

## ■ Influencing Physician Behavior

**Blumenthal D. Doctors and the Drug Companies. *NEJM*. 2004; 351(18); 1885-1890**

Well done opinion piece that argues for physicians to refuse gifts of any value. It points out that while physician-drug rep relationships are legal, temptation will always exist.

**Brennan TA, Rothman DJ, Blank L, et al. Health industry practices that create conflicts of interest: A policy proposal for academic medical centers. *JAMA*. 2006;295:429-433.**

ABIM policy recommendations for properly regulating the interactions of industry in medical education.

**Campbell *et al*. A National Survey of Physician-Industry Relationships. *NEJM*. 2007; 356 (17) 1742- 1750.**

This broad survey reported that most physicians interact with the pharmaceutical industry and described the type and frequency of these interactions.

**Campbell *et al*. Institutional Academic Industry Relationships. *JAMA : the journal of the American Medical Association* 298, no. 15 (2007): 1779-1786.**

National survey of department chairs. Almost two-thirds of chairs had some form of personal relationship with industry. 72% viewed a chair's engaging in more than 1 industry-related activity as having a negative impact on a department's ability to conduct independent unbiased research.

**Chimonas S, Brennan TA, Rothman DJ. Physicians and drug representatives: Exploring the dynamics of the relationship. *J Gen Intern Med*. 2007;22:184-190.**

The authors found that although physicians interviewed in focus groups understood the concept of conflict of interest, relationships with detailers set up psychological dynamics that influenced their reasoning. They suggest voluntary guidelines are inadequate

**Chren MM. Interactions between physicians and drug company representatives. *Am J Med*. 1999;107:182-3.**

Physicians and medical students often underestimate the influence of industry interactions on their own prescribing behavior.

**Chren MM and Landefeld CS. Physicians' behavior and their interaction with drug companies: a controlled study of physicians who requested additions to a hospital drug formulary. *JAMA* 1994;271: 684-689.**

A landmark study describing the influence that detailers have on physician behavior.

**Dana J and Loewenstein G. A Social Science Perspective on Gifts to Physicians from Industry. *JAMA*. 2003; 290 (2); 252- 255.**

Interesting commentary examines the psychological aspects of conflicts of interest. Makes the point that the bias is unintended and unconscious not a choice as opponents of Pharm Free practices claim.

**Friedman H, P. Herskovitz. The effect of a gift-upon-entry on sales: Reciprocity in a retailing context. *Mid-American Journal of Business*. 1990; 5:49.**

A study demonstrating the power of small gifts in generating a desire to reciprocate.

**Kaiser Family Foundation. Prescription drug trends 2007. *Kaiser Family Foundation*; 2007**

Useful numbers on trends in prescription drug costs and utilization.

**Katz D, Caplan A, Merz J. All gifts large and small: Toward an understanding of the ethics of pharmaceutical industry gift giving. *The American Journal of Bioethics*. 2003;3:39-46.**

Considerable evidence from the social sciences suggests that gifts of negligible value can influence the behavior of the recipient in ways the recipient does not always realize. Policies and guidelines that rely on arbitrary value limits for gift-giving or receipt should be reevaluated

**Steinman MA, Shlipak MG, McPhee SJ. Of principles and pens: Attitudes and practices of medicine housestaff toward pharmaceutical industry promotions. *The American Journal of Medicine*. 2001;110:551-557.**

Residents surveyed on attitudes and behaviors about gifts. Most respondents (61%) stated that industry promotions did not influence their own prescribing, but only 16% believed other physicians were similarly unaffected. Other inconsistencies found between attitudes and behavior.

**Studdert DM, Mello MM, and Brennan TA. Financial Conflicts of Interest in Physicians' Relationships with the Pharmaceutical Industry--Self Regulation in the Shadow of Federal Prosecution. *NEJM*. 2004; 351; 1891-1900.**

Includes a good summary of guidelines for interactions that have been produced and includes a history of the regulation and legal action on this issue.

**Wazana A. Physicians and the Pharmaceutical Industry: Is a Gift Ever Just a Gift? *JAMA*. 2000; 283(3); 373-380.**

Review article summarizing the negative effect of physician-industry interactions on prescribing habits and professional behavior.

**Watkins *et al*. Characteristics of general practitioners who frequently see drug industry representatives: national cross sectional study. *BMJ*. 2003; 326; 1178-1179.**

Study reporting survey results indicating that doctors who report weekly contact with drug reps are more likely to express views that lead to inappropriate prescribing as compared to physicians with less frequent industry contact.

**Ziegler MG, Lew P, Singer BC. The accuracy of drug information from pharmaceutical sales representatives. *JAMA*. 1995;273:1296-1298.**

Analysis of materials found that 11% of the statements in a series of pharmaceutical company presentations were inaccurate; and all of these misstatements were favorable toward the promoted drug. None of the statements about competitors' drugs were favorable

## ■ Influencing Graduate Medical Education

**American Association of Medical Colleges. Report of the AAMC Task Force on Industry Funding of Medical Education to the AAMC Executive Council. 2008. Available here:**

<http://www.aamc.org/research/coi/industryfunding.pdf>

Landmark report by the AAMC promoting strong policies to limit industry influence in medical education.

**McCormick BB. *et al*., "Effect of Restricting Contact Between Pharmaceutical Company Representatives and Internal Medicine Residents on Posttraining Attitudes and Behavior," *JAMA: The Journal of the American Medical Association* 286, no. 16 (2001): 1994-1999.**

Study of long-term effects of trainee contact with pharmaceutical sales representatives showing that frequency of contact was a predictor of increased perceived benefit from information from representatives.

**Rogers W *et al*. The ethics of pharmaceutical industry relationships with medical students. *Med Jour of Australia*. 2004; 180 (8); 411-414.**

A logic piece that outlines succinctly the ethical problems that arise when drug reps interact with medical students.

**Sierles FS *et al*. Medical Students' Exposure to and Attitudes about Drug Company Interactions. *JAMA*. 2005; 294 (9); 1034- 1042.**

Describes the frequency and perceived importance of industry contact with medical students.

**Ubel PA, Jepson C, and Asch David. Misperceptions About  $\beta$ -blockers and Diuretics: A National Survey of Primary Care Physicians. *J Gen Intern Med*. 2003; 18; 977-983.**

This study shows similar data as an older one, that physicians may prescribe something other than their first choice medicine (one known to be effective, cheap, and well-tolerated) when samples are made available.

**Woffard J and Ohi C. Teaching appropriate interactions with pharmaceutical company representatives: The impact of an innovative workshop on student attitudes.**

BMC Medical Education 2005, 5:5. Study showing that even a singular intervention early in medical training is enough to dilute the power of industry interactions.

## ■ CME

**Fletcher, S. W. Chairman's Summary of the Conference.** in: Hager M, Editor. *Continuing Education in the Health Professions: Improving Healthcare through Lifelong Learning.* Bermuda. New York: *Josiah Macy, Jr. Foundation*, 2008.

Among a broader set of suggested improvements, recommends a complete elimination of all industry funding of accredited CME. Also states faculty should not serve on speakers' bureaus or act as a paid industry spokesperson in any way.

**Grande D and Volpp K. Cost and Quality of Industry-Sponsored Meals for Medical Residents.** *JAMA.* 2003; 290 (9); 1150-1151.

Short research letter describing nonadherence to the guidelines published in 2002 requiring the industry sponsored CME meals be "modest" or "moderate".

**Huang, F. et al. The Association of Pharmaceutical Company Promotional Spending With Resident Physician Prescribing Behavior.** *Academic Psychiatry.* 29:5, November-December 2005. pg 500.

Study showing that physician attendance at CME events resulted in more prescriptions for the sponsors' products

**Relman, A. Separating Continuing Medical Education from Pharmaceutical Marketing.** *JAMA.* 2001; 185: 2009-2012.

Well-written opinion piece on industry influence in CME.

**Report 1 of the council on ethical and judicial affairs (CEJA Report 1A-08). Industry support of professional education in medicine (Reference committee on amendments to constitution and bylaws).** 2008. American Medical Association. Available at: <http://www.ama-assn.org/meetings/public/annual04/cejacme.doc>

Individual physicians and institutions of medicine, such as medical schools, teaching hospitals, and professional organizations must not accept industry funding to support professional education activities.

**Steinbrook, R. "Financial Support of Continuing Medical Education."** *JAMA : the journal of the American Medical Association* 299, no. 9 (2008): 1060-1062.

Excellent summary of issues of pharmaceutical marketing in continuing medical education.

## ■ The trouble with Samples

**Alexander GC, Zhang J, Basu A. Characteristics of Patients Receiving Pharmaceutical Samples and Association Between Sample Receipt and Out-of-Pocket Prescription Costs.** *Medical Care.* 2008;46:394-402.

Nationally-representative, longitudinal study confirming that when patients receive free samples, their out-of-pocket prescription costs increase by nearly 50% on average, going from \$166 to \$244 per 6-month period.

**Adair, R.F, Holmgren L.R. "Do drug samples influence resident prescribing behavior? A Randomized Controlled Trial.** *American Journal of Medicine.* 118(8). 2005. 881-4

Observation of prescribing decisions of physicians both with and without access to samples. Those with access to samples were less likely to choose unadvertised drugs than residents who did not have access. The authors conclude that access to drug samples in clinic influences resident prescribing decisions. This could affect resident education and increase drug costs for patients.

**Cutrona SL, Woolhandler S, Lasser KE, Bor DH, McCormick D, Himmelstein DU. Characteristics of recipients of free prescription drug samples: A nationally representative analysis.** *Am J Public Health.* 2008.

Secondary analysis of survey data showing poor and uninsured Americans are less likely than are wealthy or insured Americans to receive free drug samples.

**Groves KE, Sketris I, Tett SE. Prescription drug samples--does this marketing strategy counteract policies for quality use of medicines?** *J Clin Pharm Ther.* 2003;28:259-271

Review and evaluation of research conducted on prescription drug samples. Discusses issues raised in the context of traditional marketing theory, and suggests possible alternatives for the future. Very useful tables of studies reviewed.

**Miller et al. The Impact of Drug Samples on Prescribing to the Uninsured. *Southern Medical Journal*. 101(9):888-893, September 2008.**

Physicians were three times more likely to prescribe generic medications to uninsured patients after drug samples were removed from the office. Drug samples may paradoxically lead to higher costs if physicians with access to samples prescribe more brand-name only drugs.

**Mizik N, Jacobson R. Are physicians "easy marks"? quantifying the effects of detailing and sampling on new prescriptions. *Management Science*. 2004;50(12):1704**

Based on pooled time series cross-sectional data involving three drugs, 24 monthly observations, and 74,075 individual physicians, the authors found that detailing and free drug samples had positive and statistically significant effects (though modest in magnitude) on the number of new prescriptions issued by a physician.

**Morelli D, Koenigsberg MR. Sample medication dispensing in a residency practice. *J Fam Pract*. 1992;34:42-48**

A descriptive study monitoring the dispersment of pharmaceutical samples found that although a majority of medications dispensed were given to patients, approximately one third of the value of the medications withdrawn either went to physicians and their families or had an unknown destination. The high association of sample dispensing and simultaneous prescribing of the same brand-name drug supports the contention that sampling influences physician-prescribing habits.

**Symm B et al. Effects of Using Free Sample Medications on the Prescribing Practices of Family Physicians. *J of Amer Board of Fam Med*. 2006; 19: 443-449.**

In this comparison study, the clinic that had the largest supply of samples had an increased number of prescriptions written for name brand medicines, had a higher cost per script written, and used fewer formulary medicines.

## ■ The effects on "Peer-reviewed" literature

**Choudry NK, Stelfox HT, and Detsky AS. Relationships Between Authors of Clinical Practice Guidelines and the Pharmaceutical Industry. *JAMA*. 2002: 287 (5); 612-617.**

Report of survey results that, although turnout was low, demonstrate an overwhelming trend for authors of clinical guidelines to be employed as consultants for the pharmaceutical industry.

**Flanagin et al. "Prevalence of Articles with Honorary Authors and Ghost Authors in Peer-Reviewed Medical Journals." *JAMA* 280(3). 222-224.1998.**

Confidential survey of corresponding authors on presence of honorary or ghost authorship in journal articles. Flanagin reports substantial proportion of articles in peer-reviewed medical journals demonstrate evidence of honorary authors or ghost authors.

**Goozner M. Unrevealed: Non-disclosure of Conflicts of Interest in Four Leading Medical and Scientific Journals. *Center for Science in the Public Interest*. July 12, 2004.**

This report used publically available information to identify key conflicts of interests not included by the authors of the publications.

**Lexchin J et al. Pharmaceutical industry sponsorship and research outcome and quality: systematic review. *BMJ*. 2003: 326; 1167-1170.**

This review shows that while the methods of industry sponsored research are sound, systematic bias still exists, and results published from these studies are more likely to be positive.

**Moffatt, B., Elliott, C. "Ghost Marketing: Pharmaceutical Companies and Ghostwritten Journal Articles." *Persp Bio & Med*. 50(1): 18-31.2007.**

Strong article addressing the practice and ethics of scientific ghostwriting