Complete Instructions for Authors

Before submitting a manuscript to Anesthesiology, please read these Instructions carefully. Each author on a manuscript submission is required to understand the material below.

Manuscripts must be submitted electronically via the Journal’s online submission system (http://www.editorialmanager.com/aln/). Only manuscripts submitted via the online submission system will be considered. Do not send manuscripts via e-mail. For problems with submissions, contact the Editorial Office (editorial-office@anesthesiology.org). Receipt will be acknowledged by e-mail. Authors should allow approximately 4 weeks for first decision. Authors will be notified if delays occur.

Anesthesiology uses Crosscheck plagiarism detection software. Authors are responsible for obtaining and uploading any needed permissions and for clearly and completely identifying any overlapping material and/or quoted or paraphrased passages with proper attribution in the text to avoid plagiarism (including self-plagiarism).

Due to the high volume of manuscripts we receive, we cannot provide status updates via telephone, fax, or e-mail. Authors can view the status of their submissions through the Editorial Manager Web site (http://www.editorialmanager.com/aln/)

Editorial Decisions: Decisions on submissions are final. Anesthesiology does not allow rejected manuscripts to be resubmitted. See Appeals.

If there are any questions concerning these Instructions, please contact the Editorial Office.

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I. General Editorial, Legal and Ethical Issues

A. Authorship

*Anesthesiology* follows the ICMJE Recommendations for the Conduct, Reporting, Editing and Publication of Scholarly Work in Medical Journals to define the criteria required for authorship. All authors must have made substantial intellectual contributions, including: a) participating in the design, execution, analysis, and/or interpretation of the work, b) drafting or revising the manuscript critically for important intellectual content, c) giving final approval of the version to be published, and d) taking accountability for all aspects of the work, including accuracy and validity of the contents, and ensuring that questions related to the accuracy or integrity of any part of the work are appropriately investigated and resolved. All authors should meet all four criteria, and all who meet the four criteria should be identified as authors. Those who do not meet all four criteria should be listed in the Acknowledgments section. Furthermore, the ICMJE recommends that each author be able to identify the specific contributions of their co-authors. The list of persons who qualify as authors and the order listed must be established at the time of original submission. (Any change to authorship after submission is highly discouraged; however, if needed, see section Changes to authorship after submission.)

Authors may indicate (no more than) two authors in the byline who contributed equally ("#" next to their names and "# These authors contributed equally to the work" at the end of the Title Page). Please note, however, that this will not change how the authors appear in future citations to the article. Manuscripts are received with the understanding that they have been written by the authors; ghostwritten papers are unacceptable (see Cullen D: Ghostwriting in scientific anesthesia journals. *Anesthesiology* 1997; 87: 195-6). Guest authorship and gift authorship are similarly unacceptable (see Rennie D, Flanagin A: Authorship! authorship! guests, ghosts, grafters, and the two-sided coin [editorial]. JAMA 1994;271:469-71).

B. Role of the Corresponding Author

*Anesthesiology* takes very seriously the responsible conduct of research. Each manuscript must have a single Corresponding Author who is accountable for the research and the reporting. The Corresponding Author is the one individual who takes primary responsibility for communication with *Anesthesiology* during the manuscript submission, peer review, and publication process, and ensures that all the journal’s policies and administrative requirements, such as providing details (if requested) of authorship (including that all authors meet all criteria for authorship, and all who meet the criteria should be identified as authors), ethics committee approval, clinical trial registration documentation, and the gathering conflict of interest forms and statements, are met and properly completed. Upon submission, the Corresponding Author is required to attest to the validity and legitimacy of the data and interpretation, on behalf of all authors (who are also responsible for the validity and legitimacy of the data and interpretation).

The Corresponding Author is responsible for ensuring that all authors meet the criteria for authorship, have reviewed and approved the manuscript and have completed the conflict of interest disclosures. If the manuscript is accepted, the same Corresponding Author is the primary contact during the production, publication, and postpublication stages, including reviewing and approving the proof and for all other publication matters. The Corresponding Author must also be available after publication to respond to critiques of the work and to cooperate with any requests from the journal for data or additional information should questions about the manuscript arise after publication. This latter responsibility is an enduring one, as questions may arise years after the submission and publication of a manuscript. The Corresponding Author should have sufficient and ongoing accountability and availability for the research and publication. Each manuscript must have one and only one designated Corresponding Author. The manuscript will be returned without assessment if more than one author is designated as the corresponding author. The role of the Corresponding Author is one of scholarly integrity, in which the Corresponding Author makes a number of statutory and ethical statements on behalf of all authors. Although there are certain administrative roles of the Corresponding Author, these cannot be separated from the other responsibilities, or delegated. Each manuscript should also have the same Corresponding Author throughout the submission, publication, and post-publication process. The designated Corresponding Author must be the person who signs the cover letter and all communications for all iterations and all phases of the manuscript.

C. Group Authorship

When authorship is attributed to a group in the byline, all members of the group must meet the full criteria for authorship as described above. All members of the group authors must be entered into Editorial Manager to verify their authorship and complete the Copyright Transfer/Disclosure Form when requested. Manuscripts may be held until all authors have verified authorship and confirmed that they have seen the submitted manuscript.

Group authorship requires the same level of participation as principal authorship. Anyone listed as an author must meet all four criteria for authorship, and all others are to be listed as collaborators. An explicit statement as to the exact nature of each author’s participation must be provided; upload this under the submission item Authorship Information. Non-author members of the Group should be listed as Collaborators in the Acknowledgment section. It is important to separately identify Group authors and non-author collaborators. While there is no limit on the number of authors listed in the byline
for an original investigation (provided each author meets all authorship criteria), a long author list may not fit in the space for the author byline. In this case, other options include
a. A Research Group name only in the byline and a list of the individual group authors in the article Acknowledgment section along with their affiliations, contributions, and conflicts of interest disclosures. In PubMed, the Group name is listed and all authors are listed in the order they appear in the Acknowledgment section.
b. Some named authors in the byline, in combination with a Research group. Since all members of the Research Group must be qualified authors, and all meet authorship criteria, the byline is Individual Authors A, B, C, etc “and” a Research Group. All members of the Research Group are authors as designated by “and” the Research Group byline. The name of the Research Group and the byline authors and the non-byline authors in the Group are listed in the Acknowledgment section at the end of the article, along with their affiliations, contributions, and conflicts of interest disclosures. Non-author members of the Research Group may be designated as Collaborators and listed in the Acknowledgments section of the article. In PubMed, the authors named in the byline and the individual non-byline authors in the Research Group are listed as authors along with the Group Name.

D. Group Collaborators
Those members of a group that do not meet all of the criteria for authorship may be listed as collaborators provided that they substantially contributed to the work reported in the manuscript. These members will be listed as collaborators in PubMed and in the published article. Collaborator names and degrees should be listed in an appendix. The corresponding author is responsible for completing the acknowledgement statement for the manuscript and only including those members of the group who have substantially contributed and have provided written permission to be listed in the published article. Group members listed as collaborators will not be required to complete the Copyright Transfer/Disclosure form.

For an example of how group collaborators appear in PubMed, see https://www.ncbi.nlm.nih.gov/pubmed/26872366

If relevant to your submission, contact the Editorial Office for further information about how to distinguish and mark group authorship and group collaborators.

E. Changes to authorship after submission
Authors on a work must be established before submission, and all authors must meet all the criteria for authorship (see I.A). Any change in authorship (order, addition, removal, designated Corresponding Author) after the original submission is considered unusual and is highly discouraged. A request for such a change must be made in writing by the Corresponding Author, requires a clear and thorough explanation and justification for the change, and must be approved by the Editor-in-Chief.

In addition to the request from the Corresponding Author, each author, including, as relevant, the person being added or removed, must independently provide signed, written approval of the change to be submitted to Anesthesiology. This documentation must also include a definition of the contribution of each person listed as an author on the initial submission and the subsequent version/s. Each person must explain their contribution to the original manuscript and revised manuscript/s and their understanding of the contributions of each other person listed as an author to the original manuscript and revised manuscript/s. You may wish to contact the Editorial Office for the full procedure and required documentation.

The submission will be returned to the authors until all appropriate information is received. The Corresponding Author is responsible for collating all the documentation and submitting it under the submission item Authorship Information when returning the manuscript into the online system. While the Editor-in-Chief considers the request, further processing of the manuscript will be suspended. Requests for change in authorship are not guaranteed and are granted at the discretion of the Editor-in-Chief.

Any changes (author order, addition, removal) to authors listed in a Research Group or as Group Collaborators made after manuscript submission must be requested by the Corresponding Author and require a clear and thorough explanation and justification for the change, and must be approved by the Editor-in-Chief. The person being added or removed from the Research Group or Group Collaborators, and each authors listed on the byline must independently provide signed, written approval of the change to be submitted to Anesthesiology. Other members of a Research Group or Group Collaborators, not listed on a byline, do not have to provide such approval. However, the Corresponding Author must provide a written statement to Anesthesiology that s/he has informed all co-authors of the change in Research Group or Group Collaborators and the reason for the change and provide a copy of the notice to Anesthesiology.

F. Copyright
Each author must complete and submit the journal’s copyright transfer agreement, which includes a section on the disclosure of potential conflicts of interest based on the recommendations of the International Committee of Medical Journal Editors, “Uniform Requirements for Manuscripts Submitted to Biomedical Journals.” A copy of the form is made available to the
submitting author within the Editorial Manager submission process. Co-authors will automatically receive an email with instructions on completing the form upon revision.

G. **Compliance with Funder-mandated Open Access Policies**

A number of nonprofit research funding agencies require authors to comply with open access mandates and publish their research under a creative commons license. At submission, please disclose any applicable funding sources that require open access publication. Refer to [http://www.ukopenhealth/inst-fund.php](http://www.ukopenhealth/inst-fund.php), if needed, for a list of Funder-Mandated Open Access Policies which *Anesthesiology* recognizes. If your nonprofit research funding agency is not on this list, and you have eligibility questions, please contact the Editorial Office. Open access eligibility decisions are made by the Editor-in-Chief.

Note that this is not the same as researching funding agencies that require or request authors to submit an accepted manuscript after peer review and acceptance but not the final published article to a repository that is accessible online by all without charge.

Authors of articles that have been funded from sources that require open access publication are required to sign the Open Access License Agreement prior to publication of the applicable article. Under the Open Access License Agreement, authors retain copyright for all articles they opt to publish open access, but grant an exclusive license for the article to be made available under the terms of a Creative Commons user license. The Creative Commons License required by the funding source shall apply.

Authors of articles funded by the agencies listed above who are interested in open access publication should fill out the open access option upon manuscript submission in Editorial Manager and include the name of their funding body. This choice has no influence on the peer review and acceptance process. These articles are subject to the journal’s standard peer-review process and will be accepted or rejected based on their own merit.

The article processing fee is charged on acceptance of the article and should be paid within 30 days by the author, funding agency or institution. Payment must be processed for the article to be published open access. Please contact the Editorial Office to receive the Open Access License Agreement that is to be signed in connection with the open access publication of an article.

H. **Duplicate, Prior or Divided Publication**

Submitted manuscripts must not have been published elsewhere, in whole or in part, on paper or electronically. This includes personal, departmental, educational or other websites, such as *Nature Precedings* ([http://precedings.nature.com/](http://precedings.nature.com/)) and video sharing sites (such as YouTube). This does not apply to abstracts of scientific meetings, or to lecture handouts (e.g., ASA Annual Meeting), which should be disclosed on the title page.

It is improper for authors to submit a manuscript describing essentially the same research simultaneously to more than one peer-reviewed research journal. To do so is to overuse valuable editorial and reviewing time. It also increases the risk of duplicate publication. *Anesthesiology* discourages authors from dividing the results of a single study into multiple papers. Do not submit several small manuscripts; a single comprehensive paper is preferable. If the authors believe that subdivision is appropriate, or if multiple articles may result from the same study, contact the Editor-in-Chief through the Editorial Office. Authors must clearly disclose at submission if another manuscript derived from the same experiment has been published previously or has been or will be submitted to another journal. If a manuscript is part of a larger whole or if the primary analysis has been previously published, this fact must be explicitly stated in the manuscript. It must be noted in the Introduction and Methods and preferably also in the Abstract and Discussion, and the previous publication(s) must be cited.

I. **Scientific Misconduct**

*Anesthesiology* takes seriously the responsible conduct of research and ethical behavior in scholarly communication. When *Anesthesiology* has concerns or receives allegations of scientific misconduct, *Anesthesiology* reserves the right to proceed according to the procedures described below. *Anesthesiology* recognizes its responsibility to appropriately address concerns of allegations of misconduct. Examples of misconduct include falsification of data, plagiarism, improper designations of authorship, duplicate publication, misappropriation of others’ research, failure to disclose conflict(s) of interest, and failure to comply with applicable legislative or regulatory requirements. Misconduct also includes failure to comply with any rules, policies, or procedures implemented by *Anesthesiology*.

**Process:**

In general, *Anesthesiology* follows the recommendations of the Committee on Publication Ethics (COPE) when working to address allegations of misconduct. When a concern or allegation is raised, involved parties generally will be contacted to provide an explanation of the situation. As needed, *Anesthesiology* may also contact the institution at which the study was conducted and any other involved journals. *Anesthesiology* will attempt to determine whether there was misconduct and the Editor-in-Chief will respond with an appropriate action. Examples of action include:
K. Animal Studies

Experimental work on animals must conform to the guidelines laid out in the Guide for the Care and Use of Laboratory Animals, which is available from the National Academy of Science. Adherence to all relevant regulations and/or approval of the appropriate institutional Animal Care Committee or governmental licensure of the investigator and/or laboratory must be obtained. A statement concerning such approval must be included at the beginning of the Methods section. The Editors of Anesthesiology are concerned about appropriate animal care. Authors may be questioned regarding the use of anesthetics, muscle relaxants, and postoperative analgesics. On occasion, the Editor-in-Chief may request a copy of the approved Animal Care Committee application from the author. Major issues are a) the postoperative use of analgesics following surgical procedures and b) the use of neuromuscular blocking drugs, particularly in minimally sedated animals. Local committee approval does not guarantee acceptability; the final decision will be made by the Editor-in-Chief. Investigators are encouraged to read the following Editorial: Drummond JC, Todd MM, Saidman LJ: Use of neuromuscular blocking drugs in scientific investigations involving animal subjects: The benefit of the doubt goes to the animal. Anesthesiology 1996; 85: 697-9.

L. Conflicts of Interest and Sponsorship

Anesthesiology is committed to integrity in the conduct and reporting of research. One component of scientific integrity is full disclosure of competing interests. Anesthesiology requires that all authors disclose all financial and non-financial relationships and activities, in accordance with International Committee of Medical Journal Editors “Uniform Requirements for Manuscripts Submitted to Biomedical Journals.” It is not sufficient to disclose only those activities which an author believes may be associated with the topic of the article. An author’s relationships or activities or competing interests are not per se a conflict. Individuals (readers, peer reviewers, editors, and authors) may disagree on whether an author’s relationships or activities represent conflicts. Although the presence of a relationship or activity does not always indicate a problematic influence on a paper’s content, perceptions of conflict may erode trust in science as much as actual conflicts of interest. Ultimately, readers must be able to make their own judgments regarding whether an author’s relationships and activities are pertinent to a paper’s content. These judgments require transparent disclosures. An author’s complete disclosure demonstrates a commitment to transparency and helps to maintain trust in the scientific process. Complete
disclosures include declaring all funding sources supporting their work or its authors, even if support is indirect, e.g., to a local research foundation that funded the project. This includes departmental, hospital, or institutional funds. The authors must disclose all commercial associations, including consultancy, equity interests, or patent-licensing arrangements. An author’s relationships or activities or competing interests identified as conflicts during the peer review process are, in the opinion of the Editor-in-Chief, handled appropriately by Anesthesiology.

M. Compliance with NIH and Other Research Funding Agency Accessibility Requirements
A number of research funding agencies now require or request authors to submit the post-print version (the article after peer review and acceptance but not the final published article) to a repository that is accessible online by all without charge. As a service to Anesthesiology’s authors, Lippincott Williams & Wilkins will identify to the National Library of Medicine (NLM) articles that require deposit and will transmit the post-print version of an article based on research funded in whole or in part by the National Institutes of Health (NIH), Wellcome Trust, Howard Hughes Medical Institute, or other funding agencies to PubMed Central. The Copyright Transfer Agreement provides the mechanism.

N. Editorial Decisions and Appeals Process
Decisions on submissions to this journal are final. Anesthesiology does not allow rejected manuscripts to be resubmitted as new manuscripts; resubmissions of rejected submissions will be returned without assessment. If an author wishes to appeal an editorial decision, the appeal must be based on evidence, provided by the corresponding author, that the reviewers have misunderstood the scientific content of the manuscript, that there is evidence of reviewer conflict-of-interest or bias, and/or that there are demonstrably incorrect statements of fact in the reviews. There are two phases to the appeals process; contact the Editorial Office for complete information if you wish to submit a formal appeal. Decisions whether to consider or accept an appeal are ultimately made by the Editor-in-Chief. Informal comments or complaints after decision that do not follow the appeals process will not be considered.

II. Types of Papers
A. Original Investigations
The Original Investigation article type consists of the four central aspects of the medical specialty of anesthesiology:

- Perioperative Medicine
- Critical Care Medicine
- Pain Medicine
- Education

Although there is overlap, authors will choose one of these areas as the article type during the submission process. Original investigations may include laboratory science, animal research, clinical investigations (including but not limited to clinical trials), observational research and meta-analysis (a quantitative statistical analysis of several combined separate but similar experiments or studies that measure the same outcome in order to test the pooled data for statistical significance). Consideration of a meta-analysis for peer review and publication requires a presubmission inquiry and approval for submission. See the “Presubmission Approval” below for requirements and contact information. Other types of Original Investigation submissions do not require presubmission approval. All Original Investigations require a structured abstract (see Abstract section) and should be submitted with the appropriate section designation (Perioperative Medicine Critical Care, or Pain Medicine). Original Investigation submissions range in length from 1,500 to 4,000 words. Articles should be accompanied by no more than 50 references. Abbreviated Titles and structured abstracts are required (see the section on Manuscript Preparation). Sources of compounds, reagents, and equipment should be identified by name and affiliation. Refer to drugs by their generic or chemical name, without abbreviation. Use a code number only when a generic name is not yet available. The identity and structure or design of novel research compounds, chemicals, biologics, and devices must be cited, or provided if not previously published. Report the source of cell lines, and, if known, their authentication and mycoplasma contamination status.

B. Comprehensive Reviews
Comprehensive Reviews summarize and synthesize older and current ideas and publications, and may suggest new concepts. They typically cover broad areas and with appropriate depth. They may be clinical, investigational, or basic science in nature and intended for one or more of these readerships. Comprehensive reviews may be Narrative Reviews or Systematic Reviews. Systematic Reviews without meta-analysis are published as Reviews, while those with meta-analysis are published as Original Investigations. Comprehensive Reviews should be written by recognized experts in the field, with requisite experience, as evidenced by substantial peer reviewed publications in the topic area.

Comprehensive Reviews are invited or require preapproval. Consideration of a Comprehensive Review for peer review and publication requires a presubmission inquiry and approval for submission. See “Presubmission Approval” below for requirements and contact information.
Comprehensive Reviews range in length from 3,000 to 8000 words. Review articles are well-served by including summary figures and/or tables that help emphasize critical concepts. An unstructured abstract of 150 words maximum (one- or two-paragraph summary of the key points) is required. An Abbreviated Title and a Summary Statement is required on the Title Page. The Abbreviated Title should be limited to 50 characters maximum. The Summary Statement should be limited to 35 words maximum.

**C. Clinical Focus Review**

Clinical Focus Reviews are brief reviews (2,000 to 3,000 words) focused on clinical topics. Clinical Focus Reviews are intended for the practicing clinician, should be written by individuals with substantial experience and expertise in the field, must be evidence-based, and emphasize the clinical aspects of the subject. Clinical Focus Reviews are invited or require preapproval. Consideration of a Clinical Focus Review for peer review and publication requires a presubmission inquiry and approval for submission. See “Presubmission Approval” below for requirements and contact information.

An Abbreviated Title and a Summary Statement is required on the Title Page. The Abbreviated Title should be limited to 50 characters maximum. The Summary Statement should be limited to 35 words maximum. Articles should be accompanied by no more than 50 references. This article type has no abstract. If accepted for publication, we seek to include two color illustrations (any combination of tables and/or figures to be determined by the authors) to enhance the effectiveness of the publication. Illustrations submitted with the manuscript can be in draft form. A professional artist may produce the final figures.

**D. Readers Toolbox**

Readers Toolbox articles are general educational overviews intended to increase comprehension among investigators and researchers. There is presently one type of Toolbox article, Understanding Research Methods.

Understanding Research Methods: Introductory yet comprehensive articles (2,000 to 5,000 words) that present existing and emerging research methods which are, or will become, relevant to anesthesiology research. Articles are intended for non-experts - both clinicians and investigators, to help them keep abreast of new research techniques. Articles should enable readers to better read and understand the Original Investigations in Anesthesiology, and make investigators aware of new tools and approaches to incorporate into their investigative armamentarium. Articles should be written by recognized experts, who have requisite experience with the new methodology as evidenced by relevant peer-reviewed publications. Articles should be approachable, clearly presented, understandable, and meaningful to a non-expert unfamiliar with the research technique. They should be attractive, readable, and emphasize the use of visual and tabular information. A primer format, with gradually increasing detail as the reader gets farther into the article, is a useful construct. Further information is available in an Editorial (Kharasch ED: New article type: Understanding research methods and the readers toolbox. Anesthesiology 2019;)

Consideration of an Understanding Research Methods article for peer review and publication requires a presubmission inquiry and approval for submission. See the “Presubmission Approval” below for requirements and contact information.

Articles should include the following:

1. A brief 150-word unstructured summary, figure legends and references.
2. An infographic (see Infographics in Anesthesiology - Complex Information for Anesthesiologists Presented Quickly and Clearly), which should be numbered as figure 1.
3. An introduction which frames the general topic and general application area (basic science, clinical research, outcomes, health services, statistics, etc); limitations of current or older methods related to the newer approach; motivation for the development of the new approach; description of the new methodology; technology; or approach (provide a working understanding not an exhaustive technical review); specific advantages and limitations of the new methods.
4. Examples of how the new method is used to address a research question might be provided; how the method is used in laboratory, clinical, or population research; ideally providing one or two “working examples.” References to seminal articles using the method would be valuable.
5. Descriptions of any specialized equipment and/or training and other practical issues, with focus on generic technology not on specific manufacturers or vendors. A brief discussion of general costs may be appropriate. Describe pertinent variations of the method and likely future evolution and application of the new method.
6. Three to six display elements (tables, text boxes, or up to 4 additional figures) which help highlight and explain the text, and enhance the effectiveness of communication. Figures, tables, and text boxes must be cited in the text in consecutive number order. Boxes can be used for explaining and highlighting basic concepts. Boxes must have a short title, contain up to 300 words and may include a table or equations. Text presentation in boxes may be used sparingly. Two of the boxes must be titled (1) “What to look in research using this method” and (2) “Where to find more information on this topic.” Figures can be drawings, schematics, photographs, and/or graphs. Use of color is encouraged. Redrawing rather than reproduction of published figures is preferred. Draft figures may be included in the initial manuscript submission. Final figures should be submitted as a separate file, clearly labeled with the figure number. Each figure must have a short title and a focused legend that guides the reader through each element of the figure.
E. Special Articles

Anesthesiology occasionally publishes special articles (e.g., history, education, demography, contemporary issues, etc.).

Consideration of a Special Article for peer review and publication requires a presubmission inquiry and approval for submission. See the “Presubmission Approval” below for requirements and contact information.

An unstructured abstract of 150 words maximum (one- or two-paragraph summary of the key points) is required. An Abbreviated Title and a Summary Statement is required on the Title Page. The Abbreviated Title should be limited to 50 characters maximum. The Summary Statement should be limited to 35 words maximum.

F. Images in Anesthesiology

Images in Anesthesiology (IiA) are succinct submissions that couple an interesting, novel, or highly educational image with brief text designed to highlight the pertinent anesthesiology-focused information displayed by the image. Supplemental video content can be included to expand the visual learning. The focus of an IiA submission is the image itself, and key educational points raised in the body of the text should be directly related to observation of the image. The IiA section of the Journal is not to be used as a forum for case reports. IiA manuscripts are intended to educate medical students, residents, fellows, anesthesiology practitioners, and interested physicians and scientists.

IiA manuscripts are limited to 250 words, should include 3 references, and must not have more than 4 authors. The image should be one frame that on occasion might have two coupled panels. Labeling of the image should focus attention to the intended educational message. Rather than including a legend for the image, its description should be incorporated into the body of the text.

G. Mind to Mind

Mind to Mind is a creative writing section devoted to exploring the abstract realm of our profession and our lives. Submitted works can be poetry, fiction, or creative nonfiction. Limit submissions to 1,200 words or less. Authors can be students or a current or emeritus member of the anesthesia, perioperative, critical care, or pain teams. Patients may submit writing about their medical experience. Provide a Title Page (See Title Page III.B). The piece may be published anonymously at the author’s request, however, authors’ names, conflicts of interest, and other information are required during submission on the title page. Pieces must respect confidentiality as needed.

H. Letters to the Editors

The peer review process does not necessarily stop with the publication of research articles. Letters to the Editors may offer commentary on published articles or be “freestanding.” Letters may raise issues in the conduct, reporting or interpretation of original research reported in Anesthesiology, request additional information or offer alternative interpretations and conclusions. “Freestanding” Letters to the Editors also may discuss matters of general interest to anesthesiologists, without specific linkage to recently published articles. Letters are not a venue for reporting original research findings or case reports, and authors must attest during the submission process that a case description is not included in the submission.

Letters to the Editor should be brief (250 to 1,000 words). A few references, a small table, or a pertinent illustration may be used. Supply an original title for the Letter on the Title Page. Do not submit Abbreviated Titles, Summary Statements, and Abstracts. Letters may offer criticism of published material. They must be objective and constructive.

NOTE: Letters commenting on published articles will be sent to the corresponding author of that article, with an invitation to reply. Letters commenting on published articles must be received in the Editorial Office no later than two months after the first of the month of the original article print publication date.

“Freestanding” Letters to the Editors also may discuss matters of general interest to anesthesiologists, without specific linkage to recently published articles.

I. Other Article Types

Anesthesiology also publishes 1) Editorials, 2) Classic Papers Revisited, and 3) Review of Educational Materials (book reviews). These are typically solicited. Please contact the Editorial Office for further information.

NOTE: Case reports, case series, case scenarios, and correspondence/Letters to the Editors describing cases are not published by Anesthesiology and are not accepted for review (see Eisenach JC: Case reports are leaving Anesthesiology but not the specialty, Anesthesiology 2013; 118:479).
III. Presubmission Approval

Consideration of a Meta-analysis, Comprehensive Review (narrative or systematic), Clinical Focus Review, Understanding Research Methods, and Special Article for peer review and publication requires a presubmission inquiry and approval for submission. Individuals interested in writing these should submit a proposal through Editorial Manager by selecting “Submit New Manuscript” in the Author main menu and then selecting “Pre-submission Proposal” from the list of article types.

Authors will be asked to provide the following information during the submission of the proposal:
1. the proposed article type;
2. a list of the authors (and for reviews, their qualifications, including peer reviewed manuscripts on the topic of a proposed article);
3. a 250-word summary and outline of the proposed manuscript; do not send the full proposed manuscript.
4. for Clinical Focus Reviews, Narrative Reviews, Systematic Reviews, Meta-Analyses, and Special Articles, authors are asked to identify the three most recent reviews, meta-analyses, or special articles on the topic (if existing) by providing the full citation and PMID number, and to identify objective difference(s) from those prior articles and the proposed article.

NOTE: The person who e-mails the proposal is to be the same person who will be the designated corresponding author if the proposal is approved for submission; see Role of the Corresponding Author.

Excepting these types of articles Anesthesiology does not require presubmission approval. The journal editors do not provide presubmission or informal reviews of abstracts or any full manuscripts.

IV. Reporting Requirements

A. Preclinical Research. Authors of preclinical research (experiments in animals, cells, molecules, or other biological foci) should consult ARRIVE guidelines for transparent reporting (Kilkenny C, Browne WJ, Cuthill IC, Emerson M, Altman DG: Improving bioscience research reporting: the ARRIVE guidelines for reporting animal research, PLoS Biol 2010; 8:e1000412). Authors should report 4 specific elements of study design: a) adequate description of the methods used to allow replication; b) whether measures to reduce bias including random allocation and blinding, were used and if so, how they were performed; c) how the sample size was determined; d) the data analysis plan. For details see the following editorial: Eisenach JC; Warner DS, Houle TT: Reporting of Preclinical Research in ANESTHESIOLOGY: Transparency and Enforcement. Anesthesiology 2016; doi:10.1097/ALN.0000000000001044.


a. Registration of Clinical Trials: All clinical trials involving assignment of patients to treatment groups must be registered before patient enrollment, effective with trials beginning May 1, 2013. For trials that began enrollment before May 1, 2013, registration is strongly recommended and if the trial reported was not registered, please comment on this matter on the title page. The registry, registration number, principal investigator’s name and registration date must be in the first paragraph of the title page of the manuscript. A number of registries have been approved by the ICMJE: http://www.icmje.org/about-icmje/faqs/clinical-trials-registration, including http://www.clinicaltrials.gov (the most commonly used registry in the United States), http://isrctr.org, http://www.umin.ac.jp/ctr/index.htm, http://www.anzctr.org.au, and http://www.trialregister.nl. Submissions that have registered with the European Clinical Trials Database, EudraCT (https://eudract.ema.europa.eu/), meet this requirement. Registries must be publically available, and written in English.

C. Observational Studies. Anesthesiology requires explicit statement in manuscripts of whether a data analysis and statistical plan was defined before accessing the research data. See Kharasch ED: Observations and Observational Research Anesthesiology. 2019 Jul;131(1):1-4 doi: 10.1097/ALN0000000000002818 Authors are required to include one of the following sentences in the Methods section of the manuscript that describes this process: A data analysis and statistical plan was (1) written and posted on a publicly accessible server (ClinicalTrials.gov, or other) before data were accessed; (2) written and filed with a private entity (institutional review board or other) before data were accessed; (3) written, date-stamped (permanent dated electronic signature), and recorded in the investigators’ files before data were accessed; or (4) written after the data were accessed. If there was an a priori data analysis and statistical plan (numbers 1 to 3 above), authors are requested and strongly encouraged to include the plan as supplemental digital content at the time of initial manuscript submission. This is for peer review purposes only, not for publication.

D. Surveys. Anesthesiology welcomes papers based on well done surveys. However, the quality of the survey methodology is often a factor in the Editor-in-Chief’s decision. Interested authors should review the material contained in the following editorial: Burmeister LF, Principles of Successful Sample Surveys, Anesthesiology 2003; 99: 1251-1252.
V. Manuscript Preparation

All manuscripts should be submitted via the journal’s online submission and review system; do not submit a manuscript via e-mail. Make sure your submission is complete and correct before completing the steps to submit it to the journal office. Manuscripts that do not satisfy minimum submission requirements will be returned to authors to correct. You will have an opportunity to review the constructed PDF file before approving the submission. Review this document carefully; after it is sent to the editors and reviewers, no changes can be made until an editorial decision is reached.

All submissions require a Title Page. Manuscripts must be double-spaced. Fonts should be 10 point or larger. All four margins should be at least 2.5 cm (1 in). If a manuscript is formatted for A4 paper, leave at least a 5 cm (2 in) margin at the bottom of the page. Number pages consecutively, preferably the upper right corners.

At first submission, manuscripts may be submitted as single Word document files, including title page, references, figure legends, figures, and tables. All manuscript components need to be included to allow for evaluation of your manuscript. If the editors request a revision, however, source files of the manuscript, figures, and tables will be required as well as other submission and publication elements.

A. General Arrangement, All Submissions

ALL articles should be arranged in the following order.
1. Cover letter (optional)
2. Manuscript, as a single file in word processing format (eg., .doc), consisting of Title Page, Abstract (if required for the article type; see relevant section), Body Text, References, Figure Legends, if any (in numerical order, on the same page); be sure to number all pages of the manuscript file
3. Tables (each Table should be a separate file in word processing format, eg, .doc)
4. Appendices (each Appendix should be a separate word processing format, eg, .doc)
5. Figure Legends (placed consecutively, in numerical order, all on the same page)
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7. Other submission elements (Supplemental Digital Content, etc.)

B. Title Page

All submissions require a Title Page with the following information on the first page(s) of the manuscript file:
1. Article Title (do not use abbreviations in the title);
2. Author Information: First name, middle initial, and last name of each author, with their highest academic degree(s) (M.D., Ph.D., etc.), and institutional affiliations; make sure the names of and the order of authors as they appear on the Title Page and entered in the system match exactly
3. Corresponding Author: Name, mailing address, phone number, and e-mail address of the corresponding author; only one corresponding author may be designated for the entirety of the review and publication process; see section I.B)
4. Clinical trial number and registry URL, if applicable;
5. Prior Presentations: Note any presentation/s of the work at conferences for meetings; include name, exact date, location;
6. Acknowledgments: List individuals or organizations to be acknowledged, if any. Provide complete name, degrees, academic rank, department, institutional affiliation, city, state, country, and a brief description of their contribution;
7. Word and Element Counts: Number of words in the Abstract, in the Introduction, and in the Discussion section;, number of Figures; number of Tables; number of Appendices, if any; and number of Supplementary Digital Files, if any. Make sure all intended elements are submitted;
8. Abbreviated Title (Running Head): State the essence of the article (50 characters maximum) for all article types except Images in Anesthesiology, Letters to the Editor, and Mind to Mind;
9. Summary Statement: Brief statement (35 words maximum) to be printed in the Table of Contents for Review Article, Clinical Focus Review, and Special Article submissions;
10. Funding Statement: Disclosure of all financial support for the work, including departmental or institutional funding/ support. Comments such as “No Funding Received” are not acceptable. If only institutional/hospital/departmental funds were used, add the following statement: “Support was provided solely from institutional and/or departmental sources.” Be sure to specify funding from any of the following organizations: National Institutes of Health (NIH), Wellcome Trust, Howard Hughes Medical Institute (HHMI) (see section on Compliance with NIH and Other Research Funding Agency Accessibility Requirements). Provide both the name and location of each funding agency/source.
11. Conflicts of Interest: Authors must disclose all financial and non-financial relationships and activities within 36 months of manuscript submission, in accordance with International Committee of Medical Journal Editors “Uniform Requirements for Manuscripts Submitted to Biomedical Journals.” If no competing interests, please add the following statement: “The authors declare no competing interests.” Refer also to the Conflicts of Interest and Sponsorship section of the Instructions for Authors.

If any of these elements are not applicable to your submission, write “not applicable” after the number and topic; for example, “5. Prior Presentations: Not applicable.”
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To enhance comprehension, the use of nonstandard abbreviations or acronyms is strongly discouraged. Please eliminate the use of nonstandard abbreviations in the abstract, text, figures, and tables. A list of standard abbreviations accepted by the journal may be found at List of Standard Abbreviations.

D. Abstract
Original Investigations (Perioperative Medicine, Critical Care Medicine, Pain Medicine, and Education) require a structured abstract. It should be limited to 300 words. The structured abstract should contain four labeled paragraphs: Background, Methods, Results, and Conclusions. The Abstract may be the only portion of an article that is read, and must stand alone and effectively convey the key elements within an article. Please ensure that the Abstract communicates the research context, purpose and a hypothesis; the key methods, the most important findings (including the primary outcome, at minimum) described using numerical results (and statistical significance), and clear conclusions which are supported by those results. An Abstract with narrative results and p values is not acceptable. Please ensure that any data in the Abstract are also in the main Results. In order to enhance comprehension, the use of nonstandard abbreviations or acronyms in the Abstract is not allowed. A list of standard abbreviations accepted by the journal may be found at: ALN standard abbreviations.pdf

Review Articles and Special Articles require an unstructured, one- or two-paragraph summary of the key points of the article of 150 words or fewer.

Make sure the text of the Abstract in the manuscript file and in the system match exactly.

E. Body Text
1. Introduction (new page, 500-word limit);
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NOTES
CLAIMS OF PRIMACY: Do not make any ordinal/primacy claims, eg, “this is the first study”; “this is the only study”; “we are the first to demonstrate.”

LENGTH: The Introduction and Discussion sections should not exceed 2,000 words combined. It is recommended that the Introduction be no longer than 500 words and the Discussion section no more than 1,500 words. Manuscripts that do not meet these word limits may be sent back to the authors.

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Number references (as superscripts) in the sequence they appear in the text. Use abbreviated titles of the medical journals as they appear in Index Medicus; search for journal abbreviations with this tool. Include only references accessible to all readers. Do not include articles published without peer review or material appearing in programs of meetings or in organizational publications. Sites on the World Wide Web (URLs) may be used as references, provided the citation includes the last accessed date. Abstracts are acceptable as references only if published within the previous 3 years. Manuscripts in preparation or submitted for publication are never acceptable as references. If you cite accepted manuscripts “In Press” as references, please provide one electronic copy (e.g., Word, PDF) when you submit the new manuscript and mark them as “In Press, Reference # ___.”

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Number tables consecutively in order of appearance (Table 1, etc.). Make sure tables are cited/called-out in the text in the correct order. Each Table should be submitted as a separate file. Each table must have a title and include footnotes when appropriate. Make sure any symbols and abbreviations used in the tables are defined. Tables must be word processing document format (eg., .doc). Do not submit tables as image files.

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M. Additional Information

- Units of Measurement
  Use metric units. The units for pressures are mmHg or cmH2O. Diagonal slashes are acceptable for simple units, e.g., mg/kg; when more than two items are present, negative exponents should be used, i.e., ml·kg⁻¹·min⁻¹ instead of ml/kg/min.

- Drug Names and Equipment
  Use generic names. If a brand name must be used, insert it in parentheses after the generic name. Provide manufacturer’s name, city, state, and country. Be careful about the use of trademarked terms (e.g., Thrombelastography™, TEG™, etc.).

- Data Reporting and Statistics
  Detailed statistical methodology must be reported. Describe randomization procedures and the specific tests used to examine each part of the results; do not simply list a series of tests. Care should be taken with respect to: a) reporting of parametric vs. nonparametric data (median range (or percentiles) is preferred for nonparametric data); b) parametric vs. nonparametric statistical methods; c) corrections for multiple comparisons; d) false precision (summary statistics should not contain more significant digits or decimal places than the original data); and e) variance reporting (standard deviation or 95% confidence interval, rather than standard error of the mean).

- Patient Identification
  Do not use patients’ names, initials, or hospital numbers. An individual (other than an author) must not be recognizable in photographs unless written consent of the patient or legal guardian has been obtained and is provided at the time of submission. Authors should obtain consent forms from the relevant institution(s).

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  Sources of compounds, reagents, and equipment should be identified by name and affiliation. Refer to drugs by their generic or chemical name, without abbreviation. Use a code number only when a generic name is not yet available. The identity and structure of novel research compounds, chemicals, and biologics must be cited, or provided if not previously published. Report the source of cell lines, and, if known, their authentication and mycoplasma contamination status.

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1. COVER LETTER (optional)

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   - Authors’ Information: First name, middle initial, last name, academic degree/s, institutional affiliation/s for each author
   - Corresponding Author: Name, complete mailing address, phone, fax and email address of the corresponding author
   - Clinical trial number and registry URL, if applicable
   - Prior Presentations: Meetings at which the work has been presented (name, exact date, location), if relevant
   - Acknowledgments: Complete information about individuals or organizations whose assistance is acknowledged
   - Word and Element Counts: Number of words in Abstract, in Introduction, and in Discussion; number of figures; number of tables; number of appendices, if any; and number of supplementary files, if any.

3. STRUCTURED ABSTRACT (300 words or fewer) as relevant to article type:
   - Background
   - Methods
   - Results
   - Conclusions

4. BODY OF MANUSCRIPT:
   - Introduction
   - Materials & Methods
   - Statistics, if applicable
   - Results
   - Discussion
   - References
   - Figure Legends

5. TABLES

6. APPENDICES, if any

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8. SUPPLEMENTAL DIGITAL CONTENT, if any

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Conflicts of Interest