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## OTTAWA HOSPITAL RESEARCH INSTITUTE PUBLICATION PRACTICE GUIDELINES

Recommended by the Senior Management Committee  
September 1, 2017

*These guidelines are largely based on the 'Recommendations for the Conduct, Reporting, Editing and Publication of Scholarly Work in Medical Journals' (accessed Fall 2015) produced by the International Committee of Medical Journal Editors (ICMJE). The most recent version of these recommendations is available online at [www.icmje.org](http://www.icmje.org).*

### **Background**

Scientific publications are the main conduit for knowledge exchange in biomedicine. For this reason, it is critical that all research that is conducted is reported, and that reports are complete and transparent accounts of the research conducted. This document was developed in order to provide guidance to OHRI researchers on how to publish high quality fit-for-purpose manuscripts that meet international integrity standards. If you have specific questions concerning publication practices, please visit the [Centre for Journalology Webpage](#), or contact the OHRI Publications Officer.

## **Publication Ethics**

### **1. Protection of Research Participants**

#### **1.1. Humans**

When reporting research involving human data, authors should indicate in their manuscript whether the procedures followed have been approved by the responsible review committee (institutional and national), or if no formal ethics committee is available, that procedures were in accordance with the [Helsinki Declaration](#) as revised in 2013. Please note that approval by a responsible review committee does not preclude editors from forming their own judgment whether the conduct of the research was appropriate.

Patients have a right to privacy that should not be violated without informed consent. Identifying information, including names, initials, or hospital numbers, should not be published in written descriptions, photographs, or pedigrees unless the information is essential for scientific purposes and the patient (or parent or guardian) gives written informed consent for publication. Informed consent for this purpose requires that an identifiable patient be shown the manuscript to be published. Authors should disclose to these patients whether any potential identifiable material might be available via the internet or in print after publication. Informed consent should be obtained if there is any doubt that anonymity can be maintained. When informed consent has been obtained, it should be indicated in the published article.

### **1.2. Pre-Clinical and Non-Human Animals**

When reporting experiments using non-human animals or cells/tissues derived from animals, authors should explicitly indicate that their protocol was approved, note the name and location of the committee that granted the approval, and which institutional and national standards for the ethics of animal-based research were followed. If relevant, authors should also state any permit/protocol numbers associated with the study. Further guidance on the ethics of animal-based research is available from [the Canadian Council on Animal Care](#).

## **2. Errors & Scientific Fraud**

**2.1. Honest errors of fact** require publication of a correction when they are detected. To minimize editorial errors, authors need to ensure that galley proofs are accurate prior to their approval. Inadequacies exposed by the emergence of new scientific information in the normal course of research do not require a correction or withdrawal.

**2.2. Scientific misconduct** includes, but is not necessarily limited to, data fabrication; data falsification including deceptive manipulation of images; and plagiarism. Some people consider failure to publish the results of clinical trials and other research studies a form of ethical and scientific misconduct. While each of the aforementioned practices is problematic, they are not equivalent. Each situation requires individual assessment by relevant stakeholders.

### **Scientific Integrity**

The Ottawa Hospital Research Institute, in conjunction with the University of Ottawa, has always recognized the necessity of maintaining the highest ethical and scientific standards in the conduct of research. There is an internal [Procedure for Addressing Allegations of a Breach of Responsible Conduct of Research](#) and a related [policy](#) for researchers.

Journals and publishers themselves are paying more and more attention to issues of integrity also. For example, the publisher BioMed Central now has a [research integrity committee](#). Likewise, funders have placed increased focus on issues of integrity; see for example, the 2011 [Tri-Agency Framework: Responsible Conduct of Research](#).

## **3. Plagiarism & Self-Plagiarism**

**3.1. Plagiarism** is the theft or misappropriation of intellectual property and the substantial unattributed textual copying of another's work. It does not include authorship or credit disputes. The theft or misappropriation of intellectual property includes the unauthorized use of ideas or unique methods obtained by a privileged communication, such as a grant or manuscript review. Substantial unattributed textual copying of another's work means the unattributed verbatim or nearly verbatim copying of sentences and paragraphs which mislead the ordinary reader regarding the contributions of the author.

**3.2. Self-Plagiarism** is a type of plagiarism in which an author re-uses their own words or work in a new publication without appropriately referencing the existing published piece. That is, the words or work are presented in a way that makes them appear novel and original. Like plagiarism, self-plagiarism is considered to be unethical.

**Note:** Most journals and publishers routinely use electronic software (e.g. CrossCheck iThenticate) to detect and prevent both plagiarism and self-plagiarism.

#### **4. Redundant or Duplicate Publication**

Redundant or duplicate publication is publication of a paper that overlaps substantially with one already published, without clear reference to the previous publication.

Submission of multiple similar manuscripts for publication is a form of scientific misconduct as this wastes the time and resources of editors and reviewers, and can lead to duplicate publications, which can mislead the public regarding the breadth of the research findings. Furthermore, simultaneous submission of the same manuscript for review to multiple journals is unacceptable (refer to item 5 below for acceptable secondary publications). This policy does not preclude the journal considering a paper that has been rejected by another journal, or a complete report that follows publication of a preliminary report. Nor does it prevent journals considering a paper that has been presented at a scientific meeting but not published in full or that is being considered for publication in a proceedings or similar format. Press reports of scheduled meetings will not usually be regarded as breaches of this rule, but such reports should not be amplified by additional data or copies of tables and illustrations.

**Preliminary reporting to public media, government agencies, or manufacturers, of scientific information described in a paper or in a letter to the editor that has been accepted, but not yet published, also violates the policies of many journals.** However, such reporting may be warranted when the paper or letter describes major therapeutic advances or public health hazards such as serious adverse effects of drugs, vaccines, other biological products, medicinal devices, or reportable diseases. This reporting should not jeopardize publication, but should be discussed with and agreed upon by the editor of the respective journal in advance.

**To avoid redundant or duplicate publication, when submitting a paper an author should always:**

1. Make a full statement to the editor about all submissions and previous reports that might be regarded as redundant or duplicate publication of the same or very similar work.
2. Alert the editor if the work includes subjects about which a previous report has been published. Any such work should be referred to and referenced in the new paper.
3. Include copies of similar previous reports with the submitted paper

If redundant or duplicate publication is attempted, or occurs without notification, authors should expect editorial action to be taken.

#### **5. Secondary Publication**

Secondary publication in the same or another language, especially in other countries, may be justifiable, and can be beneficial, provided **all** of the following conditions are met:

1. The authors have received approval from the editors of both journals (the editor concerned with secondary publication must have access to the primary version).
2. The priority of the primary publication is respected by a publication interval negotiated by both editors with the authors.
3. The paper for secondary publication is intended for a different audience or group of stakeholders; in this case an abbreviated version could be sufficient.
4. The secondary version faithfully reflects the data and interpretations of the primary version.
5. The secondary version informs readers, peers, and documenting agencies that the paper has been published in whole or in part elsewhere—for example, with a note that might read, "This article is based on a study first reported in the [journal title, with full reference]"—and the secondary version cites the primary reference.
6. The title of the secondary publication should indicate that it is a secondary publication (complete or abridged republication or translation) of a primary publication.

## **6. Registration**

### **6.1. Study Registration**

It is recommended that protocols for research conducted are registered in a publicly accessible database prior to when they begin. The [Publications Officer](#) can advise on potential registries for your work (e.g., [RUOR](#), [OSF](#)).

The purpose of registration is to prevent selective publication and selective reporting of research outcomes, to prevent unnecessary duplication of research efforts, and to help patients and the public know what research is being planned or ongoing. They may also help give ethics review boards considering approval of new studies a view of similar work and data relevant to the research they are considering.

### **6.2. Clinical Trials**

Study registration is a mandatory practice for clinical trials. In this case registration in a public trials registry at, or before, the time of first patient enrollment is mandated. OHRI recommends registration of trials in any registry that is a primary register of the World Health Organization International Clinical Trials Registry Platform (ICTRP) or in [ClinicalTrials.gov](#), which is a data provider to the WHO ICTRP. OHRI endorses these registries based on recommendations made by the ICMJE, and the fact that they are accessible to the public at no charge, open to all prospective registrants, managed by a not-for-profit organization, have a mechanism to ensure the validity of the registration data, and are electronically searchable.

### **6.3. Systematic Reviews**

It is recommended that all systematic review protocols be registered in a publicly available registry, such as [PROSPERO](#), prior to the initiation of data collection. Pre-clinical systematic review protocols can be deposited into the [uOttawa repository](#) via the [CAMARADES website](#). The purpose of a systematic review protocol registry is to help encourage transparency by providing a permanent record of proposed systematic reviews. This permanent record can be used to deter publication bias and highlight any differences in proposed and reported methods of systematic reviews. Registries of systematic reviews can also be used in order to determine whether or not a review on a particular topic has been initiated or not, in order to avoid redundant efforts.

## **7. Manuscript Preparation**

### **7.1. General Principles of Manuscript Preparation**

Authors should consult the Instructions for Authors of the journal they are submitting to, and ensure that their manuscript is compliant to the specific format and style rules required. The text of articles reporting original research is usually divided into Introduction, Methods, Results, and Discussion sections. This so-called “IMRAD” structure is not an arbitrary publication format but a reflection of the process of scientific discovery. Articles often need subheadings within these sections to further organize their content. However, other types of articles, such as meta-analyses, may require different formats, while case reports, narrative reviews, and editorials may have less structured or unstructured formats.

### **7.2. Use of Reporting Guidelines for Manuscript Preparation**

Reporting guidelines are explicit texts to help authors in reporting their research. They form a *minimum* set of items that need to be reported for a particular study type. Reporting guidelines typically consist of a checklist and corresponding flow diagram. Authors are encouraged to understand and to follow these guidelines because they are helpful for accurately describing a study in sufficient detail for it to be evaluated by editors, reviewers, readers, and other researchers. Validated reporting guidelines have been developed for many different study designs in both clinical and pre-clinical settings (e.g., CONSORT for randomized trials; ARRIVE for pre-clinical research).

#### **Using Reporting Guidelines**

If you would like to find an appropriate reporting guideline to use in the reporting of your research, the [EQUATOR Network](#) maintains an online searchable database of more than 250 reporting guidelines.

### **7.3. Statistical Reporting**

Statistical methods should be described in sufficient detail for authors to replicate the analyses. Authors should also provide details on the specific computer software used for analyses. Statistical tests that rely on hypothesis testing, such as tests using p-values, should include measures of effect size. Measures of variance should likewise be provided where applicable. In addition, information on how the sample size for the study was determined, and if a formal sample size calculation was conducted, should be reported. Many journals have specific directions for authors on how to report statistical information in their manuscript. If this is the case, authors should ensure their manuscript is compliant to the journal requirements.

#### 7.4. Referencing Formats

The following are guidelines for citing research articles at different publication stages:

**Unpublished observation** – an empirical finding not yet submitted for publication

**Submitted** - an empirical finding submitted for publication, but not yet accepted

**Accepted** - papers accepted for publication but not yet published

**In press** - papers accepted and not yet formally published, but online preprints with DOI are available

**Unpublished observation** - information from manuscripts not accepted

**Personal communication** - should be avoided unless it provides essential information not available from a public source, in which case the name of the person and date of communication should be cited in parentheses in the text. For scientific articles, authors should obtain written permission and confirmation of accuracy from the source of a personal communication.

**Abstracts** - should be avoided as references, these can be cited in the text, in parentheses, but should not be used as page footnotes.

### **8. Manuscript Submission**

#### **8.1. Journal Selection**

Research is a continuum. The same effort and diligence allocated towards designing and carrying out a research study is required for its write-up, journal submission, and publication. It is important to allocate sufficient time for these tasks when managing research project timelines. Researchers should not act in haste as they navigate the journal selection, submission, and production process. There are a number of important considerations when selecting a journal (e.g., scope and readership), paramount among potential considerations is the ethics and integrity of the journal under consideration.

#### **8.2. Caution of Predatory Journals**

Herein, “*predatory*” journals are defined as journals that fail to meet international standards of ethics and integrity. Typically, predatory journals exist for the sole purpose of making profit. They may fail to offer any number of services typical of legitimate journals including peer review and indexing. This means that work ‘published’ in these outlets may not have been scientifically vetted, and may not be easy to discover (because these journals are not typically indexed in legitimate electronic databases). Predatory journals may exhibit a lack of transparency, have no explicit policies, or even be intentionally deceptive. Importantly, predatory journals exist on a spectrum, and they are not easily defined by a single feature.

*The OHRI does not support publication of study findings in illegitimate predatory journals that do not uphold acceptable ethics and integrity standards.* Publication of research findings in journals is the main conduit for knowledge exchange among biomedical researchers and the broader community including patients and the public. Work “published” in illegitimate predatory journals represents a waste of research money, of patients’ time, and of animals’ lives as it is unlikely to be discoverable or have its intended reach. “[Think, Check, Submit](#)” is a relevant international awareness campaign about thoughtful journal selection.

### 8.3. Identifying and Avoiding Illegitimate (Predatory) Journals

The following actions are steps researchers should take to verify the legitimacy of the journal they are submitting their work to:

#### **Step 1: Evaluate the journals website**

When assessing the ethics and integrity of a journal a holistic evaluation of a journal's website is required. No single factor alone is likely to identify a journal as acceptable/unacceptable for submission. One heuristic to consider – if three or more of the thirteen characteristics below are present it is likely best to avoid submission to the journal.

Some evidence based features you may consider as red flags when evaluating a journal (taken from [Shamseer et al., 2017](#)) include:

1.	The scope of interest includes non-biomedical subjects alongside biomedical topics <ul style="list-style-type: none"><li>• Consider whether journal titles or remits intentionally straddle multiple seemingly unrelated topics (e.g., Journal of Medicine, Agriculture and Economics)</li></ul>
2.	The website contains spelling and grammar errors <ul style="list-style-type: none"><li>• Predatory journals have been found to have more than 10 times the amount of spelling and grammar errors than legitimate journals.</li></ul>
3.	Images are distorted/fuzzy, intended to look like something they are not, or which are unauthorized <ul style="list-style-type: none"><li>• If you identify issues with images, this may suggest a lack of oversight, or even fraudulent behaviour</li></ul>
4.	The homepage language targets authors <ul style="list-style-type: none"><li>• Predatory journals often repeatedly target authors to submit their work, and may be less likely to have relevant information targeting the journals readers</li></ul>
5.	The Index Copernicus Value is promoted on the website <ul style="list-style-type: none"><li>• This is thought to be a bogus metric, that can only increase over time.</li></ul>
6.	Description of the manuscript handling process is lacking <ul style="list-style-type: none"><li>• If the manuscript handling process is not described this suggests a lack of transparency and may lead to unanticipated handling processes.</li></ul>
7.	Manuscripts are requested to be submitted via email <ul style="list-style-type: none"><li>• While not always the case, most legitimate journals have manuscript submission networks (e.g., Scholar One, Editorial Manager) where papers are uploaded for submission</li></ul>
8.	Rapid publication is promised <ul style="list-style-type: none"><li>• Some predatory journals suggest rapid publication timelines that are not consistent with what one might expect if peer review was occurring.</li></ul>
9.	There is no retraction policy <ul style="list-style-type: none"><li>• A retraction policy, and related publication policies, should be transparently displayed.</li></ul>

10.	Information on whether and how journal content will be digitally preserved is absent <ul style="list-style-type: none"> <li>• This is important to ensure the greatest impact is achieved from your work</li> </ul>
11.	The Article processing/publication charge is very low (e.g., < \$150 USD) <ul style="list-style-type: none"> <li>• Most legitimate journals charge fees considerably above this figure</li> </ul>
12.	Journals claiming to be open access either retain copyright of published research or fail to mention copyright <ul style="list-style-type: none"> <li>• This practice is inconsistent with the definition of open access</li> </ul>
13.	The contact email address is non-professional and non-journal affiliated (e.g., @gmail.com or @yahoo.com) <ul style="list-style-type: none"> <li>• While not always the case, most legitimate journals will list professional/academic e-mails</li> </ul>

### **Step 2: Seek Peer Input**

While all researchers need to take steps to ensure the legitimacy of the journals they submit to, students and early career researchers, who may have less experience with the look and feel of journals, and with the established titles in their discipline, need to be particularly vigilant.

If you are considering submitting to a journal that you are not familiar with, it is prudent to discuss this decision with those in your field. Your co-authors, collaborators, mentors, or departmental colleagues, should be familiar with reputable journals in the field. If these peers have not published in the journal under consideration, or have not read research articles from the journal, this may indicate that the journal is a poor choice.

### **Step 3: Check if the journal is in the Directory of Open Access Journals**

A [Directory of Open Access Journals \(DOAJ\)](#) exists which researchers can search to vet the authenticity of journals claiming to be open access and meeting ethical and integrity standards. Most illegitimate predatory journals claim to be open access as they earn their profits based off of article processing charges which are common in open access biomedical publishing. The DOAJ has recently seen a number of changes, and now requires journals to apply for membership. For this reason, it is not a comprehensive record of all open access journals; however, if a journal is listed in the DOAJ this is a strong indication that it is genuine and meets acceptable ethics and integrity standards.

### **Step 4: Consult the OHRI Publications Officer**

The OHRI Publications Officer can help researchers ensure that they are making ethical journal selections if doubt remains after Steps 1-3.

## **8.4. Cover Letters**

Please refer to the journal's instructions to authors for specific details on the submission process. Note that all manuscripts should be accompanied by a cover letter or, if relevant, a completed journal submission form. The Centre for Journalology has cover letter templates available via their [online resource page](#).

A cover letter should include the following information:

1. A full statement to the editor about all submissions and previous reports that might be regarded as redundant publication of the same or very similar work.

2. A statement of financial or other relationships that might lead to a conflict of interest, if that information is not included in the manuscript itself or via the journal submission system.
3. A statement on authorship.
4. Contact information for the corresponding author.
5. If relevant, the cover letter or submission form should inform editors if concerns have been raised (e.g., via institutional and/or regulatory bodies) regarding the conduct of the research or if corrective action has been recommended.
6. The letter or form should give any additional information that may be helpful to the editor.
7. Many journals provide a pre-submission checklist to help the author ensure that all the components of the submission have been included. Some journals also require that authors complete reporting guideline checklists for reports of certain study types (for example, the CONSORT checklist for reports of randomized controlled trials). Authors should look to see if the journal uses such checklists, and send them with the manuscript if they are requested. The manuscript must be accompanied by permission to reproduce previously published material, use previously published illustrations, report information about identifiable persons, or to acknowledge people for their contributions.

## **9. Open Access**

### **9.1. Open Access Publishing**

Researchers conducting studies funded by the Tri-Agency (CIHR, NSERC, SSHRC) are now mandated to ensure that their resulting publications are available in open access format within 12 months of their publication date. However, in general, when possible, OHRI encourages open access publishing for all publications.

#### **Making your manuscript open access**

There are a number of ways to publish your work in an open access format, for example:

1. Publish in an open access journal.
2. Pay an author processing fee to make your article open access in a traditional subscription journal.
3. Deposit your work in an open access repository. The University of Ottawa maintains a [digital repository](#) that can be used for this purpose. It is easy to use, is free, and is indexed by Google Scholar.
4. The [Centre for Open Science](#) has developed the [Open Science Framework](#) (OSF). The OSF is free and can be used to document and archive relevant study material, including one's research data. It provides a way for researchers to be transparent about their research process and provide information openly.

### **9.2. Open Access Data**

Journal requirements for making research data available may differ, but these must be respected. Authors are encouraged to make their data available even when journal policies do not require this. However, the decision to make data available must always be weighed carefully against the importance of the protection of human participants' rights to privacy, contractual and

legal obligations. Please see the Data Stewardship and Sharing Guideline or consult the Publications Officer for more information.

### **Suggested Resources**

- Recommendations for the Conduct, Reporting, Editing and Publication of Scholarly Work in Medical Journals' produced by the International Committee of Medical Journal Editors (ICMJE). The most recent version of these recommendations is available online at [www.icmje.org](http://www.icmje.org).
- The Committee on Publications Ethics (COPE)  
<http://publicationethics.org/>
- The EQUATOR Network's database of reporting guidelines:  
<http://www.equator-network.org/>
- The University of Ottawa Scholarly Communications Library Webpage:  
<https://scholarlycommunication.uottawa.ca>
- OHRI Centre for Journalology webpage:  
<http://www.ohri.ca/journalology/>
- If you have specific publication questions, please contact The Ottawa Hospital Research Institute's Publications Officer.