DESCRIPTION
The Journal of the American College of Surgeons (JACS) is a monthly journal publishing peer-reviewed original contributions on all aspects of surgery. These contributions include, but are not limited to, original clinical studies, review articles, and experimental investigations with clear clinical relevance. In general, case reports are not considered for publication. As the official scientific journal of the American College of Surgeons, JACS has the goal of providing its readership the highest quality rapid retrieval of information relevant to surgeons.

Benefits to authors
We also provide many author benefits, such as free PDFs, a liberal copyright policy, special discounts on Elsevier publications and much more. Please click here for more information on our author services.

Please see our Guide for Authors for information on article submission. If you require any further information or help, please visit our Support Center

AUDIENCE
General Surgeons, Surgical Specialists, and other Practitioners involved in the field of surgery.

IMPACT FACTOR
2017: 4.767 © Clarivate Analytics Journal Citation Reports 2018

ABSTRACTING AND INDEXING
Excerpta Medica
Current Awareness in Biological Sciences
Elsevier BIOBASE
Current Contents/Clinical Medicine
MEDLINE®
EMBASE
Current Contents/JCR
Scopus
EDITORIAL BOARD

Editor-in-Chief:
Timothy J. Eberlein, St. Louis, MO

Managing Editor:
Matthew R. Carmichael, Chicago, IL

Editorial and Production Assistant
Andrea L. Musolf, Chicago, IL

CME Editor
Ronald J. Weigel, Iowa City, IA

Social Media Editor
Lillian S. Kao, Houston, TX

RAS Liaisons
Jonathan P. Meizoso, Miami, FL
Asha M. Zimmerman, Providence, RI

Statisticians
Joan S. Chmiel, Chicago, IL
Adin-Cristian Andrei, Chicago, IL

Journal Manager
Michael Russell, Philadelphia, PA, USA

Publisher
Allan Ross, New York, NY, USA

Deputy Editors
Stanley W. Ashley, Boston, MA
Barbara L. Bass, Houston, TX
Timothy R. Billiar, Pittsburgh, PA
L.D. Britt, Norfolk, VA
Timothy Buchman, Atlanta, GA
James S. Economou, Los Angeles, CA
E. Christopher Ellison, Columbus, OH
Lillian S. Kao, Houston, TX
Allan D. Kirk, Durham, NC
Clifford Y. Ko, Los Angeles, CA
Michael W. Mulholland, Ann Arbor, MI
Carlos A. Pellegrini, Seattle, WA
Courtney M. Townsend Jr., Galveston, TX
Ronald J. Weigel, Iowa City, IA

Editorial Board
Nita Ahuja, New Haven, CT
Hasan B. Alam, Ann Arbor, MI
Derek Alderson, Birmingham, United Kingdom
R. Daniel Beauchamp, Nashville, TN
Kevin E. Behrens, St. Louis, MO
Walter L. Biffi, Denver, CO
John D. Birkmeyer, Lebanon, NH
Karen J. Brasel, Portland, OR
Carlos V.R. Brown, Austin, TX
Markus W. Büchler, Heidelberg, Germany
Eileen M. Bulger, Seattle, WA
Charles E. Butler, Houston, TX
William C. Chapman, St. Louis, MO
Raul Coimbra, San Diego, CA
Craig M. Coopersmith, Atlanta, GA
Edward M. Copeland III, Gainesville, FL
Thomas A. D’Amico, Durham, NC
Justin B. Dimick, Ann Arbor, MI
M.B. Majella Doyle, St. Louis, MO
Editors Emeriti

Kathryn D. Anderson, Eastvale, CA
Kirby I. Bland, Birmingham, AL
John L. Cameron, Baltimore, MD
Josef E. Fischer, Boston, MA
Gerald B. Healy, Wellesley, MA
GUIDE FOR AUTHORS

INTRODUCTION

JACS, founded more than 100 years ago, is a monthly scientific publication that considers original articles in all surgical disciplines. Manuscripts are reviewed with the understanding that the work has not been published by, and is not under consideration at, any other journal. All manuscripts are peer-reviewed and a statistician reviews manuscripts as required.

Types of articles published

JACS does not publish case reports. JACS publishes Original Scientific Articles, Collective Reviews, Education, Ethics, and History Articles, Letters, and, periodically, other specialty articles. Unsolicited editorials are not accepted. Surgeon at Work articles are published online only. Most JACS articles are published online in advance of the monthly print issue.

Original Scientific Article

A full-length report of original basic or clinical investigation, divided into five sections: Introduction, Methods, Results, Discussion, and Conclusions. Authors must provide a brief 1- to 3-sentence precis, not to exceed 50 words, summarizing the findings of their manuscript. If the article is accepted, the precis will appear in the table of contents.

Collective Review

A comprehensive, scholarly, balanced, systematic review of evidence-based literature mentioning all findings; these are not opinion submissions. Submissions should be state-of-the-art science confined mostly to Level I reporting (randomized trials with low false-positive and low false-negative errors, meta-analysis of multiple, well designed controlled studies) or Level II reporting (randomized trials with high false-positive or high false-negative errors or both, at least one well designed experimental study). Submissions must relate to important clinical subjects and be accompanied by author analysis leading to conclusions. The review must be no more than 25 double-spaced pages (including double-spaced references but not including tables and figures), rarely longer, with Editor approval. Include a one-paragraph summary for reviewers; a structured abstract is not required.

Education, Ethics, and History

Must be no longer than 15 double-spaced pages (including double-spaced references). The maximum number of figures we will accept for a history article is four. JACS reserves the right to designate any figures as online-only, for space reasons. Include a one-paragraph summary for reviewers; a structured abstract is not required.

Letters

Should focus on an article published in JACS within the last six months. Only highly selected and timely submissions will be accepted; less than 500 words with no more than six references. Letters should include a title and author name, degree, and location (city, state, country).

Surgeon at Work

Unique information about an operation or a procedure that has an impact on clinical practice of surgeons, presented in a "how to do it" fashion. Surgeon at Work articles are published online only. They are referenced in the table of contents with an "e-page" number. We encourage multimedia submissions (see Figures and Video Submission for technical specifications).

Submission checklist

You can use this list to carry out a final check of your submission before you send it to the journal for review. Please check the relevant section in this Guide for Authors for more details.

Ensure that the following items are present:

One author has been designated as the corresponding author with contact details:
• E-mail address
• Full postal address

All necessary files have been uploaded:

Manuscript:
• Include keywords
• All figures (include relevant captions)
• All tables (including titles, description, footnotes)
• Ensure all figure and table citations in the text match the files provided
• Indicate clearly if color should be used for any figures in print

Graphical Abstracts / Highlights files (where applicable)
Supplemental files (where applicable)

Further considerations
• Manuscript has been 'spell checked' and 'grammar checked'
• All references mentioned in the Reference List are cited in the text, and vice versa
• Permission has been obtained for use of copyrighted material from other sources (including the Internet)
• A competing interests statement is provided, even if the authors have no competing interests to declare
• Journal policies detailed in this guide have been reviewed
• Referee suggestions and contact details provided, based on journal requirements

For further information, visit our Support Center.

You can also contact the JACS Editorial Office at jacsedit@facs.org.

BEFORE YOU BEGIN

Ethics in publishing
Please see our information pages on Ethics in publishing and Ethical guidelines for journal publication.

As the last step when you are ready to approve your submission and "Submit to Journal Office" you must read and agree to the Ethics in Publishing Statement by checking off the box on the far right of the submission approval page.

Uniform Requirements
JACS is among the many medical journals endorsing the Uniform Requirements for Manuscripts Submitted to Biomedical Journals as set forth by the International Committee of Medical Journal Editors (ICMJE).

For more information on the Uniform Requirements, please visit: http://www.icmje.org.

Studies in humans and animals
If the work involves the use of human subjects, the author should ensure that the work described has been carried out in accordance with The Code of Ethics of the World Medical Association (Declaration of Helsinki) for experiments involving humans. The manuscript should be in line with the Recommendations for the Conduct, Reporting, Editing and Publication of Scholarly Work in Medical Journals and aim for the inclusion of representative human populations (sex, age and ethnicity) as per those recommendations. The terms sex and gender should be used correctly.

Authors should include a statement in the manuscript that informed consent was obtained for experimentation with human subjects. The privacy rights of human subjects must always be observed.

All animal experiments should comply with the ARRIVE guidelines and should be carried out in accordance with the U.K. Animals (Scientific Procedures) Act, 1986 and associated guidelines, EU Directive 2010/63/EU for animal experiments, or the National Institutes of Health guide for the care and use of Laboratory animals (NIH Publications No. 8023, revised 1978) and the authors should clearly indicate in the manuscript that such guidelines have been followed. The sex of animals must be indicated, and where appropriate, the influence (or association) of sex on the results of the study.

Disclosure information
All authors must disclose any financial and personal relationships with other people or organizations that could inappropriately influence (bias) their work using the JACS Disclosure Form. You are requested to identify who provided financial support for the conduct of the research and/or preparation of the article and to briefly describe the role of the sponsor(s), if any, in study design; in the collection, analysis and interpretation of data; in the writing of the report; and in the decision to submit the article for publication. If the funding source(s) had no such involvement then this should be stated. Examples of potential conflicts of interest include employment, consultancies, stock ownership, honoraria, paid expert testimony, patent applications/registrations, and grants or other funding. See also https://www.elsevier.com/conflictsofinterest.
If none of the authors has any financial relationships to disclose, one disclosure form may be submitted for all authors. If any author has financial relationships to disclose, then a separate disclosure form must be submitted for each author.

**Statement on duplicate publication**
Submission of an article implies that the work described has not been published previously (except in the form of an abstract or as part of a published lecture or academic thesis or as an electronic preprint, see https://www.elsevier.com/sharingpolicy), that it is not under consideration for publication elsewhere, that its publication is approved by all authors and tacitly or explicitly by the responsible authorities where the work was carried out, and that, if accepted, it will not be published elsewhere including electronically in the same form, in English or in any other language, without the written consent of the copyright-holder.

Additionally, JACS endorses the policy of the Uniform Requirements for Manuscripts Submitted to Biomedical Journals on Overlapping Publications. Specifically:

When submitting a paper, the author must always make a complete statement to the editor about all submissions and previous reports (including meeting presentations and posting of results in registries) that might be regarded as redundant or duplicate publication. The author must alert the editor if the manuscript includes subjects about which the authors have published a previous report or have submitted a related report to another publication. Any such report must be referred to and referenced in the new paper. Copies of such material should be included with the submitted manuscript to help the editor decide how to handle the matter.

If redundant or duplicate publication is attempted or occurs without such notification, authors should expect editorial action to be taken. At the least, prompt rejection of the submitted manuscript should be expected. If the editor was not aware of the violations and the article has already been published, then a notice of redundant or duplicate publication will probably be published with or without the author's explanation or approval.

**Use of inclusive language**
Inclusive language acknowledges diversity, conveys respect to all people, is sensitive to differences, and promotes equal opportunities. Articles should make no assumptions about the beliefs or commitments of any reader, should contain nothing which might imply that one individual is superior to another on the grounds of race, sex, culture or any other characteristic, and should use inclusive language throughout. Authors should ensure that writing is free from bias, for instance by using 'he or she', 'his/her' instead of 'he' or 'his', and by making use of job titles that are free of stereotyping (e.g. 'chairperson' instead of 'chairman' and 'flight attendant' instead of 'stewardess').

**Contributors**
Each author is required to declare his or her individual contribution to the article: all authors must have materially participated in the research and/or article preparation, so roles for all authors should be described. The statement that all authors have approved the final article should be true and included in the disclosure.

Roles for all authors should be detailed on the Author Contributions Form.

JACS limits the number of authors to 10. If you believe there are reasons that more than 10 authors should be listed in the author byline (for example, in a multi-institutional study), then state why this is so in your cover letter and this will be considered by the Editor.

**Authorship**
In accordance with the Consensus Statement on Surgery Journals Authorship-2006, all authors should have made substantial contributions to all three of the following: (1) the conception and design of the study, or acquisition of data, or analysis and interpretation of data, (2) drafting the article or revising it critically for important intellectual content, (3) final approval of the version to be submitted.

Each author should have participated sufficiently in the work to take public responsibility for appropriate portions of the content. Allowing one's name to appear as an author without having contributed significantly to the study or adding the name of an individual who has not contributed or
who has not agreed to the work in its current form is considered a breach of appropriate authorship. The JACS Author Contributions Form must be uploaded with the submission. For more information see ICMJE statement on Sponsorship, Authorship, and Accountability.

**Ghost-writing is NOT acceptable,** and the name of their employer and the funding source should be disclosed for anyone acknowledged for writing assistance. No one, other than the authors, should have contributed substantially to the writing and revising of the manuscript. Contributors who do not meet the criteria for authorship should be listed in the acknowledgment. Examples include: individuals who allowed their clinical experience to be included, a person who provided purely technical help, copyediting, proofreading or translation assistance (NO ghostwriters allowed), or a department chair who provided only general support.

Groups of persons who have contributed materially to the paper, but whose contributions do not justify authorship may be listed in the Acknowledgment. See the Acknowledgment section below for more information. If you have any question about this, contact the Editorial Office at jacsedit@facs.org before submitting your manuscript.

A footnote indicating that the two first authors made equal contributions is permissible by JACS, as long as the authors certify that each had a “first author” role equally.

Each author’s contribution to the intellectual content of the paper must be included on the Author Contributions form, available online, when submitting a new manuscript.

**Changes to authorship**

Authors are expected to consider carefully the list and order of authors before submitting their manuscript and provide the definitive list of authors at the time of the original submission. Any addition, deletion or rearrangement of author names in the authorship list should be made only before the manuscript has been accepted and only if approved by the journal Editor. To request such a change, the Editor must receive the following from the corresponding author: (a) the reason for the change in author list and (b) written confirmation (e-mail, letter) from all authors that they agree with the addition, removal or rearrangement. In the case of addition or removal of authors, this includes confirmation from the author being added or removed.

Only in exceptional circumstances will the Editor consider the addition, deletion or rearrangement of authors after the manuscript has been accepted. While the Editor considers the request, publication of the manuscript will be suspended. If the manuscript has already been published in an online issue, any requests approved by the Editor will result in a corrigendum.

**Clinical trial results**

In line with the position of the International Committee of Medical Journal Editors, the journal will not consider results posted in the same clinical trials registry in which primary registration resides to be prior publication if the results posted are presented in the form of a brief structured (less than 500 words) abstract or table. However, divulging results in other circumstances (e.g., investors’ meetings) is discouraged and may jeopardise consideration of the manuscript. Authors should fully disclose all posting in registries of results of the same or closely related work.

*Reporting clinical trials*

Randomized controlled trials should be presented according to the CONSORT guidelines. At manuscript submission, authors must provide the CONSORT checklist accompanied by a flow diagram that illustrates the progress of patients through the trial, including recruitment, enrollment, randomization, withdrawal and completion, and a detailed description of the randomization procedure. The CONSORT checklist and template flow diagram are available online.

*Registration of clinical trials*

Registration in a public trials registry is a condition for publication of clinical trials in this journal in accordance with International Committee of Medical Journal Editors recommendations. Trials must register at or before the onset of patient enrolment. The clinical trial registration number should be included at the end of the abstract of the article. A clinical trial is defined as any research study that prospectively assigns human participants or groups of humans to one or more health-related interventions to evaluate the effects of health outcomes. Health-related interventions include any intervention used to modify a biomedical or health-related outcome (for example drugs, surgical procedures, devices, behavioural treatments, dietary interventions, and process-of-care changes). Health outcomes include any biomedical or health-related measures obtained in patients or
participants, including pharmacokinetic measures and adverse events. Purely observational studies (those in which the assignment of the medical intervention is not at the discretion of the investigator) will not require registration.

For more information on trial registration, see J Am Coll Surg 2006;202:A30-A32.

Copyright
Upon acceptance of an article, authors will be asked to complete a 'Journal Publishing Agreement' (see more information on this). An e-mail will be sent to the corresponding author confirming receipt of the manuscript together with a 'Journal Publishing Agreement' form or a link to the online version of this agreement.

Subscribers may reproduce tables of contents or prepare lists of articles including abstracts for internal circulation within their institutions. Permission of the Publisher is required for resale or distribution outside the institution and for all other derivative works, including compilations and translations. If excerpts from other copyrighted works are included, the author(s) must obtain written permission from the copyright owners and credit the source(s) in the article. Elsevier has preprinted forms for use by authors in these cases.

Author rights
As an author you (or your employer or institution) have certain rights to reuse your work. More information.

Elsevier supports responsible sharing
Find out how you can share your research published in Elsevier journals.

Role of the funding source
You are requested to identify who provided financial support for the conduct of the research and/or preparation of the article and to briefly describe the role of the sponsor(s), if any, in study design; in the collection, analysis and interpretation of data; in the writing of the report; and in the decision to submit the article for publication. If the funding source(s) had no such involvement then this should be stated.

Funding body agreements and policies
Elsevier has established a number of agreements with funding bodies which allow authors to comply with their funder's open access policies. Some funding bodies will reimburse the author for the gold open access publication fee. Details of existing agreements are available online.

Open access
This journal offers authors a choice in publishing their research:

Subscription
• Articles are made available to subscribers as well as developing countries and patient groups through our universal access programs.
• No open access publication fee payable by authors.
• The Author is entitled to post the accepted manuscript in their institution's repository and make this public after an embargo period (known as green Open Access). The published journal article cannot be shared publicly, for example on ResearchGate or Academia.edu, to ensure the sustainability of peer-reviewed research in journal publications. The embargo period for this journal can be found below.

Gold open access
• Articles are freely available to both subscribers and the wider public with permitted reuse.
• A gold open access publication fee is payable by authors or on their behalf, e.g. by their research funder or institution.

Regardless of how you choose to publish your article, the journal will apply the same peer review criteria and acceptance standards.

For gold open access articles, permitted third party (re)use is defined by the following Creative Commons user licenses:
**Creative Commons Attribution (CC BY)**

Lets others distribute and copy the article, create extracts, abstracts, and other revised versions, adaptations or derivative works of or from an article (such as a translation), include in a collective work (such as an anthology), text or data mine the article, even for commercial purposes, as long as they credit the author(s), do not represent the author as endorsing their adaptation of the article, and do not modify the article in such a way as to damage the author's honor or reputation.

**Creative Commons Attribution-NonCommercial-NoDerivs (CC BY-NC-ND)**

For non-commercial purposes, lets others distribute and copy the article, and to include in a collective work (such as an anthology), as long as they credit the author(s) and provided they do not alter or modify the article.

The gold open access publication fee for this journal is $3,000, excluding taxes. Learn more about Elsevier's pricing policy: [https://www.elsevier.com/openaccesspricing](https://www.elsevier.com/openaccesspricing).

**Language (usage and editing services)**

Please write your text in good English (American or British usage is accepted, but not a mixture of these). Authors who feel their English language manuscript may require editing to eliminate possible grammatical or spelling errors and to conform to correct scientific English may wish to use the [English Language Editing service available from Elsevier's WebShop](https://www.elsevier.com/authorcentre/editservices).

**Informed consent and patient details**

Studies on patients or volunteers require ethics committee approval and informed consent, which should be documented in the paper. Appropriate consents, permissions and releases must be obtained where an author wishes to include case details or other personal information or images of patients and any other individuals in an Elsevier publication. Written consents must be retained by the author but copies should not be provided to the journal. Only if specifically requested by the journal in exceptional circumstances (for example if a legal issue arises) the author must provide copies of the consents or evidence that such consents have been obtained. For more information, please review the [Elsevier Policy on the Use of Images or Personal Information of Patients or other Individuals](https://www.elsevier.com/authorcentre/ethics). Unless you have written permission from the patient (or, where applicable, the next of kin), the personal details of any patient included in any part of the article and in any supplementary materials (including all illustrations and videos) must be removed before submission.

**Submission**

Our online submission system guides you stepwise through the process of entering your article details and uploading your files. The system converts your article files to a single PDF file used in the peer-review process. Editable files (e.g., Word, LaTeX) are required to typeset your article for final publication. All correspondence, including notification of the Editor’s decision and requests for revision, is sent by e-mail.

Submit your article

To submit a manuscript go to the [Editorial Manager website](https://www.editorialmanager.com/jamcollsurg) and log in as an author. Register if this is your first time using Editorial Manager. Guidance is provided for creating and uploading all files and data. The system automatically generates an electronic (PDF) proof, which is then sent to the Editor-in-Chief and to designated reviewers. All manuscript communications are done by email, only to the corresponding author. It is the corresponding author’s responsibility to keep all information (address, institution, phone number, and email address) current.

Before actually submitting online, have the following files on your computer ready for uploading: manuscript file including tables; structured abstract or short summary; separate file for each figure submitted; and permission letters for tables and figures, if applicable. You must also complete the [Author Contributions Form](https://www.elsevier.com/authorcentre/declaration) and [Disclosure Form](https://www.elsevier.com/authorcentre/declarations). If none of the authors has any financial relationships to disclose, one disclosure form may be submitted for all authors. If any author has financial relationships to disclose, then a separate disclosure form must be submitted for each author. You may also include an optional cover letter for the "author comments" field.

**Suggested reviewers:** Please submit, with the manuscript, the names, affiliation, and e-mail addresses of three potential reviewers who do not have a conflict of interest with the authors or the subject of the manuscript. Note that the editor retains the sole right to decide whether or not the suggested reviewers are assigned.
After you have uploaded all the necessary files, the system will prompt you to go to "Submission Waiting for Author's Approval" on your author main menu. You can leave the system and come back and complete the submission at a later time (after logging in again, you will find the work done previously under "incomplete submissions" on your main author menu).

You must view your submission and either approve it or make corrections and repeat the process until you approve it. If changes are required to the content of your uploaded files, you must make changes to the files on your computer and upload them again, and remove the incorrect file.

At the last step when you are ready to approve your submission and "Submit to Journal Office" you must read and agree to the Ethics in Publishing Statement. You agree to it by checking off the box on the far right of the submission approval page.

After you "Submit to Journal Office" you will get an acknowledgment email from the Editorial Office. A second email will advise you of the manuscript number for your submission. This manuscript number should be included in all correspondence about your article, preferably in the subject line of your email.

PREPARATION

Use of word processing software
The manuscript text should be in double-spaced, single-column format, with 1-inch margins all around. All pages in the manuscript file should be numbered at the top right corner. Keep the layout of the text as simple as possible. Most formatting codes will be removed and replaced on processing the article. In particular, do not use the wordprocessor's options to justify text or to hyphenate words. However, you can use bold face, italics, subscripts, superscripts, etc. When preparing tables, use the table editor in your wordprocessor. Tables go at the end of the manuscript file, before the figure legends and précis (if any). Do not embed figures in the text. See also the section on Electronic artwork.

Title page

Title. The title page must be the first page of the manuscript; all pages should be numbered. The title of manuscript should include the key concepts so that search engines will locate the manuscript. No abbreviations are allowed in titles, unless they are standard acronyms (eg, NSQIP). Author names and affiliations. List the name(s) of all authors, including first name and middle initial, graduate degrees of authors, and FACS if author(s) are Fellows of the ACS. No more than 10 names will appear under the title. Where the family name may be ambiguous (eg, a double name), please indicate this clearly.

Present the authors' affiliation addresses (where the actual work was done) below the names. Indicate all affiliations with a lower-case superscript letter immediately after the author's name and in front of the appropriate affiliation. Provide the full affiliation for each author, including department and institution, city and state. Correspondence address. Clearly indicate who will handle correspondence at all stages of review, revision, publication, and post-publication. Only one corresponding author is allowed. Ensure that phone number (with country and area code) is provided in addition to the e-mail address and the complete postal address. Contact details must be kept up to date by the corresponding author. Present/permanent address. If an author has moved since the work described in the article was done, or was visiting at the time, a 'Present address' (or 'Permanent address') may be indicated as a footnote to that author's name. The address at which the author actually did the work must be retained as the main, affiliation address. Meeting presentation. Include meeting presentation information: the name (spelled out) of the sponsoring organization, city and state, and month and year of the meeting. Brief title. List a brief title of <45 characters and spaces (with no abbreviations except for standard ones such as NSQIP).

Abstract

Structured abstracts are required for original scientific articles only. Unstructured abstracts or short summaries should be submitted for other articles, for use in the review process. The abstract should contain about 250 words. Format is: Background (one paragraph) Study Design (about one paragraph) Results (one to two paragraphs) Conclusion. Describe the problem addressed in the manuscript, how the study was performed, the salient results, and the conclusions of the authors. Do not cite references in the abstract.
Keywords
Immediately after the abstract, provide a maximum of 6 keywords, using American spelling and avoiding general and plural terms and multiple concepts (avoid, for example, 'and', 'of'). Be sparing with abbreviations: only abbreviations firmly established in the field may be eligible. These keywords will be used for indexing purposes.

Abbreviations
Abbreviations/acronyms should be in parentheses immediately after the words for which they stand, and must be spelled out completely at first use in the abstract and again at first use in the text. Abbreviations/acronyms used in figures must be spelled out in the figure legend. Up to 10 abbreviations of common terms (eg, DCIS, HBV, TIA) or acronyms (eg, SPECT, TRISS, SEER) may be used throughout the manuscript. On a separate page after the abstract, list the selected abbreviations and their definitions (eg, DCIS, ductal carcinoma in situ). The editors will determine which lesser-known terms should not be abbreviated.

Text
Subdivision - unnumbered sections: Original scientific articles should be divided into five sections: Introduction, Methods, Results, Discussion, and Conclusions. Other articles should be divided into clearly defined sections. Give each subsection a brief heading. Each heading should appear on a separate line. Subsections should be used as much as possible when cross-referencing text: refer to the subsection by heading as opposed to simply 'the text'.

Introduction
State the objectives of the work and provide an adequate background, avoiding a detailed literature survey or a summary of the results.

Methods
Provide sufficient detail to allow the work to be reproduced. Methods already published should be indicated by a reference: only relevant modifications should be described.

Describe statistical methods with enough detail that a knowledgeable reader with access to the original data could verify the reported results. Avoid overuse of p value, which fails to convey important quantitative information. Provide details about randomization, describe methods for blinding of observations, give numbers of observations, and report complications. Include a general description of statistical methods and design of the study and specify general-use computer programs used. Define all statistical terms, abbreviations, and symbols.

Results
Results should be clear and concise. Summarize data, specifying the statistical methods used to analyze them. Results should be presented in a logical sequence. Do not repeat material from tables in the text.

Discussion
Provide new aspects of the report and do not repeat data given in the Results section. Include implications of findings and limitations, relate these observations to other relevant studies, and include implications for additional studies. Link the conclusions with the stated goals of the study; do not form conclusions that are unsupported by the data presented. When appropriate, recommendations can be included.

Conclusions
Use a heading, not “In conclusion...”

Acknowledgment
All contributors who do not meet the criteria for authorship should be listed in the acknowledgment. Examples include: individuals who allowed their clinical experience to be included, a person who provided purely technical help, writing assistance, or a department chair who provided only general support. Groups of persons who have contributed materially to the paper, but whose contributions do not justify authorship may be acknowledged under a heading such as "clinical investigators" or "participating investigators," and their function or contribution should be described; for example, "served as scientific advisors," "critically reviewed the study proposal." Because readers may infer their endorsement of the data and conclusions, all persons listed as contributors must give written permission to be acknowledged.
Appendices
Appendices should be uploaded in separate file(s). Identify each file as Appendix 1, Appendix 2, etc. Figures in appendices should be uploaded in separate file(s), labeled Figure A1, A2, etc.

Units and drug names
Follow internationally accepted rules and conventions: use the international system of units (SI). If other units are mentioned, please give their equivalent in SI.

Generic names should be used for drugs, with trade name and company in parentheses. Do not use patient names, initials, or hospital numbers.

Math formulae
Present simple formulae in the line of normal text and use the solidus (/) instead of a horizontal line for small fractional terms, eg, X/Y. Generally, variables are to be presented in italics. Powers of e are often more conveniently denoted by exp.

References
If you use automated reference numbering software (such as EndNotes) or bibliography software, turn it off before submitting the manuscript.

Citation in text
Please ensure that every reference cited in the text is also present in the reference list (and vice versa). Any references cited in the abstract must be given in full. Unpublished results and personal communications are not recommended in the reference list, but may be mentioned in the text. Citation of a reference as 'in press' implies that the item has been accepted for publication.

Reference links
Increased discoverability of research and high quality peer review are ensured by online links to the sources cited. In order to allow us to create links to abstracting and indexing services, such as Scopus, CrossRef and PubMed, please ensure that data provided in the references are correct. Please note that incorrect surnames, journal/book titles, publication year and pagination may prevent link creation. When copying references, please be careful as they may already contain errors. Use of the DOI is encouraged.

Reference style
Number consecutively in the order mentioned in text. The citation number is placed in the text after the name when the reference is cited; if no name is mentioned the citation is placed in the text at the end of the material referred to. [Ex: "Meakins and Jones (13) have shown that..." and "A group of oncologists has proved that if.... (13)"] References to manuscripts accepted but not published at time of submission can be designated as "J Am Coll Surg. In press 2008." Personal communication is cited within the text, not in references. Authors must obtain written permission and confirmation of accuracy from the source of personal communication before submission. References must be verified against original documents; authors are responsible for completeness and accuracy of all citations.

The Reference List should follow the text, and begin on a separate page, double-spaced and numbered consecutively. If there are 5 or more authors, list 3 authors, et al. If there are 4 authors or fewer than 4, list them all.

Order of reference parts for a journal article:
[Authors]. [Title]. [Journal name] [Year];[Volume]:[Pages].

Samples:
Standard journal article
Less than 4 authors:

More than 4 authors:

Organization as author:

No author given:

Editor(s), compiler(s) as author

Chapter in a book

NOTE: Titles of books are each word initial cap, except prepositions with less than 6 letters.

Websites

Newspapers and magazines

Journal abbreviations source
Journal names should be abbreviated according to the List of Title Word Abbreviations: http://www.issn.org/services/online-services/access-to-the-ltwa/.

Précis
For original scientific articles only, authors must provide a brief 1- to 3-sentence précis, not to exceed 50 words, summarizing the findings of their manuscript. If the article is accepted, the précis will appear in the table of contents. Upload the précis to the online field, during the submission process.

Formatting of funding sources
List funding sources in this standard way to facilitate compliance to funder's requirements:

Funding: This work was supported by the National Institutes of Health [grant numbers xxxx, yyyyy]; the Bill & Melinda Gates Foundation, Seattle, WA [grant number zzzz]; and the United States Institutes of Peace [grant number aaaa].

It is not necessary to include detailed descriptions on the program or type of grants and awards. When funding is from a block grant or other resources available to a university, college, or other research institution, submit the name of the institute or organization that provided the funding.

If no funding has been provided for the research, please include the following sentence:

This research did not receive any specific grant from funding agencies in the public, commercial, or not-for-profit sectors.

Artwork
Electronic artwork
General points
• Make sure you use uniform lettering and sizing of your original artwork.
• Embed the used fonts if the application provides that option.
• Aim to use the following fonts in your illustrations: Arial, Courier, Times New Roman, Symbol, or use fonts that look similar.
• Number the illustrations according to their sequence in the text.
• Use a logical naming convention for your artwork files.
• Provide captions to illustrations separately.
• Size the illustrations close to the desired dimensions of the published version.
• Submit each illustration as a separate file.

A detailed guide on electronic artwork is available.

You are urged to visit this site; some excerpts from the detailed information are given here.
**Formats**  
If your electronic artwork is created in a Microsoft Office application (Word, PowerPoint, Excel) then please supply 'as is' in the native document format. Regardless of the application used other than Microsoft Office, when your electronic artwork is finalized, please 'Save as' or convert the images to one of the following formats (note the resolution requirements for line drawings, halftones, and line/halftone combinations given below):

- **EPS (or PDF):** Vector drawings, embed all used fonts.
- **TIFF (or JPEG):** Color or grayscale photographs (halftones), keep to a minimum of 300 dpi.
- **TIFF (or JPEG):** Bitmapped (pure black & white pixels) line drawings, keep to a minimum of 1000 dpi.
- **TIFF (or JPEG):** Combinations bitmapped line/half-tone (color or grayscale), keep to a minimum of 500 dpi.

**Please do not:**
- Supply files that are optimized for screen use (e.g., GIF, BMP, PICT, WPG); these typically have a low number of pixels and limited set of colors;
- Supply files that are too low in resolution;
- Submit graphics that are disproportionately large for the content.

Artwork can be black and white or color, at no charge.

**Videos**

JACS encourages video material and animation sequences to support and enhance your scientific research. Authors who have video or animation files that they wish to submit with their article are strongly encouraged to include links to these within the body of the article. This can be done in the same way as a figure or table by referring to the video or animation content and noting in the body text where it should be placed. All submitted files should be properly labeled so that they directly relate to the video file's content. In order to ensure that your video or animation material is directly usable, please provide the files in one of our recommended file formats with a preferred maximum size of 150 MB.

Formats for video: MPEG (*.mpg): Preferred movie format. MPEG-1 or MPEG-2 format required; highest possible quality required. Apple QuickTime (*.mov): Acceptable movie format. Highest possible quality required. Microsoft Audio/Video Interlaced format (*.avi): Acceptable movie format. Highest possible quality required. Video and animation files supplied will be published online in the electronic version of your article in Elsevier Web products, including ScienceDirect: [http://www.sciencedirect.com](http://www.sciencedirect.com). Please supply 'stills' with your files: you can choose any frame from the video or animation or make a separate image. These will be used instead of standard icons and will personalize the link to your video data. For more detailed instructions please visit our video instruction pages at [https://www.elsevier.com/artworkinstructions](https://www.elsevier.com/artworkinstructions). **NOTE:** Since video and animation cannot be embedded in the print version of the journal, please provide text for both the electronic and the print version for the portions of the article that refer to this content.

**Illustration services**

Elsevier's WebShop offers Illustration Services to authors preparing to submit a manuscript but concerned about the quality of the images accompanying their article. Elsevier's expert illustrators can produce scientific, technical and medical-style images, as well as a full range of charts, tables and graphs. Image 'polishing' is also available, where our illustrators take your image(s) and improve them to a professional standard. Please visit the website to find out more.

**Data references**

This journal encourages you to cite underlying or relevant datasets in your manuscript by citing them in your text and including a data reference in your Reference List. Data references should include the following elements: author name(s), dataset title, data repository, version (where available), year, and global persistent identifier. Add [dataset] immediately before the reference so we can properly identify it as a data reference. The [dataset] identifier will not appear in your published article.

**Tables**

Submit tables as part of the manuscript document, at the end after the reference list. Tables should be submitted in "table editor" format within the word processed document (not in PDF or graphics format), and they should not use tabs or spaces to separate columns. If a table is large or exceedingly complex, the author should consider separating the data into 2 or more simpler tables. Submit no more than five tables, on separate pages, and number tables in Arabic numbers consecutively in order of text citation. Provide a brief title. Each column must have a heading. Put all explanatory matter
in footnotes, including an explanation for all nonstandard abbreviations used in table. For every key symbol used in the table (*, †, ‡, §, ||, ¶, #, **, ††, ‡‡, §§, etc.) make sure a corresponding footnote is included.

If a table contains data from previously published material, published by you or by others, obtain permission and acknowledge fully in the table footnote. Upload the permission letter with the manuscript submission.

**Figure legends**
Supply legends separately at the end of the manuscript file, not attached to the figure. The figure itself should not include a title. A legend should begin with a brief title and a description of the illustration. Keep text in the illustrations to a minimum.

Number the figures consecutively with Arabic numbers. Label figure parts “A” and “B”, etc., in Arial bold font. When symbols, arrowheads, or letters identify parts of an illustration, explain each clearly in the legend and spell out all abbreviations. Explain, if necessary, the internal scale, and identify the method of staining in photomicrographs.

If a figure has been previously published, by you or by others, obtain permission and state the permission fully in the figure legend. Upload the permission letter with the manuscript submission.

**Supplementary material**
Supplementary material such as applications, images and sound clips, can be published with your article to enhance it. Submitted supplementary items are published exactly as they are received (Excel or PowerPoint files will appear as such online). Please submit your material together with the article and supply a concise, descriptive caption for each supplementary file. If you wish to make changes to supplementary material during any stage of the process, please make sure to provide an updated file.

Do not annotate any corrections on a previous version. Please switch off the 'Track Changes' option in Microsoft Office files as these will appear in the published version.

**AFTER ACCEPTANCE**

**Proofs**
One set of page proofs (as PDF files) will be sent by e-mail to the corresponding author (a link will be provided in the e-mail so that authors can download the files themselves). JACS now provides authors with PDF proofs which can be annotated; for this you will need to download Adobe Reader version 9 (or higher) available free from http://get.adobe.com/reader. Instructions on how to annotate PDF files will accompany the proofs (also given online). The exact system requirements are given at the Adobe site: http://www.adobe.com/products/reader/tech-specs.html.

If you do not wish to use the PDF annotations function, you may list the corrections (including replies to the Query Form) and return them to Elsevier in an e-mail. Please list your corrections quoting line number. If, for any reason, this is not possible, then mark the corrections and any other comments (including replies to the Query Form) on a printout of your proof and return by fax, or scan the pages and e-mail, or by post. Please use this proof only for checking the typesetting, editing, completeness and correctness of the text, tables and figures. Significant changes to the article as accepted for publication will only be considered at this stage with permission from the Editor. We will do everything possible to get your article published quickly and accurately. It is important to ensure that all corrections are sent back to us in one communication: please check carefully before replying, as inclusion of any subsequent corrections cannot be guaranteed. Proofreading is solely your responsibility.

**Offprints**
The corresponding author, at no cost, will be provided with a PDF file of the article via e-mail (the PDF file is a watermarked version of the published article and includes a cover sheet with the journal cover image and a disclaimer outlining the terms and conditions of use). For an extra charge, paper offprints can be ordered via the offprint order form which is sent once the article is accepted for publication. Both corresponding and co-authors may order offprints at any time via Elsevier's WebShop. Authors requiring printed copies of multiple articles may use Elsevier WebShop's 'Create Your Own Book' service to collate multiple articles within a single cover.
Endorsements

AUTHOR INQUIRIES
Visit the Elsevier Support Center to find the answers you need. Here you will find everything from Frequently Asked Questions to ways to get in touch. You can also find out when your accepted article will be published.

To track your submitted article not yet accepted for publication, please visit http://www.editorialmanager.com/jacs/. You are also welcome to contact the Editorial Office at jacsedit@facs.org.

© Copyright 2018 Elsevier | https://www.elsevier.com