# COMMITTEE ON PUBLICATION ETHICS (COPE): GUIDANCE ON GOOD PRACTICE IN PUBLICATIONS

**Why were protocols created?**

The committee on publication ethics (COPE) was founded in 1997 to address the issue of ethics in research and publications. Comprising a voluntary group that fosters a discussion forum and provides advice to scientific editors, the committee aims to find practical ways to deal with issues, as well as to develop good professional practice.

We believe that it is essential to try to define best practices in the ethics of scientific publications. These guidelines may be useful for authors, editors, members of the editorial board, readers, magazine owners, and publishers.

Intellectual honesty should be encouraged in all medical and scientific lines of study, and used for publication ethics and to prevent misconduct. It is with this idea in mind that these guidelines were created.

The Appendix presents details regarding other research ethics guidelines and published codes of conduct.

**How were the protocols developed?**

The guidelines were developed from a preliminary version drafted by members of the committee, which was then subjected to exhaustive consultations. It covered: study planning and ethical approval, authorship, data analysis, conflicts of interest, the process of review by field specialists, redundant publication, plagiarism, editors duties, relations with the media, advertising, and how to deal with misconduct.

**What is your objective?**

These guidelines are intended to be more recommendations than prescriptions, and to evolve over time. We hope that they will be widely disclosed, approved by the editors, and perfected by those who use them.

## I - STUDY PLANNING AND ETHICAL APPROVAL

**Definition**

A good research must be well-justified, well-planned, properly structured and ethically approved. Conducting research in a lower standard is misconduct.

**Ação**

1. Laboratory and clinical research must be guided by a protocol; pilot studies must contain a written statement of their reasons.
2. Research protocols must answer specific questions, rather than just collect data.
3. All contributors and collaborators must agree to the protocols, including, if appropriate, participants.
4. The final protocol must be part of the research record.
5. It is recommended that agreements regarding the precise role of contributors and collaborators, as well as authorship and publication, be established at an early stage.
6. Statistical issues, including extensive calculations, should be considered from the beginning of the study planning to ensure that there is no lack or excess of participants.
7. Formal and documented ethical approval, granted by an appropriately constituted ethics committee, is required for all studies involving people, medical records, and tissues obtained from anonymous human sources.
8. The use of human tissues must comply with the highest ethical standards, such as those recommended by the Nuffield Council of Bioethics.
9. It is important to have fully informed ethical consent. However, it is known that, in some circumstances, this is not always possible; in this case, an appropriately constituted ethical research committee must decide whether the study is ethically acceptable.
10. When participants are unable to provide fully informed ethical consent, the research group should seek international recommendations, such as those of the Council for International Organizations of Medical Sciences (CIOMS).
11. Experiments with animals require full compliance with local, national, ethical, and regulatory principles, in addition to local licensing. International standards vary.
12. Formal supervision, usually under the responsibility of the main investigator, must be provided for all research projects: this must include quality control, frequent review and long-term retention (up to 15 years) of all primary records and results.

## II - DATA ANALYSIS

**Definition**

Data should be appropriately analyzed, but inappropriate analysis of the data does not constitute misconduct. Fabrication and falsification of data constitute misconduct.

**Action**

1. All sources and methods used to obtain and analyze the data, including any electronic pre-processing, must be fully exposed; detailed explanations must be provided for any exclusions.

2. Analysis methods should be explained in detail, and referenced, if not in common use.
3. Post hoc analysis of subgroups is acceptable, as long as it is stated. Failure in stating that the analysis was "post hoc" is unacceptable.
4. The session for the discussion of an article should mention any bias issues that have been considered, and explain how it was handled in the planning and interpretation of the study.

## III - AUTHORSHIP

Definition

Although attempts have been made, there is no universal consensus on authorship (see Appendix). Authors must be responsible for at least one particular session of the study.

Action

1. The merit of authorship must take into consideration, on the one hand, intellectual contributions to the conception, planning, analysis, and writing of the study, and on the other, the obtaining of data and other routine work. If there is no task that can reasonably be assigned to a particular individual, then such individual cannot be credited as one of the authors.
2. In order to avoid disputes regarding the attribution of academic credit, it is advisable to decide from the beginning, during the planning of the research project, who will be credited as the author, as the collaborator and to whom thanks are due.
3. All authors must assume public responsibility for the content of their articles. The multidisciplinary nature of many researches can make this difficult, but this can be resolved by the statement of individual contributions.
4. It is advisable to carefully read the "Instructions to Authors" section of the journal where you intend to publish, in view of the current uncertainties.

## IV - CONFLICTS OF INTEREST

**Definition**

Conflicts of interest include those that may not be completely apparent, but that may influence the judgment of the author, reviewers, and editors.

They were described as those who, when revealed later, would make a conscious reader feel misguided or misled.

Conflicts can be personal, commercial, political, academic or financial.

"Financial" interests may include employment, funds for research, payments for lectures or travel, ownership of shares, and company support to staff.

1. When relevant, such interests must be declared to the editors by researchers, authors, and reviewers.
2. Editors must also expose relevant conflicts of interest to their readers. If in doubt, be clear. Sometimes editors may need to withdraw from the review and selection process for a submission.

## V - PEER REVIEW

**Definition**

Peer reviewers are external experts chosen by the editors to develop written opinions, intending to improve the study.

Working methods vary from journal to journal, but some use transparent procedures, in which the reviewer's name is revealed, along with a full edit report.

**Action**

1. Suggestions from authors on who should act as a reviewer are often helpful, but there should be no obligation on the part of editors to use the names that have been suggested.
2. The obligation to maintain confidentiality in the evaluation of a manuscript must be followed by the peer reviewers, the same applies to the colleagues of those reviewers, who may be asked (with the editor's permission) to give opinions regarding specific sessions.
3. The submitted manuscript must not be retained or copied.
4. Reviewers and editors must not make any use of the data, arguments or interpretations, unless they have author’s permission for such.
5. Reviewers must deliver reports quickly, accurately, politely, and impartially.
6. If reviewers suspect misconduct, they can write confidentially to the editor.
7. Journals must publish accurate descriptions of their selection processes, requests, and review by experts in the field.
8. Journals should also regularly audit their acceptance rates and publication periods.

## VI - REDUNDANT PUBLICATION

**Definition**

Redundant publication occurs when two or more articles, without complete cross-references, share the same hypothesis, data, discussion points or conclusions.

1. Studies published do not need to be repeated, unless further confirmation is required.
2. Prior publication of an abstract in conference annals does not preclude subsequent submission for publication, but this fact must be clearly stated when submitting.
3. Republishing an article in another language is acceptable, as long as there is a complete declaration of the source used when submitting.
4. When the article is submitted, the authors must reveal details of related articles, even if they are in another language, and similar articles to be published.

## VII - PLAGIARISM

**Definition**

Plagiarism ranges from the unreferenced use of others' ideas, published or not, including requests for research funds, to the submission, under "new" authorship, of a complete article, sometimes in a different language.

This can occur at any stage of planning, research, writing or publication. This applies to both printed and electronic versions.

**Action**

1. All sources must be disclosed, and if a large portion of someone else's written or illustrative material is to be used, permission must be requested.

## VIII - DUTIES OF THE EDITORS

**Definition**

Editors are the managers of journals. They usually receive the journal from previous editors, and always want to deliver it in order to the next editors.

Most editors instill a direction to the journal and build a strong management team.

They must consider and harmonize the interests of many constituents, including readers, authors, employees, owners, members of the editorial board, advertisers and the media.

**Action**

1. The editors' decision to accept or decline an article for publication should be based only on the importance, originality, and clarity of the article, as well as the relevance of the study to those receiving the journal.
2. Studies that contest previous works published in the journal should receive special attention.

3. Studies showing negative results should not be excluded.
4. All original studies must be reviewed by field specialists before being published, taking into account possible impartiality due to, or related to, conflicts of interest.
5. Editors must treat all articles submitted as confidential.
6. When major errors are subsequently found in a published article, editors must take responsibility for correcting them promptly.

## IX - RELATIONS WITH THE MEDIA

**Definition**

Findings resulting from medical research have attracted growing interest from the written and electronic media.

Journalists attend scientific meetings at which preliminary research findings are presented, leading to their premature publication in the mass media.

**Action**

1. Authors approached by the media should report their work as thoughtfully as possible, ensuring that the boundaries between facts and speculations are clearly shown.
2. Simultaneous publication in the media and in a journal with review by field experts is advisable, as this generally means that sufficient evidence and data has been provided to satisfy informed and critical readers.
3. When this is not possible, authors should help journalists produce more accurate reports, but should avoid providing additional information.
4. Every effort should be made to ensure that patients who contributed to the research are informed of the results obtained by the authors before the media, especially in case of clinical implications.
5. Authors should be informed by the organizers if journalists will be attending scientific meetings.
6. It may be useful to alert authors to any policies for the media used by the journal in which their work will be published.

## X - Advertising

**Definition**

A significant portion of the revenue from many scientific journals and meetings comes from advertising.

Offprints can also be profitable.

**Action**

1. Editorial decisions cannot be influenced by advertising income or the potential of offprints: editorial and advertising management must be clearly discrete.
2. Misleading advertisements must be refused, and editors must be willing to publish reviews, according to the same criteria used for the material that is published in the rest of the journal
3. Offprints must be published as they appear in the journal, unless corrections are made.

## DEALING WITH MISCONDUCT

**Principles**

1. Misconduct is the intention to make others see as true something that is not.
2. Thus, the analysis of misconduct must be directed not only to particular acts and omissions, but also to the intention of the researcher, author, editor, reviewer or publisher involved.
3. The mistake may have occurred intentionally, recklessly, or negligently. It is therefore implied that "best practice" requires complete honesty, with complete transparency.
4. Codes of practice may improve knowledge of the facts, but they are never exhaustive.

**Investigating misconduct**

1. Editors should not simply reject articles that show signs of misconduct. They are ethically obligated to investigate the case. However, it is difficult to know how to investigate and respond to possible cases of misconduct.
2. COPE is always willing to advise, but for legal reasons, it can only advise anonymous cases.
3. The editor must decide what action to take.

**Serious misconduct**

1. Editors must take all allegations and suspicions of misconduct seriously, but they must keep in mind that they have no legal standing or means to conduct investigations in serious cases.
2. Editor has to decide when to alert the employers of the accused author(s).
3. A piece of evidence is required, but if employers have any means of investigating the charges - as is increasingly being done - editors have no reason to conduct a full investigation themselves. In fact, it can be considered unethical for editors to do this, because such action commonly requires consultation with experts, therefore, the doubts about the conduct of authors would be disclosed in the scientific community.
4. If editors are faced with convincing evidence - found maybe by reviewers - of serious misconduct, they should immediately report the case to the author(s) employer(s), notifying the author(s) that the communication is being made.

5. If accusations of serious misconduct are not accompanied by convincing evidence, editors should, off the records, seek expert advice.
6. If experts raise serious doubts about the work, editors should notify the authors' employers.
7. If experts find no evidence of misconduct, editorial processes should proceed normally.
8. If there is convincing evidence of serious misconduct, in case there is no employer to be informed, and if the author is a registered physician, the medical board can be informed about the case.
9. If, however, there is no organization with the legitimacy and the means to conduct an investigation, the editors may decide that the case is important enough to justify the publication of a note in the journal. In this case, legal advice is required.
10. If editors are convinced that the employer has not conducted an adequate investigation of a serious charge, they may consider it fair to publish a note in the journal. In such case, it would be essencial to have legal advice.
11. Authors should have the opportunity to respond to charges of serious misconduct.

**Less serious misconduct**

1. Editors should decide that it is not necessary to involve employers in less serious cases of misconduct, such as redundant publication, false authorship, or failure to declare a conflict of interest. Sometimes the evidence speaks for itself, but it is still advisable to appoint an independent expert.
2. Editors should remember that charges, even those of less serious misconduct, have serious implications for the author(s), in which case the employer may be required to conduct an investigation.
3. Authors should have the opportunity to respond to any charge of less serious misconduct.
4. If convinced of misconduct, editors can adopt any of the following sanctions.

**Sanctions**

Sanctions can be applied separately or combined. The following sanctions are listed in approximate order of severity.

1. A letter of clarification (and instruction) to the authors, in which it is said that there seems to have been a real misunderstanding of the principles.
2. A letter of recrimination and warning for future conduct.
3. A formal letter to the head of the institution or funding institution.
4. Publication of a note warning about redundancy or plagiarism.
5. An editorial stating all the details about the misconduct.
6. Deny the acceptance of future submissions by the individual, unit or institution responsible for the misconduct, for a fixed period.
7. Retraction or formal withdrawal of the article from the literature, informing the other editors and the authorities responsible for indexing.
8. Report the case to the medical council or other similar authority or organization capable of investigating and acting appropriately.