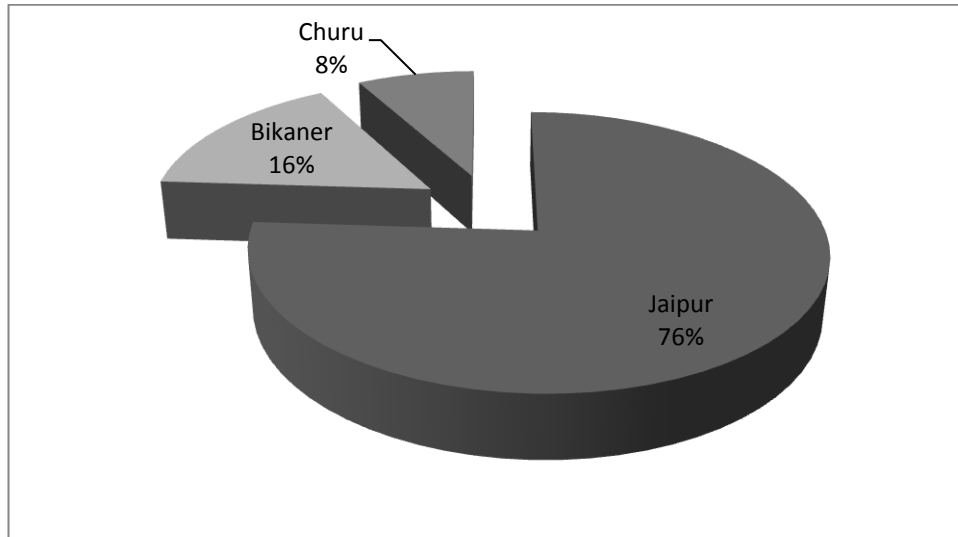


Table-1 Sample distribution

	Frequency	Percent
Jaipur	38	76
Bikaner	8	16
Churu	4	4
Total	50	100

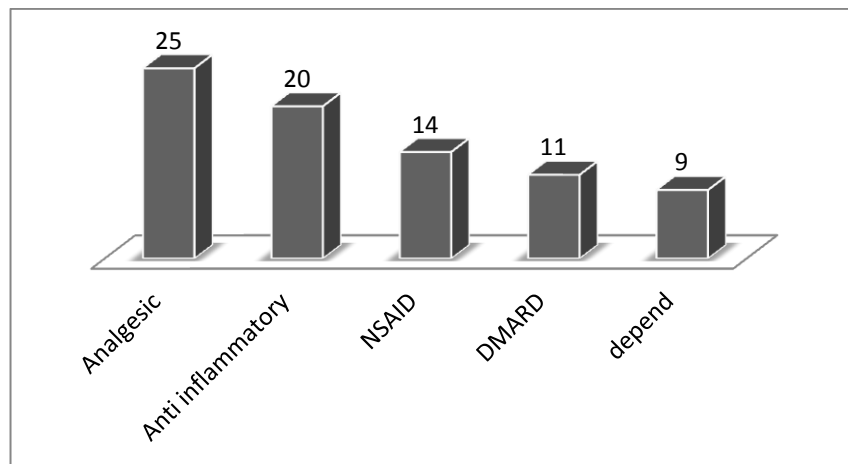
These three districts have different economic and social background, different health services and population distribution.

Hospitals covered are

- Tertiary care hospital
- Primary health center
- Community health center
- District hospital
- Multispecialty hospital
- Orthopedic hospital and clinic.

2. Drugs use in patient for pain and inflammation

Figure-2 Drug use in pain & inflammation



- Doctor depend on analgesics, NSAIDS and anti inflammatory for treatment
- 9 doctors say that it depend on patient condition or type of arthritis
- For pain and inflammation management most of the doctors strive on chemical products which have long term side effect. **They don't have any safe drug for treatment.**

3. Main influencing factor while prescribing a drug

Figure-3 Influencing factor while prescribing drug

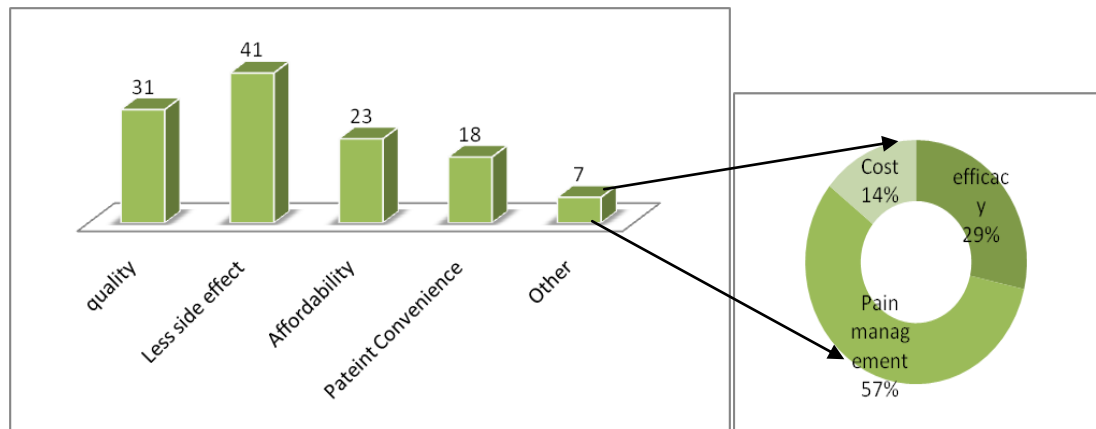


Figure-4 Factors included in others

- Most of the doctor's concern about the side effect while prescribing
- 82% of doctors in Jaipur and 88% in Bikaner look for the safe side of the drug.
- 100% doctor in Bikaner prefer quality of drug which is 58% in Jaipur
- Quality and side effects is major influencing factor during prescribing of drug.
- In others doctors mention pain management, low cost and efficacy.

To compete in market a drug should have low side effect then the existing product range and have good quality.

Low side effect should be highlighted during branding and promotion of the drug.

4. Time needed by current therapy to show results

Figure-5 Time needed by current therapy

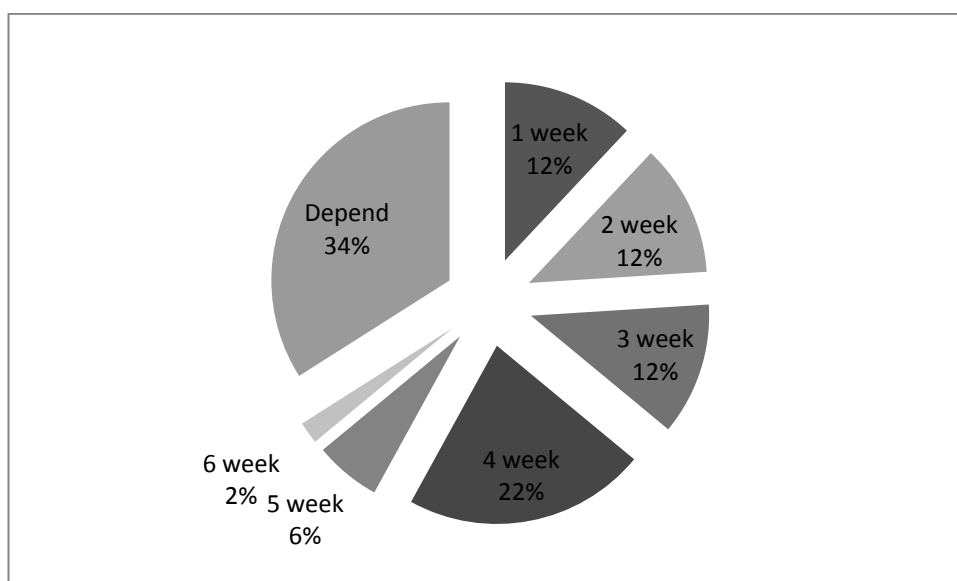


Table-2 Time needed by current therapy

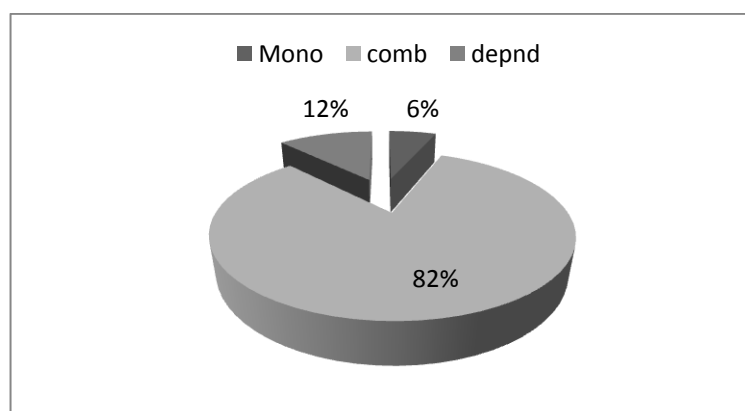
Time	Frequency	Percent
1 week	6	12
2 week	6	12
3 week	6	12
4 week	11	22
5 week	3	6
6 week	1	2
Depend	17	34
Total	50	100

- One third of the doctors say that the time taken in current therapy is depend upon the stage of disease or the patient.
- 60% of majority falls between 1 to 4 week
- 32% doctors in Jaipur absorbs result in 1 month or more
- 63% doctors in Bikaner says time period depend on the disease and patient status
- Only 12% show result within week

Very few medicines are quick and show result within 15 days, so if any drug show action in short period it would be preferable.

5. Therapy recommend for patients

Figure-6 recommended therapy



Majority of doctors recommended combination therapy.

Table-3 recommended therapy

	Frequency	Percent
Mono	3	6
comb	41	82
depnd	6	12
Total	50	100

6. Any other natural product experience by doctor

Only three doctor experience natural product. Only Himalaya product shoe some satisfied result. Many doctors don't know what natural product is, and many confuse natural product with ayurvedic product.

So there is no such competition from natural product.

7. Number of RA/OA patient attend in day

Figure-8 No. of RA/OA patient in a day

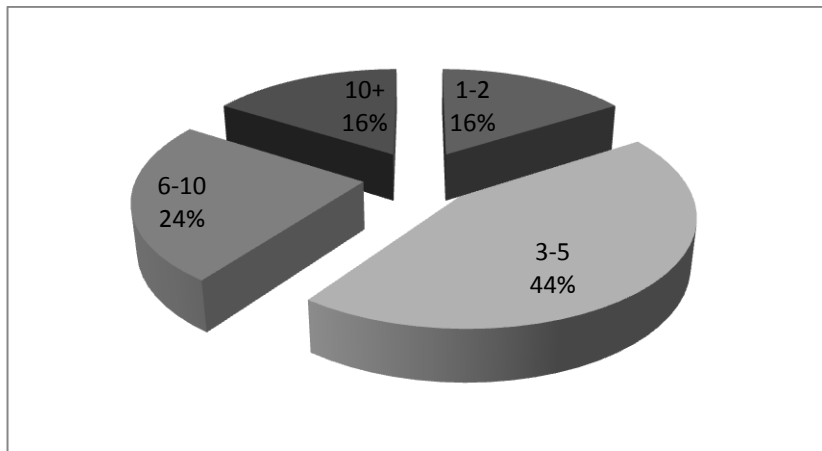


Table-4 No. of RA/OA patient in a day

	Frequency	Percent
1-2	8	16
3-5	22	44
6-10	12	24
10+	8	16
Total	50	100

8. Most preferred mode of administration

Figure-9 preferred mode of administration

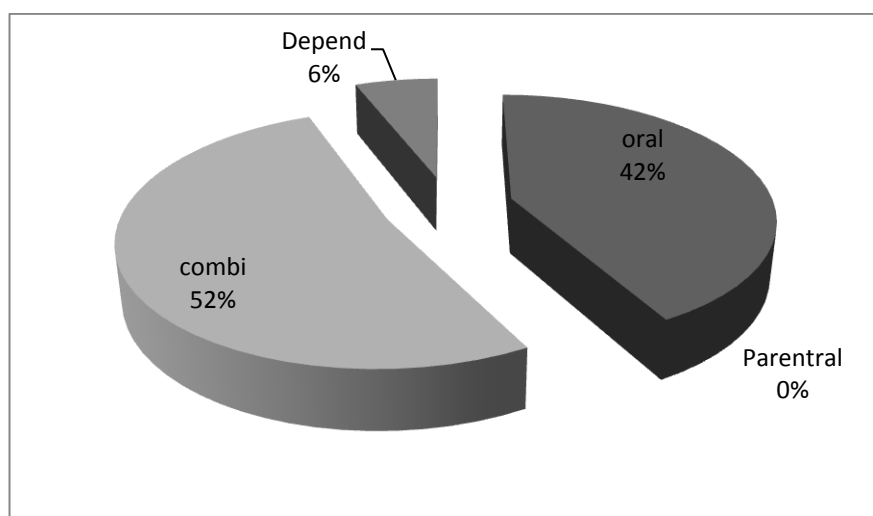


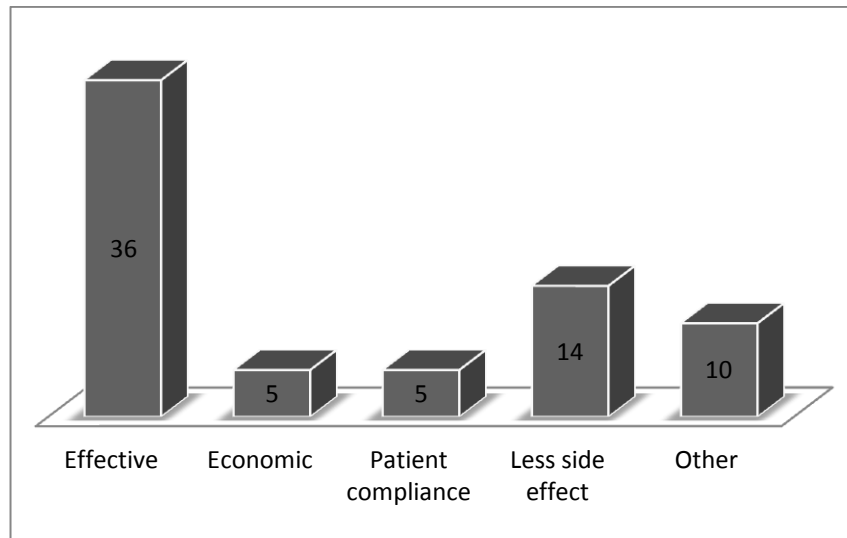
Table-5 preferred mode of administration

	Frequency	Percent
oral	20	40
local	1	2
combi	26	52
Depend	3	6
Total	50	100

- No doctor prefer parenteral route alone for treatment.
- Majority of doctors prefer combination mode of administration
- 42% doctors prefer only oral route.
- Doctors also prefer route according to the patient condition or disease profile.

9. Expectation from new drug in RA/OA cases for control of pain and Inflammation

Figure-10 Expectation from new RA/OA drug



- Expectation of about 75% Doctor is that the drug should be effective
- It should be effective in
 - ✓ Treatment
 - ✓ Quick onset of action
 - ✓ Cure disease
 - ✓ Pain control
 - ✓ Stop progression
 - ✓ Long duration of action
 - ✓

Figure-11 Factor included in 'Effective'

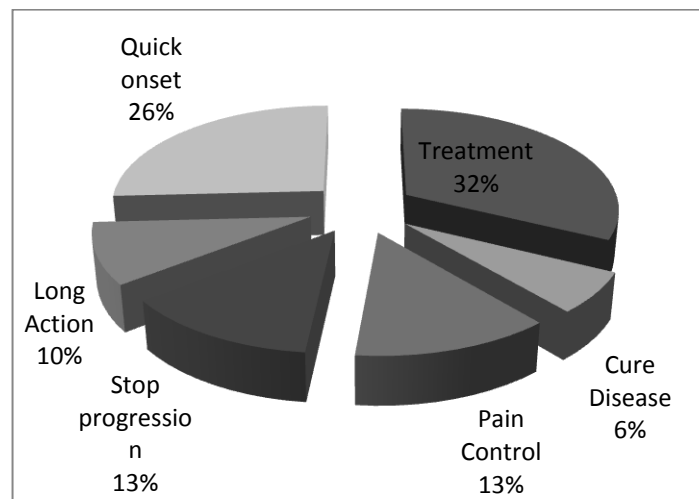


Table-6 Factor included in ‘Effective’

Factor included in ‘Effective’	No
Treatment	10
Cure Disease	2
Pain Control	4
Stop progression	4
Long Action	3
Quick onset	8

- Only Jaipur doctors (14%) have expectation for better patient compliance that is
 - ✓ Less intake of drug
 - ✓ Weekly single dose
- Expectation of Jaipur doctor are
 - ✓ Patient compliance 14%
 - ✓ Less side effect 35%
 - ✓ Effectiveness 71%
 - ✓ Economic 13%
- Expectation of Bikaner doctors
 - ✓ Patient compliance 0%
 - ✓ Less side effect 12%
 - ✓ Effectiveness 63%
 - ✓ Economic 0%
- In Churu and Ratangarh expectation is drug should be effective in pain and inflammation management. And one doctor. (T.D. Harsh, most experience in Shekhawati region) seek for effective clinically prove medication.

10. Doctors preference for natural topical product

Figure-12 Doctors Preference

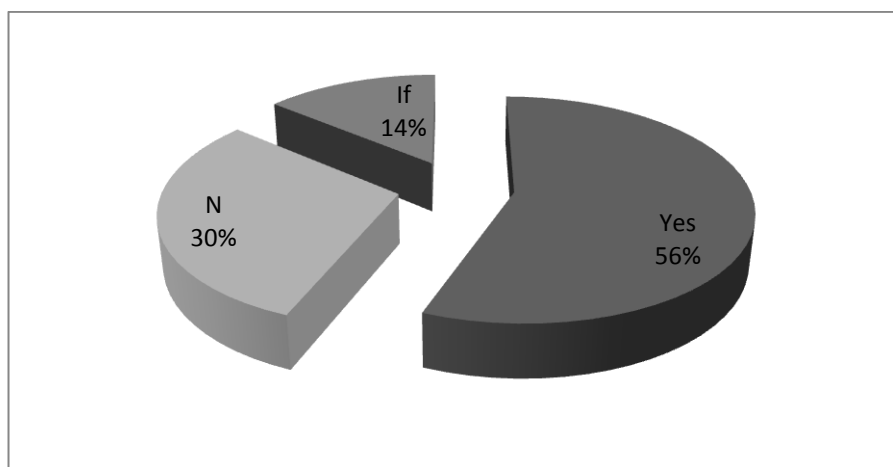
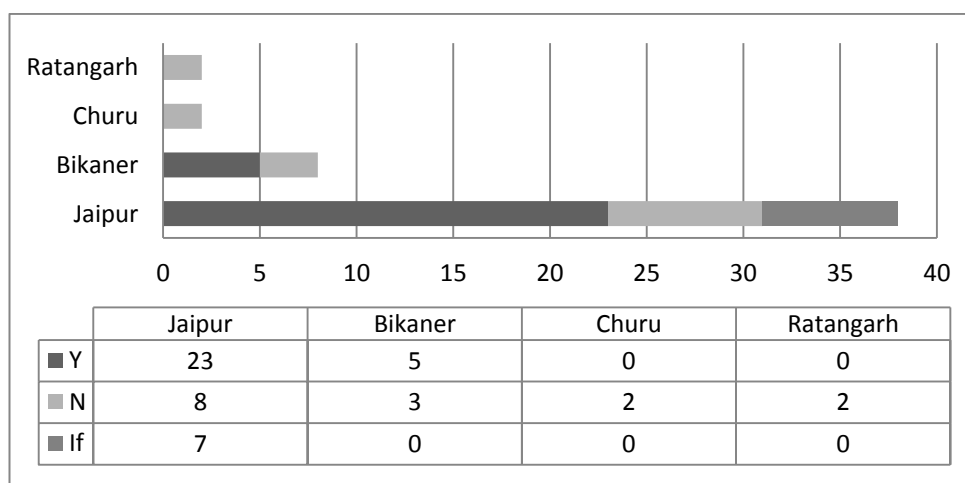


Table-7 Doctors preference

	Frequency	Percent
Yes	28	56
N	15	30
If	7	14
Total	50	100

Figure-13 City v/s doctors preference



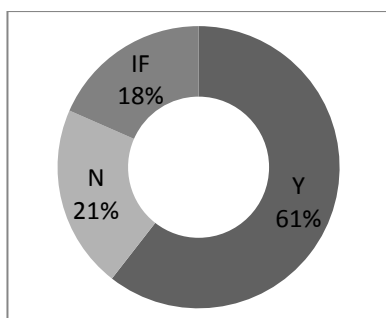


Figure-14 Preference of Jaipur

Doctors

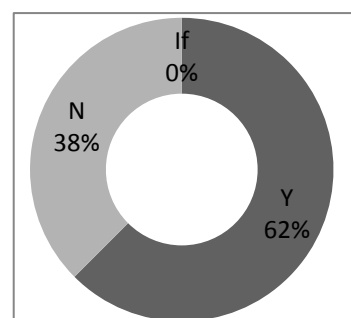


Figure-15 Preference of

Bikaner Doctors

Table-8 Cross tab City v/s Tab

	Y	N	If
Jaipur	23	8	7
Bikaner	5	3	0
Churu	0	2	0
Ratangarh	0	2	0
	28	15	7

- 56% of doctors would like to prescribe this product.
- 14% doctors will prescribe **if** they found drug effective and would like to try it once. All of them are from Jaipur
- 30% of doctors are not interested in such kind of product.

They are not interested because

- ✓ They don't believe in such kind of product
- ✓ They think it have placebo affect
- ✓ Earlier bad experience with topical product
- ✓ They are not suppose to prescribe Ayurvedic (natural) product
- ✓ Topical application is not convenient in Rheumatoid arthritis, since it is not convenient in topical product to apply on each and every joint

- **Preference of Jaipur doctors**
 - 18% doctors would like to try product once or will prescribe only if it is effective.
 - 61% doctors show positive attitude towards product.
 - 21% doctors say no (strictly no) to Topical natural product
- **Preference of Jaipur Bikaner**
 - 62% doctors show positive attitude towards product.
 - 38% doctors say no to Topical natural product
- **Preference of Churu and Ratangarh doctors**
 - All the doctors say no for natural topical product.

11. Recommended price

Figure-16 Recommended Price by doctor

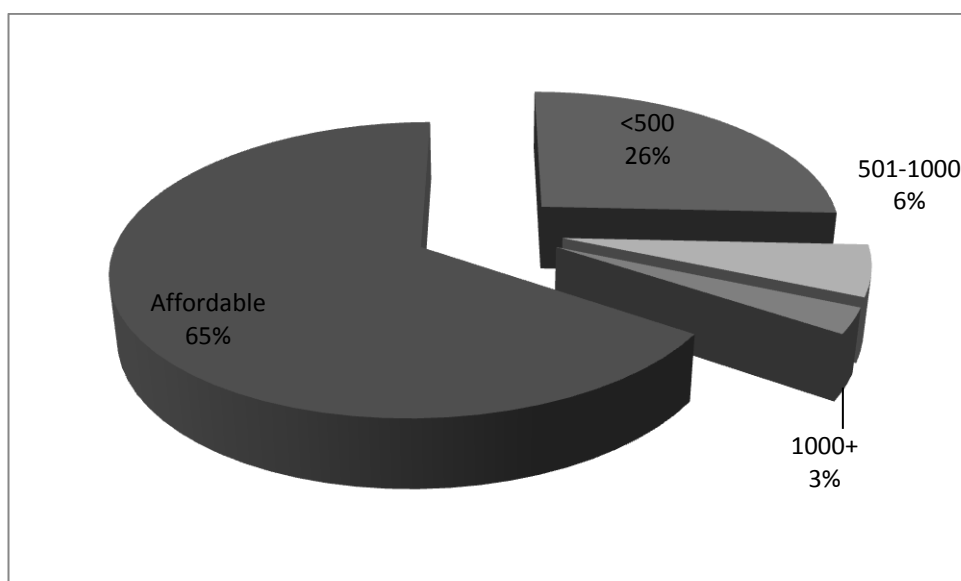


Figure-17 crosstab City v/s affordability

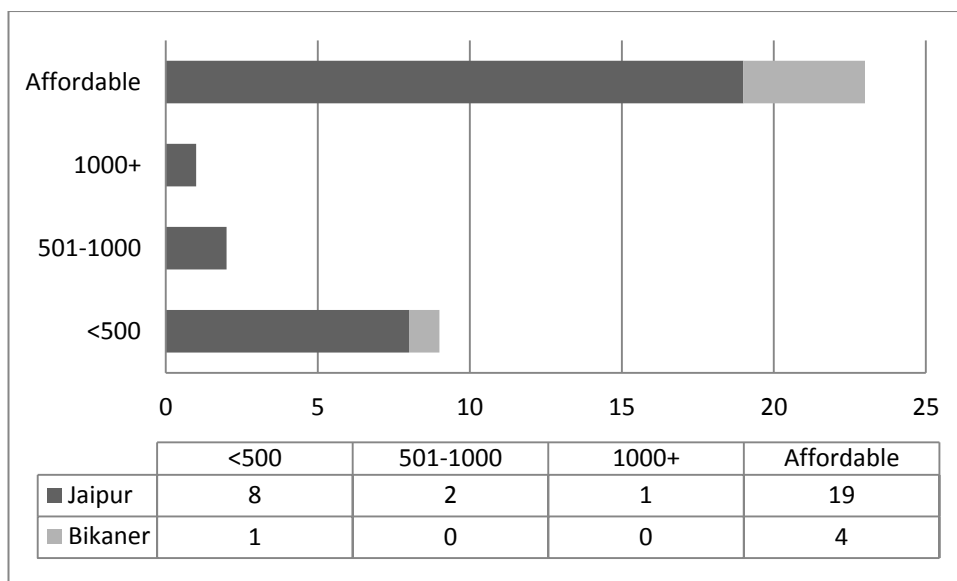


Table-8 Recommended Price by doctor

	Frequency	Percent
<500	9	18
501-1000	2	4
1000+	1	2
Affordable	23	46
Total	35	70

- Majority of the doctors suggest That the price of the Product should be affordable for Indian patient but fails to tell what is the price range in affordability
- After affordability the major share is of ‘500 or below’.

Affordability is the ability to pay or per capita health expenditure

The Health expenditure per capita (US dollar) in India was 44.80 in 2009,
according to a World Bank report, published in 2010

Key finding

1. Jaipur

- Large market potential
- Large pool of doctors
- Large number of young doctors
- Doctors are more practical, believe on data, safety and efficacy of drug
- Product can be successful if proper branding can be done

2. Bikaner

- Only 12-14 orthopaedic doctor are their
- Most of the doctors are government doctor
- Market has not much potential
- Price can be problem

3. Churu & Ratangarh

- No market for this product
- As this product is expensive in respect to that population

Suggestions

1. Price strategy: since the price is main constrain in Algae-X so following step can be taken

- If possible product should be packed in smaller tubes also or half size tube, as smaller package has less price (700-800) and effect psychologically.
- Online Supply or e-marketing which reduces the commission of middle man.
- Bulk Purchasing.
- If feasible Instead of importing the drug, Company can also look for contract manufacturing in India.

2. Promotion Strategy:

- Should start from urban area.
- More emphasis should be given on young doctors (as they believe on Clinical data, approval and have more scientific view) then experience doctor (They believe more on their knowledge and don't accept new product)

3. Branding strategy

Branding should be based on following key point.

- “No side effect” should be main highlighted part of branding
- **USFDA approved topical product** should be their instead of “Topical natural product” as most of the doctors don't believe in natural product even don't know what is natural product or confused it with ayurvedic product.
- **Should not brand as Anti-analgesic or Anti-inflammatory cream** as it decreases the brand value of the product and spread negative image, instead of this they should be highlighted as secondary Action.

- **Should focus mainly on**
 - ✓ Less side effect
 - ✓ Clinical prove drug
 - ✓ Stop progression of disease and have healing property
 - ✓ Show result in less duration of time
 - ✓ Safe in much old patient
 - ✓ Single tube can be use for 60 days or 45 days.

Annexure

QUESTIONER

PRE MARKETING ASSESSMENT FOR LAUNCHING OF NATURAL NEW PRODUCT IN THE TREATMENT OF RA/OA/ARTHRITIS

NAME OF DOCTOR _____ (Preferably attach the visiting card of doctor with this form)

Specialization MD/MS Rheumatology/Orthopedician

Address of doctor with Phone No and Email ID

Email _____ Phone No./Mobile No. _____

1. What kind of drug is used in patient of RA/OA for control of inflammation and pain?
2. What is the main influencing factor while prescribing a drug?
 - a) Quality B) Less side effect higher bioavailability C) Affordability
 - d) Patient convenience e) Other _____ (Pl tick whichever is applicable)
3. How much time the current therapy needs to show results?
4. Which therapy you recommend for such patients? a) Mono b) Combined
5. Have you experience any natural product? Yes/No
6. If experienced what is brand and satisfaction with results

a) Very satisfied b) satisfied c) Not satisfied

7. Number of RA/OA patient you attend in day

a) 1-2 b) 3-5 c) 5-10 d) more than 10

8. What mode of administration you prefer for such patient?

a)oral b)local c) Parental d) any of these or combine

9. What is your expectation from new drug in RA/OA cases for control of pain and Inflammation?

10. Will you prefer a natural topical product which takes care of pain, inflammation and has scientific data to back up? Yes/No.

11. What should be the monthly recommended price for such product?

List of doctors

All doctors are MS in orthopedic

FormNo	Dr	City
101	Mahendra Gupta	Jaipur
102	Laxmikan Agarwal	Jaipur
103	Hemant Jain	Jaipur
104	Manoj Agarwal	Jaipur
105	Rahul Katta	Jaipur
106	Ravindra Lamoria	Jaipur
107	Ashwani k mathur	Jaipur
108	Abhishek Chauhan	Jaipur
109	Anand sharma	Jaipur
110	Rajeshwar Kalla	Jaipur
111	Siddhart	Jaipur
112	Chinmay sharma	Jaipur
113	Naresh Prakash	Jaipur
114	Kapil Gangwal	Jaipur
115	Shailendra Shrivasta	Jaipur
116	R G Gupta	Jaipur
117	Pradeep Jain	Jaipur
118	Naresh Goyal	Jaipur
119	Arvina Asopa	Jaipur
120	A.S Chauhan	Jaipur
121	B L Chopra	Bikaner
122	Ajay Kapoor	Bikaner
123	Rochak Tater	Bikaner
124	Shashikant agarwal	Bikaner
125	Pankaj Mohta	Bikaner
126	Shiv Om Shukla	Bikaner
127	R P S Tomar	Bikaner
128	G S Vijay	Bikaner
129	Mahesh Sharma	Churu
130	Rakesh Bhargav	Churu
131	M S Gaud	Ratangarh
132	T D Harsh	Ratangarh
133	Lalit Sharma	Jaipur
134	Neera Agarwal	Jaipur
135	Saurabh Mathur	Jaipur
136	Girish Gupta	Jaipur
137	Anil Gupta	Jaipur
138	Siddhart Sharma	Jaipur
139	Vishwanath Mathur	Jaipur

140	Atul Gupta	Jaipur
141	Vinay Goel	Jaipur
142	Naveen Saini	Jaipur
143	I P Agarwal	Jaipur
144	Mahendra kumar yadav	Jaipur
145	Rohin Bhatia	Jaipur
146	Ratan Dayma	Jaipur
147	Rajeev Bhargav	Jaipur
148	Anup jhurani	Jaipur
149	Kapil dev garg	Jaipur
150	M.S Shekhawat	Jaipur