

# EDITORIALS

## Defining Authorship for Group Studies

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**W**E HAVE ENTERED AN AGE THAT REQUIRES transparency in our professional activities. Editors, who share responsibility for the integrity of the medical literature, seek transparency in submitted manuscripts by requiring disclosure of the financial interests of authors and seek information that may be relevant about funding, industry involvement, which authors had access to full data, and several other components. One area that has become more convoluted in recent years is the evolving concept of who wrote the manuscript, especially in multicenter clinical trials or complex multidisciplinary research projects in which hundreds of people may have been involved and for which the assistance of professional writers may have been used.

Nowadays it is common for tens or even hundreds of collaborators to combine their expertise to examine important problems in medicine. Clinical trial investigators, after consultation with investigators, statisticians, and numerous other experts, develop protocols, identify funding sources, select and recruit clinical centers, consult data and safety monitors, and interact with industry colleagues and numerous others to develop, organize, and conduct clinical trials. Toward the end of the process, after data have been collected, checked, and interpreted, articles are written to translate the results into clinical practice. Manuscripts undergo peer review, are usually revised, and we believe more often than not, are accepted and then published. Collaborative efforts undertaken by large numbers of experts, the “study group,” often accomplish more, and more that is important, than the typical go-it-alone investigator or small group of researchers. The monumental efforts and accomplishments of large study groups represent some of the best of modern medicine. The group, almost always, is stronger and more important than the cumulative accomplishments and importance of the individuals who constitute the group.

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Although many participating study investigators may want to take credit as an author of a manuscript, our perception as editors is that readers and other outside parties want to know specifically who requested and chose the data to interpret and present (or not present), who provided the discussion points, including the nuances, spin, and implications of the study, who verified and interpreted the data, who stands behind the manuscript, and whose intellectual property the work may represent. Sometimes coauthors do not agree with the conclusions of some of the studies in which they are listed as coauthors<sup>1,2</sup>; some coauthors distance themselves further when investigative reporters, from the *Wall Street Journal*, for example, contact them. In fact, uniform agreement is not usually humanly possible regarding interpretation of large and complex databases on which many data analyses have been conducted.<sup>3</sup>

In the literary field, the author is identified as the one who wrote the work; this has become more complex with the use of pseudonyms and silent (ghost) writers by current political or entertainment people. This is more convoluted when a non-English-speaking researcher has a professional writer pen or at least polish a research manuscript before submission. In large, collaborative scientific studies, authorship may be even more complex. Many leading journals endorse the collaborative efforts of the International Council of Medical Journal Editors (ICMJE). The ICMJE defines authorship and offers guidance on the definition of authorship at their web site, [http://www.icmje.org/ethical\\_1author.html](http://www.icmje.org/ethical_1author.html). We, and most major medical journals, endorse their efforts and their definition of authorship, which include “1) substantial contributions to conception and design, acquisition of data, or analysis and interpretation of data; 2) drafting the article or revising it critically for important intellectual content; and 3) final approval of the version to be published. Authors should meet conditions 1, 2, and 3.” Certainly some might argue with or disagree with those three strict criteria but the ICMJE has deliberated this issue at length.

We understand that study groups may consider the writing of a manuscript just one step in the process of developing the idea, refining it, collecting and interpreting the data, writing up the results, and translating findings from research to clinical practice. Some even may consider the writing of the manuscript a simple technical process. Editors view this more critically. Although much credit

must be given to the entire study group, it is also true that the manuscripts do not write themselves; someone must put words on paper and decide which data and analyses to present from the many possible options. So, who are the authors and why does this matter?

It is awkward and difficult when journals each offer idiosyncratic definitions of authorship. Based on our thoughts and prejudices, we offer guidance on authorship at our journal Web sites, <http://www.ophsource.org/periodicals/ophtha/authorinfo> for *Ophthalmology*, <http://www.ajo.com/authorinfo> for the *American Journal of Ophthalmology*, and <http://archophth.ama-assn.org/misc/ifora.dtl> for the *Archives of Ophthalmology*. Briefly, here is an overview of our recommendations. Transparency and simplicity are helpful; if a few people wrote the article, please list them as “Dr A, Dr B, and Dr C.” When the efforts are on a grander scale, with a study group involved, we believe that 50 or 100 investigators could not possibly have written, edited, and approved the final work and doubt they could all meet the three ICJME authorship criteria. Most study groups agree with this and, in private communications, usually confirm to us that the article was written by a writing group. If each writing group member meets the authorship criteria, and they usually do, then we recommend that the author byline consist of the writing group members, eg, “Drs A, B, C, D, for (or on behalf of) the Study Group,” provided the writing group is empowered by the study group to report these findings. The remaining members of the study group can be identified as participants in an appendix or an “Acknowledgment” section, depending on the style of the journal; if the members of the group have previously been published, only a reference is required. In this situation, it is only the writing group members who need to provide the financial disclosure forms and other components to complete the rest of the (transparent) publication process. Obviously, the members of the writing group may vary with each manuscript from the same study group, as different subsets of the study database are assessed.

Recently, we have received requests that only the study group be identified and listed on the author byline, without other individuals. However, the reader (and later an investigative reporter) does not know who actually formulated the words, spin, and implications of the study. Therefore, we suggest an alternative, as listed in the *AMA Manual of Style, 10th Edition*,<sup>4</sup> and as later cited by MEDLINE,<sup>5</sup> to publish the study group name only on the byline, with an asterisk. The asterisk would link to the writing committee (all of those who meet authorship criteria); their names would be listed, depending on the specific journal preference, either as a footnote, on the first page of the manuscript, in the “Acknowledgment” section, or in an appendix, but not on the byline. Author names are included in MEDLINE (which most journals use as the final authority on reference information) when the author names appear in the article byline or are explicitly identi-

fied anywhere else in the text of the article as the authors or as the members of the writing group or writing committee for the article.<sup>5</sup> When a study group name appears in an article byline, the names of the members of that group (as identified in the “Acknowledgment” section or appendix) may be published as collaborator names for the MEDLINE citation.<sup>5</sup>

Credit for the overall efforts of the individual participants can be given a number of ways. All members of the writing group should satisfy the ICJME criteria; nonauthors, whether study investigators or other personnel, may be credited in the “Acknowledgment” section or appendix of the manuscript, as appropriate for the specific journal. When the group statistician who performed the analyses included in the manuscript is not a member of the writing team, which should occur only rarely, he or she should be listed in the “Acknowledgment” section or appendix. Guest authorship (someone who is listed as an author because of stature, honor, or attribution without significant involvement in the manuscript) has been criticized, and we believe it is not acceptable. Ghost authorship (having someone participate as an author, someone who meets authorship criteria, and masking and/or not sharing their identity) is also not acceptable.<sup>6</sup>

If you have participated as a study group member and your name appears either on the article byline or in the MEDLINE citation as an author, it is straightforward to list this in your curriculum vitae (using the MEDLINE listing); when you are a collaborator or study participant who does not meet authorship criteria, the proper way to list your contribution to the study group or manuscript in your curriculum vitae is somewhat unclear; it is evolving, as is the listing of substantial contributions on academic Web sites.

In some cases, manuscripts consist of study group data but are more remote from the actual study, such as an analysis of a small portion of the database by individuals in the study group or by independent researchers who may access the data at a public site or be granted access to the data by the study group. In this instance, the study group is not active as author and should not be in the byline, although some members of the study group might individually be authors. In this scenario, the source of the study group data should be made evident in the “Methods” section, with additional details regarding access in the “Acknowledgment” section or appendix.

We are thrilled to receive important manuscripts from large study groups. Our readers are eager to learn from them. They also want full transparency (ie, to know who wrote the article). Editors want to know who fulfilled the ICJME authorship criteria. Credit, of course, goes to the team who did all the work. The “Acknowledgment” section or appendix clarifies, to some extent, the nature of each one’s contribution, including the writing committee. We thank the teams for what they have to teach us. As a

corollary, we encourage study groups to decide on their specific group name at the initiation of the study and to be uniform in all publications (and preferably not abbreviate the study group in the byline) so that a single search term is required to find all related manuscripts in the multiple publication databases. We also suggest that

study groups consider their policy regarding listing members of writing group(s) during the design of their studies, again seeking understanding, transparency, and fairness within the group. Obviously, things may change as the study progresses and other avenues for analysis become evident.

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