

Letters

RESEARCH LETTER

Academic Medical Center Leadership on Pharmaceutical Company Boards of Directors

Financial relationships between the pharmaceutical industry and physicians have come under increased scrutiny. Less attention has been paid to relationships between industry and the leadership of academic medical centers (AMCs), who wield considerable influence over research, clinical, and educational missions.

When AMC leaders serve on pharmaceutical company boards, they hold a fiduciary responsibility to shareholders to promote the financial success of the company, which may conflict or compete with institutional oversight responsibilities and individual clinical and research practices.¹ The potential conflict between responsibilities of individuals who hold leadership roles in both industry and academia deserves exploration.

Methods | We studied the prevalence of AMC leaders on pharmaceutical company boards of directors. Data on board composition and academic positions were collected in January 2013 from the websites of the 50 largest pharmaceutical companies based on 2012 global prescription drug sales.² Financial compensation for individuals who served the entirety of 2012 was collected from 2013 company proxy statements from the US Securities and Exchange Commission's public database³ and from 2012 shareholder reports.

Compensation figures reflect annual compensation for services on boards including cash, stock awards, dividends, and charitable contribution matching. We defined AMCs as US medical schools, health professional schools, teaching hospitals, and health care systems.¹ Leadership positions included CEOs, clinical department chairs, division directors, medical school deans, and hospital boards of directors. Given their oversight over medical schools, we also included university presidents and boards of directors.

Results | Of the 50 companies examined, 3 private companies lacked public data on governance. Nineteen of 47 (40%) companies had at least 1 board member who concurrently held a leadership position at an AMC, including 16 of 17 (94%) US companies (Table). Forty-one board members held AMC leadership positions in 2012, receiving a mean financial compensation for board membership of \$312 564 (excluding the 6 industry executives).

Eighteen industry board members (3% of all board members) held 21 clinical or administrative leadership positions including 2 university presidents, 6 deans, 6 hospital or health system executive officers, and 7 clinical department chairs or center directors. Twenty-five industry board members (5%), including 6 industry executives and 2 who also held clinical

Table. Academic Medical Center Leaders on Pharmaceutical Company Boards of Directors

Pharmaceutical Company	Academic Medical Center Affiliations of Company Board Members in January 2013 ^a	Annual Compensation for Board Membership ^b
Abbott Laboratories	Yale School of Medicine	\$250 825- \$257 324
	Yale-New Haven Hospital	
	Northwestern University (n = 2)	
Actavis	Montefiore Medical Center	\$307 472
Allergan	Johns Hopkins University School of Medicine	\$106 854- \$557 172
	University of Southern California Keck School of Medicine	
	Children's Hospital and Research Center Oakland	
Amgen	University of Southern California	\$281 194
Baxter International	Northwestern Memorial HealthCare	\$266 069
	Emory University	
Bristol-Myers Squibb	Weill Cornell Medical College	\$267 833
Celgene	City of Hope National Medical Center	\$442 484
	Atlantic Health System	
Eli Lilly	New York Presbyterian Hospital	\$309 500
Endo Health Solutions	Jefferson School of Population Health	\$308 002
Forest Laboratories	Massachusetts General Hospital	\$314 179
Gilead Sciences	Catholic Health Initiatives ^c	\$417 467- 432 467
	University of Alabama-Birmingham School of Medicine	
	Rush University Medical Center	
	Morehouse School of Medicine	
	Northwestern University	
GlaxoSmithKline	University of Texas Southwestern Medical Center	\$165 000- \$212 000
	New York University Langone Medical Center	
	Texas Medical Center	
Hospira	Lurie Children's Hospital of Chicago	\$252 000
Johnson & Johnson	David Geffen School of Medicine at University of California Los Angeles	\$274 913- \$309 913
	University of Michigan	
	UCLA Health System	
	Morehouse School of Medicine	
	Eisenhower Medical Center	
	Northwestern Memorial Hospital	
Merck	Memorial Sloan-Kettering Cancer Center (n = 2)	\$260 000- \$325 000
	New York Presbyterian Hospital	
	Weill Cornell Medical College	
Mylan	University of Southern California School of Pharmacy	\$276 869

(continued)

Table. Academic Medical Center Leaders on Pharmaceutical Company Boards of Directors (continued)

Pharmaceutical Company	Academic Medical Center Affiliations of Company Board Members in January 2013 ^a	Annual Compensation for Board Membership ^b
Novartis International	University of Illinois College of Medicine	\$350 025-450 038
	Harvard University	
Pfizer	Rockefeller University	\$275 550-320 000
	Partners HealthCare	
	Massachusetts General Hospital	
	University of Texas Southwestern Medical Center	
	Weill Cornell Medical College	
Valeant Pharmaceuticals	University of Chicago	\$472 770
	Harvard Medical School	

^a Academic medical centers include health professional schools, parent universities, teaching hospitals, and health systems. Data on affiliations were collected in January 2013. Some individuals hold leadership roles at multiple academic institutions (eg, at a medical school and a hospital) in which case each separate academic institution is listed.

^b Compensation figures are for academic medical center leaders only. Compensation figures exclude CEOs of companies who also serve on hospital or academic boards as well as individuals who served only a portion of the year. All compensation figures are from 2013 annual proxy statements (DEF-14A forms) filed by companies to the US Securities and Exchange Commission, except for Novartis and GlaxoSmithKline, for which compensation data were obtained from 2012 annual reports to shareholders.

^c Catholic Health Initiatives is a health system that includes major affiliate hospitals of Louisville, Creighton, and Baylor medical schools.

positions, held 28 positions as trustees or board members of US hospitals, medical schools, or universities.

Discussion | Oversight of potentially intersecting institutional missions, fiduciary responsibility to shareholders, and the magnitude of compensation make board membership by AMC leaders potentially more problematic than other financial relationships between medicine and industry. Our study builds on the few prior studies of institutional conflicts of interest.^{4,5}

Association of American Medical College guidelines¹ and most institutional policies require internal disclosure of board membership for institutional review. The Physician Payment Sunshine Act will make all financial relationships with industry public in 2014. Further management strategies, such as capping industry payment to a \$5000 daily limit, have been implemented.⁶ Others have suggested limiting compensation to a percentage of academic salary,⁶ which bears similarity to conflict of commitment policies and thus provides a mechanism to ensure that board membership remains secondary to the academic appointment.

Severing ties between companies and AMC leaders might eliminate the potential benefits of academic-industry collaboration; however, the extent to which individuals who hold coexisting leadership positions have fostered beneficial partnerships and at what potential cost remains unclear. Severing the fiduciary ties by banning voting board membership would still allow academic leaders to serve as consultants.

Our study is limited to a single industry and a single year; thus we cannot comment on temporal trends. We relied on company disclosures of compensation that cannot be independently verified. We do not make any conclusions about whether specifically identified relationships led to actual, rather than potential, conflicts of interest.

However, given the magnitude of competing priorities between academic institutions and pharmaceutical companies, dual leadership roles cannot simply be managed by internal disclosure. These relationships present potentially far-reaching consequences beyond those created when individual physicians consult with industry or receive gifts.

Timothy S. Anderson, MD

Shravan Dave, BS

Chester B. Good, MD, MPH

Walid F. Gellad, MD, MPH

Author Affiliations: Department of Internal Medicine, University of Pittsburgh Medical Center, Pittsburgh, Pennsylvania (Anderson); University of Pittsburgh School of Medicine, Pittsburgh, Pennsylvania (Dave); Center for Health Equity Research and Promotion, VA Pittsburgh Healthcare System, Pittsburgh, Pennsylvania (Good, Gellad).

Corresponding Author: Walid F. Gellad, MD, MPH, Center for Health Equity Research and Promotion, VA Pittsburgh Healthcare System, 151C University Dr, Pittsburgh, PA 15240 (wfg3@pitt.edu).

Author Contributions: Dr Anderson had full access to all of the data in the study and takes responsibility for the integrity of the data and the accuracy of the data analysis.

Study concept and design: All authors.

Acquisition of data: Anderson, Dave, Gellad.

Analysis and interpretation of data: All authors.

Drafting of the manuscript: Anderson, Good.

Critical revision of the manuscript for important intellectual content: All authors.

Statistical analysis: Anderson.

Obtained funding: Gellad.

Administrative, technical, and material support: Dave, Good, Gellad.

Study supervision: Good, Gellad.

Conflict of Interest Disclosures: The authors have completed and submitted the ICMJE Form for Disclosure of Potential Conflicts of Interest. Dr Anderson reported receiving travel reimbursement from the American Medical Student Association for speaking on conflict of interest topics. Dr Gellad reported receiving research funding through RAND from Express Scripts for work unrelated to the current article. No other disclosures were reported.

Funding/Support: Dr Gellad is supported by VA Health Services Research and Development grant CDA 09-207.

Role of the Sponsor: The Department of Veterans Affairs had no role in the design and conduct of the study; collection, management, analysis, and interpretation of the data; preparation, review, or approval of the manuscript; and decision to submit the manuscript for publication.

Disclaimer: This work represents the opinions of the authors and does not necessarily represent the views of the Department of Veterans Affairs or the US government.

1. Association of American Medical Colleges. In the interest of patients: recommendations for physician financial relationships and clinical decision making. 2010. <https://members.aamc.org/eweb/upload/In%20the%20Interest%20of%20Patients.pdf>. Accessed November 6, 2013.

2. Noor W. The 2013 pharm exec top 50. <http://www.pharmexec.com/pharmexec/article/articleDetail.jsp?id=815158>. Accessed May 25, 2013.

3. US Securities and Exchange Commission. Electronic data gathering, analysis, and retrieval system. <http://www.sec.gov/edgar.shtml>. Accessibility verified February 27, 2014.

4. Campbell EG, Weissman JS, Ehringhaus S, et al. Institutional academic industry relationships. *JAMA*. 2007;298(15):1779-1786.

5. Freshwater DM, Freshwater MF. Failure by deans of academic medical centers to disclose outside income. *Arch Intern Med*. 2011;171(6):586-587.
6. Lo B. Serving two masters—conflicts of interest in academic medicine. *N Engl J Med*. 2010;362(8):669-671.

COMMENT & RESPONSE

Training for Effective Patient Communication

To the Editor In their study addressing the effects of communication skills training on patient satisfaction and depression scores, Dr Curtis and colleagues¹ argued that the lack of effect may be attributable to inaccurate assessment by patients. They discussed the possibility that patients and family members may require specific training to accurately value the improved communication skills resulting from intensive training of caregivers.

I was amazed that Curtis et al¹ would suggest that patients did not appreciate the trainees' improved communication skills because of lack of training. In fact, the patients became significantly more depressed, which Curtis et al¹ downplayed.

I believe that the comment by Curtis et al¹ that "increasing patients' awareness ... may trigger negative experiences" is an important point. Although optimal communication may be about patients' awareness and complete transfer of medical facts, and colleagues and professionally trained simulation patients may provide high ratings for such skills, this type of communication may not work for real patients who hear sad news.

Physicians can be too explicit, too complete. Patients may find this type of honesty insensitive and difficult to handle. Giving the patients more time, remaining genuine in such moments, and respecting their grief, including its temporary limits, might work better than a course in state-of-the-art communication skills.

Yvo Smulders, MD

Author Affiliation: Department of Internal Medicine, VU University Medical Center, Amsterdam, the Netherlands.

Corresponding Author: Yvo Smulders, MD, VU University Medical Center, PO Box 7057, NH 1007MB Amsterdam, the Netherlands (y.smulders@vumc.nl).

Conflict of Interest Disclosures: The author has completed and submitted the ICMJE Form for Disclosure of Potential Conflicts of Interest and none were reported.

1. Curtis JR, Back AL, Ford DW, et al. Effect of communication skills training for residents and nurse practitioners on quality of communication with patients with serious illness: a randomized trial. *JAMA*. 2013;310(21):2271-2281.

To the Editor In a recent report, Dr Curtis and colleagues¹ found that simulation-based education did not improve patient-reported quality of communication. We disagree with the authors' conclusion that "these findings raise questions about skills transfer from simulation training to actual patient care and the adequacy of communication skills assessment." Instead, we propose a different explanation: the educational intervention was neither powerful nor assessed rigorously, which would prevent transfer of training outcomes to measured patient care practices or patient outcomes.

A convincing chain of evidence is needed to link educational classroom, laboratory, or clinical learning outcomes to downstream clinical results.² However, Curtis et al¹ did not report educational outcome data (ie, acquisition of communication skills among medical residents and nurse practitioner students) in the context of their study. Instead, they cited earlier research³ with a different learner sample (hematology/oncology fellows) and extrapolated educational outcomes from seasoned clinicians to junior trainees.

The study by Curtis et al¹ offered no evidence that the trainees' communication skills actually improved. The effect of an educational intervention is demonstrated from rigorous pretest and posttest evaluations, using measures that yield reliable data that permit valid judgments. Curtis et al¹ did not report such data, which are essential to stretch the measurement end point to the bedside and link skill acquisition with improved patient care practices and better outcomes.

The high dropout rate (21%) in the intervention group is concerning. Failure to complete the intervention dilutes the training effect and raises questions about participant satisfaction and the curriculum's efficacy and reproducibility.

It also is unclear to us which patient surveys were included in the analysis. We seek clarification about the number of trainees in both groups who were evaluated and how the surveys from the patients of the 48 intervention group trainees who dropped out were managed.

Simulation-based education is a powerful tool that positively affects the clinical environment.⁴ Use of education best practices, including deliberate practice and mastery learning, can amplify this effect. In mastery learning, education outcomes are uniform while training time may vary. Only after reaching a predetermined minimum standard may trainees perform the skill in actual patient care.⁵ This model allows clinical supervisors to ensure that only competent personnel provide patient care.

We agree with Curtis et al¹ that teaching end-of-life communication skills is challenging. However, we believe more rigorous research methods might yield different outcomes.

Diane B. Wayne, MD
William C. McGaghie, PhD

Author Affiliations: Department of Medicine, Northwestern University Feinberg School of Medicine, Chicago, Illinois (Wayne); Ralph P. Leischner Jr, MD, Institute for Medical Education, Loyola University Chicago Stritch School of Medicine, Maywood, Illinois (McGaghie).

Corresponding Author: Diane B. Wayne, MD, Northwestern University Feinberg School of Medicine, 251 E Huron St, Chicago, IL 60611 (dwayne@northwestern.edu).

Conflict of Interest Disclosures: The authors have completed and submitted the ICMJE Form for Disclosure of Potential Conflicts of Interest and none were reported.

1. Curtis JR, Back AL, Ford DW, et al. Effect of communication skills training for residents and nurse practitioners on quality of communication with patients with serious illness: a randomized trial. *JAMA*. 2013;310(21):2271-2281.
2. Cook DA, West CP. Perspective: reconsidering the focus on "outcomes research" in medical education: a cautionary note. *Acad Med*. 2013;88(2):162-167.