EVALUATION OF DRUG ADVERTISEMENTS IN A MEDICAL JOURNAL

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ABSTRACT

Though ideally the scientific information provided by pharmaceutical companies in drug advertisements should be for promotion of rational use of drugs, this objective is rarely achieved, as often the data is incomplete and biased. Analytical studies with the help of standard indicators on this aspect of drug advertisements are very few from developing countries. We analyzed all medical drug advertisements in eleven consecutive issues of Journal of Nepal Medical Association published between 1993 and 1996 with a special emphasis on their conformity with WHO guidelines and International Federation of Pharmaceutical Manufacturers Association (IFPMA) code for drug advertisement.

The 78 advertisements in the Journal of Nepal Medical Association constituted 7.7% pages of the eleven issues. Of the 38 products advertised, 30 (79%) were manufactured outside Nepal. Antimicrobial agents were the most frequently advertised group of drugs (47.4%). While generic name was not mentioned in 16.7% of the advertisements, the information on indications, adverse effects and contra-indications was lacking in 37%, 88.4% and 87.1% of the advertisements respectively. Only 11.5% of advertisements provided information on generic name, indications, dosage, adverse effects and contra indications. However, none of the advertisement was "complete" on the basis of the indicators of WHO guidelines and IFPMA codes.

Key Words: Medical drug advertisement, drug information, WHO guidelines, IFPMA code.

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INTRODUCTION

Irrational prescribing of drugs is a major problem throughout the world. This is alarming as many country especially developing countries spend 40% or more of their health budget on drugs.[1] The responsibility of irrational prescribing lies not only on the prescriber but also on the manufacturer and consumer. Drug prescribing behavior is often influenced by drug advertisements, visits of medical representatives, sponsored seminars and concealed rewards in the form of gifts.[2] More often prescriber relies on the information provided by the medical representatives and advertisements.[3] Since, drug advertisements form a very important source of information to the medical fraternity[4] and influence their prescribing habits,[3,5] it is highly essential that the information provided by such advertisements should follows certain standard norms to provide valid, accurate and factual information. Hence, responsible organizations like WHO[6] and International Federation of Pharmaceutical Manufacturers Association (IFPMA)[7] have formulated certain guidelines. In addition, many a medical men also expressed that advertisements should be qualified as complete (satisfactory) or incomplete (unsatisfactory) on the basis of the information they provide[2] (Table I).

Table I : Comparative check list of indicators for drug advertisements

Indicator	Herxheimer & Lionel * (1978)16	WHO-EC (WHO, 1988) 6	IFPMA (Anonymous1990)7	Tomson G. (1990) 2	Present Study
Generic Name	+	+	+	+	+
Effects	+	-	-	-	-
Pharmacoldnetics	+	-	-	-	-
Indications	+	±	±	+	+
Contraindications	+	±	±	+	+
Precautions	+	±	±	-	-
Adverse effects	+	±	±	+	+
Drug interactions	+	±	±	-	-
Dosage regimen	+	±	±	+	+

** Their list had additional six items*
± Must in first appearance, optional in readvertisement.

The Journal of Nepal Medical Association (JNMA) is a prestigious medical publication and is the main vehicle for pharmaceutical companies to disseminate drug information in Nepal. Hence, this study was taken up to find out the extent of conformity of the contents and illustrations of drug advertisements in Nepal Medical Journal with the guidelines prescribed by WHO and IFPMA.

METHODS

All advertisements (except those with more than one drug, laboratory equipment and surgical material) for drugs appearing in JNMA from 1993-96 were analyzed. Data was collected in a custom made check list for the presence or absence of information on brand & generic name, composition, approved indications, dosage, adverse effects, contraindications, dosage forms, price, name and address of the manufacturer and references in support of the claims. The minimum scientific information required in drug advertisement was taken to be generic name, indications, dosage, adverse effects and contra-indications. The pictorial illustrations were analyzed by using Tomson's indicators.[2] The original references cited in the advertisements were not consulted. Fifty percent of the advertisements were re-analyzed with the help of the checkl-ist by a co-author and no significant difference was found in the observations.

RESULTS

Eleven issues of JNMA from 1993-96 contained 78 advertisements, of which 64 were full page and 14 were half page advertisements. Advertisements occupied 71 of the 920 pages (7.7%) of the eleven issues. In general the arrangement of the advertisements was either at the beginning or end of the text of the journal.

As some products were advertised repeatedly in different issues of the journal, the 78 advertisements

were regarding only 38 products. Eight (21.05%) of the products were manufactured in Nepal while the rest were manufactured in India. The number of fixed dose combinations was 17 out of 38 (44.73%) and almost one third of these were on vitamins/iron/zinc, this accounted for 21.79% of all advertisements. Antimicrobials were the most frequently advertised category of drugs (table-II).

Table II : Group wise categorization of drug advertisements (n = 78)

S.N.	Drug group	Number (%)
1.	Antinucrobial	37 (47.43)
2.	Hematinics, Vitamins and Minerals	15 (19.23)
3.	Gastro-intestinal tract drugs	6 (7.69)
4.	Respiratory drugs	6 (7.69)
5.	Cardiovascular drugs	5 (6.41)
6.	Others	9 (11.53)

The products, which were advertised for four or more number of times, were 'Strox' (ciprofloxacin), and 'Viqaran' (multivitamin & zinc).

Of the 78 advertisements, 65 (83.3%) had generic names of drugs. The brand name was mentioned in 77 (98.7%) of the advertisements and was not mentioned in one advertisement on anti-snake venom serum. The size of the lettering of the generic name as compared to the brand name was smaller by fifty percent and face type was thinner than the brand name in 65 (83.3%) of the advertisements. None of the advertisements have fulfilled all the criteria laid down by WHO - Ethical criteria for medicinal drug promotion and IFPMA code. The minimum scientific information as per Tomson and Weerasuriya[8] was provided only in 9 (11.53%) advertisements. None of these 9 advertisements rated as complete made a mention about price of the products and a total disregard towards price of the product is surprising. Only one advertisement had information on price of a drug manufactured in India and that too with a claim about reduction of price. Contact address was mentioned in 10 advertisements for further information. Detailed analysis of drug information provided in advertisements on indications, adverse effects, and contraindications is given in table-III.

Table III
Data on indicators in drug advertisements.

	No. of items under each indicator				
Type of Information	0	1-3	4-6	>6	Total number of advertisements
Indications	29	35	09	05	78
Adverse effects	69	06	02	01	78
Contraindications	68	08	02	00	78

Of the 78 advertisements, 42 (53.84%) had pictorial illustrations (table-IV). References in support of the claims were given only in 3 of the advertisements.

Table IV : Analysis of pictorial elements in drug advertisemtns.

Type of pictures	Number (%)
Healthy human being or part of the body / face	10 (23.80)
Patient or diseased part of body / face	7 (16.66)
Other objects	28 (66.66)
Drug product and its container	10 (23.80)
Chart & graph with data	00 (00.00)
Pathogenic organism	5 (11.90)
Total*	**60**

n = 12
** Total is more than n=42 because a few advertisements had more than one component.*

DISCUSSION

The study showed that 7.7% of the space in the eleven issues of JNMA was occupied by drug advertisements. This was much less than that reported from Canada (43%)[9] and Sri Lanka (49%).[8] The economic limitation alone may not be the reason for this limited space utilization by pharmaceutical, similar trend are seen in other developing countries also.

The most frequently promoted classes of drugs in our study were antimicrobials and multivitamins (table-II). Cardiovascular drugs took the fifth place in our study, whereas in a Scandinavian study they were the most common, but antimicrobial drugs took seventh place.[10] Such prominence of antimicrobial drug advertisements in our study may be explained on the basis of the high prevalence of infections in developing countries[11] while the high cardiovascular morbidity in developed countries probably explains the market potential of those drugs. However, in the absence of accurate morbidity & mortality statistics in Nepal, it is difficult to say rather drugs are advertised according to morbidity pattern or as an attempt to market the more profitable drugs.

In Nepal very few fixed dose combinations like sulfamethoxazole plus trimethoprim (Cotrimoxazole), magnesium hydroxide plus aluminium hydroxide (antacid), levonorgestral plus ethinylestradiol (oral contraceptive), levodopa plus carbidopa (antiparkinsonian) and pyrimethamine plus sulfadiazine (antimalarial) are approved and except for these few combinations, fixed dose combinations are generally not advocated.[12] In Bangladesh in 1982 in general most of the fixed dose combinations were banned.[13] In present study 21.79% of the advertisements were for fixed drug combination and except for oral contraceptives and cotrimoxazole, the rest of fixed drug combination advertised were not advocated to use.[12]

Such a large-scale promotion of fixed dose combination drugs may be due to lack of drug policy and or its implementation.

Thirteen percent of the advertisements did not have generic names. Even in those where it was provided, mostly the generic name was of very small letter size and was barely legible in some. This is indicative of the attitude of the manufacturers who would want the physicians to know the product by brand name only. The pharmaceutical companies would not spend 15-25% of their income on advertisements without being assured of returns.[9] Hence, in disseminating information about drugs, priority is given by them on information useful to generate more prescriptions and profit.[14] Regulating drug advertisements could bring about a change in this attitude and more emphasis on consumer's welfare.

Because of the critical part played by drug advertisements as information sources to the busy prescriber, they should provide scientifically relevant, reliable and adequate information and should not act solely as commercial communications. The existing codes and guidelines if adhered to are sufficient to ensure minimum scientific information on various indicators in drug advertisements. But this is hardly the case. This is a problem all over the world and more so in developing countries[15] where rules and regulations are not rigidly followed. Herxheimer & Lionel have suggested a list of 15 indicators/items as minimum scientific information in drug advertisement.[16] Like Tomson & Weerasuriya[8] we also suggest minimum of five indicators to be included in every drug advertisement viz. claim & reminder advertisements (table I).

The cost of the product is usually not mentioned in drug advertisements. It is very important for the prescriber to prescribe economically without compromising on the quality of patient care. The drug advertisements with information on cost of the product in Nepal would help the prescriber to take appropriate discussion to prescribe economically.

If editors of scientific journals like the Journal of Nepal Medical Association takes up the case, the scenario can expectedly be improved and would promote rational, cost effective prescribing.

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