

ETHICAL ASPECTS AND DILEMMAS OF PREPARING, WRITING AND PUBLISHING OF THE SCIENTIFIC PAPERS IN THE BIOMEDICAL JOURNALS

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Editorial

ABSTRACT

Introduction: In this paper author discussed about preparing and submitting manuscripts - scientific, research, professional papers, reviews and case reports. Author described it from the Editor's perspective, and specially talked about ethical aspects of authorship, conflict of interest, copyright, plagiarism and duplicate publication from the point of view of his experiences as Editor-in-Chief of several biomedical journals and Chief of Task Force of European Federation of Medical Informatics journals and member of Task Force of European Cardiology Society journals. The scientific process relies on trust and credibility. The scientific community demands high ethical standards to conduct biomedical research and to publish scientific contents. During the last decade, disclosure of conflicts of inter-

est [COI], (also called competing loyalties, competing interests or dual commitments), has been considered as a key element to guarantee the credibility of the scientific process. Biases in design, analysis and interpretation of studies may arise when authors or sponsors have vested interests. Therefore, COI should be made clear to the readers to facilitate their own judgment and interpretation of their relevance and potential implications. **Results and Discussion:** Authors are responsible to fully disclose potential COI. In October 2009 the ICMJE proposed an electronic "uniform" format for COI disclosure. Four main areas were addressed: authors' associations with entities that supported the submitted manuscript (indefinite time frame), associations with commercial entities with potential interest in the general area of the manuscript (time frame 36 months), financial associa-

tion of their spouse and children and, finally, non-financial associations potentially relevant to the submitted manuscript. Consumers of medical scholarship expect a reliable system of disclosure in which journals and authors make disclosures appropriately and consistently. There is a stigma surrounding the reporting of COI that should be progressively overcome. Further actions are required to increase awareness of the importance of COI disclosure and to promote policies aimed to enhance transparency in biomedical research. In this article author discuss about important ethical dilemmas in preparing, writing and publishing of scientific manuscripts in biomedical journals.

Key words: medical science, biomedical journals, ethics, authorship, acknowledgement, conflict of interest, copyright, plagiarism, duplicate publication..

1. INTRODUCTION

True knowledge is gained through scientific research (1, 2). The highest degree of knowledge is the ability to explore scientific problems (2, 4). An important scientific work is also the teamwork, which is prerequisite for success (1). Scientific and professional work is primarily an educational tool, and its content can be presented in different ways. Science is a common, coherent, organized, established knowledge of the human race and this is one of many human activities (1). Science is a key link in the educational system, it is part of the culture of the nation, further on it contributes to overall well-being and security in every-

day life, and represents a source of real knowledge of mankind. In most cases, the scientist is a person of exceptional diligence, which is at the same time, very focused on what it does. If one deals with the scientific work, can significantly improve the human condition, thus it will make a great effort and sacrifice many daily pleasures (1).

If knowledge is the property of all humankind and thereby contributes significantly to the general welfare and ensures progress, it is clear that the main objective of science is truth (1). Scientist places its scientific work and experience in the common treasury of universal knowledge and at the same time is free

to use the knowledge of other researchers. Hence the international standards, the application of scientific methods and codes of conduct in scientific research are essential to science and its work to protect it against all forms of dishonesty (5, 6, 7). A well-defined rules of conduct in all phases of research work consists of an ethical code of good scientific practice (GSP) (8, 9, 10, 11).

The basic ethical principles of every scientist are intellectual honesty, which must be present in all stages of scientific work: from a hypothesis, through the appropriate choice of research methodology, analysis and interpretation of the results, including their publication (1).

Most scientific discoveries, particularly at a time when they are released to the public, cannot be ranked in order of importance and scientific significance. When given knowledge is combined with already existing and those that will arise from it yet, the scientific importance of it becoming significant and measurable. So for almost none of the new informations cannot be said to be superfluous and inapplicable. That knowledge is subject to change, and its direction and scope cannot be conclusively predicted. Therefore, it is the obligation of scientists and society as whole, to create environment that supports high ethical standards in scientific research (8, 9, 10, 11).

2. ETHICAL PRINCIPLES FOR WRITING SCIENTIFIC PAPER

Scientific papers and articles are highly specialized manuscripts on research published in indexed scientific journals (1). They are not intended for general readership, such as articles in popular and commercial media, but to closed highly specialized group of people. These are professionals who have the necessary knowledge about the topic or topics they deal in such scientific or professional journals.

The definition of the scientific article presented by a scientist, says: "The scientific article is written and published report of original research." (1).

The first thing author must think about is what to write and in what order, in order to create the best possible scientific article, which is the main way of communication among scientists. Each component of article needs to be clear, with a concise and understandable presentation of the research, which must follow the scientifically proven procedures in order to develop a logical and scientific thinking. The authors (with the help of their mentors, or as recommended by reviewers) are developing a protocol work and gather all the necessary materials for research and preparation, such as tables and charts that will later be improved. The preparation and design of article is different from per-

son to person, and represent a process in which each author is trying to find their own way to approach the article, to write to its own style of writing that has gained over years of writing and mentoring (1). Methodologically, the article should be written according to the reader and should have a unique style of writing from beginning to the end of an article (8, 9, 10, 11). Content of the article, in essence, is a plan for building work and the basis and pillar of the author's imaginary parts. The basic idea is that any scientific or professional article must have the appropriate chapters or sections (1, 8, 12).

Defining principles of Good Scientific (GSP) and Good Laboratory Practice (GLP) should encourage the development of standardized principles and guidelines for accurate and quality data in scientific research (1). This creates a secure base of scientific knowledge which increases, and its reliability is used by other researchers to enhance the process of discovery and exchange of experiences which the researchers rapidly and inevitably included in the international exchange of work and knowledge. Exchange of data that are reliable and accurate will reduce the economic costs, exceeds the difference in technological development and saves time (1, 12, 13).

Since the academic progress and financial gain are directly depending on the number of published articles, the phenomenon—"publish at any cost", can cause all kinds of irregularities: intentional and unintentional errors as frauds and deceptions (1). Some of these include violations—more legal, than ethical principles (12, 13, 14). However, the so-called frauds from the gray zone (undeserved authorship, multiple publication, manipulation, etc.) are examples of misuse of science on an ethical basis. Therefore, the respect for and adherence to the principles and rules of good scientific practice are obligations of each research institution, university and every individual—researcher, no matter which area of science is explored (1).

Research institutions and universities should, in accordance with the principles of GSP and GLP, have

a center for monitoring, security, promotion and development of research quality. By establishment of high standards in research institutions and service delivery, this center will implement their objectives through the work of the Commission and appointed individuals who are familiar with the procedures of the research and know the standards of excellence in science. In this way, internal quality control ensures that a research institution, i.e. university, taking responsibility for creating an environment that encourages and promotes standards of excellence, intellectual honesty and legality. The academic environment is the best possible environment for creating a good scientific offspring, future teachers and researchers.

The scientific way of thinking and application of scientific methods require honesty, criticality, trust, creativity and openness, and acceptance of these principles as desirable prerequisites for successful engagement in science by students and young researchers, qualifying research institution that produces competent promoters (initiators) for the future technological cultural and political development of society.

In addition to the principles of ethical codes that regulate the broader ethical issues in all aspects of science work, the rules in research laboratories (Good Laboratory Practice) defines the criteria for setting, monitoring and ensuring the basic principles of quality in scientific research. According to the principles of good laboratory practice includes standard of organizational processes and conditions under which scientific studies are planned, conducted, controlled and released to the public. Freedom in research is a necessary condition for research activities, and acquiring knowledge in any case cannot be restricted.

An important condition for quality scientific research is defining the scientific priorities in choosing a particular goal. As the specific scientific contribution is the result of aggregate share of each individual in the research group, it is expected that before starting work on a specific project the consent is achieved

among all scientific researchers. In order for the proposed hypothesis to be accepted it must obtain the consent and confidence of the majority of competent scientists who are working in a given area (2, 3, 4).

Code of Ethics clearly defines the obligations of managers, as well as the rights and obligations of each member of the research team. The research team must also consider the general principles (choice of literature, the application of appropriate methodologies, choice of statistical tests, and analysis of research results) in an open and creative atmosphere of discussion, and based on argument and their own knowledge and experience of team members, adopt the proposed methodology for the stated aim of the study.

World Medical Association adopted at General Assembly held in June 1964 in Helsinki, Finland the Ethical principles for medical research involving human subjects (and amended by several WMA GA – Tokyo, 1975, Venice, 1983, Hong Kong, 1989, Somerset West, 1996, Edinburgh, 2000, etc.) (1). Some of the are:

Medical research involving human subjects must conform to generally accepted scientific principles, be based on a thorough knowledge, of the scientific literature, other relevant sources of information, and on adequate laboratory and, where appropriate, animal experimentation.

The design and performance of each experimental procedure involving human subjects should be clearly formulated in an experimental protocol. This protocol should be submitted for consideration, comment, guidance and where appropriate, approval to a specially appointed ethical review committee, which must be independent of the investigator, the sponsor or any other kind of undue influence. This independent committee should be in conformity with the laws and regulations of the country in which the research experiment is performed. The committee has the right to monitor ongoing trials. The researcher has the obligation to provide monitoring information to the committee, especially any serious adverse events. The researcher should also submit to the

committee, for review, information regarding funding, sponsors, institutional affiliations, other potential conflicts of interest and incentives for subjects.

The research protocol should always contain a statement of the ethical considerations involved and should indicate that there is compliance with the principles enunciated in this Declaration.

Medical research involving human subjects should be conducted only by scientifically qualified persons and under the supervision of a clinically competent medical person. The responsibility for the human subject must always rest with a medically qualified person and never rest on the subject of the research, even though the subject has given consent.

Every medical research project involving human subject should be preceded by careful assessment of predictable risks and burdens in comparison with foreseeable benefits to the subject or to others. This does not preclude the participation of healthy volunteers in medical research. The design of all studies should be publicly available.

Medical research is only justified if there is a reasonable likelihood that the populations in which the research is carried out stand to benefit from the results of the research.

The subject must be volunteers and informed participants in the research project.

The right of research subject to safeguard their integrity must always be respected. Every precaution should be taken to respect the privacy of the subject, the confidentiality of the patient's information and to minimize the impact of the study on the subject's physical and mental integrity and on the personality of the subject.

In any research on human beings, each potential subject must be adequately informed of the aims, methods, sources of funding, any possible, conflicts of interest, institutional affiliations of the researcher, the anticipated benefits and potential risks of the study and the discomfort if may entail. The subject should be informed of the right to abstain

from participation in the study or to withdraw consent to participate at any time without reprisal. After ensuring that the subject has understood the information, the physician should then obtain the subject's freely-given informed consent, preferably in writing. If the consent cannot be obtained in writing, the non-written consent must be formally documented and witnessed.

For a research subject who is legally incompetent, physically or mentally incapable of giving consent or is a legally incompetent minor, the investigator must obtain informed consent from the legally authorized representative in accordance with applicable law. There groups should not be included in research unless the research is necessary to promote the health of the population represented and this research cannot instead be performed on legally competent persons.

Research on individuals from whom it is not possible to obtain consent, including proxy or advance consent, should be done only if the physical/mental condition that prevents obtaining informed consent is a necessary characteristic of the research population. The specific reasons for involving research subjects with a condition that renders them unable to give informed consent should be stated in the experimental protocol for consideration and approval of the review committee. The protocol should state that consent to remain in the research should be obtained as soon as possible from the individual or a legally authorized surrogate.

Both authors and publishers have ethical obligations. In publication of the results of research, the investigators are obliged to preserve the accuracy of the results (1). Negative as well as positive results should be published or otherwise publicly available. Sources of funding, institutional affiliations and any possible conflicts of interest should be declared in the publication. Reports of experimentation not in accordance with the principles laid down in this Declaration should not be accepted for publication.

The physician may combine med-

ical research with medical care, only to the extent that the research is justified by its potential prophylactic, diagnostic or therapeutic value. When medical research is combined with medical care, additional standards apply to protect the patients who are research subjects.

3. PROBLEMS IN PUBLICATION SCIENTIFIC PAPERS

In his book "How to Write and Illustrate Scientific Papers" author Bjorn Gustavii, former editor of *Acta Obstetrica and Gynecologica Scandinavica* (from 1986 to 1994) described three basic rules of writing (16): a) Brevity ("an elementary rule of all writing, not only to save valuable publication space, but also because verbose writing obscures meaning and wastes the reader's time and patience"); b) Logic and clarity ("what you want to say should be arranged that the reader can follow your argumentation step by step and your sentences should be also clear and easily understood"); c) Clean typing ("make sure your manuscript looks carefully prepared, it may influence editors and referees in your favor"). Same author cited famous Baker's sentence: "that the reader forgets that he is reading and knows only that he is absorbing ideas" (16)

Some problems present in publishing primary scientific journals are (1):

- The duration;
- Reviews and selection of articles; and
- Expenses.

It is estimated that, on average, the time between the completion of a scientific research and its publishing in an appropriate biomedical scientific journals is usually between 6 and 12 months, and longer, which depends on the scientific field.

The word "review" is of Latin descent, (i.e. "recensare" which means to examine carefully or to overhaul) and it is the critical representation of a paper (1). The basic purpose of a review is "the estimation of originality, how scientifically acceptable the manuscript is and the verification of the references regarding relevance, revision and adequacy" (1). During

the review, the language (style) of the paper must not be disregarded (1).

Doing reviews is a very delicate and responsible job, because it is the foundation of the decision about the publication of the paper. Reviewers contribute considerably to the working quality of the paper with their suggestions and marks. A reviewer should answer a few crucial questions (1):

- Is the paper presents original research? How big is its informational influence and how scientifically important is it?
- Is it relevant for the majority of the journal readers? (Who is the paper intended for?)
- What results of the experimental and applied researches does the paper have to offer?
- What is its practical value?
- Is the level of the presented material acceptable: a) scientifically (e.g. the methodology, results overview, discussion, quoting); b) documentary, (e.g. table and picture quality, statistical evaluation); c) Linguistically, (i.e. intelligibility, terminology validity, stylistic and orthographic order); d) Formally, (i.e. whether the title is corresponding to the content, is the manuscript composed according to the journal's proportions, does it contain all the essential parts, etc.);

The editorial boards of the better journals usually send questionnaires that their reviewers must fill out.

4. PLAGIARISM OR DUPLICATION OF PUBLISHED ARTICLE

The definition of plagiarism is intentional or unintentional copying the words of another person (21). Plagiarism can be divided into direct (plagiarism of the text); mosaic ((the borrowing ideas and opinions from original source and a few verbatim words of phrases without crediting the author) and self-plagiarism (which refers to re-using one's own work without citations) (21, 22).

When the author uses the words of others, they must be placed in quotation marks—as a quotation. The reader should know in that article which are the words of the au-

thor, and which belonging to someone else. If the author has copied his own previously published material, it is a double publications or "self-plagiarism" (21, 22).

If the author published an article in the journal, in cannot publish that article in any other journal with a few minor adjustments, or—without citation – the parts of the first to use in the second article.

Inadequate retyping of information or ideas is not allowed. Most authors rely on ideas and informations of other. But when author does that without naming the sources of these ideas, it is a form of plagiarism (1). Copyright infringement occurs when the author of a new article (with or without naming) use substantial portions of previously published works, including tables and figures.

When this is published, the new publisher is guilty of copyright infringement in the possession of the original publisher. This is a legal issue that could be costly for both publishers and authors involved. Excessive paraphrasing, compilation of others texts and other content from articles on the same topic is not appropriate way to write scientific papers. Also, it is not acceptable that the article consists mainly of paraphrased sentences from other published materials (21).

Author papers must be original and not follow too much any previously published own articles. When plagiarism is detected, at any stage of the preparation of the article for publication, the staff will warn the authors, requesting that the source is named. If plagiarism is a big—that is, at least 25% of the originally published paper—paper can be rejected, and published by informing about the offense. If plagiarism is discovered after publication, the editors will inform readers about the offense through the "Editor's Note" or the withdrawal of the article, and the publisher will be notified about the violation.

Authors are required to confirm by their signature (Copyright Assignment Form - www.avicenapublisher.org) (1, 7, 8):

That at the time of submitting the

article it is not published previously in its current form or a substantially similar form (printed or electronic form, including on web site);

It is not accepted for publication in another journal or considered for publication in another journal.

The International Committee of Medical Journal Editors gave a detailed explanation of what is and what is not a duplicate (see www.icmje.org).

5. GUIDELINES FOR A SUCCESSFUL PUBLICATION SCIENTIFIC PAPERS

Because knowledge is the property of all mankind, publication of research results is an integral part of the scientific method of gaining knowledge.

In the book "How to teach scientific communication", author F. Peter Woodford pointed out 22 steps in preparing, writing and presenting of the scientific and research investigation (1):

- Ask yourself whether the time is right.
- Clarify your conclusions by preparing tables and figures complete with titles and footnotes.
- Decide who will be co-authors.
- Consider the ethics of scientific publication.
- Relate your conclusions to the existing body of knowledge.
- Write a working title and abstract.
- Choose the target journal and make notes on its instructions to authors.
- Define the name of the main sections.
- Fill the section files with relevant brief notes in any order, to form „ragbags“.
- Range the contents of the ragbags logically.
- Finalize the design and content of tables and figures.
- Make a topic outline and consider writing a sentence outline.
- Write the first draft continuously by collecting references as you go.
- See if the first draft needs major alterations.
- Have the illustrations prepared in the final form for the target

journal.

- Polish the prose.
- Rewrite the title and structure the abstract.
- Request private review by three independent critics and your co-authors.
- Re-read the instructions to authors and make any necessary adjustments.
- Revise as many times as necessary
- Submit the article to the journal-
- Analyze the editor's decision letter and respond appropriately-

In addition to publishing ethics that makes the final part of an investigation, all the preceding steps in the research must also be based on ethical principles (18, 19, 20). Besides general principles that clearly define mandatory requirements for successful engagement in science, as well as good knowledge of literature and application of appropriate methodology; expressed criticism and exactness in their work and acceptance of responsibility by each individual in the research team published the results must be fully respected, as well as other ethical principles that contribute to the establishment and maintenance of good scientific practice.

5.1. Submitting work for publication

Article submitted to any scientific journal must be in accordance to the rules on the content, appearance and quality, and the journal provides the instructions for authors also on its website. Propositions on the content, appearance and quality of scientific work must be in accordance with international propositions and recommendations given by the International Committee of Medical Journal Editors. "Uniform Requirements for Manuscripts Submitted to Biomedical Journals" and the recommendations of the international working group to standardize the appearance and quality of scientific papers: STROBE, CONSORT, STARDA and others (8, 9, 10).

All papers should contain the following parts (1):

- Summary with the key words,
- Introduction,
- Methods,
- Results,

- Discussion
- Conclusions and
- List of references.
- If necessary, acknowledgments may be included.

The concept of pointing out that the usual order of sections is contained in the abbreviation "IMRAD" (1).

- I-Introduction,
- M-Methods (or methods and materials),
- R-Results
- A-and
- D – Discussion and Conclusion

On a separate page should be written the article title, author names and their addresses.

The title should be written in English and one of the languages in official use in the country where the journal is published (not mandatory). Besides the title are listed the full names of all authors (without academic titles), the names and addresses of the institutions they come from, with special marking of author responsible for contact with his/hers e-mail address.

5.2. Letter for submission of

All of the authors must complete a form for submitting work. It contains:

- Approval for the publication of submitted article,
- Statement on conflict of interest,
- Statement of ethical principles in research and
- Statement of copyright transfer to JHSci.

5.3. Article submission

Is performed exclusively through the website provided by www.jhsci. by web form (23). Web Form contains:

- List of perquisites to be fulfilled prior to the submission of the article;
- Information about the corresponding author;
- Information about the scientific work;
- Part for uploading files.
- In the web form, authors must properly fill out the information, enter the correct e-mail address for correspondence, and send 2 files:

- Letter for submission of the article;
- Scientific article.

All authors must sign the form for submission of the article (Manuscript Submission form). It is necessary that all authors signed confirmation that:

- Meet the criteria for authorship of the work, provided by the publisher;
- Believe that the manuscript represents honest work and;
- Being able to validate presented results.
- Authors are responsible for all statements and opinions in their articles.

5.4. Authorship

The phenomenon of “publish at any cost”, as well as the emergence of undeserved multiple authorship, is a direct result of pressure to secure funding, academic promotion, and/or permanent position, given the fact that the scientific basis for evaluating publications of scientists—the author of the publication. It is therefore very important to know the criteria for the (co)authorship. Authorship should be based on substantial contribution to the researchers (24).

For full authorship (Vancouver rules) there are three criteria (1, 8):

- Significant contribution to the planning of research, data collection and processing or interpretation of the results;
- Article writing and critical revision of the text;
- Approval of the final version to be published.

In this way, each author has participated sufficiently in the work that can take public responsibility for its content. Other forms of cooperation such as technical assistance or activity to ensure financial aid, do not justify authorship. These criteria for determining authorship emphasize the intellectual functions of the participants in the study. At least standardized aspects of authorship are the total number of co-authors and the order of the principal authors. The first author is the person with the greatest responsibility for initiating research and its implementation, as well as for writing the

article. Traditionally, the senior author is stated last (1).

The study was fully completed when the result is published, and so become available to the wider scientific community. However, in order to achieve personal gain many authors resort to double-publish his results. The cause of this kind of intellectual dishonesty and breaches of high ethical principles of science is the fact that in addition to the authorship of published papers the basis for evaluating the quality of work of scientists. This behavior belongs to the author so called gray area of intellectual dishonesty which is unethical and requires the sanction. There is no general regulation on the control of scientific research and intellectual honesty of researchers who would be absolutely applicable in all situations, i.e. in all research institutions. It is recommended that de scientific institutes and universities and colleges set up a center for monitoring, security, promotion and development of quality research. Within this city a person is entrusted to an advisory role (Ombudsman) (1). In case of reporting the misconduct mentor, the person is required to notify the head of the institution. If it is estimated that the application of scientific research misconduct is justified, the procedure for the determination of responsibility, or in the absence of evidence, the process will be suspended. If scientific misconduct also constitutes a criminal offense under the criminal law, the head of the institution takes the initiative to institute criminal proceedings.

Pan-European initiatives in conservation and development of high ethical standards in research, focused on the harmonization of national ethics committees with European as well as the consolidation of ethical and legal procedures in order to introduce common European standards of good scientific practice in countries that have not yet adopted it. In this way, research institutions and universities become the mainstay of quality and continuous activities on monitoring and improving the quality of scientific work in ensuring the progress of science and society as a whole.

5.5. Patient consent form

Protecting patients' rights to privacy is of paramount importance. Authors should, if required by the Editorial Board of the journal, send copies of patient consent forms from which it can be clearly seen that patients or other subjects of the experiments give permission to publish photographs and other material that would identify them. If the authors do not have the necessary consent for research it must be obtained or exclude information that identifies the subject from which they did not get approval.

5.6. Approval of the Ethics Committee

Authors must in the submission form in part “Methods” must clearly state that the studies conducted on human subjects or patients are approved by the appropriate ethics committee (18, 19). More information can be found in the latest version of the Declaration of Helsinki. Also, authors must confirm that experiments involving animals conducted in accordance with ethical standards.

5.7. Statement on Conflict of Interest

Authors must identify all sources of financing of their study and any financial aid (including obtaining a salary, fees, etc.) by the institutions whose financial interests may depend on the material in the work, or which could affect the impartiality of the study. If they are sure that there is no conflict of interest this must be included in the work (12, 13, 14, 15).

5.8. Publishing rights

In the Letters to the submission the authors are required to transfer the publishing rights to the publisher and the transfer of publishing rights becomes valid when and if the article is accepted for publication. The general public has a right to reproduce the contents or a list of articles including abstracts for internal use in their institutions. Publisher's consent is required for the sale or distribution outside the institution and for other actions arising from

the distribution, including compilations and translations. If the protected materials are used, authors must obtain written permission of the publisher and specify the source and reference in the article (18, 19).

6. DISCUSSION AND CONCLUSION

The European Association of Science Editors (EASE) published in June the 2012 edition of EASE Guidelines for Authors and Translators of Scientific Articles (24). It is freely available as PDF in 20 languages. It includes some practical tips for junior researchers (www.ease.org.uk/publications/authors-guidelines). Adherence should increase the chances of acceptance of submitted articles to the biomedical journals. Every article ready for submitting to any biomedical scientific journal must include the components, rules and recommendations proposed by ICMJE (www.icmje.org) (8, 9, 10, 11, 18, 19, 20) and guidelines and rules proposed on web sites of biomedical databases (20, 23, 24, 25, 26, 27, 28) :

- Substantive intellectual contributions: a) conception and design; b) acquisition of data, c) analysis and interpretation of data.
 - Drafting or revising critically the manuscript.
 - Final approval of the published manuscript.
- Also, authors of the potential articles need to think about COI – Conflict of interest (12, 13, 14):
- Acquisition of funding, collection of data, general supervision of a research group alone does not qualify for authorship.
 - All listed authors should qualify for authorship, all that qualify for authorship should be listed.
 - Some journals require a description of the contributions of each author to the manuscript.
 - Some journals require that one or more authors act as “guarantors”; they take responsibility for the integrity of the study as a whole.
 - All contributors, not qualifying as authors should be acknowledged: a) for technical help, general support, writing assistance; b) also, financial support should be mentioned in the acknowl-

edgement; and, c) for writing assistance.

- Ask for written permission to have someone acknowledged.
- About potential biases: a) Financial and personal relationships of authors; b) Conditions of financial support; c) Agreements on use of data, on analysis of data, on writing of the manuscript.
- The non existence of conflicts of interest should be reported as well.
- Relevant when making several publications based on the same material.
- Authors often have to transfer the copyright to a publisher.
- Be sure not to copy material of others without proper attribution and without receiving permission: a) Figures in publications, but also b) usage of a publication in a thesis.
- Publishing work of others under your own name is not allowed. This holds for full texts, but also when it is an idea that has been taken from someone else.
- Remember that this also holds for web-pages and scientific databases.
- The guidelines of the Committee on Publication Ethics suggest to consider informing the superior of the author or the person responsible for research governance (18, 19).
- To get the scientific record straight duplicate publication should be avoided.
- For additional information on how unethical publication behavior is dealt with see the website of the Committee on Publication Ethics: www.publicationethics.org.uk. Most important are: a) duplicate submission; b) serial unaltered submissions (journal hopping); c) serial minimally altered publications (first proceedings then in peer reviewed journal), and d) self-plagiarism.
- Publication of scientific articles with the results of their research is the duty of every scientist (2, 12, 13, 14, 15). What is really needed to publish a scientific paper, is careful planning, hard work and perseverance. However, any

publishing of their own research needs to be aligned with the recommendations given by: ICMJE, COPE, WAME, EASE, etc., about which we discuss in this article (17, 18, 19, 20).

- Useful tips for regular and successful publication of scientific articles could be (1, 3, 15, 17):
- It is advisable to engage in multiple research projects simultaneously. It is desirable to expand the range of research topics, but focus on one or at most two scientific fields.
- The research results should be presented at scientific meetings so they become available to the wider scientific community. Try to get feedback.
- When writing the manuscript, seek the help of professional translators and proofreaders.
- Monitor the recent literature and look what are the current topics for publication in that journal.
- Never send two manuscripts in the same journal/magazine in a short time span.
- It is advisable to find relevant articles in selected journals and include them among the references in the article.
- To monitor the timing advance procedure article after it was submitted for publication in the journal. Occasionally, he should contact the editorial office and check what happens to the article if Editorial Board does not notify the authors of a longer period.
- Avoid journals that refuse to receive manuscripts by the same author. We should not ignore the rejected manuscripts, so be persistent and try again.

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