

# Strategies for decreasing inappropriate interactions between physicians and industry

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The intimate relationship between physicians and industry possesses a large potential for benefit and manipulation. Almost one-quarter of the pharmaceutical industry's expenditures are on drug promotion, most of which is directed at physicians. Industry has used paid trips, gifts, and selective funding of continuing medical education to influence physician prescription practices. Recent guidelines implemented at both national and institutional levels have had some impact on limiting inappropriate interactions. In addition, limited trials of 'academic-detailing' suggest academic-detailing can be an effective tool in re-educating physicians to make appropriate prescription decisions. This editorial explores strategies which might be used to limit inappropriate manipulation of physician prescription practices by the pharmaceutical industry.

The pharmaceutical industry has an intimate relationship with medical practitioners. Pharmaceutical companies depend on physicians to prescribe their products to patients. Similarly, physicians depend on pharmaceutical companies to develop new drugs, as well as provide financial support for physician research and continuing medical education (CME). It is also clear that the ultimate goals of both parties are not identical. The medical profession has a responsibility to act in the best interest of patients, while the responsibility of industry is to sell products and enrich shareholders. The indispensable interactions between physicians and industry present a large potential for manipulation as well as for benefit.

The lucrative nature of the pharmaceutical industry is well established. The pharmaceutical industry brought in sales of over \$43.5 billion in the United States during 1991, with the top ten companies making an estimated 16% profit (1,2). One of the largest expenditures of the pharmaceutical industry is advertising. Promotions utilize, on average, 23.1% of the total budget of a pharmaceutical company

(1). Perspective comes when this figure is compared to the 10% spent on research (1).

Of the over \$5 billion spent on promotions, most is directed specifically at physicians. It has been calculated that more than \$8,000 is spent annually on advertising for each physician practicing in the United States (3). While calculations for pharmaceutical spending in Canada are not available, the same companies sell their products here, and they use comparably extravagant levels of advertising (4).

Pharmaceutical companies have several means by which they can influence physician prescribing practices. The most obvious form of manipulation is by giving gifts to physicians. Such gifts have ranged from pens and notepads to walkmans™ and home-computers (2,5). These gifts are given with no visible "strings attached." However, as anthropologists tell us, gift-giving forms a bond between people (5,6). It obliges the physician to pay attention to the company representative and predisposes the receiver toward reciprocation (albeit subconsciously). Some physicians contend that they are "beyond buying," but the question must then become why does the pharmaceutical companies spend so much money on gifts? Physicians can have realistic views of this type of interaction. In one survey, 77% of post-graduate medical students in an American medical faculty

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felt that physicians could be compromised by accepting gifts (7).

Besides influencing potentially inappropriate drug choices, another ethical problem in accepting gifts is that the patient pays the physician twice; first when the patient pays for his/her visit, and second when the patient buys the drugs the physician prescribes and the drug company's profit in turn pays for the physician's gift.

Advertisement has a major impact on physician prescription choices. Drug companies place official-looking supplements in medical journals (1-3). Quite often these advertisements are visually stimulating and easier to read than scientific articles. Also, physicians can be sent pamphlets favoring a company's product, sometimes without revealing their source (1,2). Other forms of advertising include "Infomercials" on television stations aimed at physicians, "drug lunches" where physicians eat free food while watching advertising videos, and free drug samples (1-3). Such advertising has an important influence on physician prescribing.

In one revealing study, physician views were ascertained about the use of cerebral vasodilators in senile dementia (8). Drug companies selling cerebral vasodilators heavily promoted the importance of impaired cerebral blood flow in the etiology of senile dementia; however, all scientific articles at the time deemed blood flow irrelevant in the pathogenesis of dementia. While most physicians (68%) believed that advertisements have a minimal influence on prescribing behavior, 71% believed that impaired cerebral blood flow was a major cause of dementia (8). Further, most claimed their source of information was scientific articles. Clearly, physician's opinions are influenced by advertising often without their awareness.

A third major avenue of influence is through the funding of CME. Three quarters of CME activities in 1992 were supported through industry, and 95% received indirect support (9). Beside improving their image, pharmaceutical companies sponsor specific symposia to control the agenda of CME and influence what information physicians receive. By sponsoring symposia concerning the area of medicine in which their products are utilized, they expose physicians to the drugs they manufacture. While many pharmaceutically sponsored symposia are genuine explorations of important areas in medicine, pharmaceutical companies can manipulate the information conveyed at these conferences. One way they can do this is by only paying for speakers to present at the symposia who have research findings which support the use of their drugs (2). They also preferentially support speakers who receive funding to do research on their drugs. In addition, they bring "circuit" physicians who are paid to present favorable findings at multiple symposia (2). Further, symposia offer drug companies a unique opportunity, in that speakers are able to present data that does not obey the normal federal guidelines placed on

advertisement. Thus, information about possible side effects and other disadvantages of a drug do not have to be mentioned. Clearly, pharmaceutical companies have ways of controlling educational agendas.

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## CURRENT GUIDELINES

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Presently, the Canadian Medical Association (CMA) has guidelines on pharmaceutical-physician interaction for Canadian physicians (10). These CMA guidelines are intended to "assist physicians in determining when a relationship with industry is appropriate." These guidelines relate to accepting gifts, conducting research, controlling the structure of CME, and monitoring CME content. However, these guidelines are not enforced by the CMA - that responsibility is left to medical institutions, societies, and individual practitioners (11). Unfortunately, most societies and institutions do not have formal methods for enforcing guidelines for pharmaceutical interaction, and the responsibility for obeying these guidelines is often left to the individual physician, with variable results.

Similar guidelines are presently being enforced in the United States by the American Medical Association (AMA) (12). The AMA warns physicians breaking these guidelines and reserves the right to suspend or expel physicians for serious infringements. Such sanctions by the CMA would send a clear message concerning how seriously it holds its guidelines on inappropriate interactions with industry.

At an institutional level, McMaster and Dalhousie Universities have guidelines for faculty interaction with pharmaceutical companies in CME (13, 14). These guidelines limit access of pharmaceutical representatives to faculty and residents and restrict medical staff from accepting gifts of a non-educational nature. As well, they ensure that faculty only participate in CME events which have an appropriate sponsor, and that the information conveyed at these events is of an objective and unbiased nature. Further, these guidelines ensure disclosure of potential motivations for faculty, such as affiliation with a drug company. Such institutional guidelines can cater to the specific needs of individual institutions or societies, while still adhering to the spirit of the CMA guidelines.

The effectiveness of implementing guidelines at medical institutions is demonstrated by the reaction of the pharmaceutical industry to the guidelines at McMaster University (15). An official from the Pharmaceutical Manufacturers Association of Canada suggested that industry funding would be compromised as a result of the guidelines. One company refused to fund research at McMaster University, citing the changes occurring at the university caused by these guidelines. Further, some companies indicated that their funding for CME would go elsewhere. However, McMaster University has stuck to its guidelines, and

funding from industry has remained fairly constant for its residency programs in spite of the initial warnings from industry. Such extreme reactions from industry indicate that such guidelines are effective in blocking drug promotion.

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### ACADEMIC-DETAILING

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Another strategy is to reduce the impact of misleading industrial advertising by setting up "academic-detailing" programs across Canada. In academic detailing, drug information is conveyed to physicians by trained professionals concerning the most efficacious and cost-effective drugs (16). Prescribing practices that might be targeted for academic-detailing include: prescribing drugs of low benefit/high risk ratio when safer or more efficacious drugs are available, polypharmacy, prescribing expensive drugs when cheaper drugs of equal effectiveness exist, use of ineffective drugs, and under use of effective agents and preventative medicine.

As outlined by Soumerai and Avron the marketing techniques of pharmaceutical companies serve as good guides as to how academic-detailing programs should be set up (16). Techniques used by industry include: research into physician drug-prescription motivation, targeting opinion leaders and physicians at high-risk of making inappropriate prescriptions, defining clear objectives, establishing credibility while presenting both sides of an issue, stimulating active physician participation in drug trials, using concise informative materials, highlighting and repeating important messages, and giving positive feedback. Such techniques are easily accommodated for use in academic detailing. Mailing physicians information on important pharmaceutical issues and sending highly-trained counter-detail personnel to visit target physicians are two easily implemented and effective ways of academic-detailing.

In a pilot study, clinical pharmacists made two brief visits to physicians (16). This was sufficient to decrease inappropriate prescribing of cerebral vasodilators, cephalexin and propolyphene, by 14%. From a financial analysis it was determined that an "operational-scale program" would generate savings of two to three times the cost of mounting such a program, without counting the increased quality of care. Further, the large amount of money pharmaceutical companies put into such programs indicate that they must pay for themselves.

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### FUTURE DIRECTIONS

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The number of physicians who are unaware of pharmaceutical manipulation or refuse to admit that physicians are susceptible to pharmaceutical manipulation is alarming (17). The medical curriculum should

include learning how pharmaceutical companies are capable of manipulating the attitudes and behavior of physicians. In other countries the failure of guidelines in stopping pharmaceutical manipulation have been largely attributed to the lack of knowledge by physicians on how they are being manipulated (18). While this could be attributed to the lack of scientific studies done on this subject (8), informing medical students about what is known is an important step in preparation for responsible pharmaceutical interactions.

The refusal of physicians to accept large gifts from pharmaceutical representatives and the avoidance of potentially biased pharmaceutically sponsored events by physicians could decrease the amount of money pharmaceutical companies spend on promotion. In the best of all possible worlds this money could be spent on promoting research or lowering drug costs. Physicians who only prescribe the cheapest effective drugs might encourage pharmaceutical companies to move in this direction. This is not unrealistic, since the CMA guidelines have already had some effect on modifying the behavior of the pharmaceutical industry. The Pharmaceutical Manufacturers Association of Canada has issued a Code of Marketing Practices which enforces several of the CMA guidelines (19).

If physicians follow the CMA guidelines, then they will be less exposed to manipulation by industry. Similarly, academic-detailing and education on industrial manipulation will help minimize the impact of misleading information to which physicians are exposed. Supporting these strategies will help physicians make drug-prescribing choices based on less biased information, which will benefit all involved. Patients will benefit by receiving more scientifically appropriate treatment and, in addition, save money by being prescribed equally effective, cheaper drugs. The Canadian health care system will save money by reducing unnecessary therapies and physician visits caused by inappropriate drug prescriptions and treatments.

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### REFERENCES

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1. Noble RC. Physicians and the pharmaceutical industry: an alliance with unhealthy aspects. *Perspectives in Biology and Medicine* 1993; 36:376-394
2. Anonymous. Pushing drugs to doctors. *Consumer Reports* 1992 (Feb): 89-94.
3. Randall T. Kennedy hearings say no more free lunch-or much else-from drug firms. *JAMA* 1991; 265:440-442.
4. Rapoport D. Physicians and the pharmaceutical industry: under the influence? (letter) *CMAJ* 1995; 152:15.
5. Chren M-M, Landefeld S, Murray TH. Doctors, drug companies,

- and gifts. *JAMA* 1989; 262:3448-3451.
6. MacIntosh C. University of Alberta, Medical Anthropology Department. Personal communication.
  7. McKinney WP, Schiedermayr DL, Lurie N, Simpson DE, Goodman JL, Rich EC. Attitudes of internal medicine faculty and residents toward professional interaction with pharmaceutical sales representatives. *JAMA* 1990; 264:1693-1697.
  8. Avorn J, Chen M, Hartley R. Scientific versus commercial sources of influence on the prescribing behavior of physicians. *Am J Med* 1982;73: 4-9.
  9. Somberg JC. Regulating continuing medical education (ed). *J Clin Pharmacol* 1993 (Jan): 1.
  10. CMA Policy Summary. Physicians and the pharmaceutical industry (Update 1994). *CMAJ* 1994; 150:256a-256c.
  11. Langille D, Associate Dean for Continuing Medical Education, Faculty of Medicine, Dalhousie. Personal communication.
  12. Williams JR. CMA guidelines on MD-drug industry relations part of international trend. *CMAJ* 1992;146:386-388.
  13. Educational Council, Residency Program in Internal Medicine, Department of Medicine, McMaster University, Hamilton, Ont. Development of residency program guidelines for interaction with the pharmaceutical industry. *CMAJ* 1993;149:405-408.
  14. Dalhousie University Faculty of Medicine. Policy for faculty members regarding participation in continuing medical education. (Unpublished).
  15. Guyatt G. Academic medicine and the pharmaceutical industry: a cautionary tale. *CMAJ* 1994; 150:951-953.
  16. Soumerai SB, Avorn J. Principles of educational outreach ('academic detailing') to improve clinical decision making. *JAMA* 1990; 263:549-556.
  17. Arkininstall WW. Physicians and the pharmaceutical industry (letter). *CMAJ* 1993; 148:485.
  18. Blue BA. Drug promotion and scientific exchange. *NEJM*. 1992;326: 133.
  19. Pharmaceutical Manufacturers Association of Canada. *Code of Marketing Practices*.

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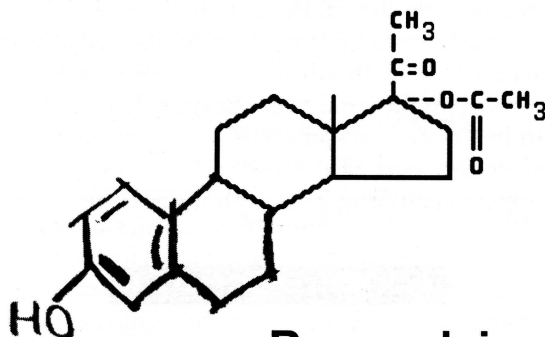
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