What information do physicians receive from pharmaceutical representatives?

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ABSTRACT

OBJECTIVE To assess the information pharmaceutical sales representatives provide to physicians.

DATA SOURCES A MEDLINE search from January 1966 to May 1996 was done using combinations of the terms pharmaceutical industry, drug information services, drug utilization, physician's practice patterns and prescriptions, and drugs. Studies identified from this search were supplemented by material from my personal library.

STUDY SELECTION Studies had to be conducted in industrialized countries, based on direct observations of actual physician and sales representative contacts, and reporting quantitative results on the quality of information transmitted.

SYNTHESIS Four studies were included. Representatives usually mentioned the indications for their drugs, but omitted safety information. Representatives' information frequently contained inaccuracies.

CONCLUSION Sales representatives present only selected, usually positive, information about their products. Canadian doctors should not be passive recipients of information provided by sales representatives. Physicians who choose to continue to see representatives must critically compare the information they get from them with that contained in scientific publications.

RÉSUMÉ

OBJECTIF Évaluer la qualité de l'information dispensée aux médecins par les représentants commerciaux de l'industrie pharmaceutique.

SOURCE DES DONNÉES Recherche dans MEDLINE couvrant la période de janvier 1966 à mai 1996 en utilisant les mots clés « pharmaceutical industry, drug information services, drug utilization, physician's practice patterns and prescription » et « drugs ». Cette recension des études a été complétée avec du matériel provenant de ma bibliothèque personnelle.

SÉLECTION DES ÉTUDES Les études devaient être menées dans un pays industrialisé, basées sur des observations directes de contacts entre des médecins et des représentants commerciaux et présenter des résultats quantitatifs portant sur la qualité de l'information transmise.

SYNTHÈSE Quatre études furent sélectionnées. Les représentants mentionnaient habituellement les indications des médicaments mais omettaient l'information concernant l'innocuité. Les renseignements dispensés par les représentants étaient souvent inexacts.

CONCLUSION Les représentants commerciaux se limitent à présenter une information présélectionnée, habituellement positive, concernant leurs produits. Les médecins canadiens ne devraient pas se limiter à recevoir passivement l'information dispensée par les représentants commerciaux. Les médecins qui font le choix de continuer à recevoir les représentants doivent procéder à une comparaison critique de l'information reçue à celle contenue dans les publications scientifiques.

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CME

What information do physicians receive from pharmaceutical representatives?

Most doctors (85% to 90%) in Canada see pharmaceutical sales representatives (detailers)[1,2] about once every second week; sales representatives are family physicians' second most frequently used source of drug information.[3] Ample evidence in the literature shows that detailers are effective in changing physicians' prescribing behaviour. At one institution, 25% of internal medicine faculty and 32% of residents reported that they had changed their practice at least once in the preceding year because of a discussion with a sales representative.[4] Almost 50% of Canadian psychiatric housestaff thought that discussions with sales representatives affected their prescribing behaviour.[5]

The more contact Australian doctors had with detailers, the more quickly they began using temazepam and the more rapidly it became their hypnotic drug of choice.[6] Physicians who requested formulary additions were much more likely to have seen sales representatives from the companies making the drugs in question than were other doctors in the same hospital.[7]

Because detailers are so influential and so widely used, the information they provide to doctors must be both accurate and complete. Speaking at a 1994 Food and Drug Law Institute meeting Lucy Rose, director of the Food and Drug Administration's Drug Marketing Division, noted that sales representatives were being provided with excessive information about unapproved indications for drugs and that some companies were setting sales goals far higher than the total patient population for which products were approved.[8]

In Canada the activities of sales representatives are governed by the Pharmaceutical Manufacturers Association of Canada's (PMAC) Code of Marketing Practices. This code requires detailers to "provide full and factual information on products, without misrepresentation or exaggeration. Representatives' statements must be accurate and complete and must not be misleading, either directly or by implication."[9]

From time to time anecdotal reports have suggested that Canadian sales representatives are supplying incorrect information,[10,11] but since PMAC has no program for actively monitoring detailers' interactions with physicians, it is unclear whether these reports are just isolated events or widespread practice. This review assesses, in a systematic manner, the information sales representatives provide to physicians.

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Materials and methods

A MEDLINE search from January 1966 to May 1996 was done using combinations of the terms pharmaceutical industry, drug information services, drug utilization, physician's practice patterns and prescriptions, and drugs. References in articles retrieved from this search were scanned and possibly relevant material obtained. This literature was supplemented by material from my personal library. To be included in this review, studies had to meet the following criteria: be conducted in industrialized countries (operationally defined as countries that are members of the Organization for Economic Cooperation and Development), be based on direct observations of actual physician and sales representative interactions, and report quantitative results about the information that sales representatives transmitted.

The following information was extracted from each eligible study: study characteristics (setting, sample, design, number of details observed, and total number of drugs being detailed); information transmitted and the accuracy of that information as judged by the study authors (number of times that indications, safety information, generic name, and price were mentioned, percentage of statements made during the detail that were inaccurate, percentage of interactions containing an incorrect statement). Data extraction and synthesis were done solely by me.

Results

Three journal articles were identified by the MEDLINE search: two on trials conducted in Finland in 1975[12] and 1986[13] and one on a trial in the United States in 1993.[14] Also included was a study of Australian doctors conducted from December 1992 to February 1994 as part of a master's degree thesis.[15]

Characteristics of the studies are reported in **Table 1.**[12-15] In the Australian study, detailers made one-on-one presentations to doctors in their offices. In the Finnish and American studies, sales representatives gave presentations to groups of medical students, residents, and doctors in either hospitals or outpatient clinics. In the Finnish studies, observers filled out questionnaires after the interaction, while in the American and Australian studies interactions were tape recorded and transcribed. The total number of details observed ranged from 13 to 69. During each detail two to three drugs were discussed.

Table 2[12-15] summarizes the main points from these surveys. While representatives usually mentioned the indications for their drugs, they did not bring up prices, side effects, or contraindications

Table 1. Characteristics of studies examining information transmitted by detailers

STUDY CHARACTERISTICS	FINLAND 1975[12]	FINLAND 1986[13]	UNITED STATES 1993[14]	AUSTRALIA 1992-1994[15]
Setting	Hospital or outpatient clinic	Hospital or outpatient clinic	Noontime hospital teaching conferences	Doctors' offices
Sample	Medical students and graduate doctors	Medical students and graduate doctors	Medical students and residents	General practitioners
Design	Questionnaire completed by observer after interaction	Questionnaire completed by observer after interaction	Audiotape of interaction and transcription	Audiotape of interaction and transcription
No. of interactions	46	69	13	16
No. of drugs detailed	115	173	—	33

spontaneously. Generic names were mentioned in about 50% to 75% of interactions.

In the American study, all 106 statements made by detailers were evaluated against three criteria: consistency with information in the 1993 *Physicians' Desk Reference*[16]; consistency with the opinion of a pharmacist and a physician–clinical pharmacologist; and consistency with information retrieved from reference books, drug company brochures, and MEDLINE from 1985 to 1993. Twelve statements (11%) failed to meet any of these criteria and were, therefore, judged inaccurate. All these inaccurate statements made the drug discussed appear better than it actually was. Not one of the false statements made during the presentation was challenged and, when residents were subsequently questioned, only 26% recalled hearing a detailer make an inaccurate claim.

The Australian study compared information in the detail with information in that country's version of the product monograph. For eight drugs there were inaccuracies in the dosage and administration and for five in the indications. Australia has a set of widely accepted guidelines covering various classes of drugs. These guidelines were applicable to 21 of the 33 products being detailed but were not referred to in any case.[15]

The studies reported that, when competitors' products were mentioned, almost invariably it was in an unfavourable context.[12-15] Similarly, all four studies concluded that, when information on safety was given, it was usually done in a way that cast the representative's product in a favourable light.[12-15]

Discussion

Four surveys on the quality of the information sales representatives provide to doctors were undertaken in three industrialized countries from 1975 to 1994. In general, the results were consistent across time and country: sales representatives almost always mentioned the indication(s) for the drug that they were detailing and frequently gave the generic name. On the other hand, they failed to give out safety information and, when safety information was mentioned, it was often done to cast the drug being detailed in a favourable light. There were frequently inaccuracies in the information representatives transmitted.

Limitations

There are limitations in the studies that form the basis for this review and in the review itself. For this study, it is possible that proprietary information exists that was not located by the search methods employed. All of the studies reported used convenience samples of physicians and, therefore, might not be representative of all contacts. The studies that relied on physicians' recall of the interaction[12,13] have the obvious limitation inherent in any method that relies on memory, although the fact that the questionnaires were filled out right after the interaction took place probably means that little information was lost. In the Australian study, the physician being detailed did the recording so some aspects of the interaction might not have been recorded.[15]

Other limitations in the studies could make the interactions look better or worse than they actually were. For instance, the group interactions reported by Hemminki[12,13] and Ziegler et al[14] might not have been reported as accurately as the one-on-one interactions. Audiotaping cannot assess use of visual aids, printed materials, and samples. Ziegler et al[14] did not discuss areas of omission in the presentations that they recorded. Roughead[15] did not compare claims made by representatives against the medical literature, nor

Table 2. Information provided by detailers

INFORMATION	FINLAND 1975[12] (N=69) %	FINLAND 1986[13] (N=46) %	UNITED STATES 1993[14] (N=13*) %	AUSTRALIA 1992-1994[15] (N=33†) %
Item spontaneously brought up by detailer				
• Indications	91	90		73
• Generic name	78	62		45
• Price	35	29		12
• Side effects	29	27		27
• Contraindications	27	25		0
Incorrect statements			11	
Details containing an inaccuracy			62	39

**Number of interactions.*
†Number of drugs detailed.

did she classify or rate information in terms of seriousness of omissions and danger of inaccuracies.

The kind of information representatives provide is probably the reason that research from Belgium,[17] the United Kingdom,[18] and the United States[19-22] has consistently shown an association between using information provided by detailers and prescribing inappropriately. The more frequently physicians saw detailers, the more prone they were to use pharmacotherapy rather than nondrug therapy even where nondrug therapy was the best option,[17] the more often they favoured commercial views about the use of a product rather than views promoted in the scientific literature,[18] the more likely they were to prescribe antibiotics inappropriately,[19] the less likely they were to prescribe generic drugs,[20] and the more likely they were to use more expensive medications when equally effective but less costly ones were available.[21,22] While direct evidence on the situation in Canada is lacking, interactions quite likely follow the pattern described above, both in terms of the quality of the information and the effect on prescribing.

Canadian physicians could choose not to see representatives, but few doctors have made that choice. Those who continue to see representatives must understand that doctors cannot afford to be passive players in the interaction, content to just accept the information provided by representatives. We have to be aware of our own needs, set the agenda when we see representatives, and demand objective information from them in the form of either peer-reviewed randomized, controlled trials or meta-analyses. We also need to be sure that we are getting an accurate picture of the relative worth of the product being detailed. This can be accomplished by ensuring that we receive a balanced view of the risks and benefits of the drug and by comparing the representative's information with information in sources such as *The Medical Letter, Therapeutic Choices*,[23] and *Drugs of Choice: a formulary for general practice*.[24]

Conclusion

Four studies over 20 years have consistently demonstrated that detailers selectively transmit only positive information about their companies' products. Side effects and contraindications are rarely mentioned, and the information that detailers give to physicians is frequently inaccurate. Taking information at face value will not serve the best interests of our patients. We need to press the pharmaceutical industry to mount an active campaign to monitor and improve the quality of representatives' presentations.

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