

Marketing Strategy for Stifease in Osteoarthritis

By

Jobin Thomas

*Dissertation submitted for the partial fulfillment of the
MBA Pharmaceutical Management*

Academic year, 2016-2018



The IIHMR University, Jaipur

1, Prabhu Dayal Marg, Sanganer, Airport
Jaipur 302029, Rajasthan
Ph: 0141 3924700, Fax: 3924738
Website: www.iihmr.edu.in

Marketing Strategy for Stifease in Osteoarthritis

By

Jobin Thomas

*Dissertation submitted for the partial fulfillment of the
MBA Pharmaceutical Management*

Academic year, 2016-2018

DelCure Life Science Ltd., Delhi



The IIHMR University, Jaipur

1, Prabhu Dayal Marg, Sanganer, Airport
Jaipur 302029, Rajasthan
Ph: 0141 3924700, Fax: 3924738
Website: www.iihmr.edu.in

CERTIFICATE

This is to certify that **Mr.Jobin Thomas** student of MBA Pharmaceutical Management from The IIHMR University, Jaipur has undergone Dissertation training at **DelCure LifeSciences Ltd.** From 5th February 2018- 5th 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 fulfilment of the course requirements.

I wish him all success in all his future endeavors.



Dr.(Col) Ashok Kaushik

Dean, Academics and Student Affairs

The IIHMR University, Jaipur



Dr. Sandeep Narula

Associate Professor

The IIHMR University, Jaipur

To be obtained on official stationary

The certificate is awarded to

Name: JOBIN THOMAS

In recognition of having successfully completed his
Internship/Dissertation on the project

**Brand management and marketing strategy for STIFEASE
from June 2018 to March 2019**

Date: 14.05.2018

Organization: Delcure LifeSciences Ltd

He comes across as a committed, sincere & diligent person who has a strong
drive and zeal for learning

We wish him all the best for future endeavors

Shirish Vankudre



GM - Human Resources

THE IIMMR UNIVERSITY, JAIPUR

CERTIFICATE BY SCHOLAR

This is to certify that the dissertation titled **MARKETING STRATEGY FOR STIFEASE IN OSTEOARTHRITIS** and submitted by **Mr. Jobin Thomas** Enrolment No. **MBA-PM-0069** under the supervision of **Mr. Amit Desai** for award of MBA in Pharmaceutical Management of the University carried out during the period from **5th February 2018 to 5th 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

ACKNOWLEDGEMENT

I would like to express my sincere gratitude towards **DelCureLifeSciences Ltd** for selecting me as a summer trainee and giving me an opportunity to work on this project and also for providing a good working ambience for successful completion of this project.

I also thank the HR Department for placing me in the **Delvoice&Winspire Marketing Division** of DelCureLifeSciences. I would like to express my special gratitude towards my guide **MrYashwant Singh** who throughout my project has been a great teacher and supporter for showing me the right direction during my project.

I would also like to express my sincere gratitude towards my mentor **Dr Sandeep Narula** for helping me in my project. His guidance and teaching has been of a great help during my project.

Finally I would like to express special word of Gratitude towards **Mr. Amit Desai** (Group Product Manager, Marketing) DelcureLifeScience ltd. Without his guidance it wouldn't have been possible for me to look in to niche opportunities in my project.

Last but not the least; I would like to express my sincere thanks to The IIHMR Unniversity for providing me all kind of support in my summer project placement at DelCureLifeScience Ltd.

Jobin Thomas

Management Trainee

DelCure Life Sciences Ltd.

Sl.No.	Particulars	Page No.
1	Introduction	4
2	Management of Osteoarthritis	6
3	What is Natural Eggshell Membrane	8
4	Objective	9
5	Research Methodology	9
6	Data Analysis	10
7	Competitor Analysis	16
8	Defining Communication Strategy	18
9	SWOT Analysis	19
10	STIFEASE Visual Aid	21
11	Suggestions	22
12	Reference	23

Introduction

Osteoarthritis (OA) is regarded as a prevalent cause of morbidity and disability worldwide affecting approximately 3.8% of the global population. OA shows many disease characteristics, such as cartilage degradation, moderate synovial inflammation, pain, alteration of bony structure and impaired mobility. However, despite the severity of disease, relatively little is known about its exact etiology.

Definition- Osteoarthritis (OA)

OA is currently defined by the American College of Rheumatology as a “heterogeneous group of conditions that leads to joint symptoms and signs which are associated with defective integrity of articular cartilage in addition to related changes in the underlying bone at the joint margins.

Prevalence and Incidence in India

By 2020, the number of people with OA may double. OA is the second most common rheumatological problem and is most frequent joint disease with prevalence of 22% to 39% in India. This is the most common cause of locomotor disability in the elderly. Above 55 years of age incidence of OA is very high in India with 25% to 30% in women and 15% to 20% in men. By 2025, India may have 60 million OA cases.

Pathophysiology

The pathophysiology of OA can be divided into three phases. In the **first Phase**, proteolytic breakdown of the cartilage matrix occurs. Chondrocyte metabolism is affected, leading to increased production of enzymes such as metalloproteinases, destroying the cartilage matrix.

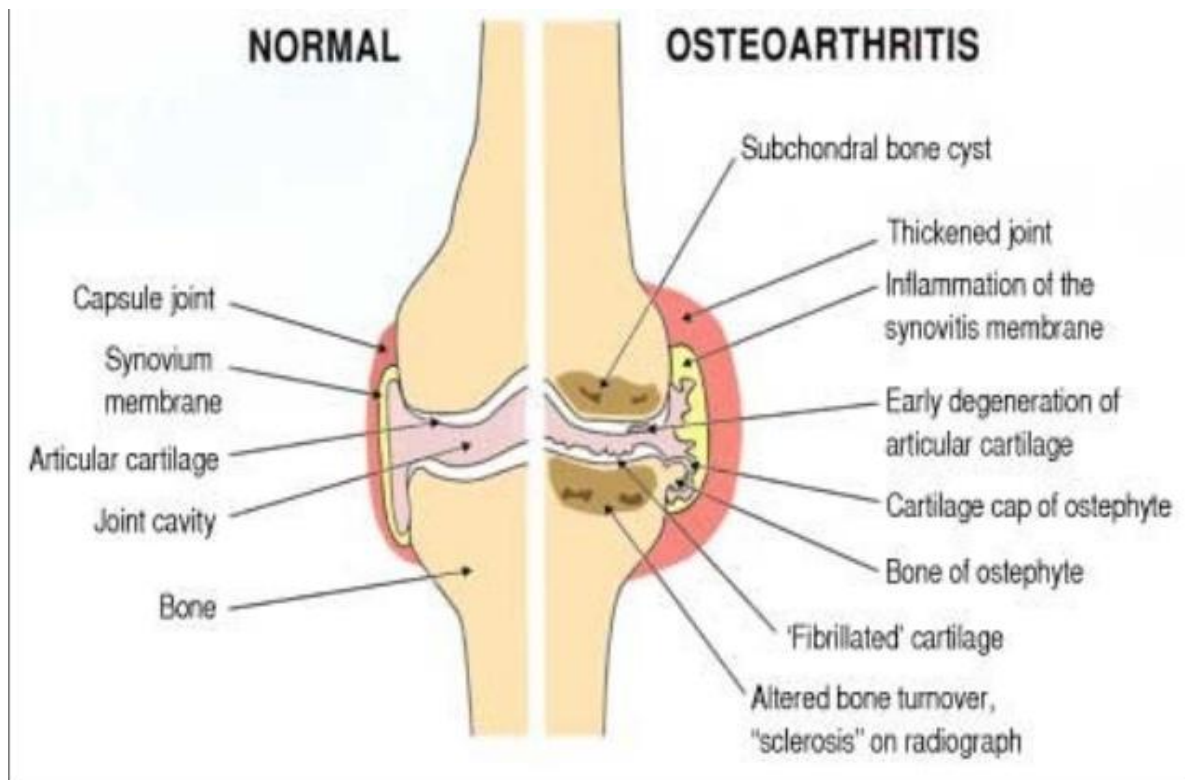
Phase two involves fibrillation and erosion of the surface of the cartilage, with the subsequent release of proteoglycan and collagen fragments into the synovial fluid.

In the **Third Phase**, these products of cartilage induce a chronic inflammatory response in the synovial tissue. Synovial macrophages produce pro-inflammatory cytokines and metalloproteinases that can directly destroy cartilage tissue and stimulate chondrocytes to produce more destructive enzymes. Eventually, these events alter joint architecture and bone overgrowth occurs in an attempt to stabilize the joint.

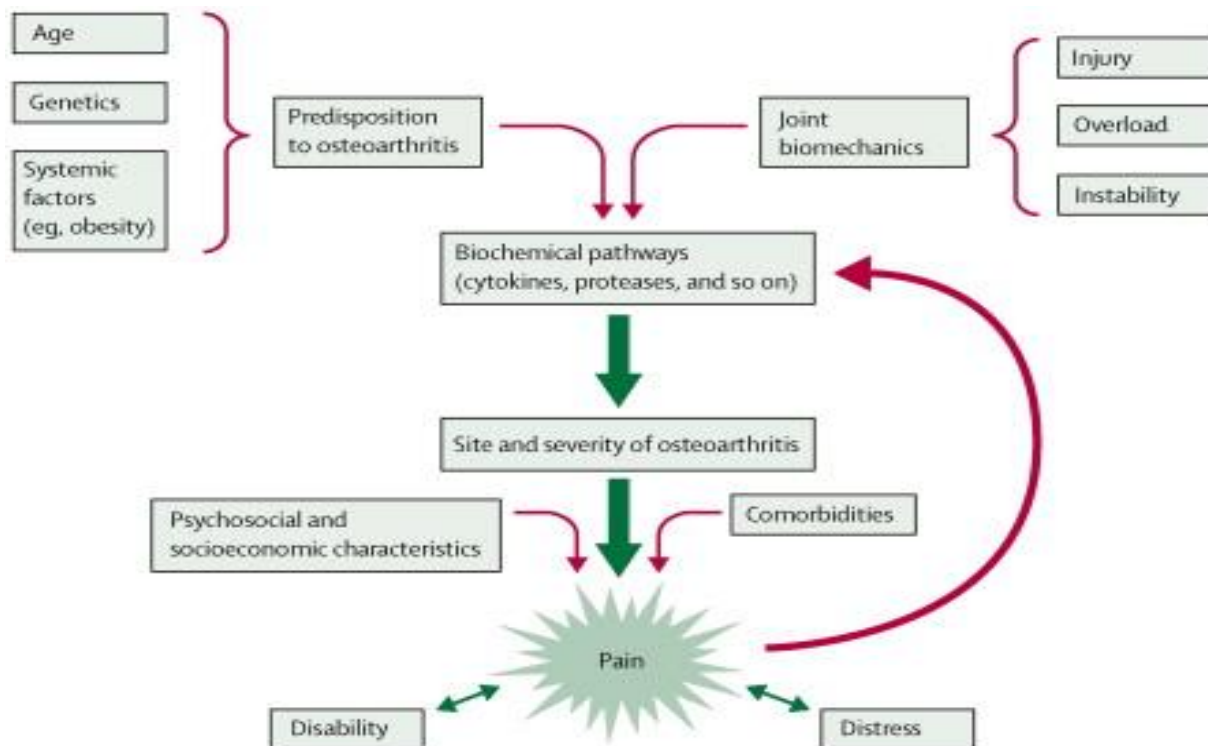
When the joint architecture is altered and further mechanical and inflammatory insults occur on the articular surface the disease may progress. There are also reports that changes in the bone cells occur very early in the disease process and may themselves be a stimulus for cartilage damage.

Knee OA affects the 3 compartments of the knee joint (medial, lateral and patellofemoral joint) and usually develops slowly over 10 to 15 years, interfering with daily life activities. Traditionally, it was interpreted as a “wear-and-tear” of the articular cartilage disease only because of aging and not related to inflammation.

It is accepted that knee OA is multifactorial in origin. Whereas both inflammatory and biomechanical whole-organ disease processes play an important role, knee OA is also influenced by a combination of factors, including family history, age, obesity, diabetes, synovitis, systemic inflammatory mediators, innate immunity, lower limb alignment, joint shape and dysplasia, trauma and inflammation by metabolic syndromes.



Normal versus Osteoarthritic Bone



Management of Osteoarthritis

Goals of managing osteoarthritis include controlling pain, maintaining and improving range of movement and stability of affected joints and limiting functional impairment.

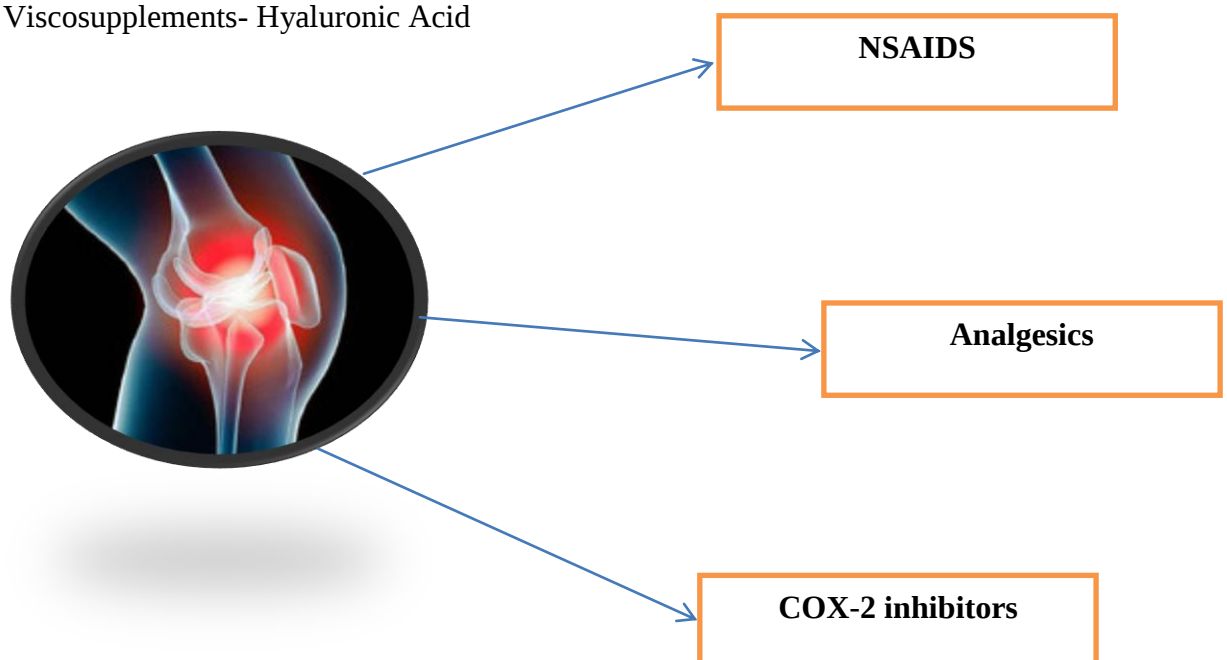
In evaluating treatment modalities in patients with OA, it is important to have good outcome measures. Since OA is a slowly progressive disease, outcomes that are able to alter rather quickly are therefore needed. Of course the most important clinical parameters- pain, stiffness and loss of function- are important and can change rather rapidly.

Non-Pharmacological Treatment

- ❖ Education (patient and spouse or family)
- ❖ Social support (telephone contact)
- ❖ Physiotherapy(aerobic exercise, muscle strengthening & patellar strapping)
- ❖ Occupational therapy (aids & appliances, joint protection)
- ❖ Weight loss
- ❖ Acupuncture
- ❖ Transcutaneous electrical nerve stimulation (TENS)

Pharmacological Treatment

- ❖ Simple analgesia
- ❖ Non-steroidal Anti-inflammatory drugs
- ❖ COX-2 inhibitors (cyclo-oxygenase 2 selective non-steroidal anti-inflammatory drugs)
- ❖ Corticosteroids
- ❖ Viscosupplements- Hyaluronic Acid



Current available option cannot be used as long term treatment for OA

NSAIDS

- Propensity to cause stomach ulcer, GI bleeding and perforations.
- Gastrointestinal toxicity is present in 50% of NSAIDS users and 5.4% develops a more serious events requiring hospitalization due to its frequent use.
- Renal disorders on long term usage.

Analgesics

- Their use does not provide adequate pain relief in some patients.
- GI toxicity

COX-2 inhibitors

- Ordered by the United States (FDA) to have a black box warning on the label because of concerns that their long-term use may increase the risk of stroke and heart attack.
- Renal damage.

Hyaluronic acid

- Localized reaction, transient local swelling, pain & erythema

What is Natural Eggshell Membrane (NEM)?

Eggshell membrane is the clear film lining of an eggshell having a function of letting oxygen pass and blocking invasion of bacteria. Eggshell membrane is one of the elements that make up the egg that occupies an important position as a complete food in the human diet. It is composed of 70% organic matter, 10% inorganic material and 20% water and 80% of the organic material constituents main component and the rest is made of 2.3% of fat and 3.4% of carbohydrate.”

Natural Eggshell Membrane contains naturally occurring glucosamine, chondroitin, hyaluronic acid, collagen (Type 1,V & X), peptides and other Sulphur containing amino acids- a combination of powerful molecules in one single matrix, which work together to promote healthy joints. NEM is not found naturally in the diet and is not made by the body. A specialized patented process is used to extract NEM from eggshells for use in supplement form.

What is the mechanism of action of NEM?

When human immune cells were exposed to a water extract of NEM and subsequently compounds that are known to cause an inflammatory response, NEM was shown to significantly reduce a number of pro-inflammatory cytokines. This effect was most pronounced for the cytokines Interferon-gamma (IFN- γ) and tumor necrosis factor-alpha (TNF- α). The reduction in TNF- α was further enhanced by a stimulated gastric digestion, likely giving insight into the compounds produced in the stomach following digestion of NEM.

About the Product....

STIFEASE CAPSULE

(10 Capsules in a Strip)

Rs-299

Launched Date- August 2017

Product Details

Stifease Capsule is a natural formulation with Natural Eggshell Membrane as a main ingredient that mainly includes elastin, glucosamine, hyaluronic acid, chondroitin and collagen.

Role of Key ingredients

- ❖ **Glucosamine** reduces joint inflammation while cushioning the joints against impact & assisting in cartilage repair.
- ❖ **Hyaluronic acid** helps to absorb shock while promoting joint elasticity.

- ❖ **Chondroitin** promotes cartilage elasticity and helps to battle enzymes known to damage the joints.
- ❖ **Collagen**, a type of protein found in connective tissue.

Usage

In case of Osteoarthritis and Osteopenia.

Dosage

500Mg Once Daily.

OBJECTIVE

❖ Qualitative objective:

- a) To establish that Natural Eggshell Membrane is the most economical quality than traditional drugs in the market.
- b) To promote & establish that Natural eggshell Membrane has better results in Osteoarthritis as compared to traditional drugs.
- c) To enhance the penetration of Natural eggshell Membrane in Osteoarthritis.

❖ Quantitative Objective:

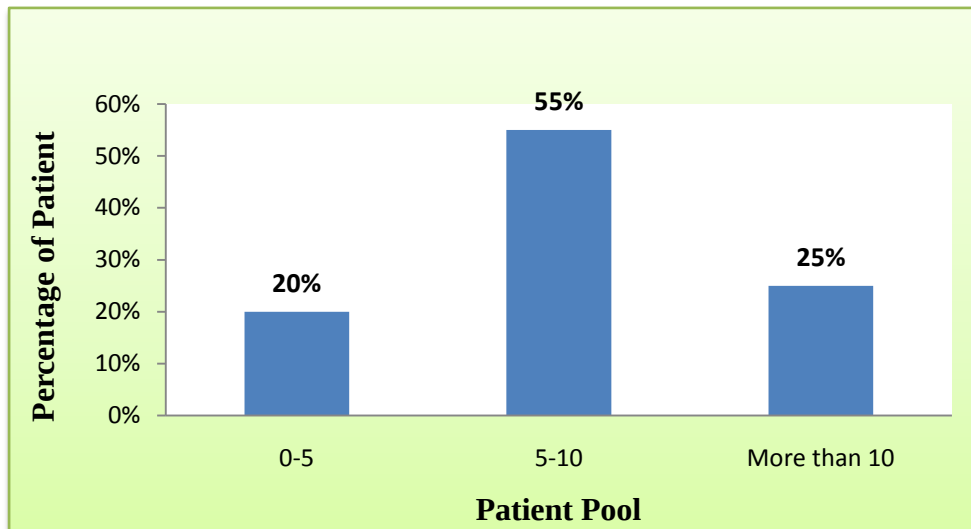
- To make **Stifease** as **1 Crore** brand in this new financial year ie 2018-19.

FORMULATION	UNITS	VALUE
Stifease Capsule	54950 units	1 crore brand

RESEARCH METHODOLOGY

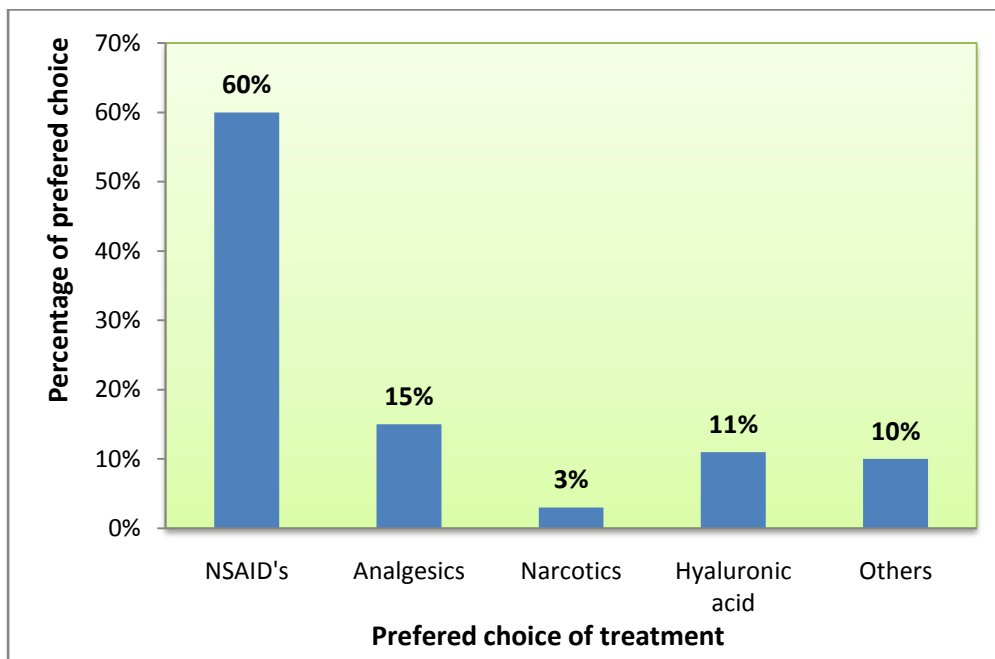
SR.NO.	PARAMETERS	DESCRIPTION
1	Research Type	Qualitative & Quantitative
2	Data Collection	Primary and Secondary
3	Measurement Technique	Structured Questionnaire, literature review & articles
4	Geographical Location	Mumbai & Pune
5	Sample Size	200
6	Target Population	Orthopaedics & Consulting Physician
7	Sampling Technique	Cluster Sampling
8	Data Analysis Analysis Technique	MS-Excel

Q1. Doctor, how many osteoarthritic patients are diagnosed in a day?



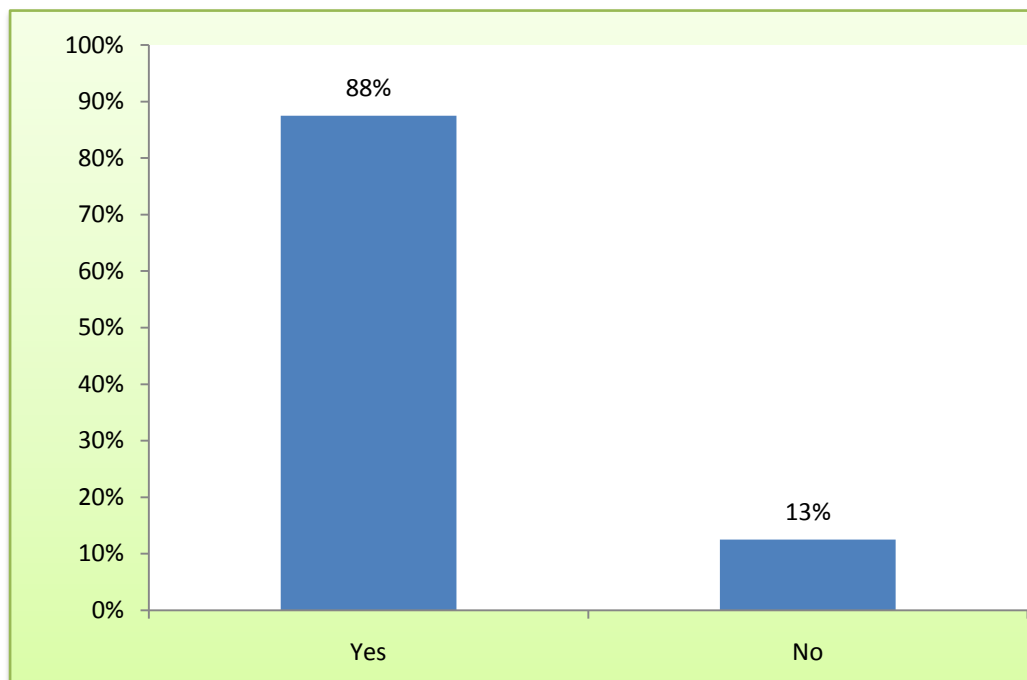
From the above graph we can observe that about 55% of Orthopedic Doctors diagnose 5-10 Osteoarthritic patients daily followed by 25% of Doctors diagnose more than 10 patients and 20% Orthopedic Doctors diagnose 0-5 patients daily.

Q3. Doctor, which is your preferred choice for management of osteoarthritis?



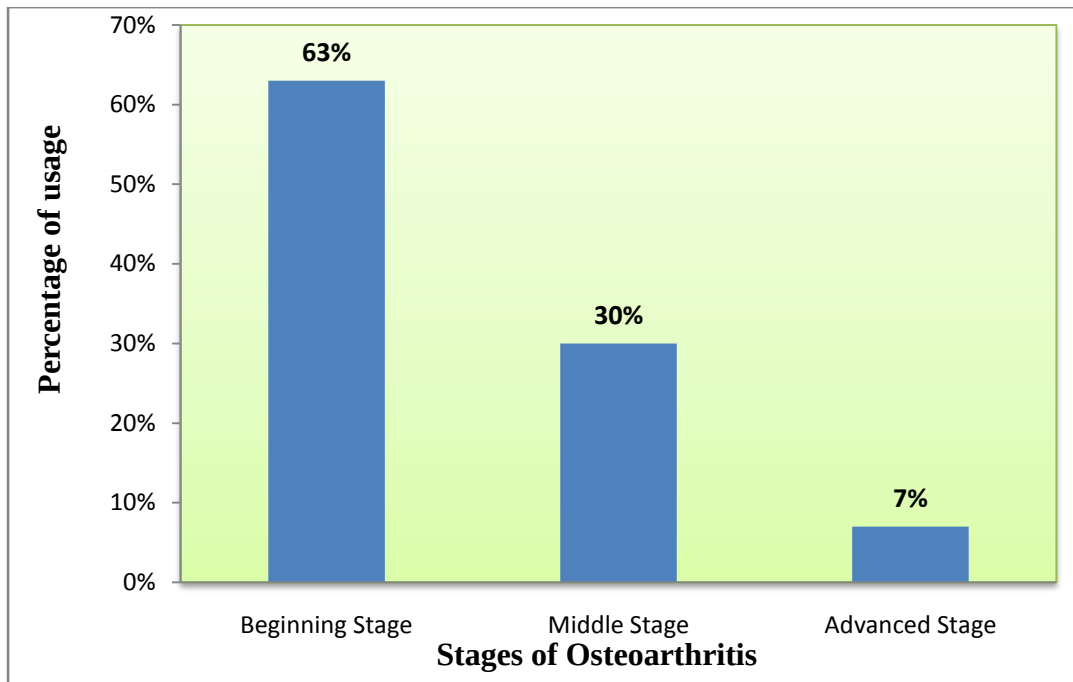
From the above graph we can observe that, the preferred choice for management of Osteoarthritis with highest priority of 60% of NSAIDS followed by 15% of analgesics, 11% of hyaluronic acids and 10% of others(glucosamine or chondroitin combination & NEM).

Q4. Doctor, are you aware about Natural Eggshell Membrane?



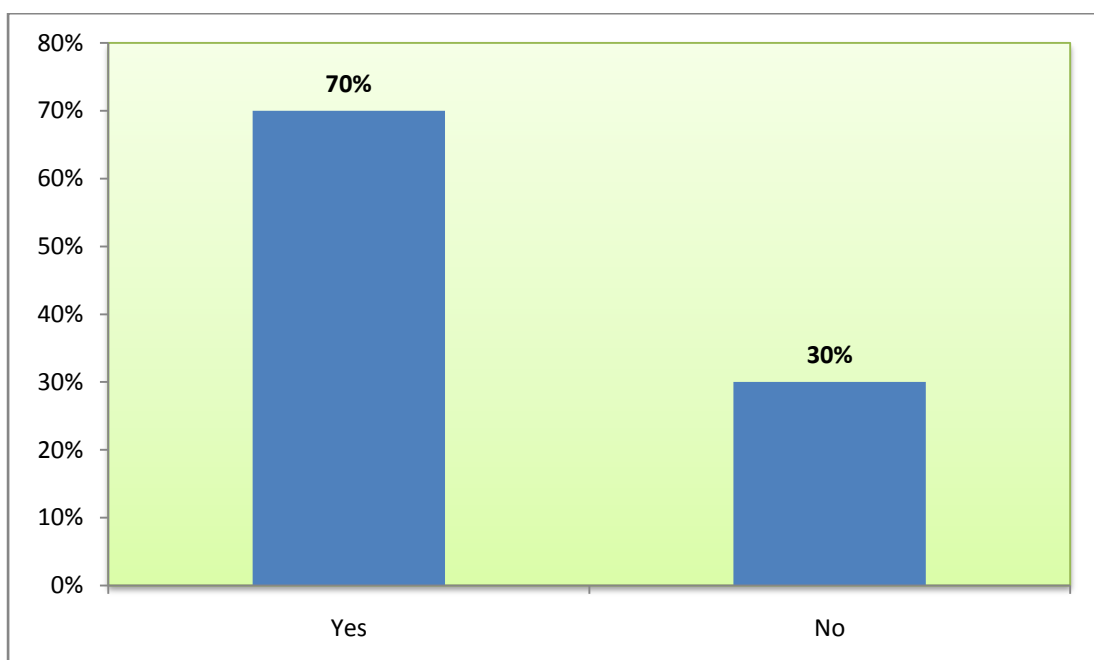
From the above graph we can observe that about 88% of Orthopedic Doctor's are aware about Natural Eggshell Membrane and only 13% Doctor's are not aware about NEM.

Q5a(1). At which stage of osteoarthritis do you use Natural Eggshell Membrane?



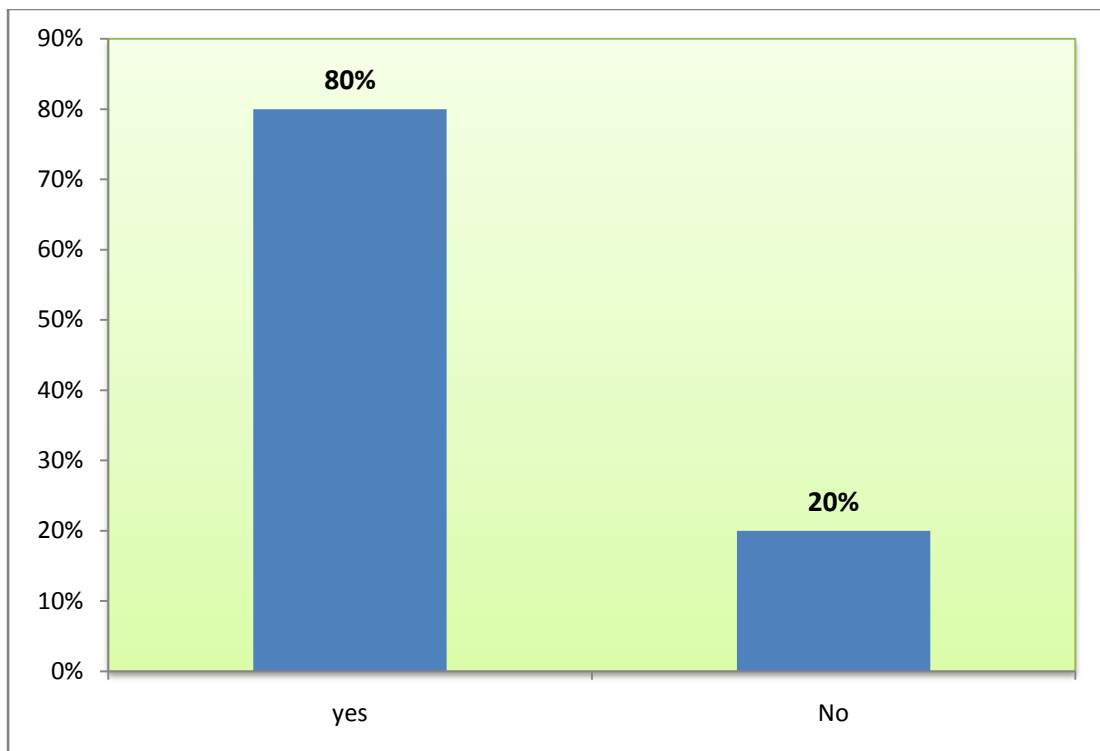
From the above graph we can observe that 63% of Orthopedic doctor's use NEM at the beginning stage followed by 30% at the middle stage and 7% at the advanced stage.

Q5a (2). Would you prefer Natural Eggshell Membrane as compared to traditional NSAID therapy in management of osteoarthritis?



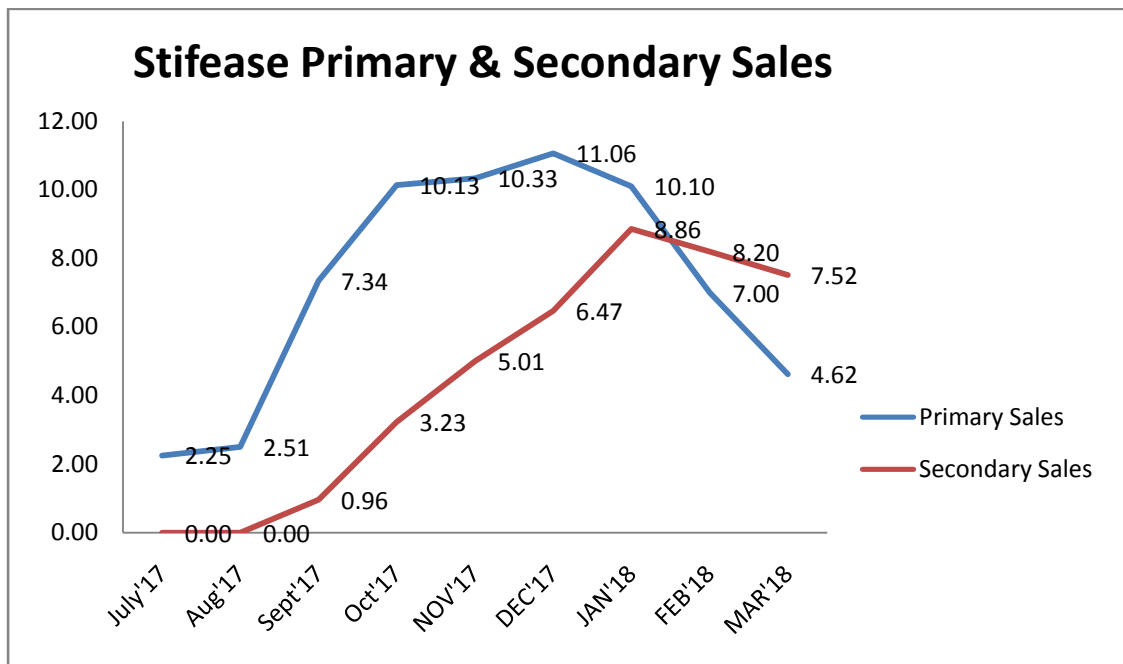
From the above graph we can observe that about 70% of Orthopedic doctor's prefer Natural Eggshell Membrane as compared to traditional drugs.

Q5(b). Would you be interested in knowing about the use of Natural Eggshell Membrane in osteoarthritis?



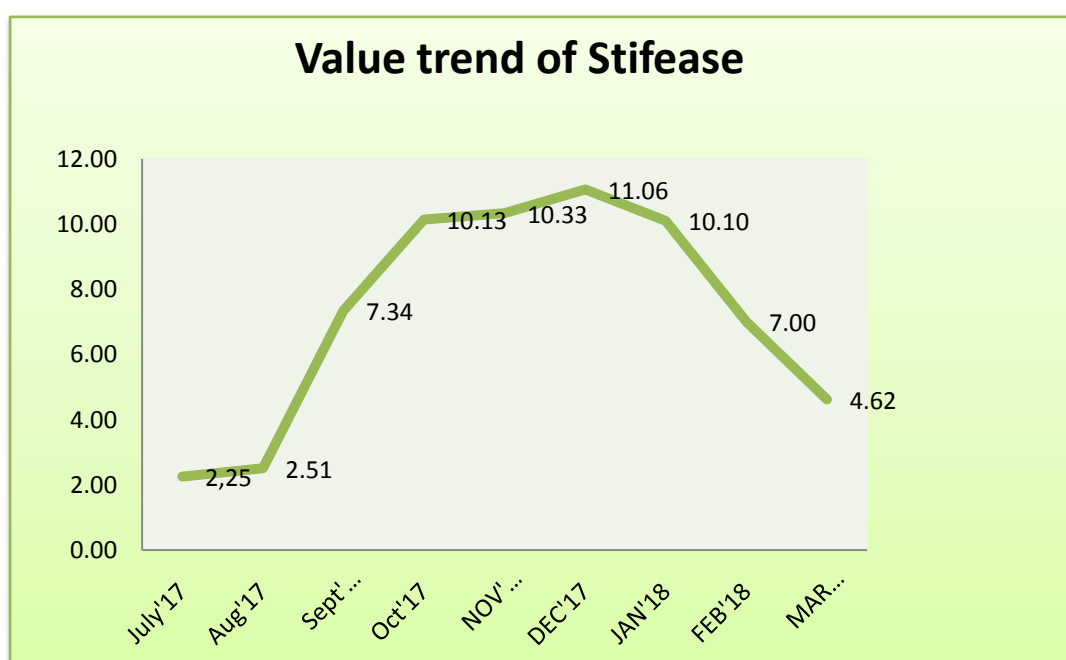
From the above graph we can observe that 80% of doctor's were interested in knowing about the use of Natural Eggshell Membrane.

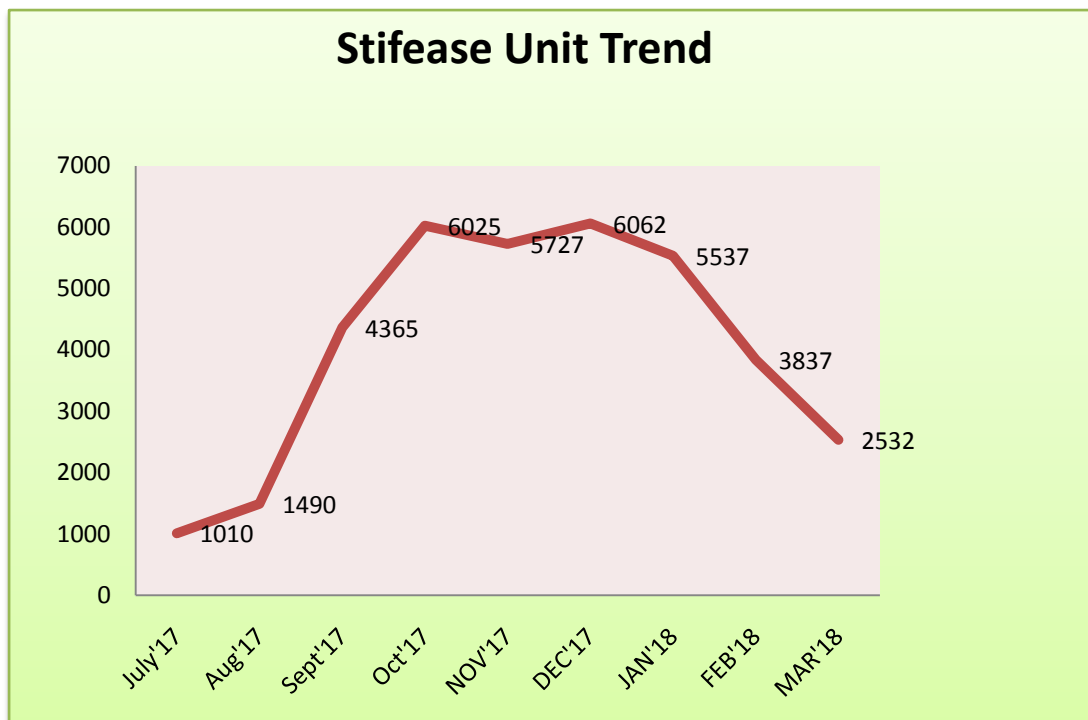
Primary & Secondary Sales of STIFEASE



From the above graph we can observe that from the launch date itself there was a gradual increase in the primary and secondary sales and then it was decreasing. Now from the graph we can also observe that primary & secondary sales was maximum in Nov-Jan month.

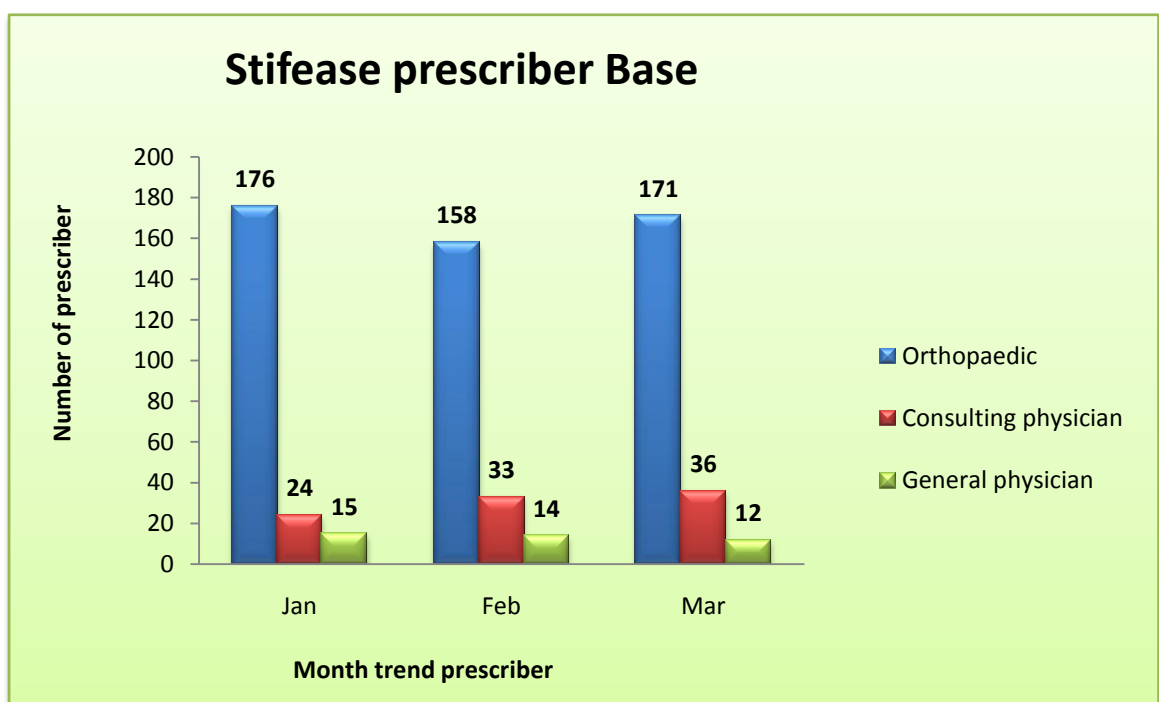
STIFEASE MAT Value & Unit Trend





From the above graph we can observe that there is increase in value and unit trend monthwise and then decreased after the month of January as per the MIS Data.

Prescriber Base of STIFEASE

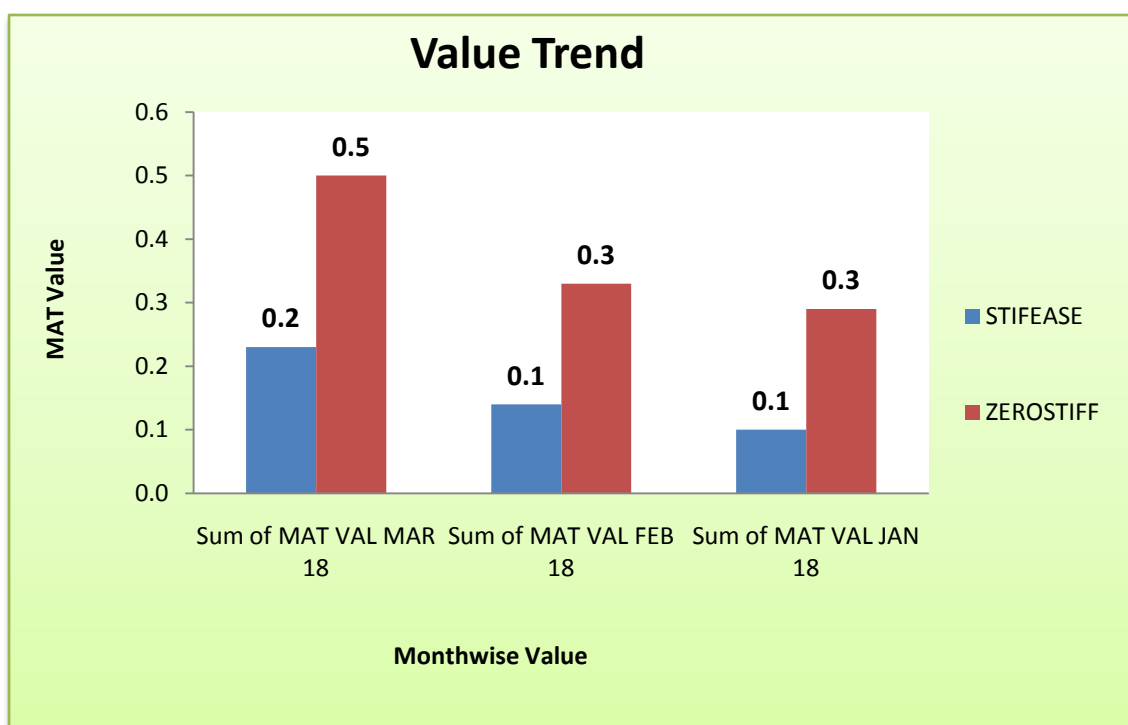


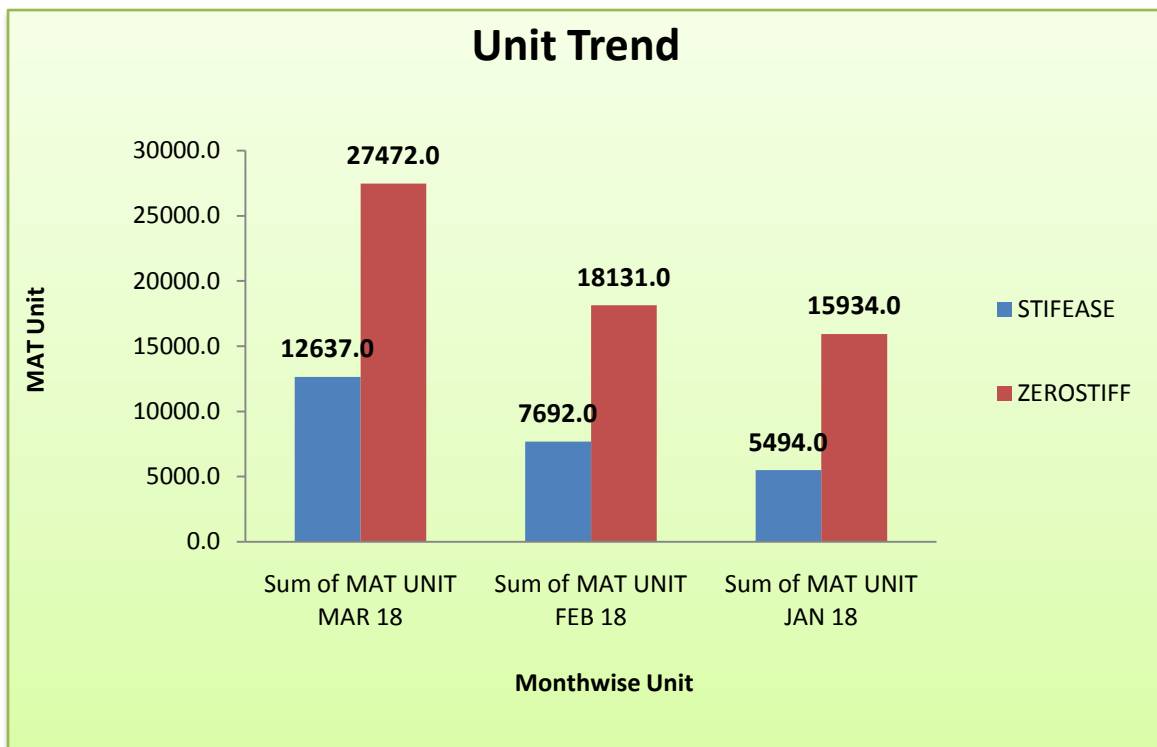
From the above graph we can observe that the maximum prescriber base for STIFEASE is of Orthopedician followed by consulting physician and then general physician.

COMPETITOR ANALYSIS

Direct Competitor (NEM)	Indirect Competitor (glucosamine & chondroitin)
• Zerostiff Total	• Rejoint
• ShellOut	• Cartigen Forte
• Fixonem	• Mega Free Flex
	• Free Flex
	• Mega Cartigen

MAT Value & Unit Trend of STIFEASE & ZEROSTIFF TOTAL





From the above graphs we can observe that MAT Value and Unit trend is maximum for ZEROSTIFF TOTAL than STIFEASE and it is increasing monthly gradually.

Communication Task

- ✓ TARGET AUDIENCE: Ortho & Consultant Physicians
- ✓ DESIRED BEHAVIOR: Use STIFEASE in the management of OA and associated Osteophytes

Current Behavior	Desired Behavior
Use of NSAIDS in Pain associated with OA	Safe alternative in pain management in OA
Glucosamine & Chondroitin sulphate use in OA	Establishing a belief for well acceptance of NEM
BID or surgery an option for long term	Economic safe for long term use

Defining communication strategy

Data & Information

- One in two adults will develop symptoms of knee OA during their lives.
- One in four adults will develop symptoms of hip OA by age 85.
- One in 12 people 60 years or older have hand OA.

- New concept in OA
- Internationally accepted molecule
- Dosage convenience

Understanding

- The Patient size is fairly high
- NSAIDS rule the market
- More studies Needed to reemphasize the concept

Insight

Opportunity for creating Market
To create new era of treatment

SWOT ANALYSIS

Strength

- Proximity With Ortho
- Innovative product
- OD convenience

Weakness

- Egg allergy

STIFEASE

Opportunity

- Large OA market
- Less players
- 1st Mover advantage

Threat

- More players coming in market

Area of Improvement

- Improving the communication of the Field force
- Execution of activity

ZEROSTIFF TOTAL VISUAL AID



Findings from the visual Aid

- ❖ The importance of Eggshell Membrane is lacking in the visual aid.
- ❖ There is too much communication in the visual aid.

- ❖ There is no comparative study of NEM with glucosamine in order to get the attention of the doctor's to show the importance of the NEM as compared to glucosamine or chondroitin combination.
- ❖ The graph showing pain indication ie. VAS score is not there which will be the proof for the reduction of pain intensity.
- ❖ The time duration by which the patient will get cured is not shown.

STIFEASE Visual Aid

Eggshell membrane is 5 Times more effective than Chondroitin or Glucosamine ALONE OR IN COMBINATION

Treat Pain Comparison*

Treatment	Pain Score
EggShell Membrane	5
Glucosamine / Chondroitin	23.8

50% Reduction in Pain & stiffness in 2 months with NEM compared to Glucosamine/ Chondroitin 6 months treatment

Natural egg shell membrane with patented Peeler Technology

STIFEASE
Natural egg shell membrane 500 mg Capsule

Removes Stiffness Easily

- Significant effects on IL-6, IL-10 and TNF- α reducing cytokine production²
 - Reduces inflammation
 - Increases mobility

30% Reduction in pain in 7 days³

50% Reduction in pain in 30 days³

50% Improvement in stiffness in 30 days³

Dosage: 1 Capsule OD

Natural Eggshell Membrane Capsules STIFEASE

1. N Engl J Med 2006; 355(2): 795-808. | 2. J Med Food 15 (4) 2012; 368-368.
3. Clin Interv Aging. 2009; 4: 235-240. | * Number to treat pain comparison scale 3.5 : 5

Findings from the Visual Aid

- ❖ The indication is not clear in the visual aid.
- ❖ The image is just showing only a single perception which is for obese patient only.

Suggestions

- ❖ Greetings to Doctor's on special occasions or celebrations with Brand name.
- ❖ Monthly meeting the Doctor's with the reference material.
- ❖ To distribute pamphlets that shows normal exercise and diets to follow along with the drugs.
- ❖ Providing brand schemes to the doctor's
- ❖ Digital video of Doctor's who are well known and the video will contain the message regarding the uses of NEM in OA.
- ❖ Also adding on new formulation along with the existing one ie. Using Calcium along with NEM as OA one of the main reason is calcium deficiency in so providing calcium as a supplement along with NEM fill calcium deficiency problem.
- ❖ Also adding Boswellia or Boswellic acid with NEM.
- ❖ Adding new indications to the product like:
 - Post Plaster Stiffness
 - Joint pain and stiffness in Chicken Guniya
 - Rotar Cuff Strain
 - Frozen Shoulder
- ❖ Brand Based activities like providing doctor's customized inputs.

Reference

1. <https://food.ndtv.com/health/india-may-have-60-million-osteoarthritis-cases-by-2025-1231464>.
2. https://www.indiainfoline.com/article/news-business-wire-finance/incidence-of-osteoarthritis-alarmingly-high-in-india-says-dr-smarajit-patnaik-apollo-hospital-bhubaneswar-114112000388_1.html.
3. <https://www.researchgate.net/publication/302481692>.
4. Laba et al. BMC Musculoskeletal Disorders 2013, 14:160 <http://www.biomedcentral.com/1471-2474/14/160>
5. Viswanath J et al. *Int J Community Med Public Health*. 2017 Aug;4(8):3043-3046 <http://www.ijcmph.com>.
6. Clinical Interventions in Aging downloaded from <https://www.dovepress.com/> by 114.79.150.17 on 18-Apr-2018.
7. <https://www.researchgate.net/publication/51877697>.
8. Effects of glucosamine, chondroitin, or placebo in patients with osteoarthritis of hip or knee: network meta-analysis. Wandel S, Jüni P, T endal B, Nüesch E, Villiger PM, Welton NJ, Reichenbach S, T relle S. *BMJ*. 2010 Sep 16;341:c4675.
9. *N Engl J Med*. 2006 Feb 23;354(8):795-808:
10. *Clin Rheumatol*. 2009 Aug; 28(8): 907–914:
11. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2920533>.
12. <https://www.uptodate.com/contents/osteoarthritis-treatment-beyond-the-basics>.
13. <https://www.thealternativedaily.com/powerful-benefits-eggshell-membranes/>
14. <https://www.iherb.com/blog/health-benefits-of-natural-eggshell-membrane/233>
15. <https://www.medicalnewstoday.com/articles/166186.php>
16. <http://www.kordels.com.sg/product/kordels-glucosamine-300-chondroitin-msm/>
17. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5017174/>
18. <https://www.medicalnewstoday.com/kc/stages-osteoarthritis-knee-310579>
19. http://www.scielo.br/scielo.php?script=sci_arttext&pid=S0102-67202018000100305
20. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3886444/figure/i1949-8357-5-4-541-f01/>