

How many authors are needed to write a review?

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We received with pleasure the letter of Prof. Manfredi, published in the present *Reviews in Health Care* issue (see pages 137-140), that underlines the problem of the proliferation of authors in HIV-related articles.

This is not a new topic. In the last 40 years there has been a dramatic increase, not only in the volume of publications but also in the number of authors per article. However, after all these years, the discussion about authorship is still relevant and ongoing in biomedical literature. A variety of authorship standards exist; nonetheless, adoption of these criteria has not been universal and misconduct cases related to irresponsible authorship are still quite common, including ghostwriting, gift or honorary authorship, duplicate and redundant publication and, in some cases, the authors' refusal to accept responsibility for their articles despite their ready acceptance of credit. Publication in biomedical literature is important because it is the major pathway by which new concepts and discoveries are disseminated amongst scientists, but it is also the only way for a researcher to survive in a competitive world as the biomedical field. "Publish or perish!" is the actual common saying in the biomedical research field.

Despite the proliferation of journals and the demanding responsibilities of an authorship, there are very few clearly delineated standards for author education in this field. Inappropriate multiple authorship leads to dilution of authorship responsibility and unjustified citation in curriculum vitae. As editors of a medical journal – *Reviews in Health Care* – we have a challenging role against this misconduct.

In this Journal we decided to adopt the guidelines of the Uniform Requirements for Manuscripts Submitted to Biomedical Journals [1], which state that should be considered "author" someone who has made substantive intellectual contributions to the article. More specifically, the International Committee of Medical Journal Editors (ICMJE) underlines that «authorship credit should be based on 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». Furthermore, an author must take responsibility for at least one component of the work, should be able to identify who is responsible for each other component, and should ideally be confident in his/her co-authors' ability and integrity.

The concept of “contributorship”, related but different from “authorship”, aroused at the end of the Nineties, and originated from a discussion between the Editors in Chief of the most important biomedical journals: Richard Smith, *BMJ*, Drummond Rennie, *JAMA*, and Richard Horton, *The Lancet*. They suggested that the concept of authorship in science should be replaced by something different: contributors and guarantors, where contributors should be fully responsible for their contribution, and at least one person, the so-called “guarantor”, needs to accept accountability for the whole work [2-4]. While contributorship and guarantorship policies may remove much of the ambiguity surrounding contributions, they leave unresolved the question of the quantity and quality of contribution that qualify for authorship. The question is, what should be the limit on the number of authors to be put in any article?

In recent years, an increase in the number of co-authors listed in each article has been observed. The causes can be various, starting from the virtually unlimited availability of space on the internet. From the author’s point of view, it seems to be entirely his/her prerogative to decide how many are to be given authorship credits for a given article [5]. As some authors noted, «Given the increasingly acceptable idea of transparency in public life, we do not see why an article cannot have hundreds of authors, each with their contribution statements and conflicts of interest published as part of an article. The aim should be to accurately and fully convey who deserves credit and why, and who has responsibility for the integrity of the work» [6]. But, as Prof. Manfredi noticed in his letter, this trend can lead to odd situations, such as more than 200 authors listed in a trial enrolling 541 patients: in such cases, one is allowed to doubt that all the researchers listed as authors really gave a fundamental contribution to the study.

That’s why also biomedical journals are concerned about the increasing number of co-authors, because it can decrease their credibility. On another side, with increased emphasis on evidence-based practice, journals are under raising pressure to publish larger, often multicenter trials. And, as Prof. Manfredi highlighted, the proliferation of authors and co-authors arises especially for this kind of studies, conducted by large groups. For example, multicenter and “study group” trials appear to account for a significant proportion of the increase in authorship in the *New England Journal of Medicine*. Because of the changes in research methods and the increasing division of labour and multi-institutional projects, in recent years also authorship changed. Anyway, it is not clear whether the increase in the number of authors can be attributed to an increase in the number of scientists being active in research or whether the inclusion of senior scientists as authors is due to the laboratory hierarchy (a sort of “gifted authorship”). Or simply because the famous paradigm “publish or perish” is still true in the scientific community and the pressure on academic physicians to publish articles is increasing: an academic physician’s record of publications is an important factor in decision making regarding retention as a faculty member and promotion to higher levels of professorship.

Also in the case of multicenter studies, ICMJE recommends what follows: «When a large, multicenter group has conducted the work, **the group should identify the individuals who accept direct responsibility for the manuscript**. These individuals should fully meet the criteria for authorship/contributorship defined above, and editors will ask these individuals to complete journal-specific author and conflict-of-interest disclosure forms. When submitting a manuscript authored by a group, the corresponding author should clearly indicate the preferred citation and identify all individual authors as well as the group name. Journals generally list other members of the group in the Acknowledgments. The NLM indexes the group name and the names of individuals the group has identified as being directly responsible for the manuscript; it also lists the names of collaborators if they are listed in Acknowledgments».

From this statement we can derive some considerations. First of all, even if in multicenter trials authorship is attributed to a group of researchers, being part of the group, of the Department or the Institution does not allow the inclusion among the authors of the article. All researchers who provided purely tech-

nical help, writing assistance, or a department chairperson who provided only general support, might be acknowledged in the adequate section.

Secondarily, the group should jointly make decisions about contributors/authors before submitting the manuscript for publication.

Journals have certainly an important role. As journal editors we are requested to develop and implement a contributorship policy, as well as a policy on identifying who is responsible for the integrity of the work as a whole. We are asked to ask corresponding authors to declare whether they had assistance with study design, data collection, data analysis, or manuscript preparation. But of course, even if you ask all authors to list their contributions, there's nothing to stop them lying. And, as the ICMJE guidelines specifically state, «It is not the role of editors to make authorship/contributorship decisions or to arbitrate conflicts related to authorship».

Our engagement at RHC editorial office is to select out papers that are authoritative, innovative, and often important to the advancement of medicine to become the foundation for further research and the basis of day-to-day medical practices and to inform a variety of medical, social, economic, and political subjects. To try to avoid the uncontrolled proliferation of authors and co-authors, in our Journal we have decided to fix a maximum of 10 authors for each article. Authors who would like to list more than ten contributors should explain exhaustively the reasons for this choice.

This action is certainly insufficient to completely avoid the risk of misconduct related to authorship, but we think can represent a first step in facing this problem and in defining some rules. Besides, we hope it could be useful to increase the awareness of this problem among all the professionals potentially involved: editors, publishers, and writers.

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Featured in this Issue

Extraskkeletal effects of vitamin D

Medical area. Internal medicine, rheumatology, endocrinology, geriatrics, cardiology, general medicine, diabetology, oncology, infettivology, pneumology, dermatology, neurology, physical medicine and rehabilitation, orthopaedics.

Why is a review on this topic needed? In the last years we observed an increasing number of publications about the vitamin D, due to the widespread hypovitaminosis D. In addition to the well known skeletal benefits, vitamin D can have multiple effects on other tissues.

Key message. There is evidence of the extraskkeletal effects of vitamin D, but most derive from observational studies: clinical trials are required to determine the therapeutic role of vitamin D.

Sentinel lymph node biopsy in breast cancer surgery

Medical area: surgery, oncology.

Why is a review on this topic needed? Sentinel Lymph Node (SLN) procedure has been internationally validated and is crucial in detecting axillary metastatic involvement in breast cancer. Since the procedure is very specialised, a deep knowledge of the technique and dedicated breast surgeons are necessary. An adequate performance of the SLN could be useful not only in the decision making of potentially useful adjuvant treatment, but also to offer patients an accurate staging with low comorbidities, preserving their quality of life.

Key message. SLN has proved to be highly accurate for the detection of axillary metastases in breast cancer when performed by expert hands.

Autoimmune diseases of oral cavity

Medical area: dentistry, oral pathology, dermatology, internal medicine.

Why is a review on this topic needed? The major part of diseases that involve the oral mucosa are either autoimmune in nature or are the results of immunologically-mediated events. Additionally, they appear with heterogeneous clinical expressions and the differential diagnosis is often challenging but mandatory because of the different morbidity and prognosis.

Key message. It is essential that clinicians are aware that oral mucosa may be affected by autoimmune diseases that are usually not life-threatening, but sometimes may have severe systemic involvement and potential malignant transformation.