ACKNOWLEDGMENT: The Canadian Journal of Anesthesia (“the Journal”) Policy Statement on conflicts of interest and publishing integrity is adopted, in part, from the World Association of Medical Editors (WAME) Editorial Policy “Journals’ Role in Managing Conflict of Interest Related to the Funding of Research” and the WAME Publication Ethics Policy “Conflicts of Interest” (March, 2009) and, in part, from the Springer Policy on Publishing Integrity (June 2009), and the Committee on Publication Ethics (COPE) and the Guide for Authors of Anesthesia & Analgesia (June 2008).

“Conflict of interest (COI) exists when there is a divergence between an individual’s private interests (competing interests) and his or her responsibilities to scientific and publishing activities such that a reasonable observer might wonder if the individual’s behavior or judgment was motivated by considerations of his or her competing interests. COI in medical publishing affects everyone with a stake in research integrity including journals, research/academic institutions, funding agencies, the popular media, and the public. Journals are interested in COI as it relates to a specific manuscript.”

“Everyone has COIs of some sort. Having a competing interest does not, in itself, imply wrongdoing. However, it constitutes a problem when competing interests could unduly influence (or be reasonably seen to do so) one’s responsibilities in the publication process. If COI is not managed effectively, it can cause authors, reviewers, and editors to make decisions that, consciously or unconsciously, tend to serve their competing interests at the expense of their responsibilities in the publication process, thereby distorting the scientific enterprise. This consequence of COI is especially dangerous when it is not immediately apparent to others. In addition, the appearance of COI, even where none actually exists, can also erode trust in a journal by damaging its reputation and credibility.”

COI policies differ among journals and are evolving over time. Recognizing that every peer-reviewed medical journal (herein the Journal) should have its own COI policies for authors, reviewers, and editors, we regularly update the policies for the Journal, and incorporate these policies in the Instructions for Authors.

Definition and Scope
“In the context of medical publishing, COI exists when a participant in the publication process (author, peer reviewer, or editor) has a competing interest that could unduly influence (or be
reasonably seen to do so) his or her responsibilities in the publication process. Among those responsibilities are academic honesty, unbiased conduct and reporting of research, and integrity of decisions or judgments. The publication process includes the submission of manuscripts, peer review, editorial decisions, and communication between authors, reviewers and editors.”

**Types of Competing Interests**

“Many kinds of competing interests are possible. Many are based on the untested assumption that financial ties have an especially powerful influence over publication decisions and may not be apparent unless they are made explicit. However, other competing interests can be just as damaging, and just as hidden to most participants, and so must also be managed. The following are examples of competing interests; they do not include all possibilities and they may coexist.”

1. **Financial ties**

“This conflict is present when a participant in the publication process has received or expects to receive money (or other financial benefits such as patents or stocks), gifts, or services that may influence work related to a specific publication. Commercial sources of funding, by companies that sell drugs and medical devices, are generally seen as the most concerning, perhaps because of many well-publicized examples of bias related to ties to industry. Examples of financial ties to industry include payment for research, ownership of stock and stock options, as well as honoraria for advice or public speaking, consultation, service on advisory boards or medical education companies, and receipt of patents or patents pending. Also included are having a research or clinical position that is funded by companies that sell drugs or devices. Competing interests can be associated with other sources of research funding including government agencies, charities (not-for-profit organizations), and professional and civic organizations, which also have agendas that may be congruent or at odds with research findings. Clinicians have a financial competing interest if they are paid for clinical services related to their research—for example, if they write, review, or edit an article about the comparative advantage of a procedure that they themselves provide for income. Financial competing interests may exist not just on the basis of past activities but also on the expectation of future rewards, such as a pending grant or patent application. “Insider trading,” which is the use for one’s financial gain of information obtained through participation in research, review or editing before it is available to the general public, is a special kind of financial COI that has both legal and ethical implications.”

2. **Political, religious and academic beliefs**

“Participants in the publications process may have strong beliefs ("intellectual passion") that commit them to a particular explanation, method, or idea. They may, as a result, be biased in conducting research that tests the commitment or in reviewing the work of others that is in favor or at odds with their beliefs. For example, if research challenging conventional wisdom is reviewed by someone who has made his or her reputation by establishing the existing paradigm, that person might judge the new research results harshly. Investigators in the same
field might make extra-efforts to find fault with manuscripts from competing teams, to delay publication or relegate the work to a lesser journal. While such commitments are not generally part of author’s disclosures, editors should be aware of them and their potential influence on author(s), reviewer(s), and themselves.”

“Personal relationships with family, friends, enemies, competitors, or colleagues can pose COIs. For example, a reviewer may have difficulty providing an unbiased review of articles by investigators who have been working colleagues. Similarly, he or she may find it difficult to be unbiased when reviewing the work of competitors. Bonds to family members may be strong enough that their competing interests should be treated as if they are also present for those directly involved with a manuscript.”

“A COI may also exist when a participant in the publication process is directly affiliated with an institution that on the face of it may have a position or an interest in a publication. An obvious concern is being affiliated with or employed by a company that manufactures the drug or device (or a competing one) described in the publication. However, apparently neutral institutions such as universities, hospitals, and research institutes (alone or in partnership with industry) may also have an interest (or the appearance of one) in the results of research. For example, investigators may have a COI when conducting research from a laboratory funded by private donors who could have (or appear to have) an interest in the results of the study, on a device for which the participant’s institution holds the patent, when the institution is the legal sponsor of the drug or device trial, or if the institution is in litigation in an area related to the study. Professional or civic organizations may also have competing interests because of their special interests or advocacy positions.”

**Declaring and Managing COIs**

“COIs are ubiquitous and cannot be eliminated altogether. However, they can be managed constructively so that they make the least possible intrusion on journal content and credibility.”

The *Journal* provides a form to complete to guide the statement of declarations. The *Journal* may also ask additional questions or seek clarification about declarations. For example, the *Journal* may ask for details about future monetary gains or ask an author who works in a laboratory funded by a particular organization for written details about how their independence and research integrity was maintained. All declarations about COI are requested in writing, at the time of manuscript submission, and as a condition of reviewing and serving as an editor of a manuscript.

No generally accepted standard, nor evidence-based consensus, exists for precisely defining the degree of financial COI or the timeframe that creates a substantial risk of bias or damage to the journal’s reputation. Judgments may be affected by many factors including, in the case of financial COI, the amount of money, goods, or services exchanged, how recently they were received and whether they are expected in the future, as well as the services provided in return. The time frame by which the *Journal* considers financial COIs to have ceased, since termination of any agreements between authors and sponsors, will be considered on a case-by-case basis.
We recognize that managing COI depends on disclosure, and that it is not possible to routinely monitor or investigate whether competing interests are present. Disclosure is about the facts that might bear on COI; assertions of integrity are not, in themselves, helpful. To facilitate disclosure, each author must answer the following questions. Answering “yes” to any question should prompt additional explanatory information below that question. This form may be edited with each manuscript submission as required to facilitate disclosure. The completed form should be uploaded with the manuscript files on the initial submission. It is not required for revisions unless the COI has changed or additional authors have been added to the paper.

The Journal encourages full disclosure. The Journal recognizes that COIs are common, and in some settings is unavoidable. Only in exceptional cases does the Journal consider author conflict-of-interest in the peer review process. Please see the Instructions for Authors for additional instructions.

Manuscript Title: ____________________________

First Author: ________________________________
Disclosing Author: __________________________

1. Have you or a close relative received money, gifts, or other compensation from any organization, institution, or business that may be affected financially by your publication? Examples include speaker fees, consulting fees, honoraria, travel, gifts, or research funding. Yes □ No □

2. Have you or a close relative been employed by an organization, institution, or business that may be affected financially by your publication? Yes □ No □

3. Have you or a close relative been in a supervisory position, e.g., Officer or Director of an organization, institution, or business that may be affected financially by your publication? Yes □ No □

4. Do you or a close relative hold stocks, investments, or other financial interests (excluding diversified mutual funds) in an organization, institution, or business that may be affected financially by your publication? Yes □ No □

5. Could the findings of this publication directly or indirectly affect your compensation? Yes □ No □

6. Are there any other potential conflicts or relevant competing interests that should be known by the Editor? Yes □ No □
Dealing with COIs:

1. The Journal will publish all relevant COI disclosures with the given article;
2. The Journal will exclude editors and reviewers with COI for any given manuscript from the review process;
3. Editors will abstain from decisions where COI might arise;
4. Where occasions arise, investigations may be undertaken by the Editor-in-Chief and/or impartial observers.

Responsibilities of Participants

Authors. All authors are asked to report their financial COI related to the research and written presentation of their work and any other relevant competing interests. The Journal will publish all COI (or their absence) reported by authors that are relevant to the manuscript being considered. In addition to financial COI, authors should also report other types of competing interests that might affect (or be seen to affect) the conduct or reporting of the work. The Journal will disclose all COIs that are identified as being important during the review process. Declarations should require authors to explicitly state funding sources and whether the organization that funded the research participated in the collection and analyses of data and interpretation and reporting of results.

Reviewers. Reviewers are requested to identify if they have a COI with the content or authors of a manuscript. If they do, they will be removed from the review process. In general, the Journal avoids requesting reviewers from the same institution as the authors, unless the institution is so large that authors and reviewers are not working colleagues.

Editors. Editors will not make any editorial decisions nor should they be involved in the editorial process if they, or a close family member has a COI (financial or otherwise) in a particular manuscript submitted to the Journal. This would include manuscripts originating from an Editor’s University Department. When editors submit their own work to the Journal, a colleague in the editorial office will manage the manuscript and the editor/author will recuse himself/herself from discussion and decisions about such article.

The Journal will post and maintain online, under the editorial board link, an up-to-date listing of the area(s) of expertise, institutional affiliations, and competing interests of all editors and editorial board members.

Actions to be taken in the case of managing substantial undeclared COIs:

By the CJA Editor-in-Chief:
- All editors and all involved reviewers of the respective article are notified simultaneously.
- A letter is sent to all co-authors in which they are informed about this specific act of misconduct and are possibly asked for further explanation and/or advice.
- The author is given a clear warning in writing.

By Springer:
- Publication of a Springer Erratum which reports the conflict.
2. **Disputed Authorship**

Disputed authorship occurs when those involved with a research project or publication cannot agree on how authorship should be represented. Such disputes can have two forms:

i. **Authorship without the author’s knowledge** and  
ii. **Unacknowledged authorship**

**Authorship without the author’s knowledge:** A published researcher is mentioned as a corresponding author in an article on which he/she has not cooperated.

**Example:**

*Authorship without the author’s knowledge*  
**COPE case number: 99-17** (1999)

<table>
<thead>
<tr>
<th>Submission without knowledge of the corresponding author</th>
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<tbody>
<tr>
<td>A case report is received and the corresponding author is duly notified. The corresponding (and senior author) immediately faxes back, asking who had submitted the case report as he has not been consulted and has not seen the manuscript. The submission letter contains the names of all four authors; three of the signatures have been made using the same pen and probably the same hand.</td>
</tr>
<tr>
<td>The signature of the senior and corresponding author was clearly “P.P.”. The editor responds, pointing out the misconduct and receives a prompt written response from the senior author agreeing that this is not the way to proceed. The senior author does not believe that the matter should be taken further other than through a formal letter from the editor to the author who had submitted the manuscript.</td>
</tr>
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</table>

**Unacknowledged authorship:** An author is not acknowledged or incorrectly acknowledged for his/her contribution to an article.

*The missing author*  
**COPE case number: 98-16** (1998)

In March 1996, journal A publishes a case report about an eye condition with two authors credited, Drs X and Y, both radiologists. Exactly two years later, one of their former colleagues (Dr Z) writes to the editor claiming that she had been responsible for the patient’s care; she was the ophthalmologist on call the night the patient was admitted. She argues that, as the clinician responsible for the patient, her name should have been on this case report. Indeed, the clinical facts of the case are, she alleges, inaccurate.

Dr Z wants journal A to publish a full case report with additional facts about the case history. The editor of journal A writes to the corresponding author of the original case report. Dr X discovers that the patient’s chart was missing; it had been taken out at the request of Dr Z. It turns out that Dr Z was “moonlighting” in the hospital at the time that the patient was admitted. The clinical history remains disputed. What should the editor do next?

**Action(s) in cases of proven authorship disputes – see P.10**
3. **Plagiarism / duplicate publication**

**Plagiarism:** When somebody presents the work of others (data, text or theories) as if they were his/her own and without proper acknowledgment.

**Example:**

<table>
<thead>
<tr>
<th><strong>Plagiarism</strong></th>
<th><strong>COPE case number: 08-27 (2008)</strong></th>
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<tbody>
<tr>
<td>A severe case of plagiarism?</td>
<td></td>
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</table>

A review article is submitted to the journal and sent out for peer review. One of the reviewers brings to the editor’s attention that a substantial number of sentences and sections of the paper have been directly copied verbatim from book chapters and a monograph that he had written in the past. The editor asks the reviewer to provide the texts in question. The editor carefully compares the submitted manuscript with the publications provided by the reviewer and concludes that the submission presents a severe case of plagiarism with multiple copy-and-paste examples throughout the entire manuscript.

The editor contacts the corresponding author by email and requests an explanation within a week. The corresponding author replies within the deadline but the editor does not find the explanation satisfactory. He then contacts the heads of the corresponding author’s institution by email but does not hear from them, even though he has sent them several reminders.

In the meantime, the editor decides to reject the submission because of plagiarism. In his letter of rejection, the editor informs the corresponding author that he has taken action and has contacted the heads of the author’s institution.

**Duplicate publication:** When somebody uses his/her own work (data, words or theories) presenting it as if it were completely new.

**Example:**

<table>
<thead>
<tr>
<th><strong>Duplicate publication</strong></th>
<th><strong>COPE case number: 01-25 (2001)</strong></th>
</tr>
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<tr>
<td>An author publishes a paper in Journal A that looks extremely similar to one already published as guidelines in Journal B. Of 48 paragraphs of text, 41 are almost identical. It has since transpired that several authors who were involved in the writing of the article published in Journal B have not been acknowledged. Prior publication elsewhere has not been acknowledged in the Journal A paper. The editor writes to the authors requesting an explanation. He informs them that the journal takes a strong line on duplicate publication and disclosure of related publications, and that there should also be an appropriate acknowledgement of the contribution of other authors. The editor also writes to the editor of Journal A asking him to look at both of the papers and to give him his views. Has enough been done?</td>
<td></td>
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</table>

**Action(s) in cases of proven plagiarism or duplicate publication – see P.10**
4. Data fabrication/falsification

The same repercussions are applicable for data fabrication and data falsification, which are considered incidents of grave misconduct.

Data fabrication: Synthesizing research findings

<table>
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<th>Possible fabricated data: a conspiracy of silence</th>
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<td>I became involved in this issue after reports from doctors in a developing country alleged that three papers in a systematic review published by my company may have been fabricated. The papers in question had co-authors in two other countries and so I contacted them. One co-author replied that he had concerns, but as none of the studies was conducted in his country, he had no data. He said he was unaware of the papers until Dr X told him they had been accepted in the journals.</td>
</tr>
<tr>
<td>Another co-author was unaware of when or where the studies took place. He said that Dr X had been suffering from depression for several years and had committed suicide. He had been included as a co-author on his last three articles more out of friendship than any active scientific cooperation. A third co-author explained that his role was “philosophical” rather than clinical. To his knowledge the study was conducted personally by Dr X, probably in his own country, and he only helped him with discussions and text revisions.</td>
</tr>
<tr>
<td>Because several of Dr X’s papers were published by Journal A, I wrote to the editor of Journal A to see if he had any concerns. He replied that he had doubts about the validity of the data, which were raised in an editorial by Dr Z. I am waiting to hear if the editor of Journal A is willing to help investigate the papers. I also contacted Dr Z and raised the possibility of fraud with him. He said that he had “serious concerns about the work” but declined to help me investigate.</td>
</tr>
<tr>
<td>We have withdrawn the review until we can find out if the data are real. I have written to the National Committee on Ethics in Research in the author’s country but have had no reply. An international expert on the statistical detection of fraud is currently looking at the papers. He has some concerns but his investigation is ongoing.</td>
</tr>
</tbody>
</table>
Data Falsification: Manipulating research data with the intention of giving a false impression. This includes manipulating images (e.g. micrographs, gels, radiological images), removing outliers or ‘inconvenient’ results, changing data points, etc...

Data falsification COPE case number 02-05 (2002)

A randomized controlled trial was submitted, showing that a new treatment, which is a combination of familiar compounds, is highly beneficial in a common but largely untreatable problem. The authors came from several different countries and included people from the company that manufactures the treatment. The editors had great difficulty finding reviewers for the paper as many simply returned it, saying that they could not produce an opinion. The reviewer who did eventually do so said that the results were not credible and that all the signs suggested that the paper might be fraudulent. The statistical adviser was asked for his opinion, and, although he agreed that the results were very unlikely, he was less convinced that there had been any data manipulation. He suggested that the editors request the raw data. The editors were unsure what to do at this point. Their previous experience of asking for raw data was that it involved a highly complex and very expensive exercise. They wondered if instead they should simply alert the authors’ employers—there are six different employers from four different countries—and ask them to investigate. The editors almost certainly did not want to publish the trial.

Action(s) in cases of proven plagiarism or duplicate publication – see P.10
Canadian Journal of Anesthesia Publishing Integrity Policy Statements

Action(s) in cases of proven scientific misconduct:

By the CJA Editor-in-Chief:

- All editors and all involved reviewers will be notified at the same time.
- The Editor-in-Chief will decide whether or not to invite the corresponding author, and in the case of authorship disputes, to write a letter to the editor (in consideration for publication), providing a clear statement of the facts related to the article and the circumstances of non-disclosure of COI or scientific misconduct.
- A letter is sent to all other involved authors informing them of the perpetrated act.
- The Editor-in-Chief shall inform the department head of the author’s respective hospital institution and/or university.
- The corresponding author will be banned from making future submissions to the Journal for a period of time to be determined by the Editor-in-Chief, in consultation with the editorial board.
- Editors-in-Chief of other journals will be informed about the perpetrated act and the related decision.

By Springer:

- The article(s) in question will be withdrawn from any form of print and online publication
- Editors-in-Chief of other Springer journals in the fields of anesthesia, pain perioperative medicine and critical care will be informed about the perpetrated act and related decision.
- Retraction of the article:
  Online First publication: The article will be fully retracted from Springer Link – the PDF will no longer be available and no related articles, abstracts and references will be found on SpringerLink. The initial PDF document will be replaced by a retraction note. After publication of this note, the article will also be retracted from all other online services besides SpringerLink. Please note that the meta-data of the article (author’s name and title) will still be findable on SpringerLink.

Print publication in journal issue: Since the article is already published, a retraction is no longer possible. The content will remain in its existing print form. However, in the next issue of the journal a retraction note referring to the article will be published. In addition, the title and each page of the related online article will be marked with a clear ‘RETRACTED’ stamp.