



Editorial

Medical Publishing in 2015: Mistakes to be careful to avoid[☆]

La publicación médica en 2015: errores que hay que evitar

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In 2009, my surprise at the amount of unethical behavior uncovered during my first 4 years as Editor-in-Chief of CHEST led me to comment on the role of conflict of interest and scientific misconduct in the reporting of scientific information.¹ While a very small part of scientific misconduct was determined to be intentional, by far the greater part was deemed unintentional, since it was not intuitively obvious to the participating authors that they had engaged in unethical behavior. A review of the literature undertaken before writing the article suggested that our findings were neither new nor unusual.² Nevertheless, I decided to go ahead and write the commentary, feeling that it was important to add my voice to that of others who had been trying to restore public trust in research, trust that had been eroded due to a perceived deterioration of professional fidelity and honesty among pharmaceutical companies and device manufacturers, investigators, editors and journals, and clinicians.¹

Five years later, there is clearly a greater awareness of scientific misconduct and the situation is improving. For example, requirements for trial registration and U.S. Food and Drug Administration (FDA) filing have evolved and become more rigorous^{3,4}; the Pharmaceutical Research Manufacturers of America (PhRMA), representing the country's leading biopharmaceutical researchers and biotechnology companies, have updated and refined their guidelines on the conduct and reporting of clinical trials⁵; an increasing number of journals are using software to uncover plagiarism⁶ and image manipulation⁷; and the requirement for conflict of interest disclosures by authors has become commonplace. However, while there is a greater awareness of the problem and an increasing number and variety of safeguards have been put in place, we continue to encounter situations that authors should avoid. These can be categorized as careless mistakes, worse than carelessness, and mistakes to avoid like the plague.

Careless mistakes (see [Table 1](#)) are those that have the potential to offend reviewers and editors. While they do not necessarily lead to rejection, they do have the potential to diminish an author's chances of receiving a favorable review or second chance when there is uncertainty. These mistakes are often a failure

to apply common sense. For example, it is foolish to ignore the helpful suggestions of reviewers from the journal that has just rejected your manuscript before submitting it elsewhere, as the same reviewers may examine your manuscript again for another journal. Most reviewers devote a great deal of time and effort to the review of manuscripts: if their suggestions are ignored, their efforts in assisting the author to produce the best quality paper will be wasted, ultimately insulting their hard work. Authors and reviewers are often unaware that editorial boards will sometimes encourage reviewers to take another look at a manuscript that they reviewed for another journal. For example, the reviewer may have recommended that the manuscript be accepted by the first journal but their opinion was overridden by others; they may be one of the very few reviewers with knowledge in the area of research under consideration – in some areas, there are very few experts; and finally, having the same reviewer take another look at a manuscript may be the only way to detect subtle or obvious scientific misconduct (e.g., sudden changes in design or study outcomes within a 2-week period). We have unfortunately experienced the latter. If we know that a reviewer has previously considered a manuscript for another journal, we do not rely solely on their comments, as we always invite comments from additional reviewers. Other careless mistakes include failure to fully address all of the suggestions of the reviewers and journal; listing the editor of the journal as a non-preferred reviewer (indeed, I, myself, was listed as a non-preferred reviewer for a cough paper submitted to CHEST); taking personal offense at the rejection of a manuscript and responding by denigrating the editor in a letter to the review board, which risks landing in said editor's inbox. An additional mistake committed by authors is to consistently decline invitations to review manuscripts for a journal to which they often submit their manuscripts, thereby giving the journal the impression that they are too self-important to assist another investigator in improving their work or to support the professional development of a less experienced author.

Mistakes that fall into the potentially more serious category (see [Table 1](#)) are those that can not only lead to rejection but also embarrassment or worse (e.g., retraction of article from PubMed). Examples of mistakes that fall into this category include duplicate publication, participation in trials in which the sponsor refuses access to results or must approve what is published, or use in clinical trials of validated instruments that have been modified without permission and revalidation. In the last case, results obtained with

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Table 1
Examples of Mistakes That Should Be Carefully Avoided.^a

<p><i>Silly mistakes</i></p> <ul style="list-style-type: none"> Ignoring the helpful suggestions of reviewers from the journal that has just rejected your manuscript before submitting it elsewhere Failing to completely address all of the suggestions of the reviewers and journal Listing the editor of the journal as a non-preferred reviewer Taking rejection of your manuscript personally and responding by email to all on the decision letter with very negative things to say about the editor Consistently declining invitations to review manuscripts for a journal to which you often submit manuscripts <p><i>Mistakes of a potentially more serious nature</i></p> <ul style="list-style-type: none"> Duplicate publication Participating in trials in which the sponsor won't allow you to have access to the results or must approve what is published Modifying validated instruments without permission and revalidation, and using them in clinical trials <p><i>Mistakes that must be avoided like the plague</i></p> <ul style="list-style-type: none"> Falsifying results (e.g., manipulating images) Lying about having Institutional Review Board (IRB) approval Plagiarism and self-plagiarism Using ghostwriters, ghost authors and guest authors Knowingly participating in trials with design or publication bias
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^a This listing is not meant to be comprehensive.

this modified instrument may be reported under the incorrect assumption that it has the same psychometric properties as the original instrument, thus qualifying as misrepresentation. Equally unethical is duplicate publication. A duplicate publication generally involves the simultaneous or consecutive publication of the major components of an article in several formats (e.g., print or electronic). Specifically, at least 1 element (if not more) overlaps substantially in tables, graphics, discussion or even letters to the editor.² The unethical nature of a duplicate publication is particularly flagrant when there is no reference to the original report.

Mistakes that must be avoided like the plague (see Table 1) are those that qualify as intentional scientific misconduct. Examples include falsifying results (e.g., manipulating images) or lying about

having Institutional Review Board approval; plagiarism and self-plagiarism; using ghostwriters, ghost authors and guest authors; and knowingly participating in trials with design or publication bias. If trials are designed with a high likelihood of being positive, they are flawed by design bias.¹ Such trials are unethical because they are not consistent with the equipoise or uncertainty principle, a central ethical code of clinical research. A subject should not be enrolled in a phase 3 randomized clinical trial unless there is true uncertainty about which trial arm is most likely to apportion benefit or harm. Publication bias occurs when sponsors prevent the publication of studies unfavorable to their products or selectively report on favorable studies.¹ Because subjects enroll in studies for the benefit of medical science and society and negative studies further medical knowledge, it is unethical to avoid the publication of negative studies.

There are a variety of mistakes that authors should avoid to improve their success in medical publishing. While some are careless oversights, others are more serious and can lead to manuscript rejection and embarrassment. Some other errors are so serious that they must be avoided at all costs, in order to prevent further undermining the integrity of research and public trust and to avoid ruining your reputation and career.

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