

DRUG PROMOTIONAL ACTIVITIES AS A SOURCE OF MEDICAL INFORMATION AND ITS INFLUENCE ON PRESCRIBING

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ABSTRACT

Aim: To explore the opinion from various health care professionals towards medicine promotion and its influence on prescribing practices. **Materials and Methods:** A pretested questionnaire was prepared and circulated among various faculties of Medical, Dental and Pharmacy colleges using an online survey portal 'SurveyMonkey'. **Results:** A total of 156 responses were collected. Out of 156 respondents, there were 58 doctors, 32 interns, 20 dentists and 46 pharmacists. The data was analysed using Microsoft excel and presented below. **Conclusion:** Drug promotional activities cannot be considered as a trusted source of medical information. Some of the pharmaceutical companies aggressively promote the drugs for their financial gains by hiding the safety profile, gives false claims and promote irrational fixed dose combination. In spite of all these, the pharmaceutical companies still influence the prescribing doctors by giving gifts, incentives, sponsoring CMEs/conferences and arranging tours. So, the health care personal should not depend on the drug promotion as the trusted source of drug information and should not involve in profit making. There are numerous scopes for new laws and regulations for identifying and penalizing these unethical practices. But apart from these laws it is one's own responsibilities and conscience that have to be altered. Everyone in the health care sector should have social responsibility and work for patient safety and benefit rather than personal financial gains.

KEY WORDS

Survey, Questionnaire, Drug promotion, Generics, Prescribing, Source of drug information

INTRODUCTION

Every one of us knows that the physician's prescribing practices vary across the globe. His prescribing practices are influenced by so many factors like and not limited to the following; his level of knowledge, his colleagues / seniors, textbooks, journals, internet, conferences, media and last but not the least drug promotion [1]. Among these factors the most vulnerable factor for errors, bias and influence is drug promotion. Now a day, physicians are misinformed or misguided by the manufacturers merely for their financial gains. It is a known fact that Pharmaceutical companies spend huge amount of money towards

medicine promotion. It uses different means of promotion like sales representatives, free samples, advertisements in media, and sponsorship of educational events and conferences. [2] These promotional activities influence doctors which give way for inappropriate prescribing and contribute to increased health care costs without necessarily benefiting the patients. [3] One of the study estimates that U.S. pharmaceutical industry spends almost twice as much on promotion as it does on research and development. [4] In another study which was carried out in 2005, money spent on medicine promotion in United States was

approximately \$57 billion [5]. Different means of medicine promotions in United States are free samples (56%), pharmaceutical sales representative "detailing" physicians (25%), direct to user advertising (12.5%), detailing to hospitals (4%) and journal ads (2%) [6]. On the other hand, there are so many benefits of this drug promotion. It mainly helps in rapid distribution of the scientific information / data gained from clinical trials to the entire health care professionals.

But ideally, physicians' prescribing habits should be based on rational pharmacotherapy processes which include choosing appropriate drugs with desired dose and duration, among the various available options, which can be beneficial to both the patient and health care system. [7]

These pharmaceutical companies sometimes promote the drugs unethically by hiding their safety profiles, by exaggerated efficacy claims of 'me too drugs', irrational drug combinations and off label use. By doing so, they influence the doctors prescribing attitudes. Who is responsible for all these irrationalities and unethical practices? Is it the pharmaceutical companies or the health care professionals? Both have to be blamed since the doctors also blindly over-prescribe the drugs for minor financial benefits / margin of the profits gained by selling these drugs. Sometimes doctors even demand incentives and their association threaten to stop prescribing the companies drugs that do not comply with their demands for sponsorship.

There are numerous studies which tried to explore the irrationalities from only one angle i.e the pharmaceuticals drug promotional literature [8, 9, 10]. The present study is an attempt in small scale to explore the opinion from various health care professionals towards medicine promotion and its influence on prescribing practices.

MATERIALS AND METHODS

It was a questionnaire based study which was conducted between April and May 2014. (Figure 1). The participants were asked to choose from various options provided and also space was given for their

opinion which was not included in the options. Responses were collected, analyzed and is presented below. Data were expressed as counts and percentages.

OBSERVATIONS AND RESULTS

A total of 156 responses were collected. The data was analysed using Microsoft excel and presented below. Out of 156 respondents, there were 58 doctors, 32 interns, 20 dentists and 46 pharmacists. The respondents' opinion regarding the source of information a prescriber should prefer is depicted in graph 1. The factors affecting the prescribers' attitude is shown in graph 2. The most important factor a prescriber should consider while prescribing according to the respondents is safety and efficacy of a drug (67.30%), other factors are cost (25.64%) and local availability (7.05%).

Majority of the respondents i.e 96 (61.53%) believe that drug promotion leads to self medication and patient doesn't go to a health care professional for his illness. While 42 (26.92%) respondents believe that patient draws inappropriate conclusions about the product since there is no check on the quality of drug promotion, only 18 (11.53%) respondents believe that drug promotion using internet and other media provides information about various drugs which increases the patient compliance and final outcome.

Respondents' opinion regarding drug promotion using medical representatives is shown in Table 1. Opinion regarding the quality of information provided by the medical representatives is shown in graph 3. Opinions of respondents on ethical aspects of drug promotion by manufacturers were varied and shown in Table 2.

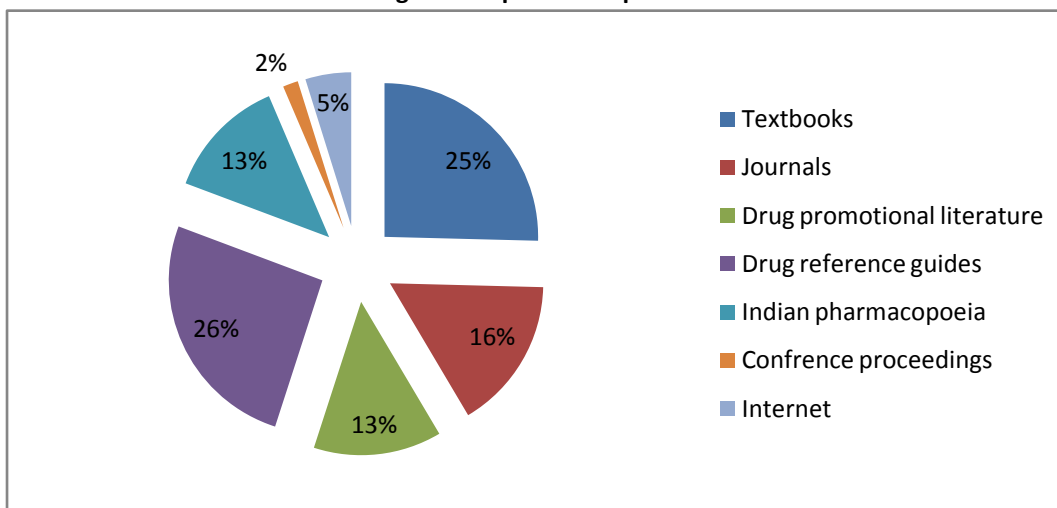
Interventions which can be taken to stop misleading drug promotional activities according to the respondents are shown in Graph 4. Involvement of media against unethical drug promotion was suggested by majority of the respondents. Measures to be taken to reduce the influence of drug promotion on prescribing practices are given in graph 5. In that, use of generics was suggested by majority of the respondents.

Drug Promotional Activities As A Source Of Medical Information And Its Influence On Prescribing

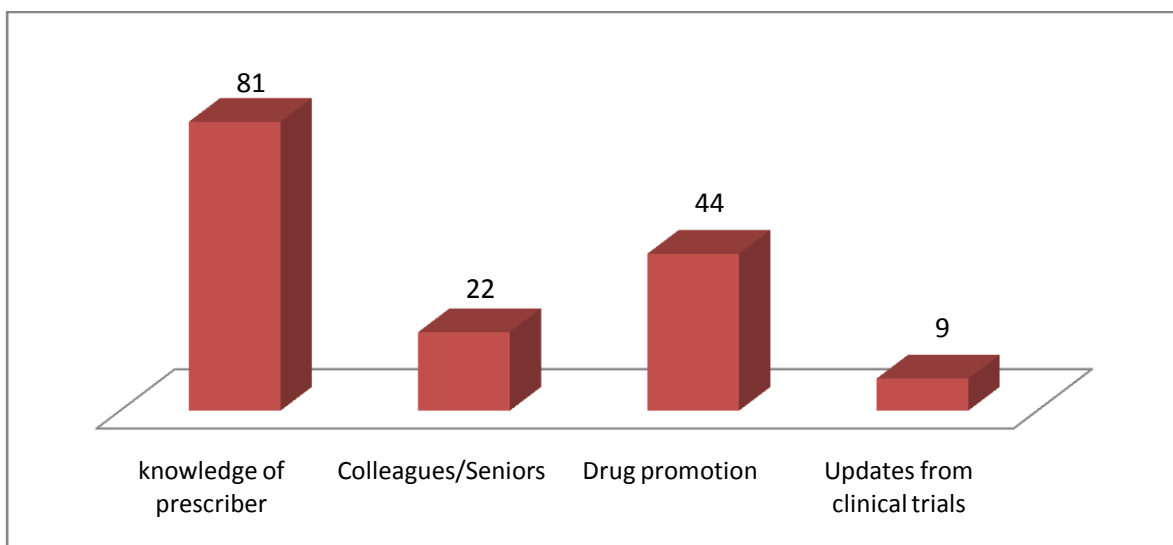
Kindly answer all the question, mark the single best choice for a question.

1. By profession you are a
 - o Doctor/Specialist
 - o Intern
 - o Dentist
 - o Pharmacist
2. What trusted source of information a prescriber should prefer while prescribing drugs
 - o Textbooks
 - o Journals
 - o Drug promotional literatures
 - o Drug reference guides (CIMS)
 - o Indian Pharmacopoeia
 - o Conference proceedings
 - o Internet (Medline)
3. According to your opinion, which factors affect prescribing?
 - o Knowledge of prescriber
 - o Drug promotion
 - o Colleagues / Seniors
 - o Updates from clinical trials
4. What is the most important factor a prescriber should consider while prescribing a drug?
 - o Safety / Efficacy of a drug
 - o Cost to the patient
 - o Local availability
5. What is your opinion regarding drug promotion using internet and other media?
 - o It provides information about various drugs which increases the patient compliance and final outcome
 - o There is no check on drug promotion and patient draws inappropriate conclusions about the product
 - o It leads to self medication and patient doesn't go to a health care professional for his illness
6. Answer Yes or No regarding drug promotion using medical representatives
 - o It updates prescribers' knowledge about a drug
 - o It helps in rational prescription
 - o Prescriber becomes obliged after receiving benefits from the manufacturers
 - o Manufacturers promote off label use of some medicines to make profit
7. Your opinion regarding the quality of information provided by the medical representatives and advertisements about the drugs?
 - o Provide useful and accurate information of drugs
 - o Over-emphasize medicines' effectiveness
 - o Hide the complete safety profile of a drug
 - o Drug information is biased and too commercial
8. Whether the following gestures by the manufacturers for drug promotion ethical? Answer Yes or No
 - a. Conducting conferences/CMEs for promoting their products
 - b. Distributing free medicines during every visit by a medical representative or during a medical camp
 - c. Giving margin/percentage or profit obtained after the sale of their products through prescribers/pharmacists
 - d. Arranging tours/Trips
 - e. Arranging private dinners/party
 - f. Gifts
9. What interventions can be taken to stop misleading drug promotional activities
 - o Educating the prescribers regarding commercial and biased drug promotion
 - o Strict regulations by the health authorities against any misleading drug promotion
 - o Involvement of media against unethical drug promotion
 - o Others
10. Measures to be taken to reduce the influence of drug promotion on prescribing practices.
 - o Promoting the use of generics
 - o Incorporate the concept of drug promotion at undergraduate level
 - o Continuous research on drug promotion
 - o Creating policies and guidelines for drug promotion

Figure 1: A pretested questionnaire



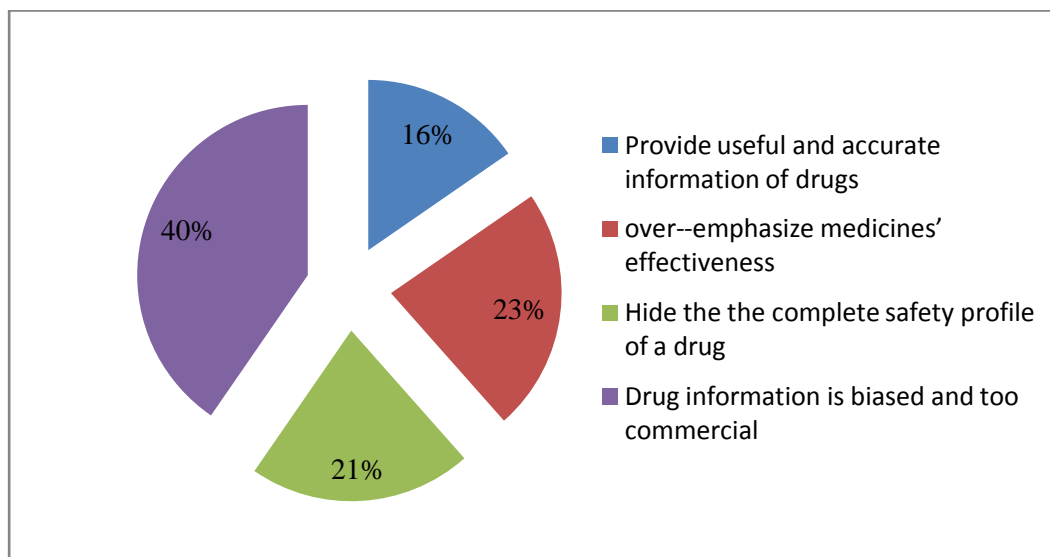
Graph 1: Respondents opinion regarding the trusted source of drug information



Graph 2: Factors which affect prescribers' attitude according to respondents

Table 1: Opinion regarding drug promotion using medical representatives

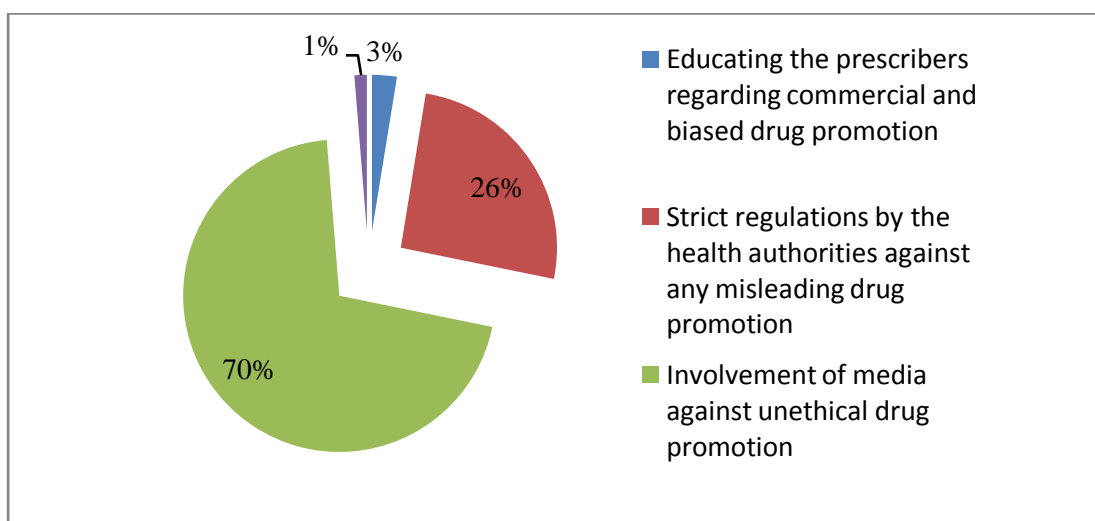
RESPONSES	YES	NO
It updates prescribers' knowledge about a drug	25 (16.03%)	131 (83.97%)
It helps in rational prescription	30 (19.23%)	126 (80.77%)
Prescriber becomes obliged after receiving benefits from the manufacturers	145 (92.95%)	11 (7.05%)
Manufacturers promote off label use of some medicines to make profit	109 (69.88%)	47 (30.12%)



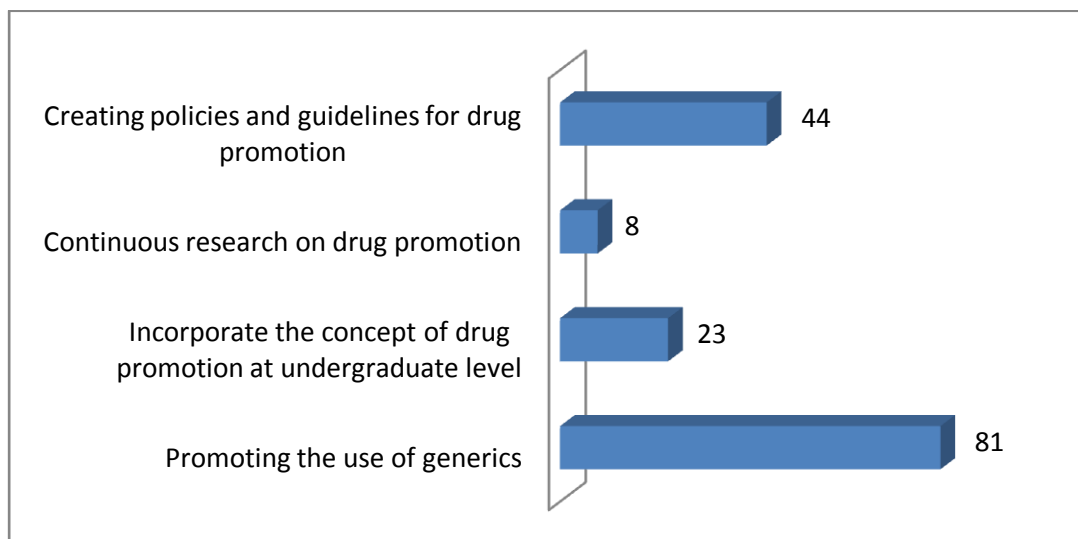
Graph 3: Quality of information provided by the medical representatives

Table 2: Ethical aspects of drug promotion by manufacturers

RESPONSES	YES	NO
Conducting conferences/CMEs for promoting their products	128 (82.05%)	28 (17.95)
Distributing free medicines during every visit by a medical representative or during a medical camp	88 (56.41%)	68 (43.59%)
Giving margin/percentage or profit obtained after the sale of their products through prescribers/pharmacists	27 (17.30%)	129 (82.69%)
Arranging tours/Trips	13 (8.33%)	143 (91.67%)
Arranging private dinners/party	8 (5.13%)	148 (94.87%)
Gifts	5 (3.20%)	151 (97.79%)



Graph 4: Interventions that can be taken to stop misleading drug promotion



Graph 5: measures to be taken to reduce the influence of drug promotion on prescribing.

DISCUSSION

Health care professionals should always depend on the trusted source of information, since patient care is the prime goal of all the health care activities. In our study, around 50% of the respondents opined that textbooks and drug reference guides are the trusted source of information. But, 13% believed that drug promotional literature also is a trusted source. To make profit out of their products, the companies' drug promotional literature usually hides the safety profile, gives false claims, promote irrational fixed dose combination. Since, one of the previous studies [8] concluded that while preparing these promotional literature the manufacturers did not even follow the WHO guidelines, we can say that these drug promotional literature should not be considered as a trusted source of information.

There are so many factors which affect the prescribing attitude of a doctor. In our study 81 respondents opined that the doctors' knowledge affects the most. Yes, it is true, since whatever knowledge he has accumulated during his career will be utilized for rational prescribing. But 44 respondents believe that drug promotion also affect his prescribing attitude. In reality most of the doctors have no time for referring the literature for the recent advances like newly approved drugs or fixed dose combinations. So he has to depend on the promotional literature prepared by the manufacturers. The information contained in this might be biased as we have seen earlier. So for the ultimate patients' safety prescribers should not be influenced by the pharmaceutical companies.

With the advancement of computer and internet technology, consumers are using the Internet to access health related information and health products including drugs. The Internet also creates a new marketplace for illegal activity such as the sale of unapproved new drugs, or products marketed with fraudulent health claims [11]. Categories of drugs sold are those with extraordinary claims like height grow, drugs to increase sexual drive, drugs for erectile dysfunction etc. While some dispense drugs only after obtaining a copy of prescription by a registered doctor majority of the online drug store sell the drugs without the need of prescription by a doctor.

Consumers may have difficulty identifying which sites sell the authentic products. So, caution should be exercised and awareness should be raised among the consumers regarding these activities by patient education. Also, there should be a check on these activities by appropriate regulatory bodies.

In drug promotion, these pharmaceutical companies use one more important mode to directly influence the doctors. Yes, it is through medical representatives. These reps attract health care professionals towards their products by giving gifts (ranging from pens/pads to expensive foreign tours/trips). Such activities are deep rooted into our health care sector. Each and every doctor is involved in such activities inspite of knowing it to be unethical according to the medical code of conduct [12].

Regarding the ethical aspects of distributing free samples to the physician or to the patients during free medical camps the respondents' opinion was almost equal, i.e 56% said its ethical and 44% it is unethical. In India there is no law / regulation on free sample distribution. So, as far as the motto of the pharmaceutical industry is to help the poor patients by distributing free samples (health promotion) then it is ethical but if the aim is to popularize their drug (drug promotion) then it is unethical. Regarding sponsoring conferences/CMEs by the pharmaceutical companies 82% of respondents said it is ethical. But, if the company advertises their products during these programmes then it becomes unethical.

Around 52% of the respondents believe that promoting the use of generics will reduce the influence of pharmaceutical companies on the prescribers and 28% believe that creating policies and guidelines for drug promotion will do that job. Actually, pharmaceutical companies manufacture drugs that are developed from research. After approval from the regulatory bodies, these drugs are patented which can last up to 20 years (Differ country wise) [13]. During this period, they get exclusive rights to sell the drugs under their brand names and make maximum profits. Other drug companies can manufacture these drugs (generics) only after the expiry of patent. Patient gets these generic drugs at a lower cost than their branded counterparts. So, if the time period of the patent is reduced the generics

come into market sooner and patient will be benefited by this.

CONCLUSION

There are so many irrationalities and unethical practices prevailing in the health care segment and the ultimate sufferer is the patient. Therefore, the health care professional should not depend on these promotional activities as the trusted source of drug information rather should depend on textbooks, journals etc. There are numerous scopes for new laws and regulations for identifying and penalizing these unethical practices. These include mandated disclosure by pharmaceutical companies of the expenditure incurred on drug promotion and disqualification of the product and penalty on the company for unethical drug promotional literature. No laws or regulations can ever change the scenario. It is one's own responsibilities, attitude and conscience that have to be altered and everyone should work as if the ultimate motto is patient safety and benefit rather than personal financial gains. By doing so, at each and every step of health care delivery; improvements can be achieved as a whole.

REFERENCES

1. Narendran R, Narendranathan M. Influence of pharmaceutical marketing on prescription practices of physicians. J Indian Med Assoc. 2013;111(1):47-50.
2. Who.int [internet]. Essential Medicines and Health Products Information Portal, A world health organization resource. Available from www.who.int/medicinedocs/pdf/s8109e/s8109e.pdf
3. Cardarelli R, Licciardone JC, Taylor LG. A cross-sectional evidence-based review of pharmaceutical promotional marketing brochures and their underling studies: Is what they tell us important and true? BMC Fam Pract 2006; 7:13-8.
4. Sciencedaily.com [Internet]. Science daily: Your source for latest research news. Available from <http://www.sciencedaily.com/releases/2008/01/080105140107.htm>
5. Sufrin CB, Ross JS. "Pharmaceutical industry marketing: understanding its impact on women's health". Obstet Gynecol Surv 63 (9): 585-96.
6. Joseph barfett, Brent lanting, Julian lee, Michael lee, Victor ng, Peter simkhovich. Pharmaceutical marketing to medical students: the study perspective. McGill Journal of Medicine 2004; 8:21-7.
7. Akici A, Oktay S. Rational pharmacotherapy and pharmacovigilance. Curr Drug Saf. 2007;2(1):65-9.
8. Smita N. Mali, Sujata Dudhgaonkar, N.P. Bachewar. Evaluation of rationality of promotional drug literature using world health organization guidelines. Indian J Pharmacol 2010;42(5):267-72
9. ROY, Nobhojit; Madhiwalla, Neha; Pai, Sanjay A. Drug promotional practices in Mumbai: a qualitative study. Indian Journal of Medical Ethics 2007; 1(4):57-61.
10. Shankar, P., Dubey, A. and Subish, P. Critical evaluation of drug promotion using role-plays. Medical Education 2006; 40: 472.
11. fda.gov [internet]. Benefits and Risks of the Sale of Drugs via the Internet. Available from <http://www.fda.gov/NewsEvents/Testimony/ucm161408.htm>
12. emfi.in [Internet]. Medical Council of India - Code of Medical Ethics. Available from <http://emfi.in/a/press-releases/ethics-press-releases/medical-council-of-india-code-of-medical-ethics>
13. fda.gov [Internet]. Generics drugs: Questions and answers. Available from <http://www.fda.gov/Drugs/ResourcesForYou/Consumers/QuestionsAnswers/ucm100100.htm>



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