

**Summer Training at
Alembic Pharmaceuticals, Jodhpur**

**Study Ophthalmic Antioxidant Market, Practice Pattern and Vis a vis
Alspar Standing and Suggesting the Strategy to take Alspar Ahead**

**By
Nikhil Chhangani**

**Under the guidance of
Mr. Rahul Sharma**

**MBA Pharmaceutical Management
2017-2019**


School of Pharmaceutical Management
**The IIHMR University, Jaipur
2018**

TO WHOMSOEVER MAY CONCERN

This is to certify that **Mr. Nikhil Chhangani** student of MBA Pharmaceutical Management, The IIHMR University, Jaipur has undergone internship training at **Alembic Pharmaceuticals**. The project titled as “**Study Ophthalmic Antioxidant Market, Practice Pattern and Vis a vis Alspar standing and suggesting the strategy to take Alspar ahead**” from 29th March 2018- 30th May 2018.

The Candidate has successfully carried out the study designated to him during internship training and his approach to the study has been sincere, scientific and analytical.

The Internship is in partial fulfilment of the course requirements.

I wish his all success in all his future endeavours.

for
(Col (Dr) Ashok Kaushik)
Col.(Dr.) Ashok Kaushik 25.6.18.
Dean, Academics and student Affairs
IIHMR University, Jaipur


Mr. Rahul Sharma
Assistant Professor
IIHMR University, Jaipur

CERTIFICATE OF PROJECT COMPLETION

Date: 28th June, 2018

TO WHOMSOEVER IT MAY CONCERN

This is to certify that **Mr. Nikhil Chhangani**, a student of **The IIHMR University, Jaipur** has successfully completed the sales and market research based project with **Alembic Pharmaceuticals Ltd.** The duration of the internship project was from **29th March, 2018- 2nd June, 2018.**

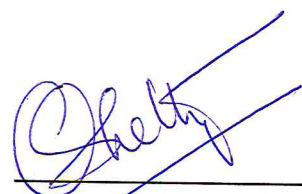
During the period of this project, he was found to be sincere and committed to his work. We extend our appreciation for the job well done.

We wish **Nikhil** all the very best in his future endeavors.

For Alembic Pharmaceuticals Ltd.

Chitra Shetty

Assistant General Manager – Human Resources



Signature

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CIN - L24230GJ2010PLC061123

TO WHOMSOEVER MAY CONCERN

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The Candidate has successfully carried out the study designated to him during internship training and his approach to the study has been sincere, scientific and analytical.

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I wish his all success in all his future endeavours.

Dean, Academics and Student Affairs

The IIHMR University, Jaipur

Professor

The IIHMR University, Jaipur

The IIHMR University, Jaipur

CERTIFICATE BY SCHOLAR

This is to certify that the Summer Internship Project titled **Study Ophthalmic Antioxidant Market, Practice Pattern and Vis a vis Alspar standing and suggesting the strategy to take Alspar ahead** submitted by **Mr. Nikhil Chhangani** Enrolment No. **MBA-PM-0104** under the supervision of **Mr. Siddharth Singh (Group Product Manager)** and **Mr. Yogendra Nagar (Area Manager, Jodhpur)** for award of MBA in Pharmaceutical Management of the University carried out during the period from **29th March 2018 to 30th May 2018** embodies my original work and has not formed the basis for the award of any degree, diploma associateship, fellowship, titles in this or any other institute or other similar institution of higher learning.

Signature:

Abbreviations

MR's Marketing Representatives

BE's Business Executives

OTC Over the counter

WHO World Health Organization

Acknowledgement

The satisfaction and euphoria that accompany the successful completion of the project would be incomplete without the mention of the people who made it possible.

First of all, I express my sage sense of gratitude and indebtedness to **Miss Ankila Joshi, Senior HR Manager, Alembic Pharmaceuticals** who gives me this opportunity to work with such a promising industry. I would like to extend my sincere and heartfelt thanks to ma'am for providing me an opportunity to learn and develop professionally.

I would also like to express my deep sense of gratitude to **Mr. Siddhart Singh, Product Manager of Ophthalmic division, and Mr. Yogender Nagar Area Sales Manager, Alembic Pharmaceuticals**. I am greatly indebted to him for providing his valuable guidance at all stages of the internship, his advice, constructive suggestion, positive and supportive attitude and continuous encouragement, without which it would have not been possible to complete the project.

To place on record, I owe a debt of gratitude to **Mr. Rahul Sharma, Assistant Professor, IIHMR University** for grooming me and for the inspiration needed to work with dedication and motivation throughout as an Intern at Alembic pharmaceutical.

I hope that I can build upon the experience and knowledge that I have gained and make a valuable contribution towards the industry in coming future.

Last but not the least I am also thankful to all those who have directly or indirectly rendered help in completion of my summer internship.

Nikhil Chhangani

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Executive Summary

The Alspar Tablet contains Astaxanthin, Elemental Copper, Zinc, Lutein, tamin, Vitamin D, and Zeaxanthin. conditionally essential nutrients for the eye disorders. It is used to prevent and treat low vitamin B12. Lack of vitamin B12 may cause anaemia and damage to the nerves. It is used to treat diabetic neuropathy and peripheral neuropathy.

This study is conducted by Alembic Pharmaceutical for relaunch of Alspar tablet formulations as conducted a market assessment survey including 50 Ophthalmologist doctors (including super specialty).

This study helps to understand the market structure of Ophthalmic department in Jodhpur, physician's prescription pattern and preferences, and some perceptions of doctors and pharmacist regarding the Alspar Tablet.

Study also include the competitor analysis of some major brands that has already been established and captured the market at broader levels.

Company Profile

The legacy of Alembic Pharmaceuticals Limited (APL) dates back to over 100 years. Established in 1907 with an objective to develop and revolutionize the Pharmaceutical and Drug industry in the Indian subcontinent, Alembic Pharmaceuticals Limited today is one of the leading pharmaceutical companies in India.

The publicly listed entity that manufactures and markets generic pharmaceutical products across the globe has grown by leaps and bounds over the last century.



With an emphasis on innovation and technology, the company has established a state-of-the-art research facility – Alembic Research Centre (ARC)-including formulation research, and 150-bed bioequivalence facility at Vadodara, Gujarat. Additionally, APL has recently invested in ultra-modern R&D center at Hyderabad. APL is one of the leading players in the industry to have invested about 11% of its turnover in R&D.

As a growth strategy, the company has aggressively started investing in the international generics market with successful ANDA and DMF filings. APL has also filings across Canada, Europe, Australia, South Africa & Brazil. The company caters to the rest of the world markets through branded formulation sales.

The company aims to explore opportunities in the therapeutic areas such as Dermatology, Oncology, and Injectable Formulations. APL also has also co-promoted a company focused on discovery and development of innovative, small molecule drugs that target signal transduction networks and ion channels for the treatment of cancer, inflammation, autoimmune diseases and metabolic disorders.

Mission

To Improve Healthcare with Innovation, commitment & Trust

Historical Events in the lifetime of Alembic pharma

- 1907: Started Manufacturing Tinctures and Alcohol at Vadodara
- 1940: Started Manufacturing cough syrups, vitamins, tonics and sulphur drugs
- 1961: Lal Bahadur Shastri inaugurates the Penicillin plant
- 1967: Bulk Manufacturing of Vitamin B12
- 1971: Erythromycin manufactured for the first time in India
- 1972: Althrocin a brand of Erythromycin launched
- 1997: Althrocin becomes top selling brand in India
- 1999: Alembic starts production of synthetic organic API
- 2000: Gets ISO 14000 Certification for facilities at Vadodara
- 2001: Starts Manufacturing Cephalosporin C
- 2007: Acquisition of Non-Oncology Business of M/s Dabur Pharma Ltd.
- 2009: Addressed chronic therapies through multiple marketing division
- 2010: ANDAs total filed 38, DMFs total filed 53 and got approval of 15
- 2011: Pharmaceutical Business demerged from Alembic – APL Listed.
- 2012: Launched Dermatology division in domestic market with 8 products.
- 2013: Launched first NDA with a partner. Commenced filing in EU, Australia and Brazil.
- 2014: Formed a JV in Algeria- Alembic MAMI SPA to explore African market.
- 2015: Launched Aripiprazole on Day-1. Established the U. S front-end, transition to own marketing in the U.S
- 2016: Formed JV 60:40 with Orbicular – “Aleor Dermaceutical Limited” for developing Dermatology Products for international markets.

2017: Shri. Vijay Rupani – Hon’ble Chief Minister of Gujarat, inaugurates the manufacturing facility for Oncology medicines (oral solids and liquid injectable vials).

Major Therapeutic Sections

- Cardio-Diabetic
- Gynaecology
- Acute
- Gastroenterology
- Ophthalmology
- Dermatology
- Urology
- Orthopaedic
- Hospital care
- Animal health

Manufacturing

Manufacturing proficiency has been Alembic's forte ever since its inception. State of the art facilities with latest advanced manufacturing techniques help the organization cater to global demand with high quality and affordable medicines. Alembic has manufacturing facilities in various locations in the country dedicated for both Formulation as well as Active Pharmaceutical Ingredients (API).

Alembic houses 6 Formulation and 3 API manufacturing facilities. Of the 6 Formulation facilities, 5 facilities are located near Vadodara in Gujarat - 3 at Panelav and 2 at Karakhadi. One facility is located in Sikkim. Alembic currently manufactures general oral solids in Panelav and is in the process of putting up Oncology oral solids and Oncology injectable facilities at the same location.

Its Karakhadi plants will manufacture general injectable and ophthalmic products. The manufacturing facility at Sikkim produces oral solid dosage as well as liquid oral dosage forms. While the Panelav and Karakhadi facilities cater to the international markets, the Sikkim plant caters to the domestic market. Our plants have approval to market products in various markets by respective regulatory authorities.

Having initiated expansion of manufacturing facilities into newer areas where Alembic was not present hitherto, we are also in the process of initiating expansion of oral solid manufacturing at a Greenfield site at Halol, near Vadodara. This will help in catering to the growing demand and also in handling several new formulation facilities.

Alembic also has 3 manufacturing plants for API – 2 located at Panelav and one at Karakhadi. All the 3 facilities are cGMP compliant and cater to the API requirements of the regulated markets. The facilities have been audited and approved by major regulatory authorities for all regulated markets .

Our dedicated manufacturing team of more than 2000 people ensures highest standards of operation with strong oversight from the Quality team. Management assesses quality during regular review meetings and corrective actions are implemented without delay.

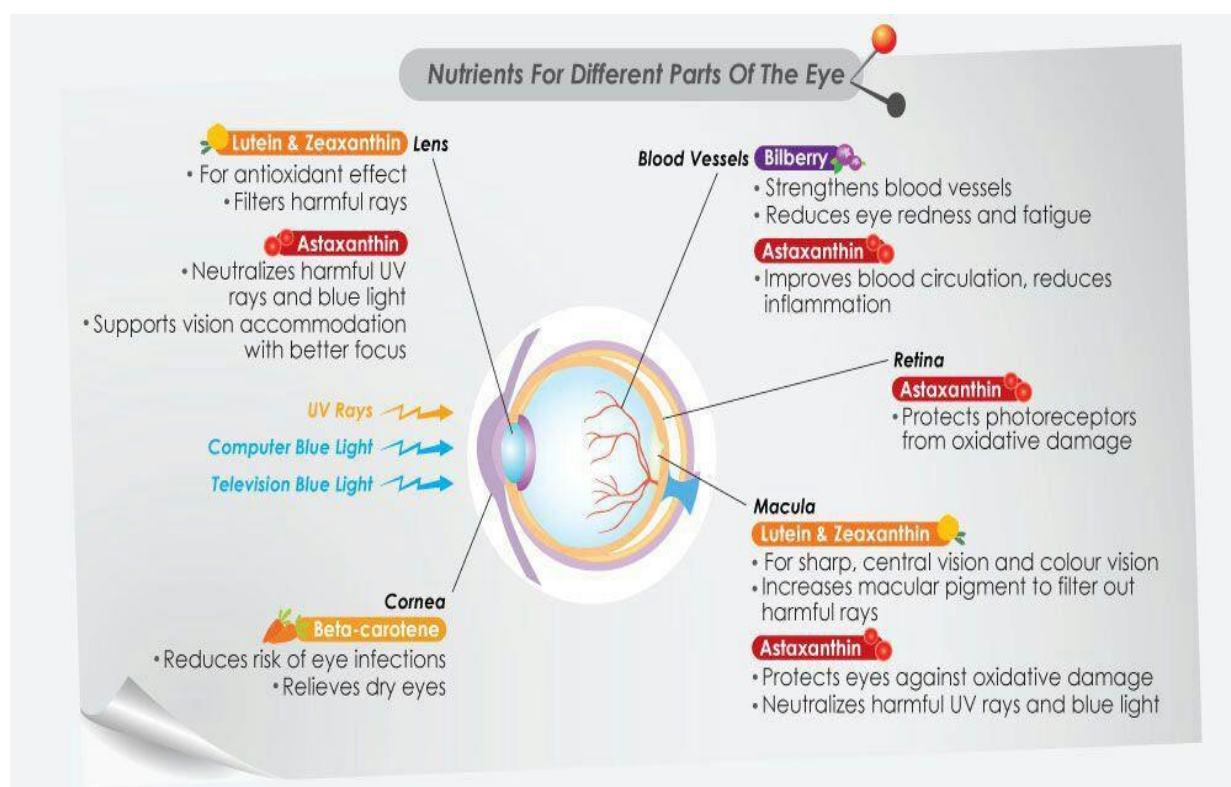


Introduction of the molecule

Lutein is a xanthophyll and one of 600 known naturally occurring carotenoids. Lutein is synthesized only by plants and like other xanthophylls is found in high quantities in green leafy vegetables such as spinach, kale and yellow carrots". "In green plants, xanthophylls act to modulate light energy and serve as non-photochemical quenching agents to deal with triplet chlorophyll (an excited form of chlorophyll), which is overproduced at very high light levels, during photosynthesis. See xanthophyll cycle for this topic.

Lutein is obtained by animals by ingesting plants. In the human retina, lutein is absorbed from blood specifically into the macula lutea, although its precise role in the body is unknown. Lutein is also found in egg yolks and animal fats.

Lutein is isomeric with zeaxanthin, differing only in the placement of one double bond. Lutein and zeaxanthin can be interconverted in the body through an intermediate called meso-zeaxanthin. The principal natural stereoisomer of lutein is (3*R*,3'*R*,6'*R*)-*beta*,*epsilon*-carotene-3,3'-diol. Lutein is a lipophilic molecule and is generally insoluble in water. The presence of the long chromophore of conjugated double bonds (polyene chain) provides the distinctive light-absorbing properties. The polyene chain is susceptible to oxidative degradation by light or heat and is chemically unstable in acids.



Lutein is present in plants as fatty-acid esters, with one or two fatty acids bound to the two hydroxyl-groups. For this reason, saponification (de-esterification) of lutein esters to yield free lutein may yield lutein in any ratio from 1:1 to 1:2 molar ratio with the saponifying fatty acid.

Alspar tablet contains Lutein and zeaxanthin, Astaxanthin, Vitamins and minerals which helps in the nourishment of eyes. It helps to treat various disorder like Glaucoma, blurring of eyes and helps to strengthening the tissue of eyes. It is also beneficial in Macular degeneration.

Objective:

- To Study the Ophthalmic Antioxidant Market, Practice Pattern and Vis a vis Alspar standing and suggesting the strategy to take Alspar ahead in Jodhpur Division.
- To find the top competitors and to analyse the market share of other brands in Jodhpur city

Research Methodology

Research study design: Descriptive study design was used in this study. Descriptive research design was considered best for it is a scientific method, which involve observing, describing recording, analysing and reporting conditions that exists without alterations.

Target Population: Ophthalmologist

Sample Size: During the study only 50 respondents filled questionnaire.

Study Area: Jodhpur, Bikaner (Rajasthan)

Time Period: 30th March 2018 – 29th May 2018

Sampling Technique: The researcher used Non-Probability (convenience) sampling to get the sample size.

Instruments: The researcher main instruments for data collections were mixed ended questionnaires, semi structured interviews and secondary data collection.

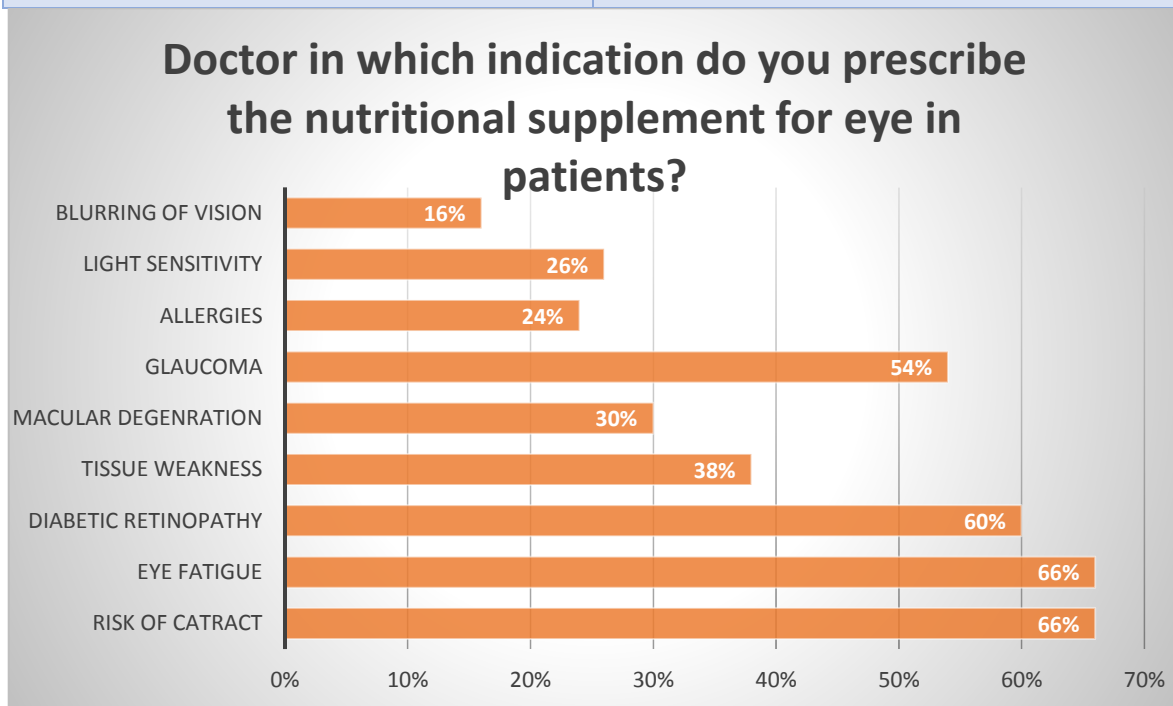
Data Collection Methods: The researcher involved data collection from primary and secondary sources. The primary data was collected through questionnaires (mixed ended) and semi structured interviews.

Personal interviews gave an in depth into the information; and eliminated misinterpretation. Questionnaire had the advantage that the respondent had adequate time to respond to questions and free from bias because the respondents were guided, and interviewer did not influence answers. The secondary data were obtained from published material, journals and internet sources.

Data Analysis and Presentation:

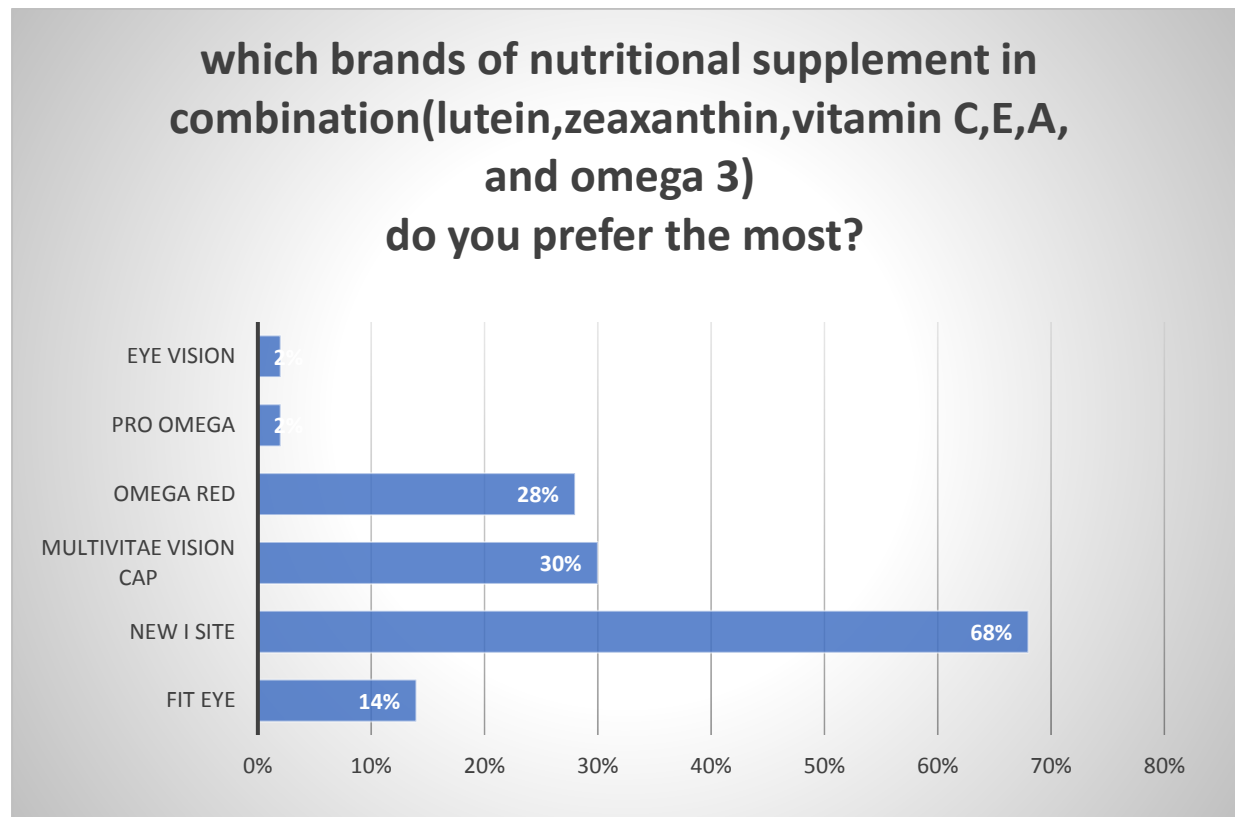
Question 1: Doctor in which indication do you prescribe the nutritional supplement for eye in patients?

Indications	No. of Responses
Risk of cataract	33
Eye Fatigue	33
Diabetic Retinopathy	30
Tissue weakness	19
Glaucoma	27
Allergies	12
Light Sensitivity	13
Blurring of vision	8
Macular Degeneration	15



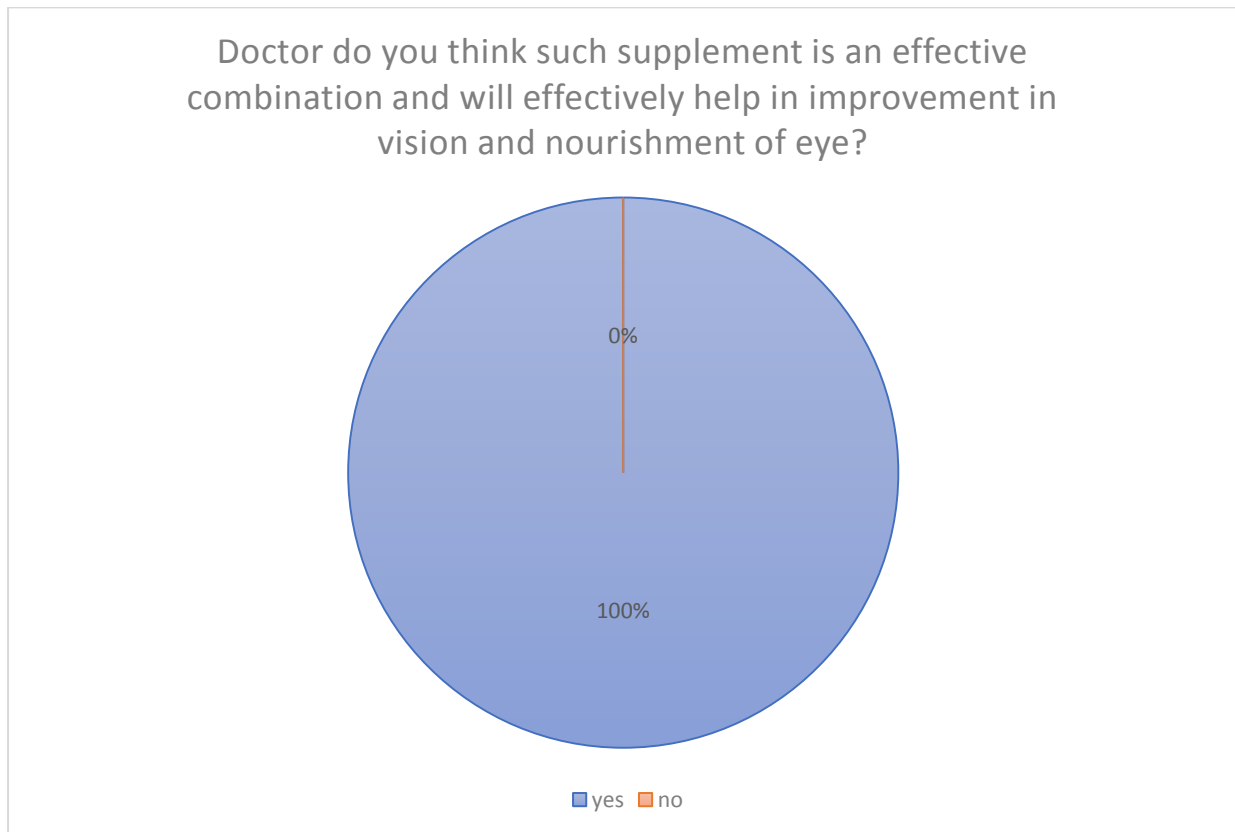
Interpretation: Risk of cataract and Eye Fatigue are the two major indications for which these supplements can be used and found to be 66% each. 60% doctors have a perception that these supplements can also be used in Diabetic Retinopathy. Other Major indications came to be are Tissue weakness, Glaucoma, Allergies, Blurring of vision and Macular Degeneration.

Question 2: Which brands of nutritional supplements in combination (Lutein, Zeaxanthin, Vitamin C, E, A, & Omega 3) do you prefer the most?



Interpretation: New I Site is the major competitor as it captures 68% of the total Jodhpur Market. Multivitae Vision Capsule captures 30% of the Market. Rest all brands that are prescribed by doctors are Eye Vision, Pro Omega, Omega Red and Fit eye.

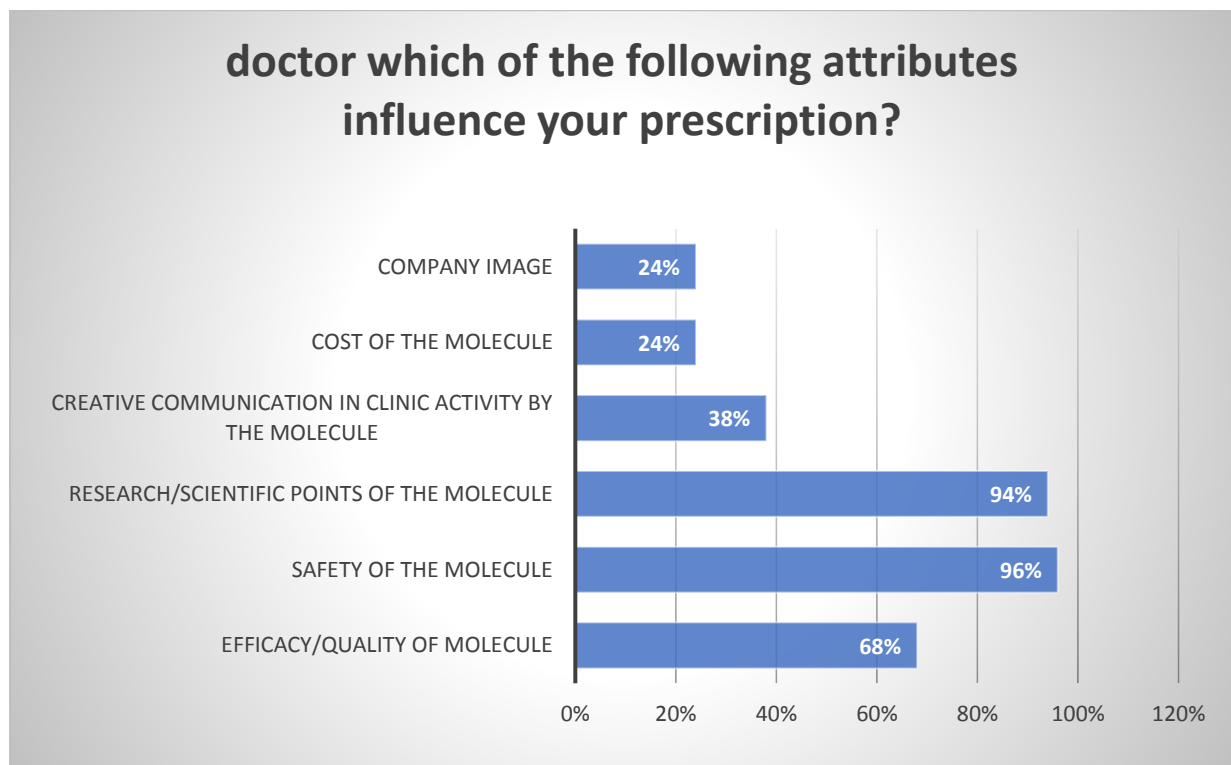
Question 3: Doctor do you think such supplements (Lutein, Zeaxanthin, Vitamin C, E, A, & Omega 3) is an effective combination and will effectively help in improvement in vision and nourishment of eyes.



Interpretation: It was found that 100% doctors have the perception that these nutritional supplements is an effective combination and will effectively help in improvement in vision and nourishment of eyes.

Question 4: Doctor which of the following attributes influence your Prescription?

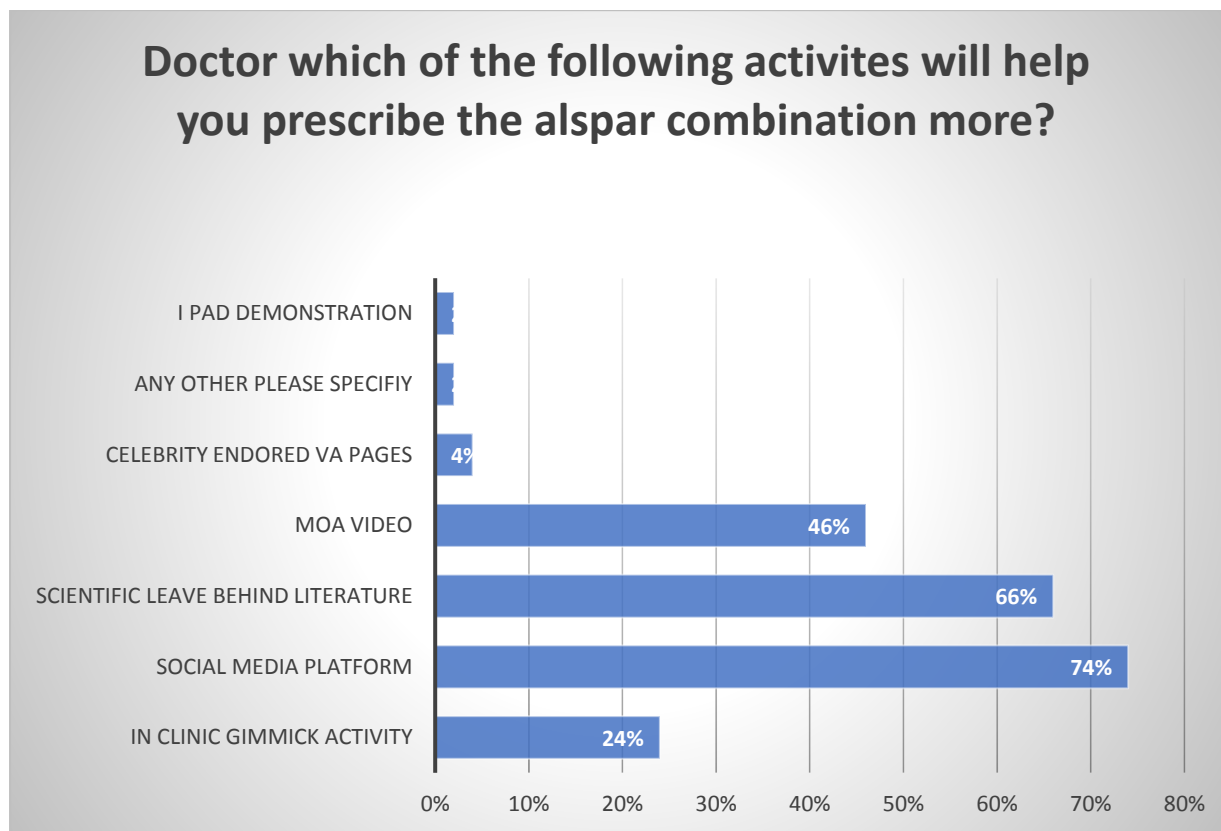
- a) Efficacy/ Quality of Molecule
- b) Safety of the molecule
- c) Research/ scientific points of the Molecule
- d) Creative communication/ in clinic activity by the molecule
- e) Cost of the molecule
- f) Company Image
- g) Equity with Field force



Interpretation: It was found that 96% doctors concerns about the safety of the molecule and 94% of the doctor's concerns about the research and scientific points of the molecule. 68% also concerns about the efficacy and quality of the molecule while other attributes are minorly concerned that are company image, cost of the molecule and creative communication in clinic activity by the molecule. None of the doctor is concerned with the Equity with field force.

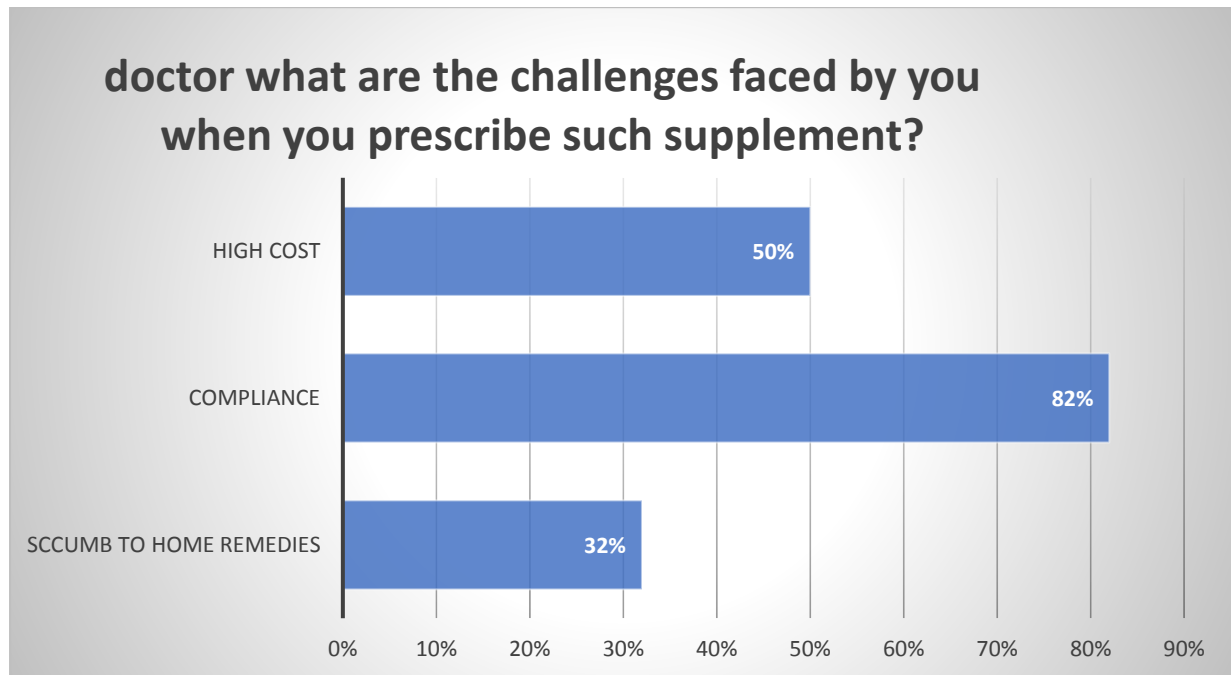
Question 5: Doctor which of the following activities will help you prescribing the Lutein, Zeaxanthin, Vitamin C, E, A, & Omega 3 combination more?

- a) In clinic gimmick activity
- b) Social media platform
- c) Scientific leave behind literature
- d) MOA video
- e) Celebrity Endorsed VA pages
- f) Any other please specify



Interpretation: 74% of the doctors goes on social media platform for prescribing the prescription. 66% of the doctors go for the scientific leaves behind literatures. 46% doctors check the Mechanism of Action videos. Other attributes are I PAD Demonstrations by BE's, Celebrity Endored VA Pages, In clinic Gimmick Activities or any other specific reasons.

Question 6: Doctor what are the challenges that you face with prescribe such supplements?



Interpretation: The major challenges faced by doctors at patient's level are compliance which came to be around 82% from this survey. High cost and affordability is the another challenge and 50% of the doctors faced this as a challenge. 32% of the doctors faced succumb to home remedies as a challenge.

Conclusion

Alspar Tablet are clinically renowned for their multivitamin properties and can be used in some disease like glaucoma, cataract, blurring of vision, eye fatigue, light sensitivity etc. Although, New I Site Tablet is the Major Competitor brand for Alspar tablet. This brand need more promotion as there is a lack of brand awareness. Compliance is the major challenge that is faced by doctors at Patients level.

Alembic Company Need a lot of end to end promotions to enhance the sales of this company. Collection of Prompt Feedbacks from the physicians as well as from customers level should helps in enhancing the sales.

Marketing Representatives and BE's should get enough training and education regarding this product so that they can give a better explanation to the doctors and influence them to write the prescription. This will lead to help the effective and efficient doctors calls by BE's and MR's.

Limitation of study:

- Due to personal attitudes, individual values and organizational policies, practioners' in the medical profession keep most of their understanding secret.
- The researcher received minimal cooperation from some respondents. The unavailability of target respondents due to their busy schedules was a major challenge. Therefore, accessibility of records was limited hence limiting the availability of more information that would have permit elaborate research.
- Resources constrains also posed a great limitation with constrained finances and very busy schedules therefore the researcher having limited to carry out the research.

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Annexure

Survey on Alspar tablet (Alembic Pharmaceutical)

Doctor.....

Place.....

Specialty.....

1. Doctor in which indications do you prescribe the Nutritional supplements for eyes in patients?

Risk of Cataract

Glaucoma

Eye fatigue

Allergies

Eye glare

Light sensitivity

Tissue weakness

Blurring of vision

Macular Degeneration

Competitive Assessment

2. a) Which brands of nutritional supplements in combination (Lutein, Zeaxanthin, Vitamin C, E, A, & Omega 3) do you prefer the most?

1. Fit Eye 2. New I Site 3. Multivite vision Cap 4. _____

5. _____ 6. _____ 7. _____

8. _____

3. Doctor what are the development attributes for such eye care nutritional supplement combinations?

4. Doctor what is the recall message of the top 3 brands that you prefer?

Brands	Recall message/element

5. Doctor do you think such supplements (Lutein, Zeaxanthin, Vitamin C, E, A, & Omega 3) is an effective combination and will effectively help in improvement in vision and nourishment of eyes.

Yes ☐ No ☐

Communication Strategy

6. a) Doctor what are the challenges that you face with prescribe such supplements?

At patient's level:

Succumb to home remedies ☐

Compliance ☐

Other_____ ☐

7. Doctor how can we partner with you and help you overcome above challenges by means of inputs?

8. Doctor which of the following attributes influence your Prescription?

h) Efficacy/ Quality of Molecule

i) Safety of the molecule

j) Research/ scientific points of the Molecule

k) Creative communication/ in clinic activity by the molecule

l) Cost of the molecule

m) Company Image

n) Equity with Field force

9. Doctor which of the following activities will help you prescribing the Lutein, Zeaxanthin, Vitamin C, E, A, & Omega 3 combination more?

g) In clinic gimmick activity

h) Social media platform

i) Scientific leave behind literature

j) MOA video

k) Celebrity Endorsed VA pages

l) Any other please specify

10. Doctor would you like to add any comments?

Thanks for participating in the survey