

## EVIDENCE-BASED PSYCHIATRIC MEDICINE

### Do Pharmaceutical Reps Influence Prescribing?

#### The Problem

You are getting ready to open a new practice and are trying to decide whether to open your practice site to representatives from pharmaceutical companies.

#### The Question

Does contact with pharmaceutical reps influence physicians' prescribing?

#### The Analysis

We performed a Medline search that combined "pharmaceutical representative" and "influence prescribing."

#### The Evidence

The pharmaceutical industry spends \$12 to \$18 billion each year on marketing to physicians, Frederick S. Sierles, M.D., and his associates reported (*JAMA* 2005;294:1034-42). According to a 2002 article in *American Medical News*, the ratio of physicians to sales reps decreased from 8.8 in 1996 to 4.7 in 2001 ([www.ama-assn.org/amed-news/2002/05/06/bil20506.htm](http://www.ama-assn.org/amed-news/2002/05/06/bil20506.htm)).

Despite this, physicians generally do not believe that the industry influences them as individuals. Michael A. Steinman, M.D., and his associates showed that residents generally hold positive attitudes towards the industry and believe that they are not influenced by it (*Am. J. Med.* 2001;110:551-7). In a Scottish study, investigators showed that, although physicians recognize the potential for the pharmaceutical industry to influence their prescribing habits, few recognize that they themselves are susceptible (*Pharmacoepidemiol. Drug Saf.* 2003;12:663-7).

Robert L. Blake Jr., M.D., and Elizabeth K. Early, M.D., showed that 70% of patients believe that gifts from the industry to physicians sometimes or frequently influence physician prescribing (*J. Am. Board Fam. Pract.* 1995;8:457-64). Robert V. Gibbons, M.D., and his associates reported that 36% of patients thought that physicians' acceptance of gifts from pharmaceutical companies would obligate them to prescribe that medication (*J. Gen. Intern. Med.* 1998;13:151-4).

S. Suresh Madhavan, Ph.D., and associates showed that physicians believe that pharmaceutical companies give gifts to influence physician prescribing and yet strongly believe that their own prescribing behavior is not influenced by the gifts they receive (*J. Clin. Pharm. Ther.* 1997;22:207-15).

In a questionnaire mailed to primary care physicians, T. Shawn Caudill, M.D., and his associates surveyed doctors' demographic and practice characteristics, as well as their attitudes toward, and use of information provided by pharmaceutical representatives (*Arch. Fam. Med.* 1996;5:201-6). A significant positive correlation was shown between physician cost of prescribing and perceived credibility, availability, applicability, and use of information provided by pharmaceutical reps.

Elizabeth E. Roughead, Ph.D., and her associates analyzed audio recordings of pharma-

ceutical representatives' presentations to medical practitioners (*Aust. N.Z. J. Med.* 1998;28:306-10). The representatives in the study used six influence techniques from the marketing literature—reciprocity, friendship/liking, commitment/consistency, social validation, authority, and scarcity—and the researchers concluded that the use of these techniques could influence prescribing practices.

Helen Prosser and her associates studied influences on English general practitioners' decisions to prescribe new medications (*Fam. Pract.* 2003;20:61-8). A total of 107 general practitioners were interviewed using semi-structured interviews that included reasons

for prescribing new medications launched between January 1998 and May 1999.

According to the investigators, the first stage in the decision-making process for prescribing new medications is an awareness of a particular new drug. The most important factor in awareness is the pharmaceutical industry—in particular, the representative. Peer-reviewed literature or independent drug information was rarely significant at this stage. When physicians were asked about influences on their decisions to prescribe, the pharmaceutical representative was again found to be the most important factor. Peer-reviewed literature was significantly lower in importance.

In their study, Dr. Sierles and his associates evaluated medical student exposure to and attitudes about pharmaceutical company interactions (*JAMA* 2005;294:1034-42). An anonymous survey was distributed to 1,143 third-year medical students at eight medical schools in the United States. The response rate was 72%.

The researchers found that most students think that their prescribing is not likely to be influenced by interacting with the pharmaceutical industry and that their colleagues are more likely to be influenced than they are. Most students perceived that they are entitled to gifts, and many believed that sponsored educational events are likely to be biased but helpful. The investigators concluded that this combination of factors or perceptions suggest that, as a group, these medical students are at risk for unrecognized influence.

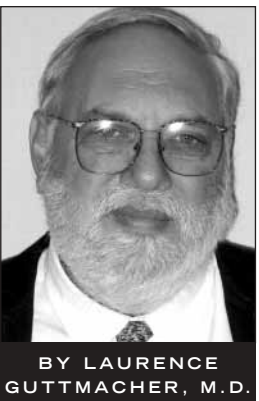
#### The Conclusion

Although many of these studies have limitations, the literature supports the conclusion that pharmaceutical representatives do influence physician prescribing. After all, would the pharmaceutical industry actually spend \$12 billion a year on marketing to physicians if this investment did not pay in influencing prescribing? We were not able to locate any studies to refute this conclusion.

DR. LEARD-HANSSON is a forensic psychiatrist affiliated with Atascadero (Calif.) State Hospital. DR. GUTTMACHER is chief of psychiatry at the Rochester (N.Y.) Psychiatric Center. They can be reached at [cpnews@elsevier.com](mailto:cpnews@elsevier.com).



BY JAN LEARD-HANSSON, M.D.



BY LAURENCE GUTTMACHER, M.D.

## NIH Eases Restrictions On Stock Ownership

BY MARY ELLEN SCHNEIDER  
Senior Writer

Officials at the Department of Health and Human Services have loosened restrictions on ownership of pharmaceutical and biotech company stocks for employees of the National Institutes of Health under a final rule on conflict of interest.

But the final regulation announced at a teleconference on NIH conflict of interest regulations continues to bar NIH employees from engaging in outside consulting relationships with industry.

NIH Director Elias A. Zerhouni, M.D., called the final regulation "stringent" despite the changes to stock ownership.

"We have worked hard with the Department of Health and Human Services and the Office of Government Ethics to try to come up with rules that first and foremost protect the integrity of NIH science and are balanced in terms of our ability to continue to attract and retain the best scientists and staff," Dr. Zerhouni said.

Under the final rule, which became effective in August, about 200 NIH employees with senior decision-making authority and their families will be required to divest of all stock holdings in excess of \$15,000 per company for organizations substantially affected by NIH decisions. The deadline for divestiture is Jan. 30, 2006.

About 6,000 individuals will be required to disclose more details about their financial holdings. The other approximately 12,000 employees won't be asked to specifically disclose stock holdings, according to Raynard S. Kington, M.D., NIH deputy director. Employees may have to divest stocks on a case by case basis if a potential conflict of interest is found.

This is a shift in the policy spelled out by NIH in February 2005 in the wake of a series of congressional hearings that exposed a number of potential conflicts of interest by NIH scientists.

Under the policy outlined earlier this year, about 6,000 top NIH employees would have been required to sell off all of their stock holdings in companies impacted by NIH decisions. And the remainder of NIH employees would have been subject to the \$15,000 limit.

The changes are designed to target the requirements at employees who are making decisions on grants and studies, Dr. Zerhouni said, and to ease restrictions on employees who are unlikely to have conflicts. "It's impossible to have a one-size-fits-all approach," he said.

The final regulation will also allow NIH employees more leeway to engage in outside activities with professional or scientific organizations, serve on data and safety monitoring boards, give grand rounds lectures, and perform scientific grant reviews. Under the earlier policy, these activities were prohibited, but they will now be allowed to go forward with prior approval and review by ethics officials.

The final rule continues to allow NIH scientists with prior approval to participate in compensated academic work such as teaching, writing textbooks, performing journal reviews or editing, and giving general lectures as part of continuing education programs. NIH employees can also practice medicine with prior approval.

But NIH held firm on its prohibition on relationships with pharmaceutical, biotechnology or medical device manufacturers, health care providers or insurers, and NIH grantee institutions.

Keeping in place the ban on these activities is the best way to maintain the integrity of the agency at this point in time, Dr. Zerhouni said. While some outside consulting activities hold value for NIH and the public, he said the agency currently has no way to distinguish between those positive interactions and others such as product marketing.

The changes were "right on target," said Mary Woolley, president of Research!America. The stronger interim guidelines released in February were useful as a "cooling off period" and served as an opportunity to gather more information, she said. But the changes reflect the correct balance.

Ms. Woolley said the final regulation will serve as a benchmark for the research community.

But Sidney M. Wolfe, M.D., director of Public Citizen's Health Research Group said the changes weakened the agency's earlier attempts to get control of the problem of conflict of interest. Allowing NIH employees to participate in paid outside academic work, which frequently includes money from industry, is riddled with loopholes, he said.

The final rule does not impose restrictions on extramural scientists, but Dr. Zerhouni said it's important to have a broad dialogue about conflict of interest with the entire scientific community. "I think this is a debate that is way beyond that of NIH," he said. ■

For more information on the NIH ethics rules, visit [www.nih.gov/about/ethics\\_COI.htm](http://www.nih.gov/about/ethics_COI.htm).