



GYNAECOLOGY MEDICATION MARKET; A DETAILED SURVEY ON PRESCRIBING PREFERENCES

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ABSTRACT

The aim of this study was to conduct a prospective study on gynecology medication market pattern in patients with prescribing preferences in tertiary care hospital. 75 patients were selected from the gynecology and obstetrics over a period of 3 months for the study. A total 560 drugs are analysed from 75 patients. Among all the category of drugs, Supplements were most commonly prescribed, then followed by Contraceptives, Hormonal drugs, Other than these drugs, Hypertensive drugs, UTIs and diabetic drugs, Thyroid drugs and other are prescribed in the prescriptions. On the 560 drugs 250 were prescribed by brand names and 190 were prescribed by generic and 130 drugs were prescribed by essential medicines. Prescription by doctors could be observed as physicians attitude towards the disease, economics benefits and role of medication.

In the study it is found that the different brands of the medicines are prescribed at different rates. The brands with aggressive marketing promotions have the highest cost as compared to brands with no marketing promotions. In present day most of the drugs are marketed based on different promotional pattern in which advertisement, public relations, global branding, Targeted audience and lowest promotion by gimmicks.

INTRODUCTION

Gynaecology is a medical discipline dedicated to female health care concerns including the development, diagnosis, prevention and therapy of disorders and diseases distinct to the female reproductive system. The medical care of a woman and her child before, during and after birth is attributed to the field of obstetrics. Gynaecology and obstetrics are related disciplines concerned with female reproductive health.

Across life length, ladies experience various occasions related with regenerative advancement like menarche, feminine cycle, pregnancy, maternity, and menopause. Contrasted with formative occasions in male propagation, these formative occasions in female multiplication instigate more intense physiological adjustments (e.g., feminine dying, physiological changes in pregnancy, bosom taking care of, menopausal chemical vacillations), more significant psychological changes and more complex psychosocial consequences for women. However most ladies adjust well to these conceptive occasions, under specific circumstances, they might foster an expanded weakness for mental maladjustment. Mental issues, thusly, could worsen physiological side effects related with conceptive circumstances (e.g., the impact of weight on period issues). This interconnectedness among mental and gynecological variables is reflected in discoveries revealing pervasiveness rates for mental issues of up to 45.3% in gynecological short-term patients. Female reproductive health is thus closely associated with psychological well-being and, therefore associated with psychological well-being and, therefore, a range of psychosocial, psychosexual, psychobiological, behavioral, and developmental psychological aspects. Consequently, gynaecology and obstetric issue must be approached in a bio-psychosocial framework of health and illness that encompasses women's development and experiences across life span. Gynaecologist make the routine examinations of cervical and vaginal secretions to detect cancer of the uterus and cervix. They perform two main types of surgical operations; repairing any significant injuries caused to vagina, uterus, cervix and ovaries[1]

Gynecologists make routine assessments of cervical and vaginal emissions to distinguish malignant growth of the uterus and cervix. They perform two primary kinds of careful tasks: fixing any huge wounds caused to the vagina, uterus, and bladder throughout labor; and eliminating growths and harmless or threatening cancers from the uterus, cervix, and ovaries. The advanced act of gynecology requires ability in pelvic medical procedure, an information on female urologic conditions, on the grounds that the side effects of infections of the urinary parcel and the genital lot are frequently comparative, and expertise in managing the minor mental problems[2]. The determination and therapy of fruitlessness are a consolidated obstetric gynaecologic impact. Advertising is the science and craft of investigating, creating, and conveying worth to fulfill the need of target market at a benefit. Marketing identifies unfulfilled needs and desires. It pinpoints which segments the company is capable of serving best and designs and promotes the appropriated product and services. The use of marketing provides a competitive edge, penetration into new market, the acquiring of new customers, and ultimately and achievement of the business objectives[3]. The development of the pharmaceutical industry since Worldwar II led the discovery and use of new and effective drug substances. It also changes the role of the pharmacist. The global gynaecology drug marketing is growing on the back of plethora of

factors with increased cases of gynaecological diseases. Major global populace is inclined toward the utilization of gynaecology drugs. As a result, the market for gynaecology drugs are experiencing promising demand opportunities[4].

Improved chances of acquiring a positive reputations [9]. To achieve such results, however, requires more than just a marketing plan. It requires the effective management of the plan within the organisation's environment and competitive position, both of which are continually shifting. Marketing has the ability to enhance a product or services image but effectively positioning it within a given market and communicating the benefits and satisfaction that follows a purchase. Such pharmaceutical product and services usually go through different stages, each stage being affected by different competitive conditions[3]. Most pharmaceutical companies spend more than one-third of their sales revenues on marketing, approximately double the amount they spend on research and development, in an attempt to retain and maximize their market share. Pharmaceutical marketing is a unique and diverse compared to other form of general marketing[5]. Owing to rising awareness regarding the health and well being, there is remarkable growth in demand for advanced gynaecology treatment. As a result, the global gynaecology drug marketing experiences promising expansion opportunities. Apart from this, increased older female population and improved economic growth are projected to help in the development of gynaecology drugs made during the forecast period of 2018-2026[4]. Pharmaceutical companies have used different marketing tools to draw physician's attention to pharmaceutical products and influence the decision made regarding adopting and using these products [6]. Some of the traditional marketing tool that pharmaceutical companies have used include product promotion, price, different and other incentives[7]. Some of the promotion technique that pharmaceutical companies have used to minimize their profit margin are informed by two factors; the need to enhance company reputation that stronger relations with physicians[8]. Notwithstanding, a drug organization that further develops its notoriety is probably going to sell more medications, while an organization that improves the offer of explicit medications will likewise have as a powerful approach to advancing explicit medications, organizations use drug advertisement essentially in models and clinical diaries. Other promotional tools used include presentation on new drugs at workshops and conferences, sending direct mails to Physicians, sending MRs, and giving physicians free samples to distribute to patients[8]. One of the common approaches is the use of MRs, with the largest portion of the pharmaceutical budget for drug promotions being spent on this[10]. Compared to investment in research and development, pharmaceutical companies have a high value on product promotion and marketing technique[8]. In most cases, these companies spend a large proportion of their resources targeting physicians to increase their market share and profitability. These elevated costs for marketing are ascribed to the fact that most companies are not quite sure of the marketing technique that works best for them, therefore employing several methods, some of which are ineffective though costly[5]. Vendors working in the global gynaecology drug market experience highly competitive landscape. This scenario is due to the presence of considerable number of well entrenched enterprises in the market. In addition to this the entry of new players is intensifying the competition level.

Several manufactures operating in the market for gynaecology drugs are found on the development of innovation gynaecology therapeutics with advanced efficacy and minimal adverse effects. This factor is helping in the market expansion. Major stake holders in the gynaecology drug market are growing interest in strengthening their product portfolio. To achieve this aim, they are increasing product launch activities. This to the side, a few endeavors are supporting their conveyance channels. All these activities are indicative of promising expansion of global gynaecology drug market during the assessment period of 2018-2026. The list of important companies working in gynaecology drug marketing includes plizer, Inc, Elilly and company, Amgen Inc, Merck & Co, Inc, F. Hoffmann-La Roche Ltd., AstraZeneca, Bayer AG and Allergan PLC [4].

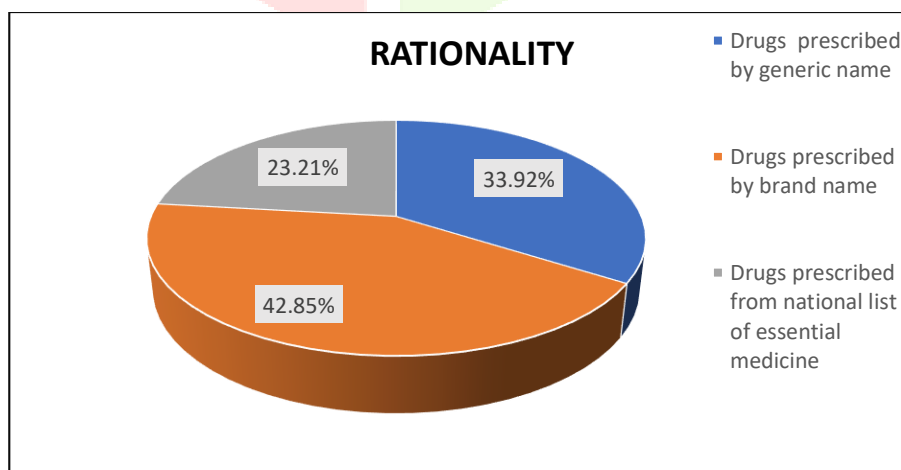
Key words:

Ovarian cysts, Uterine fibroids, Polycystic ovarian syndrome, Abortion, Postpartum Pyrexia, Labour

OBSERVATIONS

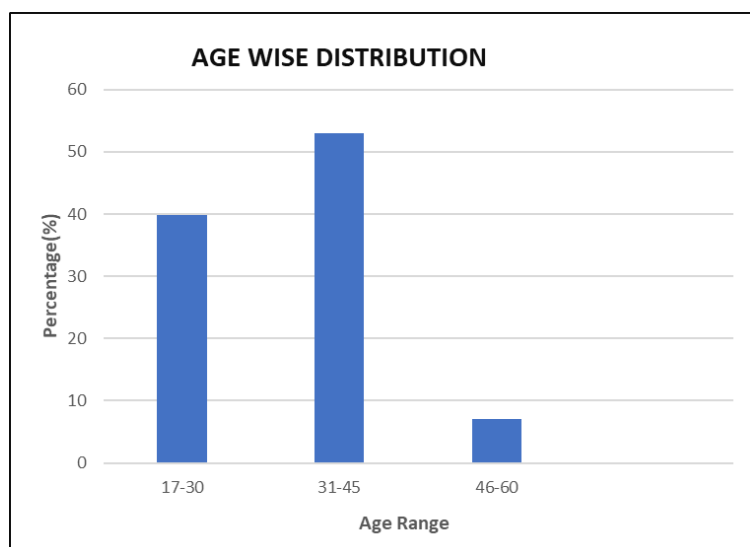
1. RATIONALITY

SI No:	Parameters	Total no of drugs (N=560)	Percentage
1	Drugs prescribed by generic names	190	33.92%
2	Drugs prescribed brand name	240	42.85%
3	Drugs prescribed from national list of essential medicine	130	23.21%



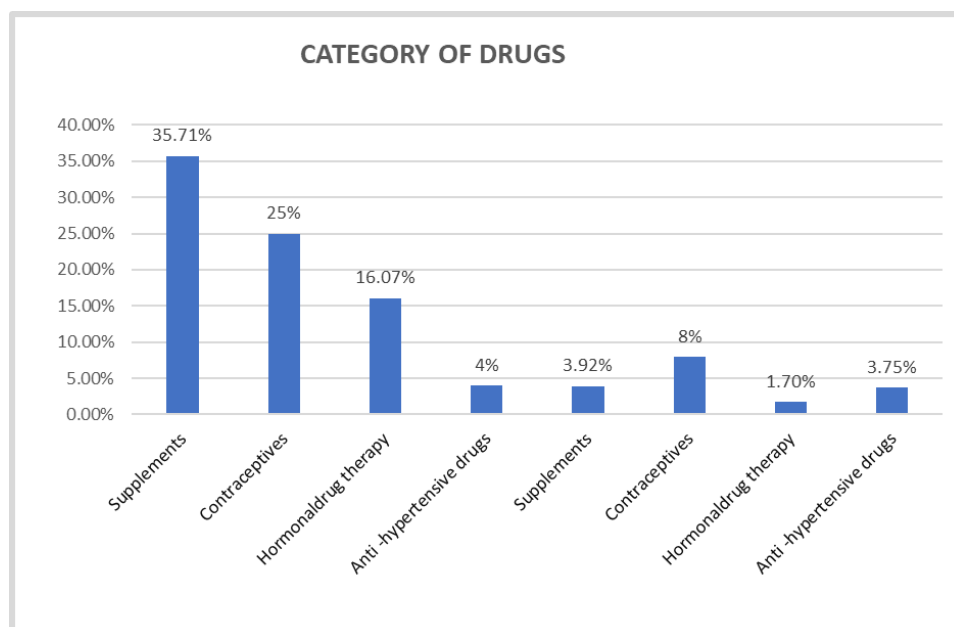
2.AGE WISE DISTRIBUTION

SI NO:	Age distribution	No: of patients(N=75)	Percentage %
1	17-30	40	39.821%
2	31-45	30	52.964%
3	46-60	5	7.14%



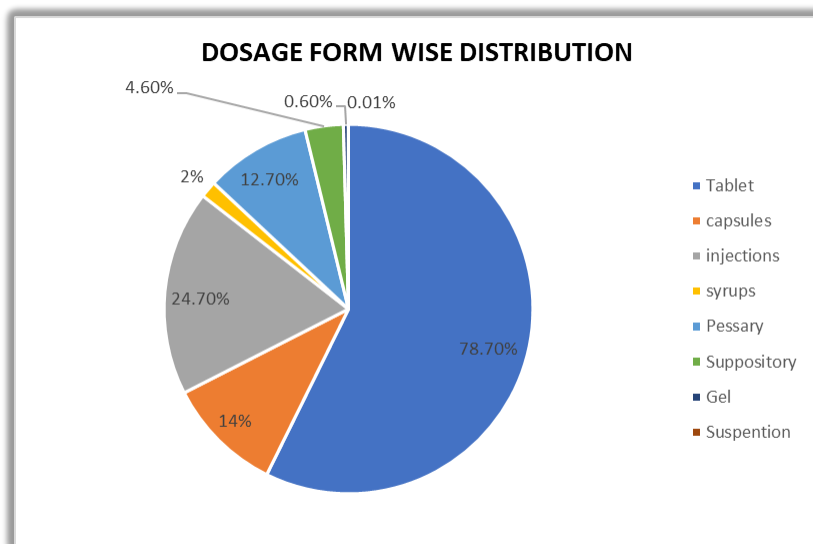
3.CATEGORIES OF DRUGS

SI No:	Category of drugs	Total no of drugs	Percentage(%)
1	Supplements	200	35.71%
2	Contraceptives	140	25%
3	Hormonal drug therapy	90	16.07%
4	Anti -hypertensive drugs	23	4%
5	UTIs	22	3.92%
6	Anti-diabetic drugs	45	8%
7	Anti-thyroid drugs	10	1.75%
8	others	20	3.75%



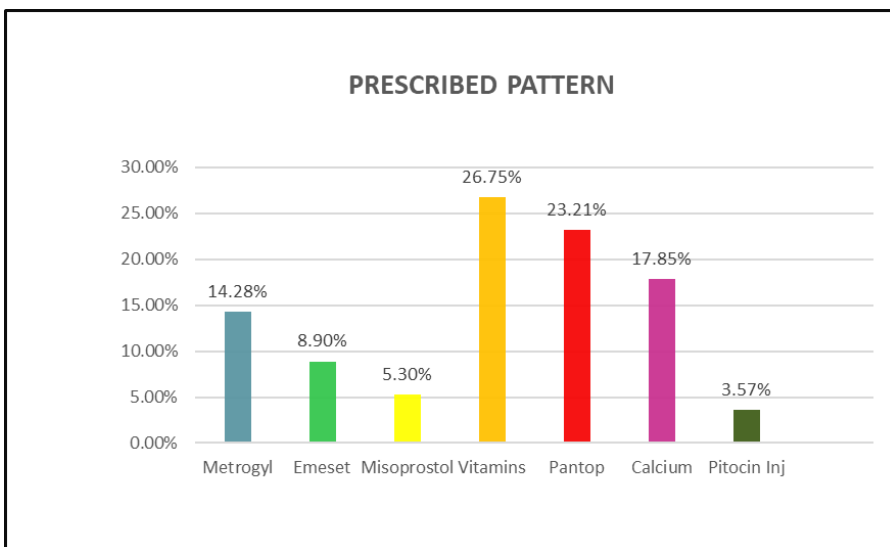
4. DOSAGE DISTRIBUTION IN MARKET

SI NO:	Dosage form	No: of patients(%)
1	Tablet	78.7%
2	Capsule	14%
3	Injection	24.7%
4	Syrup	2%
5	Pessary	12.7%
6	Suppository	4.6%
7	Gel	0.6%
8	Suspension	0.01%



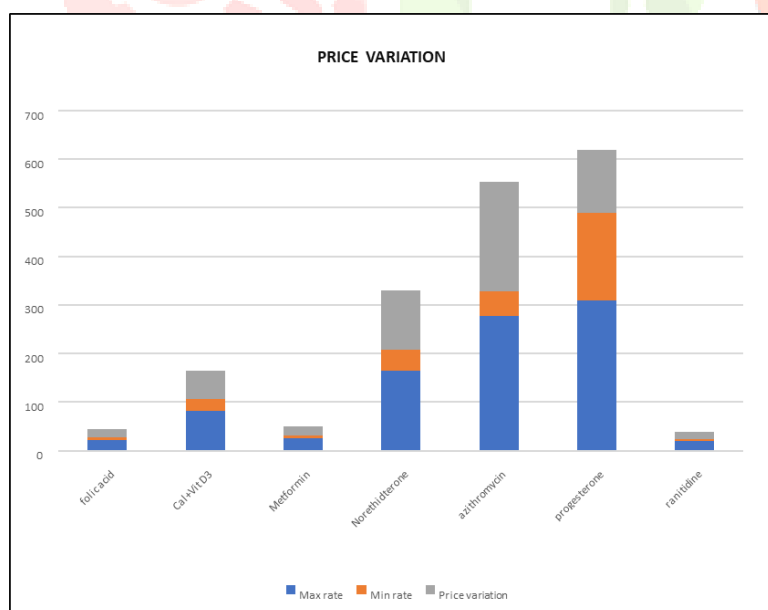
5.DOCTORS PRESCRIPTION RATE

SI NO:	Drugs	No of drugs(N=560)	Prescribed rate(%)
1	Metrogyl	80	14.28%
2	Ondansetron	50	8.9%
3	Misoprostol	30	5.3%
4	Vitamins	150	26.75%
5	Pantop	130	23.214%
6	Calcium	100	17.85%
7	Pitocin inj	20	3.57%



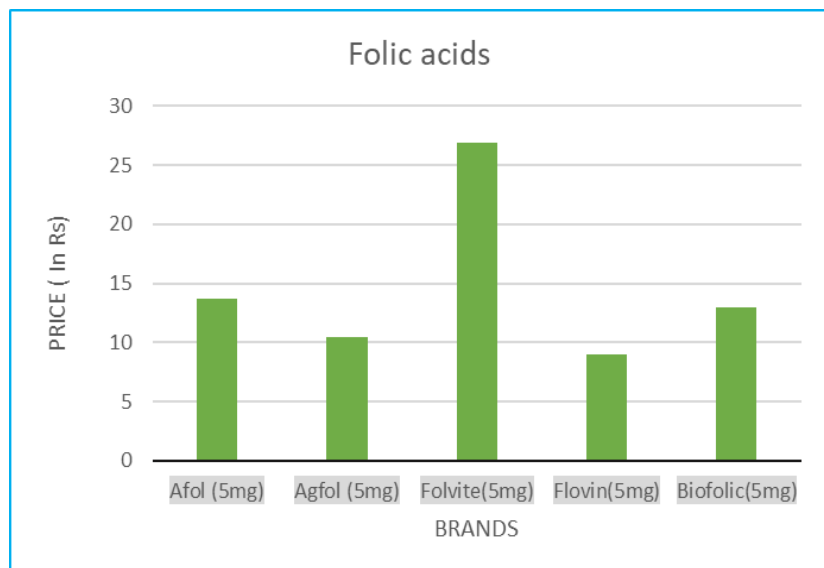
6.RATE DIFFERENCE

SI NO:	DRUG	Min value	Max value	Price variation
1	Folic acid(5mg)	06	22	16
2	Calcium+ vit D3(1250mg+250 i.u)	24	82	58
3	Metformin(500mg)	6	25	19
4	Norethisterone(5mg)	43	165	122
5	Azithromycin(500mg)	52	276.6	224.6
6	Progesterone(200mg)	180	310	130
7	Ranitidine(150mg)	4.75	19	14.25



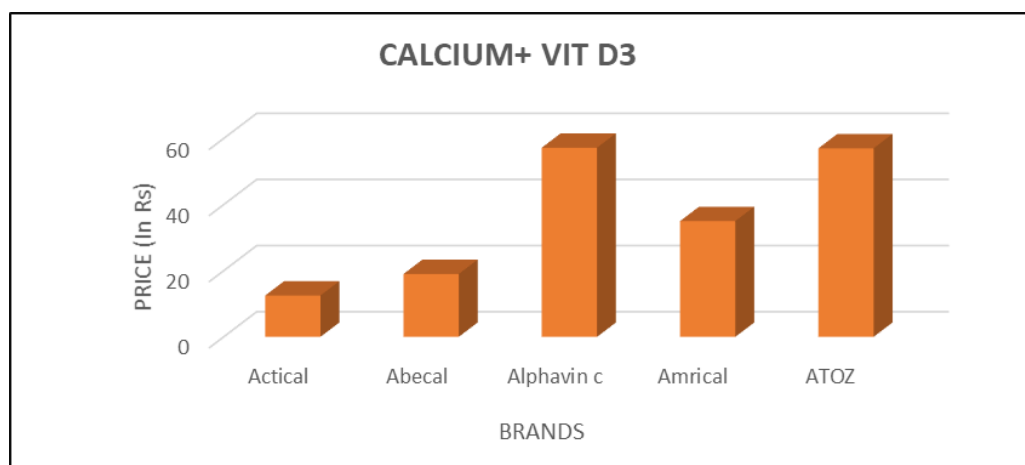
6 A.FOLICACID

SI NO:	BRAND NAMES	PRICE (10TAB)
1	Afol (5mg)	13.73
2	Agfol (5mg)	10.4
3	Folvite(5mg)	26.93
4	Flovin(5mg)	9
5	Biofolic(5mg)	12.96



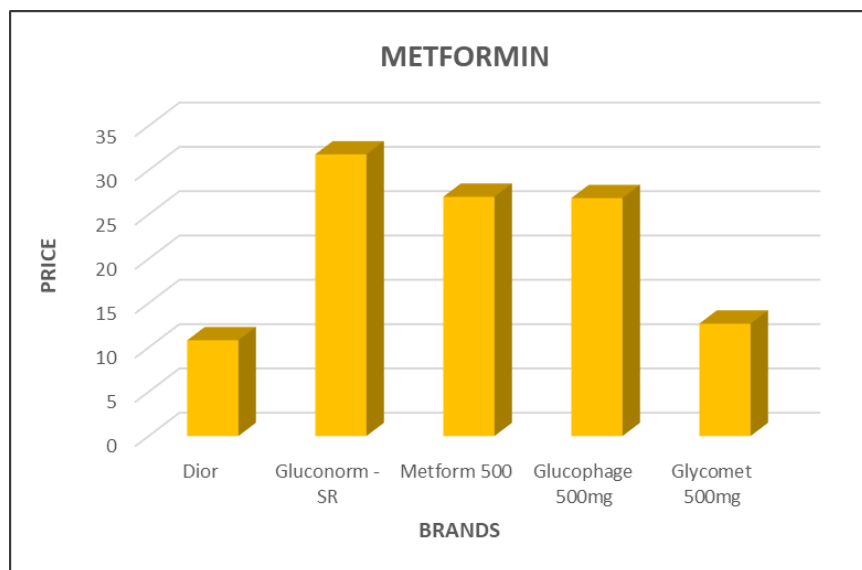
6B. CALCIUM+VITAMIN D3

SL NO	BRAND NAMES	PRICE (10 TAB)
1	Actical	12.50
2	Abecal	19
3	Alphavin c	57.20
4	Amrical	35
5	ATOZ	57



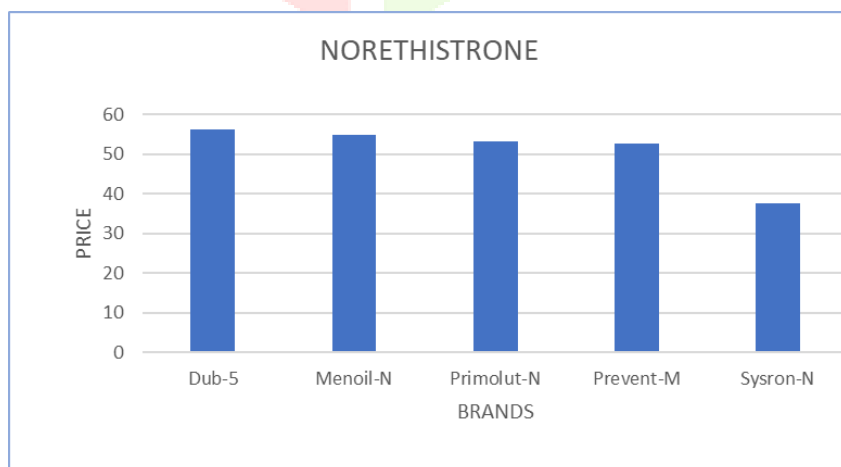
6C.METFORMIN

SL NO	BRAND NAMES	PRICE (10TAB)
1	Dior	10.80
2	Gluconorm-SR	31.77
3	Metform 500	26.99
4	Glucophage 500 mg	26.84
5	Glycomet 500 mg	12.68



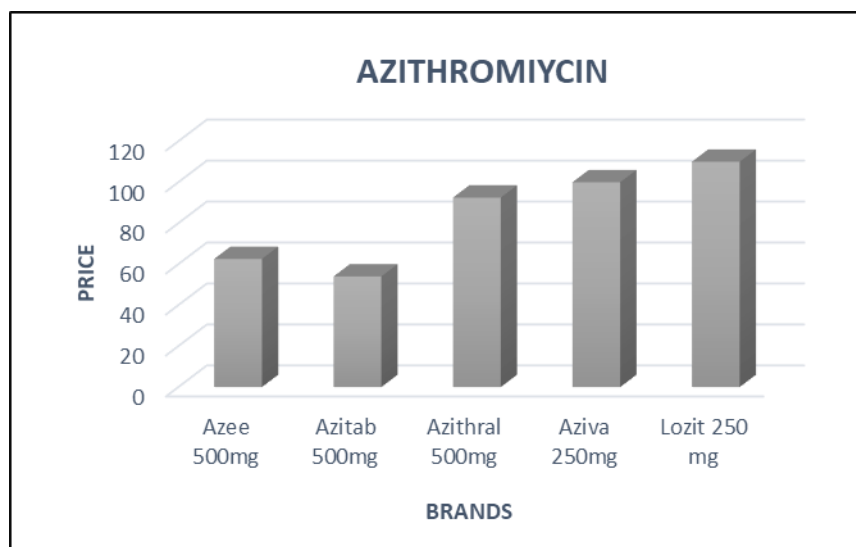
6D. NORETHISTRONE

SL NO:	BRAND NAMES	PRICE10 (TAB)
1	Dub-5	56.30
2	Menoli-N	55
3	Primolut-N	53.23
4	Prevent-M	52.73
5	Syson-N	37.50



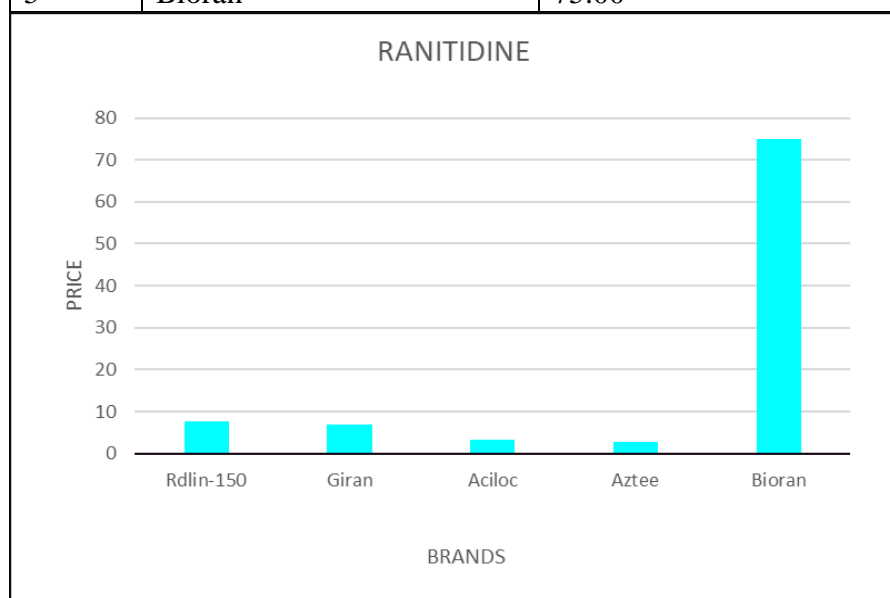
6E. AZITHROMYCIN

SL NO	BRAND NAMES	PRICE 10 (TAB)
1	Azee 500mg	62.56
2	Azitab 500mg	54
3	Azithral 500 mg	92.50
4	Aziva 250 mg	100
5	Lozit 250 mg	110



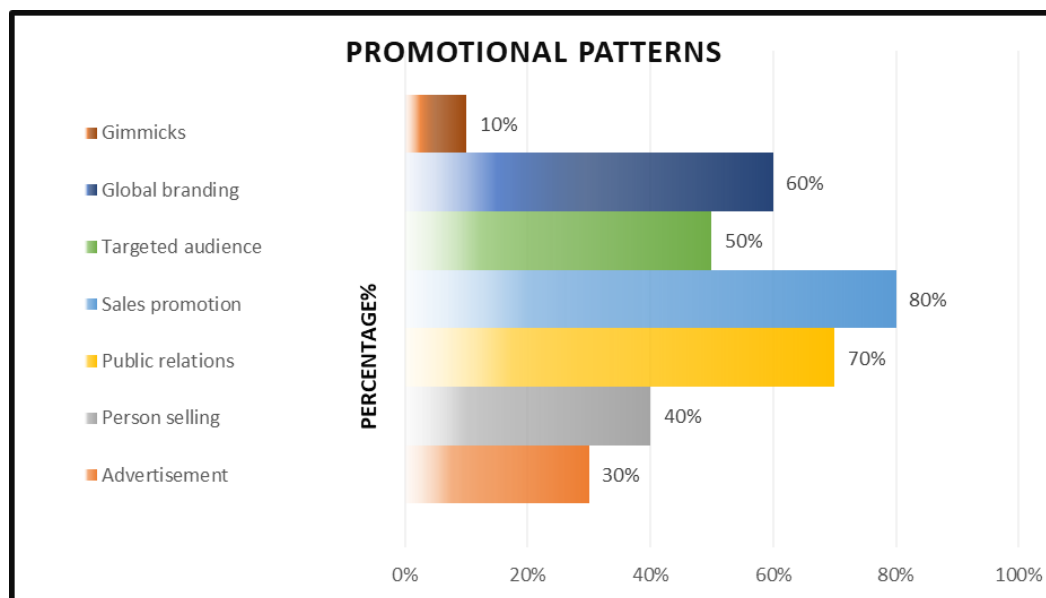
6F.RANITIDINE

SL NO:	BRAND NAMES	PRICE10 (TAB)
1	Rdlin-150	7.61
2	Giran	7.00
3	Aciloc	3.26
4	Aztee	2.66
5	Bioran	75.00



7.PROMOTIONAL PATTERNS

SL NO	PARAMETERS	PERCENTAGE %
1	Advertisement	30%
2	Person selling	40%
3	Public relations	70%
4	Sales promotion	80%
5	Targeted audience	50%
6	Global branding	60%
7	Gimmicks	10%



RESULTS

On the basis of inclusion and exclusion criteria, 75 patients were selected from the gynecology and obstetrics over a period of 3 months for the study . Out of these 75 patients. the average no: of drugs given per prescription was 2.51 ± 1.26 out of 218 prescription in the age group >18 -30 yrs>30-35 yrs and >50 yrs respectively among this prescription 91(30.29%)were infective cases and 207(69.60%) were non infective.

Among these diseases there include certain patients with hypertension ,patients of diabetes mellitus , hypothyroidism. Among all the drugs , tablet form of drug was prescribed commonly (78.7%), capsules (14%) , injection (29.45%), syrup (2%) , pessary (12.7%),suppository(4.6%), gel(0.6%) and suspension (0.01%) distribution of drugs according to various dosage form is given in [table 4].

Among all the category of drugs , supplements were most commonly prescribed 200 (35.71%) then followed by contraceptives 140 (25%) , hormonal drugs 90 (16.07%). other than these drugs , hypertensive drugs 23 (4%), UTIs 22 (3.92%), diabetic drugs 45 (8%) , thyroid drugs 10 (1.7%) & other 20 (3.78%) are prescribed [table 3] in the prescription.

On the 560 drugs prescribed 190 were prescribed by generic and 250 were prescribed by brand names and were 130 drugs were prescribed by essential medicines [table 1] . Among all the drugs prescribed by the Doctors - Vitamins 150(26.75%) was most commonly prescribed Pantop 130 (23.21%) , Calcium 100 (17.85%) ,Metrogyl 80 (14.38%), ondansetron 50(8.9%),misoprostol 30 (5.5%), Pitocin injection 20(13.57%) [table 5].

Among all the drugs prescribed folic acid 5mg tablet have a price variation of (RS.16), when compared between their minimum and maximum value calcium +vitamin D3 (Rs.250 mg+250i.u)(Rs.58),Metformin(Rs.19),Norethistrone(Rs.122),azithromycin(Rs.224.6),progesterone(Rs.130),ranitidine (Rs.14.25) [table 6].

Among the prescribed drugs sales promotion is most commonly used promotional tools in the marketing of the gynecology medication (80%), public relations (70%), global branding (60%), targeted audience (50%), personal selling (40%), advertisement (30%) and gimmicks by (10%) [table 7].

CONCLUSION

Gynaecology drug medication used to treat ailment related to female reproductive system. The current study was focused on the prescription pattern of drugs in gynaecology OPD. This study helps to study us to focus on the deviations from rational prescribing standards by prescriber. Such periodic evaluation may lead to rational practise hence improves the quality of prescription. Therefore the prescriber should be trained and told about the result of such studies so that the quality of the prescription will keep improving.

A major shift in the lifestyle of women led to a rise in the prevalence of gynaecological disorders affecting the functioning of uterus, ovaries, and their appendages. As a result, a steep rise in advancement in the treatment of these disease was observed in recent years to address their unmet healthcare needs creating opportunities for drugs manufacturers fueling the gynaecological therapeutics.

There was very wide price variation of different brands of the same generic most commonly prescribed obstructive & gynaecological drugs. For long term adherence to the treatment, cost of drug plays an important role for successful drug therapy. This can be done by changing in the government policies and regulations ,integrating Pharmacoeconomics as a part of medical education curriculum, and creating awareness among treating physician for switching to cost effective therapy.

This study conclude the non hormonal therapy segment is expected to hold the major market share in gynaecology drug market. On the other hand online pharmacies are owing to rising adoption among the women due to increase access to online pharmacies along with rise in preference for online consulting, payments and availability of wide range of products online which is likely to boost the growth of gynaecology drug market.

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