

## **A Review Article on Prescription Behavior of Doctors, Influenced By The Medical Representative In Rajasthan, India**

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**Abstract:** *The World Health Organization defines drug promotion as all informational and persuasive activities by manufacturers and distributors, the effect of which is to influence the prescription, supply, purchase or use of medicinal drugs but misleading information, incentives and unethical trade practices were identified as methods to increase the prescription and sale of drugs. Medical representatives provide incomplete medical information to influence prescribing practices; they also offer incentives including conference, Seminars, national and aboard sponsorship. Doctors also demand for gifts and other incentives, they look to every medical representative as a blank cheque for themselves, as when doctors' associations threaten to boycott companies that do not comply with their demands for sponsorship. Manufacturers, chemists and medical representatives use various unethical trade practices of particular interest was the finding that chemists are major players in this system, providing drug information directly to patients.*

**Keywords:** *Advertising Marketing, Drug Industry, Drug Information Services, Ethics, Medical, Forecasting, Gift & Sponsorship, India, Inter-professional Relations*

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### **I. Introduction**

After the World War II, there has been a global revolution in the drug therapy. [1, 2] More than 7,000 drugs and 75,000 formulations are available in India [1]. In US, well over 8,000 prescription drugs are available. [2] As new drugs are added, these numbers continue to increase and influence the prescribing habits of a physician. In US between 1971 and 1981, the average size of a prescription increased by approximately 27% and the total amount of prescription drugs dispensed increased by 35%. [2] In India the number of medicine has increased on prescription, every prescription of a private physician having the value of 600rs average. The prescription of a drug is an event in which the doctor is decision maker for the ultimate user - the patient. The industry had a powerful influence on prescribing habits [3] and is often blamed for its marketing practices. The medical representative trained by the company to sale the medicine by using the companies services to the doctors and these services influence the prescription habit of a doctor and change his prescription as well. There has been considerable discussion on these practices in western literature.[3],[4],[5],[6],[7], there is hardly any Indian literature on this subject. The trends of medical field are changing day by day. The current industry practices and the changing trends are presented in this article.

### **II. Pharmaceutical Promotion**

The pharmaceutical research and development expenditure is less than the promotion and marketing expenditure.[3] In UK the estimated industry expenses were 200 million pounds in 1985 that works out at 2500 pounds for each doctor. The World Health Organization defines drug promotion as all informational and persuasive activities by manufacturers and distributors, the effect of which is to influence the prescription, supply, purchase or use of medicinal drugs [25]. [5] The term 'promotion' means those informational and marketing activities, the purpose of which is to induce prescribing, supply or administration of medical products.[9] It includes the activities of medical representatives[2],[11] and all other aspects of sales promotion such as journal and direct mail advertising; [3] participation in conference exhibitions; the use of audiovisual materials; the provision of drug samples, gifts [4, 7, 8] and hospitality for medical profession and seminars.[10]

### **III. Activities Of Medical Representatives In Clinic And Outside Of Clinic**

Every pharmaceutical company employs and trains medical representatives to promote and sell drugs, using printed product literatures, drug samples and gifts. The size of worldwide sales force of different companies ranges from 2,500 to 8,000[12] and the number has been increasing. In India, an estimated 80,000 representatives are employed by the industry. Besides the salaries, they also receive incentives, Increment in salaries, aboard tour, promotions for achievement of sales targets, which might tilt the balance in favour of aggressive drug promotion. While doctors uniformly deny that their understanding of drug is influenced by the activities of industry, there is considerable evidence to support the efficacy of the personal encounter with a

medical representative in shaping doctors' attitude towards drugs. [2] In a UK survey of general practitioners, 58% mentioned a sales representative as the source of new products they prescribed.[13] The doctors surveyed also felt that sometimes the information on side-effects was not enough and more indications were promoted than registered.[13] There are no such systematic studies in India. However, any practicing physician can see such examples. I remember My (Author<sup>1,2</sup>) experience as a medical representative trying to prove superiority of netilmicin over Amikacin, promoting deflezacort as an important drug in bronchial asthma, citing prescribing habit of an eminent pediatric cardiologist to press for prescription of a costly antihypertensive, encouraging use of Nimuslide in tablet form in children (where they are recently banned by govt. of India below the age of 12 year children) and even requesting prescriptions to fulfill his sales targets. Avorn and associates [11] examined the opinions of practicing physicians in regard to three areas of drug prescribing and found that physicians are not always able to recognize the commercial messages and inputs that ultimately bear on therapeutic decisions and the actual prescribing practices of physicians appeared to be heavily influenced by the view of pharmaceutical industry.

These observations have led to restrictions on the activities of medical representatives. In UK, the ABPI Code [9] insists on adequate training and a high standard of ethical conduct in discharge of their duties. The product information must be accurate, fair and balanced. The number of calls (including attendance at a medical meeting or a visit to follow up a report of an adverse reaction) made by a medical representative each year should not exceed, on an average three visits to each doctor.[9] In India now the daily visit of the doctors should be twelve and four visit to each doctor in a month. Drug samples can only be provided to a doctor in response to a signed request and should not exceed four days' treatment for a single patient.[9] In Sweden, the representatives must meet a group of doctors after obtaining an appointment from the head of the department. On an average only two such meetings per year are permitted. The promotional material is screened by the head of the department and the presentation by representative allowed, only if the product information is new and scientific.[14] The representatives are not allowed to hand out free gifts or pads.[14] There is an urgent need, in India, to discuss the above activities and to develop guidelines to improve the ethical and scientific quality of information imparted through medical representatives.

#### **IV. Gifts As A Tool To Influence The Prescription Of Doctor**

One of the tools used by pharmaceutical industry is to give gifts to the doctor. The variety of gifts include stationery, time related, bags, books, folders, office-desk, medical, household, personal and innovative items.[8] The list includes small and big - alarm clocks to air conditioners, calendars to cars, rubber bands to refrigerators, telephone index to television and office items to overseas trips.[8] Although this apparently innocuous practice is generally accepted as a norm many doctors feel uneasy about its ethical repercussions. [4, 6] Chren and associates [4] feel that whenever a physician accepts a gift, an implicit relationship is established between the doctor and the company or its representatives and there is an obligation to respond to the gift. The gift usually reminds the doctor about the brand-name of the drug and results in a prescription.[8] However, gifts cost money which is ultimately passed on to the patients without their explicit knowledge.[4] The physician-patient relationship may be threatened if prescribing practices are affected, In a hard hitting article, Waud[6] decries the gifts and comments- " From the press, one can get an idea of what it costs to buy a judge or a senator - generally, thousands of dollars. But you can buy a physician for a pen or some pizza and beer for a departmental meeting."

American College of Physicians advises that a gift should not be accepted by the doctor, if acceptance might influence the objectivity of clinical judgment.[7] Certain educational gifts e.g. books, journals or case record forms and trivial gifts such as pens and calendars may be considered acceptable. [4,7] The ABPI code had advised companies to distribute gifts which are inexpensive and relevant to practice of medicine.[9] The American Medical Association and US Pharmaceutical Manufacturers Association guidelines suggest that the gifts should involve a benefit for the patients and should not be of a substantial value and should not be accepted if there are "strings" attached for prescriptions.[8] There is a need for a discussion between the professional medical associations and the industry to define acceptable norms for gifts.

#### **V. Advertising And Promotional Information**

Advertising a drug has been one of the earliest promotional attempts. In Canada, advertising of diphtheria vaccine led to its widespread use with conspicuous success from 1930 onwards.[15] In UK, there were 30,000 preventable child deaths due to diphtheria during the 1930s and it is possible that responsible advertising of the vaccine might have led to saving lives. No medical journal in India can survive without the advertisements of a drug. The pharmaceutical industry spends heavily on advertising in journals with a wide circulation meant for a clinical specialist or general practitioners. But in India, the basic journals e.g. clinical pharmacology, pathology find it difficult to manage, because of lack of advertisements. Besides the advertisement, the many western journals also carry full text of approved information on a drug. This practice

could help the journal in generating additional revenue and also help the reader in getting balanced information on a drug. The advertisements and printed promotional material such as visual aids used by the medical representatives, banners and posters at conferences and exhibition stalls and direct mailings to doctors usually include rational-product / therapy / clinical use related and emotional - humour / curiosity / ego-gratifying appeals[16]. A good balance between these two appeals would make the information educative and interesting. Often the marketing interests tilt the balance in favour of emotional aspects.

However, today advertising of a drug is under close scrutiny.[3] There has also been a crackdown on misleading drug promotion in US.[17] Waud[6] even feels that advertising has no role in drug promotion. In 1989, the total quantity of unsolicited promotional material received by a general practitioner in France amounted to 160kg. [17] The Office of Technology Assessment (OTA) of the US Congress found that the label and package inserts for at least half of a sample of 241 products failed to provide sufficient information for 3 doctors to use the drugs safely and effectively. [3] Sometimes indications, which are not approved by the health authorities, are promoted. A sample study of advertising in leading medical journals in 18 countries found that important warnings and precautions were missing in half the 6700 advertisements surveyed.[19] Some of the Indian companies have even started drug advertisements in lay press. When Panzon (Painkiller) was introduced, one local company started an information service, which was advertised in national newspapers. Some companies put drug advertisements "for attention of medical profession" in newspapers. Under the disguise of reaching doctors, they are trying to influence the patients. With availability of drugs without prescriptions, the patient can buy a new drug and suffer its undesirable consequences. Although it is mandatory in most countries to provide a printed package information (for doctors and patients) on a drug in every drug pack, many companies do not provide this information in India.

Currently, several measures to improve the quality of advertising and promotional information are being undertaken. The IFPMA code (International Federation of Pharmaceutical Manufacturers Associations) [20] and ABPI [9] codes suggest that the drug information should be accurate, current and balanced. Superlatives must not be used and word 'safe' should not be caused without qualification. The product or services of other companies should not be disparaged either directly or by implication. [9] Quotations from medical literatures must accurately reflect the meaning of the author and the significance of the study and complete reference should be given. All promotional material must include a succinct statement about the indications,

contraindications, precautions, side-effects and dosage. Besides it should conform to canons of good taste. [9] All member companies of Organization of Pharmaceutical Producers of India (OPPI) have to follow IFPMA code. Many OPPI members have their own internal codes and the promotional material has to be approved by the medical advisor. There is also a Promotional Quality Improvement and Assurance Committee to critically analyze the promotional material, which has already gone to doctors and to suggest improvements in subsequent marketing communications. However, in many companies in India, there are no qualified medical advisors and in many, marketing department takes overriding decisions on promotional materials, particularly if the medical staff reports to the marketing manager.

From an industry perspective, the drug information is designed to soothe and enthuse; to allay fears about safety risks and to encourage widespread use because of evident efficacy. From the view of society, it is meant to inform and protect; to provide sufficient information to make wise therapeutic and economic choices and to prevent unnecessary use and the attendant risks. [3] Only such a balanced perspective will allow rational therapeutic decisions.

## **VI. Hospitality For Medical Profession And Seminars**

Conventional methods of drug promotion have increasingly been supplemented by nontraditional approaches such as symposia that rely heavily on the involvement of medical researchers and other experts. Over the past two decades, the number and cost of such event shave increased dramatically. In 1988, 16 US companies sponsored 34,688 symposia, at a cost exceeding \$85, 9 million. [10] The comparable figures for 1974 were 7519 symposia and a spending of \$6.5 million. In India there are hardly any meetings, seminars or conferences held without funding from the pharmaceutical companies. The pharmaceutical industry may well be considered a primary source of continuing medical education; but, these activities are often promotional and they can undermine the unbiased exchange of scientific information and raise questions of professional ethics. [10] Many such activities that are arranged through the marketing department of a company rather than its medical or research department tend to jeopardize the scientific legitimacy and objectivity. [10] Besides organizing such events, the industry also supports travel and hospitality for the speakers and even audience! Patel while discussing such widely prevalent practices comments it is also unfortunate that Indian medical personnel have begun to approach the drug firms for assistance in their intention to attend the conferences in India and abroad and threatening the representatives of drug firms with non-cooperation or boycott the products of firms if they don't comply".[8]

These activities have been criticized and guidelines proposed for the conduct of medical meetings. [9, 10] The sponsor of an activity should not have express or implied control over the scientific content of the program. [10] The meetings should be organized through a recognized medical association and the seminar should focus on treatment of a disease or a therapeutic class. In India, OPPI supports medical education activities of several medical associations without any involvement in the content or the organization of the seminar. The discussion must be balanced covering a range of views and the data presented must be reliable. Anecdotal or personal use of a drug is not acceptable. The post-seminar activities such as journal supplements on a product are also to follow above guidelines. Physicians are advised to avoid involving themselves with program that emphasizes recreational events. In India, there is an urgent need for the industry and the medical associations to develop responsible guidelines.

## **VII. Consequences And Future Scene**

Although the doctors have the sole and absolute power to determine the sales of drugs, which are available on prescriptions, the pharmaceutical marketing and promotion practices are blamed for irrational prescribing habits and their consequences. In a study of large number of prescriptions, found that the nutritional supplements were advised in 53.4%, antibiotics in 31.2% and analgesics in 26.2%. [22] In a study of anti-inflammatory drug usage, we found that ibuprofen and combinations were used by over 60% of patients and the use of aspirin - a poor man's drug - was quite low. [23] There was no difference in the drug usage in different rheumatic diseases. Indomethacin or phenylbutazone is more effective in seronegative arthritis; however, their usage in these disorders was low. [23] There are many examples of misuse of potent drugs like antibiotics, steroids etc. [1,22] The consequences of such inappropriate drug use are unnecessary adverse effects, increase in antibiotic resistant microorganisms, treatment failures from use of wrong drugs and the waste of the patient's money.[1] There is a need both for the industry and doctor to develop mutually agreeable limits for promotion of drugs. The available codes provided a useful guideline; [9, 20] but they are still considered the beginning rather than the end of this debate. With the medical profession coming under the ambit of consumer protection act, it is likely that industry - doctor relationship might come under such scrutiny. In France, under a government law, physicians who accept any form of payment from drug companies can be fined FF 500,000, jailed for two years and struck off the recognition for ten years.[24] Waud[6] asks doctors "Have we really reached the point where it takes bribery or outside pressure to get physicians to keep update? Are we willing to wait until the government decides to legislate medical ethics and morality?" Let's pray that wiser counsel prevail and both sides - industry and doctor - work towards a healthy and ethical relationship. MCI (Medical Council of India) has also introduced its new code of conduct for doctors for taking gifts, taking the Sponsorship for attending the Seminar, Conference etc in India or abroad by any pharmaceutical company. In Rajasthan, recently govt. of Rajasthan has started free medicine distribution scheme and notified that doctors has to write only generic name on the Prescription.

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