

MARKET GROWTH EVALUATION AND COMPARISON OF DRUGS FOR INFERTILITY IN MEN AND WOMEN

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Master of Business Administration (MBA)

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Pharmaceutical Management

By

Neha

Under the Supervision and Guidance of

Dr. Saurabh Kumar

2024



Sol Derma[®] Pharmaceuticals Pvt. Ltd.

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CERTIFICATE

This is to certify that **Ms. Neha** of **IIHMR -U/02 /2022-24/ 0408** of **IIHMR UNIVERSITY JAIPUR** has worked with our organization for her summer internship from **1/05/2024 to 30/06/2024**. The overall performance shown by her during the period was excellent.

This certificate is being issued to meet the requirements of the IIHMR University.

Date: 01/07/2024

Name: Ashish Goswami
Designation: GM-Marketing
Solderma Pharmaceuticals Pvt Ltd

DECLARATION BY STUDENT

I hereby declare that this dissertation titled **Market growth evaluation and comparison of drugs for infertility in men and women** is the Bonafede record of my original research work. I declare that it has not been submitted to any other university or institution for the award of any degree or diploma. Information derived from the published or unpublished work of others has been duly acknowledged in the text.

Neha

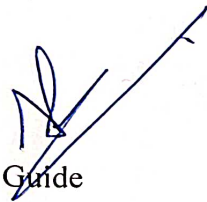
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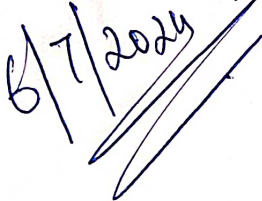
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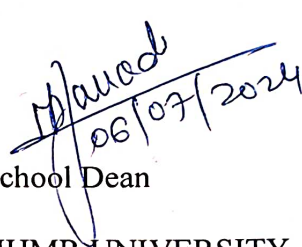
This is to certify that dissertation titled Market Growth Evaluation and Comparison of Drugs for Infertility in Men and Women a record of research work undertaken by Neha in partial fulfillment of the requirements for the award of the degree of MBA Pharmaceutical Management from IIHMR University, Jaipur under my guidance and supervision and her approach to the research study has been sincere, scientific and analytical.


Faculty Guide

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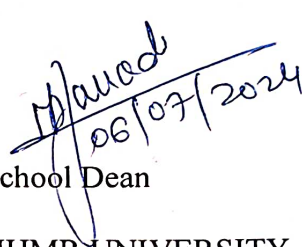
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School Dean

IIHMR UNIVERSITY, Jaipur

Date


06/07/2024

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MBA PM14

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Chapter-1 ABSTRACT

Infertility affects millions globally, prompting a continuous rise in the infertility drugs market. This evaluation assesses market growth trends for drugs addressing male and female infertility. It compares factors influencing their market performance, highlighting key aspects for future considerations. **Market Growth Trends:** The global infertility drugs market is anticipated to witness significant growth due to rising cases of infertility, increasing disposable income, and growing awareness about infertility treatments. The male infertility drugs segment is expected to [grow at a specific rate/experience notable growth], driven by factors like [mention a couple of reasons]. The female infertility drugs segment is projected to [maintain its dominance/grow steadily], influenced by [mention a reason or two].

Comparative Analysis: Here's a comparison of prominent factors affecting the market share of drugs for male and female infertility:

Cause of Infertility: The underlying cause of infertility significantly impacts drug selection. For instance, male infertility medications address issues like sperm count and motility, while female drugs target ovulation problems or hormonal imbalances.

Treatment Options: The treatment landscape for male infertility is [limited/expanding], with medications often used alongside other interventions like surgery. Conversely, female infertility offers a wider range of drug therapies, including [mention a few examples].

Regulatory Landscape: Regulatory approvals and guidelines play a crucial role in market access. The approval process for new drugs can be [stringent/relatively streamlined] for both male and female infertility treatments.

Patient Demographics: The target patient demographics influence market dynamics. Treatments for female infertility are primarily focused on [mention the age group], while medications for male infertility might target a [broader/more specific] age range.

Future Considerations: The infertility drugs market holds immense potential for growth. Key aspects to consider for future market success include:

Innovation: Development of novel drugs with improved efficacy and fewer side effects will be crucial.

Combination Therapies: Exploring the potential of combining different drug classes for better outcomes may be beneficial.

Personalized Medicine: Tailoring drug therapies to individual patient profiles based on underlying causes holds promise.

Accessibility: Addressing affordability and ensuring wider access to these medications in developing countries is essential.

conclusion, the market for infertility drugs is poised for substantial growth. By understanding the factors influencing the market performance of drugs for male and female infertility, stakeholders can develop strategies to drive market expansion and improve patient access to these life-changing treatments.

Introduction

Infertility is a worldwide wellbeing issue influencing millions of individuals of reproductive age around the world. Accessible information proposes that between 48 million couples and 186 million individuals have fruitlessness all inclusive. Essential (Primary) barrenness is the failure of any pregnancy, whereas auxiliary barrenness is the failure to have a pregnancy after already fruitful conception. WHO's Universal Classification of Infections gives more data on the numerous essential and auxiliary causes of fruitlessness in both ladies and men. Infertility may happen due to male variables, female variables, a combination of male and female variables or may be unexplained. For both ladies and men, be that as it may, natural and way of life components such as smoking, intemperate liquor admissions, weight and introduction to natural toxins have been associated with lower fertility rates.

The infertility drugs market size is expected to increase significantly owing to the increase in research and development studies for more effective treatment to achieve pregnancy and live birth.

Moreover, the increasing prevalence of lifestyle disorders and unhealthy diets such as obesity, stress, smoking, diabetes, polycystic ovary syndrome (PCOS) etc. it also leads to infertility, ultimately increasing the demand for infertility medications.

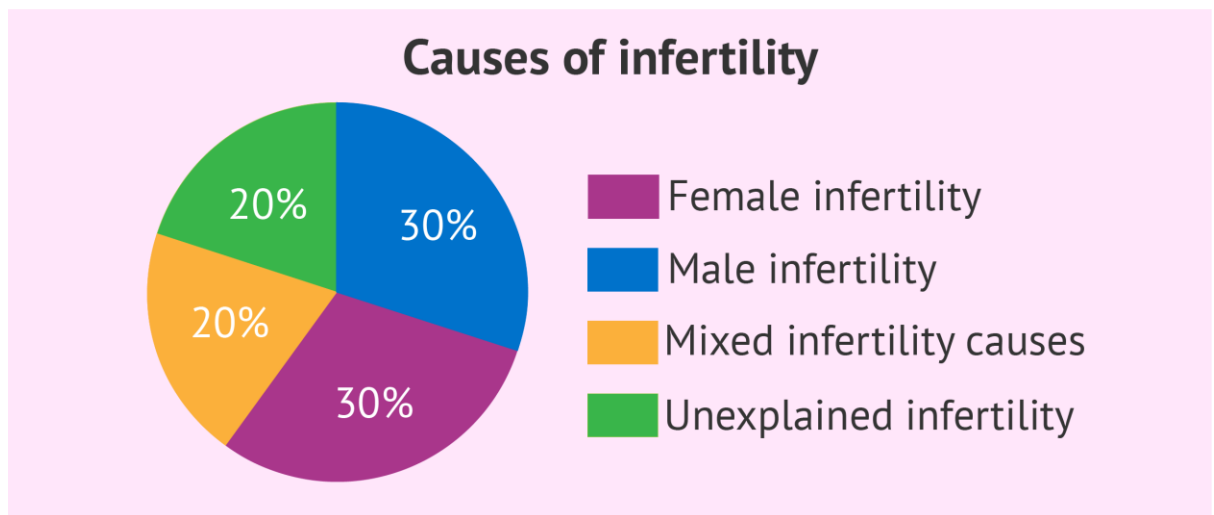


Figure 1.1 – Causes of infertility data (Source: <https://www.invitra.com/en/sterility-causes/causes-of-sterility/>)

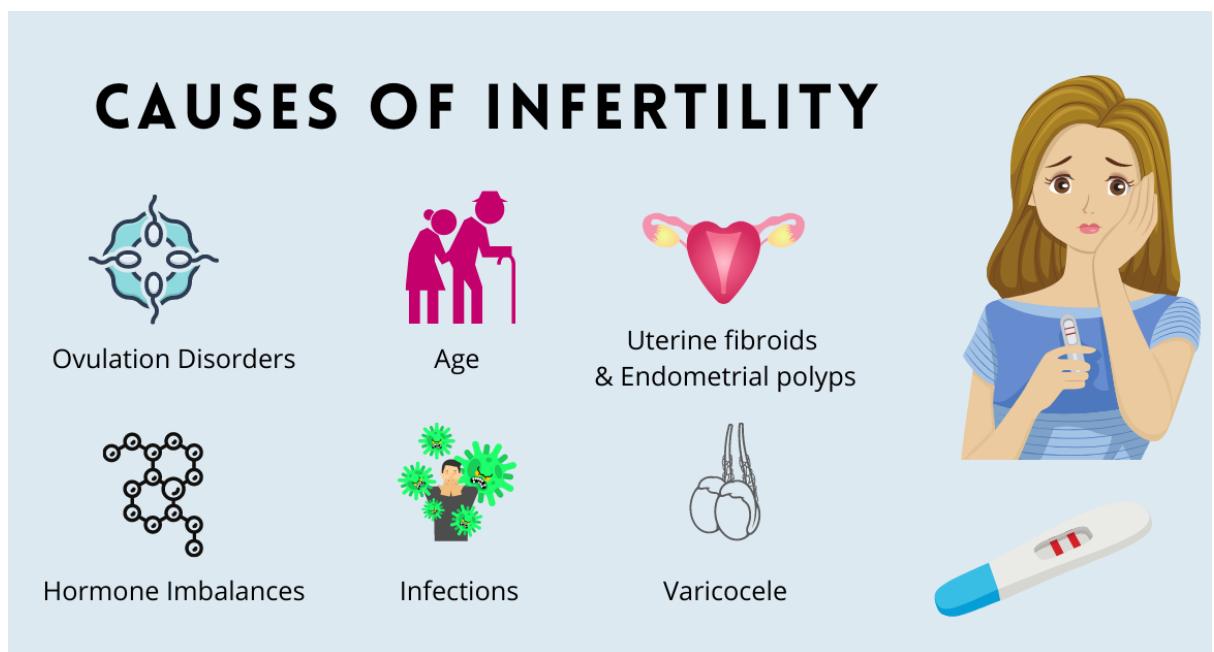


Figure 1.2: Causes of infertility (Source: <https://www.sriramakrishnahospital.com/most-common-causes-of-infertility/>)

Reasons of infertility in men

There are some difficulties may occur:

- *Less sperm count:* Men ejaculate with low sperm counts. If the count of sperm is less than 15 million, it is considered low. About one third of couples have issues in conceiving because of a less sperm count.
- *Low sperm motility:* It means that sperms are not able to move as fast as they need to.

- *Abnormal sperm* : Sperm might be abnormal configuration, thus, makes it difficult for the egg to move or fertilize. Conception can be difficult if it is in the correct shape or cannot move quickly and accurately toward the egg.
- *Sperms quality*: Some men experience lower than optimal sperm quality, which may be due to factors such as environmental exposure or lifestyle choices.
- *Abnormal Semen*: Abnormal semen does not bear the sperm efficiently. This can be a consequence of:
 - A health situation : infection of testicles, tumors , or surgical procedure...
 - EJACULATION DISORDER: If a ducts for ejaculation are closed, semen might ejaculate within the bladder.
 - Hormonal disbalance: eg:-, hypogonadism cause lack of testosterone.

Other factors may involve:

1. Genetic factors: men chromosomes because these chromosomes determine a person's sex.
2. MUMPS: Mumps can lead to the testicles being inflamed, which can hamper production of sperms.
3. Hypospadias: The URETHRAL meatus a below the male reproductive part, not at its tip. That not is usually corrected surgically during infancy. If the correction is not made, more difficult for semen to enter the woman's vagina. There is a 2 in 500 chance that a new-born boy will have hypospadias.
4. Cystic fibrosis: Disease that causes a build-up of mucus in the lungs.
5. Radiation therapy: Radiation therapy can have a negative impact on sperm production. The severeness mostly depends on at what level close to the testicles the radiation is apply.
6. Other problems:- Some diseases as can at times lower fertility of men are anaemia, Cushing's syndrome, diabetes, and thyroid disease
7. Few medicines may enhance the danger of fertility issues in male. They are:

✚ Sulfasalazine.

✚ Anabolic steroids:.

✚ Chemotherapy: various types of chemotherapy can also reduce sperm count.

✚ Illegal drugs: The use of marijuana and cocaine can have a negative effect on a man's sperm count.

8. Age: Men fertility begins & decline after age 40.

9. More taking of alcohol: Excessive drink cause male fertility. Although alcohol taking at a moderate level does not show a negative impact on fertility in male, it may affect men whose sperm count is low.

10. Obesity or being overweight: This might hamper the possibility of conceiving.

11. Mental stress: Stress might impact sexual activity, especially if it leads to decreased energy or motivation.

Causes of infertility in women

The factors that are involved in increasing the risk are:

- Age: Age is a risk factor that can increase the risk of conceiving.
- Smoking: Smoking elevates the risk of infertility in both male and female.
- Alcohol: Consumption of alcohol can affect the possibility of conceiving.
- Excess weight: Being overweight or obese can increase the risk of infertility in both men and women.
- Disorders of diet: If an eating disorder causes severe loss in weight, fertility problems may occur.
- Exercise: Exercise is important for fertility, but too much or too little exercise can have negative effects.
- Sexually transmitted diseases (STDs): Chlamydia may harm the women's fallopian tubes and may result in inflammation of men's scrotum. Several other sexually transmitted diseases can also result in INFERTILITY.

- Primary ovarian insufficiency: The ovaries might stop its functioning initially the age of forty.
- PCOS: The Ovaries may not do functionally properly, and ovulation does not occur. .
- Poor egg quality: Damaged or genetically abnormal eggs cannot sustain pregnancy.
- THYROID PROBLEMS : Hyperactivity and hypoactivity of the Parathyroid gland can cause to hormonal imbalances.
- CHRONIC diseases: HIV and tumors.
- Problems with fallopian tubes: It can prevent the egg from moving from the ovaries to the uterus or uterus. If the egg does not move, then cause difficult to get pregnant naturally. The causes are as follows:
 - Submucosal myoma: A benign tumor develops on the muscular layer of the uterus. That hinders with implanted and blocks that fallopian tubes, prevented sperm from fertilizing an egg. Large submucosal fibroids can dilate the uterine cavity and extend the distance that sperm must move.
 - Endometriosis: The cells normally found in the endometrium begin to grow elsewhere in the body.
 - Previous sterility treatment: For women who choose to block the fallopian tubes, the process can be reversed, but it is unlikely that they will be born again.
- Medicines and treatments: Some medications can affect a woman's fertility.
 - NSAIDs: Prolonged use of aspirin or ibuprofen can make pregnancy more difficult.
 - Chemotherapy: chemotherapeutic medicines can cause ovarian dysfunction.
 - RADIATION THERAPY: targeted pass genitals, may rise the risk of infertility.

- Unwanted Drugs: Some women who use marijuana or cocaine may have infertility problems.
- Cholesterol: High Cholesterol Can Affect Women's Fertility, According to One Study

Tests of infertility

- Post coital test
- Pelvic ultrasound
- Endometrial biopsy
- Hysterosalpingography
- Laparoscopy
- Hysteroscopy
- Falloposcopy

Chapter 2 – Review of Literature

India is the second most populous country in the world, but it faces a dramatic decline in fertility. According to the WHO, infertility is a male or female reproductive disorder defined as being unable to conceive after regular unprotected sexual intercourse for more than 12 months.¹

Infertility can be caused by oxidative stress in both men and women. There is ample evidence to support the vital role of reactive oxygen species (ROS) within pathogenesis of sperm dysfunction in male infertility. Oxidizing radicals and reactive oxygen species play a detrimental role in human reproduction and male fertility.²

Testicular oxidative stress is important in several conditions known to affect male infertility, extrinsic administration of coenzyme Q10 increased both CoQ10 and ubiquinol (QH2) levels in semen and was effective in improving sperm kinetics. It is shown that there is. In

addition, administration of vitamins E and C significantly reduced hydroxy guanine levels in sperm, resulting in an increase in sperm count. ⁴

The mainly types of infertility in women is Ovulatory infertility. The effects Of micronutrients and food groups on Ovulatory infertility are related to their quality and quantity. Taking trans fats instead of carbohydrates and polyunsaturated fats is associated with increased insulin resistance and risk of infertility. ⁵

Oxidative stress is associated with sex hormone malformations, abnormal transplanted follicle follicles, ovulation, and implantation. It leads to infertility, miscarriage, low birth weight, irregular bleeding, and infertility. ⁶

Inappropriate follicle growth, irregular duration, conception, pre-eclampsia, and hormone metabolism are also associated with oxidative stress. This raises interest in the role of oxidative free radical damage in infertility. ⁷

Free radicals are highly reactive species that can oxidize biomolecules, proteins, and lipids. Elevated levels of oxidative metabolites in these molecules have been demonstrated in different patients with different diseases. ⁸

Therefore, antioxidant therapy is the most effective way to treat infertility in male and female.

Chapter 3 – Methodology

This study a descriptive exploratory study, which involves the study of various research articles, books, and publications to know about the ingredients that can be used to treat infertility in men and women.

On gathering the information of contents to treat infertility, this will be used to design an ideal combination for the treatment of infertility. The composition is also decided by comparing with the competitive brands which are found through the AWACS data along with performing retail chemist prescription audits and interviewing several gynecologists.

The market study of infertility combinations is done to know the growth opportunities in this area of medicine.

The duration of the study is 3 months and the tools used to perform the study are AWACS data, Research papers, publications, books, Retail chemist prescription audit and interviewing healthcare practitioners in gynecology.

Chapter 4 – Data Analysis and Findings

The ideal composition for treatment of infertility in men and women on comparing with top brands in India and some local brands of Gujarat, India along with the retail chemist prescription audit and interviewing health care practitioners in gynecology is as follows-

Table 4.1 – Composition of infertility drugs

FOR FEMALES	FOR MALES
L-Arginine- 500 mg	CoQ 10 – 200 mg
Astaxanthin – 8 mg	Astaxanthin – 16 mg
Myo-Inositol – 100 mg	L-Glutathione- 300 mg
Pyridoxal-5-Phosphate- 0.5 mg	L-Carnitine – 500mg
Folic Acid – 5 mg	Lycopene – 50 mg
Methyl cobalamin – 750 mcg	Selenium – 200 mcg
Zinc – 22.5 mg	Vit. C – 120 mg
Piperine – 5 mg	Vit. E – 50 mg
Lycopene – 2000 mcg	Vitamin D3- 1000I.U.
Sodium Selenate – 100mcg	ZINC– 22.5 MG
Element Iron – 25 mg	
Magnesium Oxide – 25 mg	
Chromium – 25 mcg	

Iodine- 50 mcg	
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The role of each molecule used for the treatment of female infertility is listed below-

Table 4.2 – Role of ingredients in female infertility

COMPOSITION	ROLE
L- Arginine 500 mg	Improve blood circulation to the uterus
Pyridoxal-5 phosphate 0.5 mg	Maintain Egg integrity
Folic acid 5 mg	Improve the hormonal profile
Methylcobalamine 750 mcg	Increases the chances of female fertility
Myo-inositol 100 mg	Prevents onset of neural tube defects
Zinc sulphate Monohydrate 22.5 mg	Improves Hormonal profile
Piperine 5 mg	Helps in maintaining Egg integrity
Lycopene (10%)- 2000 mcg	Improve the hormonal profile
Selenium- 100 mcg	Helps to maintain Pregnancy
Astaxanthin – 8 mg	Enhance reproductive health
Elemental Iron (Dried Sulphate) 25 mg	Blood building nutrient
Magnesium Oxide 25 mg	Metabolism of the female hormone estrogen
Chromium 25 mcg	Helps in ovulation
Iodine 50 mcg	Proper Functioning female hormone

COMPOSITION	ROLE
Astaxanthin 16 mg	Protect against oxidative damage & sperm integrity
Co-enzyme Q 10 -200 mg	Improve sperm count & sperm motility
Selenium 200 mcg	Help prevent oxidation of the male's sperm cell
L-Glutathione 300 mg	Helps to protect cells from oxidative stress.
L-Carnitine 500 mg	Helps the process of sperm development
Lycopene (as 10%) 50 mg	Affect the sperm integrity
Vitamin C 120 mg	Increase the sperm motility & sperm count
Vitamin E 50 mg	Increase the sperm motility & sperm count
Vitamin D3 1000 I.U.	Vitamin D deficiency reduces mating success and infertility
Zinc 22.5 mg	Important for the cell division & the production of healthy sperm.

The role of each molecule for the treatment of male infertility is listed below-

Table 4.3 – Role of ingredients in male infertility

The top brands in the market along with their sales in the last five years and growth percentage are as follows-

Drugs for Female infertility-

Table – 4.4 – Market study of top brands of drugs for female infertility

		Values					
BRANDS	COM-PANY	MAT FEB'20	MAT FEB'21	MAT FEB'22	MAT FEB'23	MAT FEB'24	Percentage growth
NORMOZ	SUN*	25.31	29.92	33.59	29.40	37.88	29%
OVACARE	MEYER	16.94	19.53	21.47	21.97	24.67	12%
FERTISURE-F	SUN*	20.60	23.54	23.48	21.36	24.59	15%
LYCORED	JAGSON PAL	9.36	10.55	10.86	11.94	14.67	23%
APCOD-OBIS	SHIELD	6.68	10.90	9.89	7.67	8.08	5%
FERTYL-F	AR EX	0.00	0.00	0.00	2.56	7.44	191%
CHIROCYST	TTK	2.99	3.91	4.00	3.98	5.75	44%
FERPILL-F	INTAS	2.64	4.07	5.28	4.47	4.72	6%
PCO CARE FORTE	AKUMENTIS	1.13	1.28	1.43	1.23	2.46	100%
CERVIFERT	AKUMENTIS	1.71	2.02	2.35	1.71	2.44	42%
TOTAL		114.03	133.99	137.33	123.00	156.74	27%

Drugs for Male infertility-

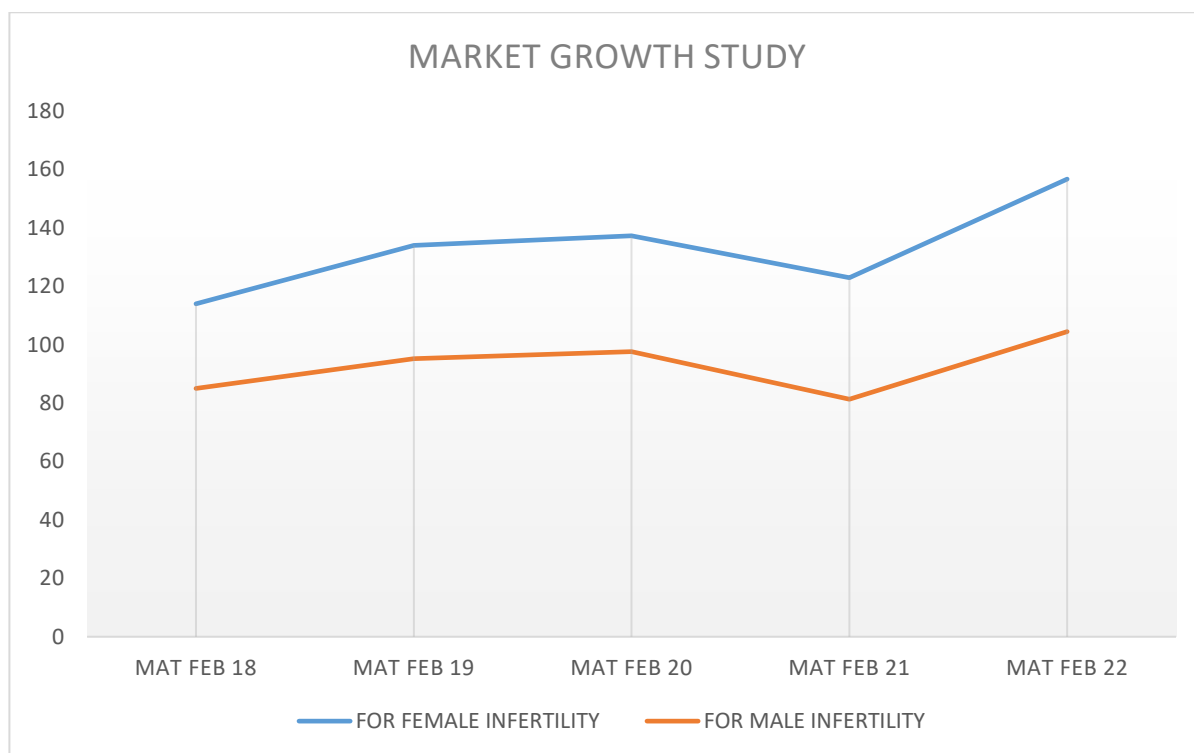
Table 4.5- Market study of top brands of drugs for male infertility

		Values					
BRANDS	COMPANY	MAT FEB'20	MAT FEB'21	MAT FEB'22	MAT FEB'23	MAT FEB'24	Percentage growth
FERTI-SURE-M	SUN*	18.46	19.46	18.90	17.21	21.42	24%
LINEA-TOR	AKUMEN-TIS	8.15	11.19	11.40	8.53	13.65	60%
MAX-OZA-L	SUN*	13.62	13.89	12.93	10.15	12.20	20%
PATER-NIA-XT	ZYDUS CA-DILA*	6.01	7.56	9.24	8.69	11.08	27%
KQ-100	SERUM IN-STITUTE	8.14	8.30	8.77	8.15	10.88	33%
NANO-LEO	JB CHEMI-CAL	11.38	12.62	11.93	7.43	8.98	21%
LYCO-Q 100	TTK	4.37	3.90	4.36	4.28	5.28	23%
ERACT-X	ZYDUS CA-DILA*	0.00	2.01	4.57	3.73	4.12	10%
ASTHOQ UE	LA RENON	3.93	3.90	3.34	2.73	3.81	39%
FERTI-HOPE	TABLETS INDIA	1.41	1.78	2.07	2.17	2.50	15%

TOTAL		85.01	95.29	97.62	81.35	104.50	28%
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The growth of market of infertility drugs is evaluated by using the below shown graph and data-

	MAT FEB 20	MAT FEB 21	MAT FEB 22	MAT FEB 23	MAT FEB 24
FOR FEMALE INFERTILITY	114.03	133.99	137.33	123	156.74
FOR MALE INFERTILITY	85.01	95.29	97.62	81.35	104.50



Graph- 4.1 – Market growth study of infertility drugs

The comparison of ideal composition along with the top and some known local brands is given below-

For female infertility-

Table 4.6 – Brand composition comparison of drugs for female infertility

GYNOFERT F (SOLDERMA)	FERTILLIA F	FERTFULL F	FERTI- SURE F	FERTYL F
L-Arginine - 500 mg	L- Arginine - 200 mg	L-Arginine - 500 mg	L-Arginine - 5 mg	L-Arginine - 5 MG
Myo-inositol - 100 MG	Myo-inositol - 100 MG	Myo-inositol - 100 MG	-	Myo-Inositol - 500 MG
Pyridoxal-5-Phosphate - 0.5 mg	-	Pyridoxal-5-Phosphate - 0.5 mg	-	-
Folic Acid - 5 mg	-	Folic Acid - 5 mg	Folic Acid - 100 mcg	Folic Acid - 0.5 mg
Methylcobalamin- 750 mcg	Methylcobalamin - 1500 mcg	Methylcobalamin- 750 mcg	Vit B12- 1 mcg	-
Zinc - 22.5 mg	Zinc - 22.5 mg	Zinc - 22.5 MG	Zinc - 7.5 mg	Zinc - 7.5 MG
Piperine - 5 MG	Piperine - 5 MG	Piperine - 5 mg	-	-
Lycopene - 2000 mcg	Lycopene - 5 mg	Lycopene - 2000 mcg	Lycopene - 1 mg	Lycopene - 5 mg
Sodium selenate - 100 mcg	Sodium selenate - 100 mcg	Sodium selenate - 100 mcg	Selenium - 40 mcg	-
Astaxanthin - 8 mg	Astaxanthin - 8 mg	Astaxanthin - 8 mg	Astaxanthin - 4 mg	Astaxanthin - 8 mg
Element Iron - 25 mg	Iron - 25 mg	Element Iron - 25 mg	Iron - 21 mg	-
Magnesium Oxide - 25 mg	-	Magnesium Oxide - 25 mg	-	-

Chromium - 25 mcg	Chromium - 200 mcg	Chromium - 25 mcg	-	-
Iodine - 50 mg	-	Iodine - 50 mg	-	-
-	CoQ10 - 25 mg	-	-	-
-	D-Chiro Inositol- 2.5 mg	-	-	D-Chiro Inositol - 12.5 mg
-	Vit D3- 1000 IU	-	-	-
-	L-Methyl folate - 1 mg	-	-	-
-	-	Benfotiamine - 25 mg	-	-
-	-	-	Vit B6- 1.5 MG	Pyridoxine Hcl - 1.5 mg
-	-	-	-	Ferrous Gluconate - 25 mg
-	-	-	-	Vit B12- 7.5 mcg
-	-	-	-	Melatonin - 1.5 mg

For male infertility-

Table 4.7 – Brand composition comparison of drugs for male infertility

GYNOFERT M (Solderma)	FERTILLIA M	FERTFULL M	FERTISURE M	KQ 100
CoQ 10 – 200MG	CoQ 10 – 200MG	CoQ 10 - 200 mg	CoQ 10 - 50 MG	CoQ 10- 100 mg
Astaxanthin - 16 mg	Astaxanthin - 16 mg	Astaxanthin - 16 mg	Astaxanthin- 8 mg	-
L-Glutathione - 300 mg	-	L-Glutathione - 300 mg	-	-
L-Carnitine - 500 mg	L-Carnitine - 500 mg	L-carnitine- 500 mg	L-Carnitine - 340 mg	Carotenoids - 9 mg
Lycopene - 50 mg	Lycopene - 5000 mcg	Lycopene- 50 mg	Lycopene - 2.5 mg	Lycopene - 5000 mcg
Selenium - 200 mcg	Selenium - 40 mcg	Selenium - 200 mcg	-	Selenium - 36 mcg
Vitamin C- 120 MG	-	Vitamin C- 120 MG	-	-
Vitamin E – 50 MG	-	Vitamin E - 50 mg	-	-
Vitamin D3 - 1000 IU	-	Vitamin D3 - 1000 IU	-	-
Zinc - 22.5 mg	Zinc - 12 mg	Zinc - 22.5 mg	Zinc - 5 mg	Zinc- 6,5 mg
-	-	-	-	L-Arginine- 450 mg

-	-	-	-	omega 3 fatty acid - 300 mg
-	-	-	-	EPA - 90 mg
-	-	-	-	DHA - 60 mg
-	-	-	-	Piperine - 5 mg
-	-	-	-	Vit B12- 0.5 mcg

Chapter 5 – Results and Discussion

On performing the study, it was seen that as the prevalence of infertility is increasing day by day, so is the need for drugs for infertility. The market of drugs of female infertility has grown by 27% in 2024 when compared with 2023. The case of drugs for male infertility is similar. It is grown at the rate of 28% in 2024 than 2023.

This growth in the market of drugs indicate that the prevalence of infertility is increasing. Apart from the prevalence, it can also be said that the awareness regarding infertility among the population of India is increasing. The awareness regarding any issue in the country leads to more patients reaching the health care professionals which is a positive sign in the growth of any nation.

Many factors can affect the increasing rates of infertility. The most common of all is the changing lifestyle of the people. The diet nowadays is not up to the mark. Along with this westernization has led to increase in consumption of alcohol and smoking which thereby decreases the fertility rates.

Considering all the above factors, it becomes necessary to provide all the essential vitamins, minerals, and antioxidants externally. This brings the need of combinations for infertility. For the ideal composition to support fertility in both men and women was found by comparing the formulas of top and reference brands. Along with this field work was performed for

retail chemist prescription audit. RCPA is a tool that helped to know the brands and molecules that are trusted by the gynecologists the most and are prescribed by them. This enabled us to know the results of various combinations and thus, helped to decide an ideal composition for the supportive therapy of infertility in males and females.

Table 4.6 and 4.7 helped to create the USP and point of differentiation between the top brands and reference brands with Gynofert F and Gynofert M, respectively.

The Brand GYNOFERT F is superior to the top brand of Sun pharma – Fertisure F as it contains L-Arginine 500 mg which is an essential dose for the poor responder patients to increase the endometrial receptivity, ovarian response, and pregnancy rate. Whereas Fertisure F contains L-Arginine 5 mg only.

The brand GYNOFERT M is superior to the brand FERTISURE M as the quantity of Astaxanthin provided in GYNOFERT M is 16 mg, which is the required quantity to treat infertility in men. It is the most potent antioxidant and thus, reduces the Reactive oxygen species, decrease the DNA damage, increases spermatogenesis (Formation of sperms), and reduces inhibin B efficiently. Whereas in Fertisure M, the quantity of astaxanthin given is only 8 mg which is not appropriate dose as per RDA guidelines.

The dosing of all the ingredients in GYNOFERT F and GYNOFERT M are decided according to the

This study proved beneficial for the company- Solderma Pharmaceuticals Pvt Ltd as the company had to launch combinations for infertility. This study helped the organization to come to a decision for deciding the composition of their products named- GYNOFERT F and GYNOFERT M for female and males fertility combinations, respectively.

LIMITATIONS OF STUDY

The limitations of project undertaken is recognized as the study is performed with the constraint of area as only three states i.e., Gujarat, Madhya Pradesh & Rajasthan are covered during the study. If the study would have been performed all over India, the results might have been little different than received now.

FUTURE DIRECTIONS

The study requires more attention on the part of selection of area. If the study is performed all over India, better results and findings can be expected.

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APPENDIX 1

The retail chemist prescription audit performed at chemists and stockists is as follows-

CUSTOMER POTENTIAL TRACKER										
	BE NAME: -							State: -		
	HQ NAME: -									
Sr. No	Chem-ist Name	DR. Name	Spec	No. of Pts /Day	Busi-ness Potent-ial per Month Rs.	GYNOFERT F		GYNOFERT M		To-tal Po-tent-ial of Dr. (Rs.)
						Brand	Units /Mth	Brand	Units /Mth	
						1- Normoz (Sun)		1- Linea-tor (Akumen-tis)		
						2- Fertyl F (Ar Ex)		2- Carni Q (TTK)		
						3- Ferti-sure F (Sun)		3- Ferti-sure M (Sun)		
						4-Ly-cored (Jagson Pal)		4- KQ 100 (Se-rum)		