

Honest Disclosure of Conflicts of Interest Advances Emergency Medicine Scholarship

Patients, clinicians, and policymakers need to trust that conflicts of interest (COI) are appropriately disclosed in all forms of disseminated science, whether it is in the form of a research study, an expert editorial, a review article, or a meeting presentation. Recent high-profile events have renewed the public's attention to the basic procedure and reasons for disclosing COI.¹ Honest and mutually beneficial partnerships with industry or other funding agencies are vital for the advancement of medicine. Conflicts are inevitable and “could never possibly be eliminated” according to Jeffrey Flier,² but a better understanding of the procedure for disclosing COI could reduce misunderstandings associated with COI and change the perception that COI is a dirty word.

According to the International Committee of Medical Journal Editors (ICMJE), “A conflict of interest exists when professional judgment concerning a primary interest (such as patients' welfare or the validity of research) may be influenced by a secondary interest (such as financial gain).”³ In other words, a COI may arise when a professional responsibility may be biased by one's personal interests.⁴ In addition to a researcher's or physician's primary interest, most are also motivated by secondary personal interests, such as pursuing hobbies, becoming well known or respected, advancing in their respective career path, cultivating relationships, honoring religious or intellectual beliefs, and earning an income.^{3–5} The existence of COIs is an inevitable part of the human experience, and trying to eliminate COIs completely is short-sighted and not possible.^{2,6} The problem with COI is not necessarily the existence of, or being motivated by, a personal interest but rather when that interest or motivation biases judgment in the course of professional responsibility, which then causes harm to a patient or tarnishes the sanctity of research.⁵ It is important for all to understand that disclosing a

COI does not mean harm has occurred—it simply means there is a *risk* of bias and resulting harm.^{3,5} Disclosure of COI therefore aims to provide readers and other consumers complete context to make an informed judgment of the work.^{7,8} In published science, journal editors and peer reviewers serve as the first set of gatekeepers, but the onus is also on readers of journals to question findings and put a voice to those questions if something seems off.^{7,9,10}

Financial COIs are the most easily identifiable and measurable sources of risk and thus the most likely to undermine the integrity of research findings.³ Many physicians underestimate how influential money can be—even the cost of a single postage stamp has been shown to alter physician behavior.^{11,12} According to the Physician Payments Sunshine Act, a component of the 2010 Affordable Care Act, all pharmaceutical and manufacturers of medical devices must publicly report payments to physicians and teaching hospitals that are at least \$10 in value on the Centers for Medicare and Medicaid Services website.^{13,14} According to this database, called Open Payments,¹⁵ the median value of general payments made to emergency medicine physicians by industry in 2015 was \$50 with an interquartile range of \$18 to \$125.¹⁶

With such attention to accounting for industry-made payments to physicians, it is important to consider where these payments are directed. With decreasing NIH funding coupled with an increasing number of programs and faculty competing for extramural support, many researchers in academic medicine naturally turn to industry for support.¹⁷ Some studies simply could not be done without industry sponsorship. Guidelines such as those from the PhRMA Principles on Conduct of Clinical Trials and Communication of Clinical Trial Results exist to help keep these collaborations above board.^{18,19} For example, compensation for

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legitimate work performed should be at a fair market rate and outlined in pre-signed contracts, compensation should not be in the form of stock, travel expense reimbursement should be modest and directly related to the task at hand, and when it is time to report results the role of the industry sponsor should be crystal clear.¹⁹ Aside from supplying the funding and other material support, industry sponsors should have a limited and prospectively defined role in data analysis or manuscript preparation to protect the integrity of the entire scientific process.^{7,18} This may encourage the concept of pre-review, for which studies are prospectively judged based on methodology and pre-planned statistical analysis, with the agreement that as long as the plan is followed, it will be accepted for publication regardless of the specific findings. Doing so could reduce publication bias and the tendency to publish studies that produce positive results.^{20–22} The ICMJE recommends that “authors avoid entering into agreements with study sponsors, both for-profit and non-profit, that interfere with authors’ access to all of the study’s data or that interfere with their ability to analyze and interpret the data and to prepare and publish manuscripts independently when and where they choose.”³ As an added layer of safety, investigators are strongly encouraged, if not required, to register their clinical trials publicly with the U.S. National Library of Medicine.^{3,23} Prospectively describing the study design and anticipated analyses, then later contributing to the results database, is intended to improve research transparency by reducing selective reporting of outcomes as duplication of research efforts.³

It is important to recognize direct funding of a research study is not the only form of a financial COI. Some researchers serve on various advisory boards or provide consultation, and this automatically creates differences among researchers and increases the magnitude of potential harm from biased judgment.²⁴ Disclosing these relationships is just as important as disclosing the source of funding for a study when submitting a manuscript to a journal.

Nonfinancial COIs are more difficult to recognize and measure, but recent data indicate that they can be equally harmful to the scientific enterprise. Edwards and Roy suggest that “perverse incentives and hyper-competition”²⁵ have altered the behavior of researchers in recent years because of the pressures of achieving tenure, rank, and prestige. Membership in an organization, unpaid activities with companies or institutions, and providing testimony as an expert witness are some

examples of nonfinancial COIs that now need to be disclosed by authors published in highly influential journals such as *Nature*,²⁶ because even those activities serve to advance one’s career and can therefore lead to biased judgment.

Even different forms of plagiarism can meet the definition of a nonfinancial COI as described in an SAEM Position Statement published recently in this journal.⁹ In today’s multimedia era where so much scholarship is disseminated and shared electronically, using another’s intellectual property by copy-and-paste without appropriate attribution, listing colleagues as authors who do not meet the ICMJE standard for authorship, or even recycling one’s own previous work may undermine the integrity of the scientific enterprise when done to advance a secondary personal interest.⁹

Disclosure is a basic responsibility of scholars. Although more schools include required courses on basic ethical obligations, there are no formal courses on how to disclose COI because it is assumed to be common sense. Wayne and colleagues²⁷ recommend that all schools and residency training programs dedicate more time to this important duty so all understand “the intent of disclosure policies is to guide, not prohibit relationships with commercial entities that may advance research leading to improvements in patient care.” Before launching a research study or disseminating one’s findings, all scholars should carefully prepare and reflect on how COI applies to them. Scholars should be familiar with the ICMJE guidelines,³ the ICMJE COI form,²⁸ and any additional institutional guidelines. Furthermore, reading the instructions for authors provided by journals is well worth the time investment as they often contain highly relevant information and valuable links.

The meaningful advancement of science and medicine requires collaboration, transparency, and integrity. For all stakeholders to trust the scientific process and the scientific product, scholars must fulfill their obligation to disclose COI dutifully. To do this, clinicians and researchers need to commit time to understanding COI and reflect on its relevance to their own interests. If in doubt about how or what to disclose, authors are invited to direct their inquiries to the editors or disclose broadly and let the readers decide.^{7,13,29} Most importantly, scholars, clinicians, and the public need to recognize that honest disclosure of COIs does not make the work dirty or unreliable³⁰ but instead allows all to make a more informed decision about the value of the work and how it can advance our collective knowledge.

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