DESCRIPTION

The *Journal of Clinical Epidemiology* aims at promoting the quality of clinical and patient-oriented health care research through the advancement and application of innovative methods of: conducting and presenting primary research; synthesizing research results; disseminating results; and translating results into optimal clinical practice; with special attention to the training of new generations of scientists and clinical practice leaders.

**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

Epidemiologists, Physicians, Biostatisticians, Pharmacologists.

IMPACT FACTOR

2016: 4.978 © Clarivate Analytics Journal Citation Reports 2017
ABSTRACTING AND INDEXING

Elsevier BIOBASE
Cambridge Scientific Abstracts
Current Contents/Life Sciences
Current Contents/Clinical Medicine
EMBASE
Higher Education Abstracts
Reference Update
Research Alert
Science Citation Index
SCISEARCH
MEDLINE®
BIOSIS
Current Contents/BIOMED Database
Sociedad Iberoamericana de Informacion Cientifica (SIIC) Date Bases
Scopus

EDITORIAL BOARD

Editors
A. Knottnerus, Professor of General Practice, Netherlands School of Primary Care Research
Senior Scientist, Care and Publich Health Research Institute (CAPHRI)
Maastricht University, Maastricht, The Netherlands
P. Tugwell, Professor, Department of Medicine, and School of Epidemiology, Public Health and Preventive Medicine, University of Ottawa ; Senior Scientist, Centre for Practice Changing Research, Ottawa Hospital Research Institute; Ottawa, Ontario, Canada.

Associate Editors
M. Bours, Maastricht, the Netherlands
T. Dans, Manila, Philippines
J. P. A. Ioannidis, Stanford, CA, USA
J. McGowan, Ottawa, Ontario, Canada
A Tricco, MSc, PhD, Toronto, Canada
L. van Amelsvoort, Maastricht, Netherlands
G. Wells, Ottawa, Ontario, Canada

Editorial Managers
L. Fitzpatrick, Ottawa, Ontario, Canada
A. Germeraad, Maastricht, The Netherlands

Editor Emeritus
J. P. Vandenbroucke, (Journal of Clinical Epidemiology) Leiden, The Netherlands
D. P. Earle, (Journal of Chronic Diseases) Chicago, IL, USA
A. R. Feinstein, New Haven, CT, USA
L. C. Lasagna, Boston, MA, USA
W. O. Spitzer, Kingston, ON, Canada

Policy Advisory Board
L. Bero, San Francisco, California, USA
M. Boers, Amsterdam, The Netherlands
C. Bombardier, Toronto, Ontario, Canada
P. Burney, London, UK
I. Dans, Manila, Philippines
D. Grobbee, Utrecht, The Netherlands
G. Guyatt, Hamilton, Ontario, Canada
F. E. Harrell, Jr., Nashville, Tennessee, USA
D. Moher, Ottawa, Ontario, Canada
A. O’Connor, Ottawa, Ontario, Canada
M. S. Porta, Barcelona, Spain
S. Straus, Toronto, Ontario, Canada

Editorial Consultants Board
N. K. Arora
O. Berwanger, Sao Paulo, Brazil
F. Buntinx, Leuven, Belgium
M. E. Charlson, New York, New York, USA
J. Concato, New Haven, Connecticut, USA
R. De Vet, Amsterdam, The Netherlands
J. G. Elmore, Seattle, Washington, USA
J. M. Esdaile, Vancouver, British Columbia, Canada
G. D. Eslick, Boston, MA, USA
P. Glasziou, Gold Coast, Australia
G. B. Hill, Rockland, ON, Canada
R. I. Horwitz, Philadelphia, PA, USA
T. A. Hutchinson, Montreal, PQ, Canada
L. Irwig, Sydney, New South Wales, Australia
M. Jenicek, Montreal, PQ, Canada
T. E. Kottke, Minneapolis, Minnesota, USA
L. H. Kuller, Pittsburgh, Pennsylvania, USA
M. A. D. Lansang, Manila, Philippines
S. Leeder, Westmead, Australia
J. Lelorier, Montréal, PQ, Canada
A. Morabia, New York, New York, USA
P. Peduzzi, West Haven, CT, USA
M. Prins, Maastricht, Netherlands
D.F. Ransohoff, Chapel Hill, North Carolina, USA
B. E. Rodda, Austin, TX, USA
F. Rosendaal, Leiden, The Netherlands
R. B. Shekelle, Houston, TX, USA
M. van den Akker, Maastricht, The Netherlands
D. van der Heijde, Leiden, The Netherlands
M. Weinberger, Chapel Hill, North Carolina, USA
GUIDE FOR AUTHORS

Your Paper Your Way
We now differentiate between the requirements for new and revised submissions. You may choose to submit your manuscript as a single Word or PDF file to be used in the refereeing process. Only when your paper is at the revision stage, will you be requested to put your paper in to a 'correct format' for acceptance and provide the items required for the publication of your article.

To find out more, please visit the Preparation section below.
"What is New?" is required for all submissions. Please upload a separate document with "What is New?" as the file type HIGHLIGHTS.

INTRODUCTION
The Journal of Clinical Epidemiology aims at promoting the quality of clinical epidemiologic and patient-oriented health services research through the following: Advancement and application of innovative methods of conducting and presenting primary research; Synthesizing research results; Disseminating results; And translating results into optimal clinical practice with special attention to the training of new generations of scientists and clinical practice leaders.

Contributions are welcomed from any pertinent source but should be written clearly enough to be understood by scholarly clinical readers and clinical researchers. Pertinent symposia and reviews will be considered for publication.

CONTACT DETAILS
André Knottnerus
Editor
Journal of Clinical Epidemiology
Department of General Practice
PO Box 616
6200 MD Maastricht, The Netherlands
Tel.: +31-43-388-2322, Fax: +31-43-367-1458
E-mail: anneke.germeraad@maastrichtuniversity.nl

Peter Tugwell
Editor
Journal of Clinical Epidemiology
Centre for Global Health
1 Stewart Street
Ottawa, ON K1N 6N5, Canada
E-mail: ltugwell@uottawa.ca

Website: http://www.jclinepi.com

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.

BEFORE YOU BEGIN

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

• The Journal endorses the World Health Organization Standards for registration of all human medical research (http://www.who.int/ictrp). JCE considers original papers reporting results of clinical trials if they have been registered in a clinical trial registry. Authors are asked to provide registration details in the submission letter and the manuscript.

Declaration of interest
All authors must disclose any financial and personal relationships with other people or organizations that could inappropriately influence (bias) their work. Examples of potential conflicts of interest include employment, consultancies, stock ownership, honoraria, paid expert testimony, patent applications/registrations, and grants or other funding. Authors must disclose any interests in two places: 1. A summary declaration of interest statement in the title page file (if double-blind) or the manuscript file (if single-blind). If there are no interests to declare then please state this: 'Declarations of interest: none'. This summary statement will be ultimately published if the article is accepted. 2. Detailed disclosures as part of a separate Declaration of Interest form, which forms part of the journal's official records. It is important for potential interests to be declared in both places and that the information matches. More information.

Submission declaration and verification
Submission of an article implies that the work described has not been published previously (except in the form of an abstract, a published lecture or academic thesis, see 'Multiple, redundant or concurrent publication' for more information), 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 in the same form, in English or in any other language, including electronically without the written consent of the copyright-holder. To verify originality, your article may be checked by the originality detection service Crossref Similarity Check.

Preprints
Please note that preprints can be shared anywhere at any time, in line with Elsevier's sharing policy. Sharing your preprints e.g. on a preprint server will not count as prior publication (see 'Multiple, redundant or concurrent publication' for more information).

AUTHORSHIP
All authors should have made substantial contributions to all 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. A description of the contribution of each individual listed as an author will be requested by the journal at the time of submission.

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.

**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.

For gold open access articles: Upon acceptance of an article, authors will be asked to complete an 'Exclusive License Agreement' (more information). Permitted third party reuse of gold open access articles is determined by the author's choice of user license.

**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. After acceptance, open access papers will be published under a noncommercial license. For authors requiring a commercial CC BY license, you can apply after your manuscript is accepted for publication.

**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-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 USD 3100, excluding taxes. Learn more about Elsevier's pricing policy: https://www.elsevier.com/openaccesspricing.

Green open access
Authors can share their research in a variety of different ways and Elsevier has a number of green open access options available. We recommend authors see our green open access page for further information. Authors can also self-archive their manuscripts immediately and enable public access from their institution's repository after an embargo period. This is the version that has been accepted for publication and which typically includes author-incorporated changes suggested during submission, peer review and in editor-author communications. Embargo period: For subscription articles, an appropriate amount of time is needed for journals to deliver value to subscribing customers before an article becomes freely available to the public. This is the embargo period and it begins from the date the article is formally published online in its final and fully citable form. Find out more.

This journal has an embargo period of 12 months.

Elsevier Researcher Academy
Researcher Academy is a free e-learning platform designed to support early and mid-career researchers throughout their research journey. The "Learn" environment at Researcher Academy offers several interactive modules, webinars, downloadable guides and resources to guide you through the process of writing for research and going through peer review. Feel free to use these free resources to improve your submission and navigate the publication process with ease.

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.

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 and copies of the consents or evidence that such consents have been obtained must be provided to Elsevier on request. For more information, please review the Elsevier Policy on the Use of Images or Personal Information of Patients or other Individuals. 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
Please submit your article via https://www.evise.com/profile/api/navigate/jce.

Length of Articles
The following are guidelines for various article lengths: • Reviews and Original Articles - 3,000 words • Letters - 500 words • Commentaries - 2,500 words.
Referees
Authors are obliged to provide the contact details (including e-mail addresses) of the three or more potential peer reviewers for their manuscript. These should be experts in their field of study, who will be able to provide an objective assessment of the manuscript. Any suggested peer reviewers should not have published with any of the authors of the manuscript within the past 5 years and should not be members of the same research institution. Members of the Editorial Board of the journal can be nominated. Suggested reviewers will be considered alongside potential reviewers identified by their publication record or recommended by Editorial Board members. Please do not suggest JCE Editors or Associate Editors as peer reviewers.

Additional Information
In an accompanying letter, authors should state that the manuscript, or parts of it, have not been and will not be submitted elsewhere for publication.
Authors’ submission items must include a cover letter, suggested reviewers, the manuscript (including title page, abstract, manuscript text, references, and table/figure legends), tables, and figures. Note: A Letter to the Editor does not require an abstract.
The author(s) should state, in the cover letter, that the submitted material has not been published and is not under consideration for publication elsewhere. If any form of preliminary publication other than an abstract of not more than 400 words has occurred or is being considered, a reprint or manuscript should accompany the material submitted to the Journal of Clinical Epidemiology.
Supplemental information such as extensive statistical tables, computer algorithms and original questionnaires will not be included in the print version of the Journal of Clinical Epidemiology, but will be made available on the web site; the link will be provided in the printed article. Please note: supplemental pieces will not be copy edited. Authors should state explicitly which tables and figures are web-only material.
Revised manuscripts should also be accompanied by a unique file (separate from the covering letter) with responses to reviewers’ comments, as well as a file with all changes to the original submission tracked.
The preferred order of files is as follows: cover letter, suggested reviewers, response to reviews (revised manuscripts only), manuscript file(s), table(s), figure(s).
Files should be labelled with appropriate and descriptive file names (e.g., SmithText.doc, Fig1.eps, Table3.doc). If you have questions during the process, please contact the JCE Editorial Offices at anneke.germeraad@hag.unimaas.nl or ltugwell@uottawa.ca.
Manuscripts must be written in English. Please note that an editable file is needed for production purposes, in the case that your manuscript is accepted; original source files, not PDF files, are required.

PREPARATION
NEW SUBMISSIONS
Submission to this journal proceeds totally online and you will be guided stepwise through the creation and uploading of your files. The system automatically converts your files to a single PDF file, which is used in the peer-review process.
As part of the Your Paper Your Way service, you may choose to submit your manuscript as a single file to be used in the refereeing process. This can be a PDF file or a Word document, in any format or layout that can be used by referees to evaluate your manuscript. It should contain high enough quality figures for refereeing. If you prefer to do so, you may still provide all or some of the source files at the initial submission. Please note that individual figure files larger than 10 MB must be uploaded separately. "What is New?" is required for all submissions. Please upload a separate document with "What is New?" as the file type HIGHLIGHTS.

References
There are no strict requirements on reference formatting at submission. References can be in any style or format as long as the style is consistent. Where applicable, author(s) name(s), journal title/book title, chapter title/article title, year of publication, volume number/book chapter and the pagination must be present. Use of DOI is highly encouraged. The reference style used by the journal will be applied to the accepted article by Elsevier at the proof stage. Note that missing data will be highlighted at proof stage for the author to correct.

Formatting requirements
There are no strict formatting requirements but all manuscripts must contain the essential elements needed to convey your manuscript, for example Abstract, Keywords, Introduction, Materials and Methods, Results, Conclusions, Artwork and Tables with Captions.
If your article includes any Videos and/or other Supplementary material, this should be included in your initial submission for peer review purposes. Divide the article into clearly defined sections.

**Figures and tables embedded in text**
Please ensure the figures and the tables included in the single file are placed next to the relevant text in the manuscript, rather than at the bottom or the top of the file. The corresponding caption should be placed directly below the figure or table.

**REVIEW AND PRODUCTION PROCESS**
Manuscripts are examined by both Editors and two reviewers. Decisions of the Editors are final. All material accepted for publication is subject to copy-editing. Authors will receive page proofs of their article before publication, and should answer all queries and carefully check all editorial changes at this point. Authors are urged to check their proofs carefully before return, since late corrections cannot be guaranteed for inclusion in the scheduled issue. Authors are responsible for the specific content of their articles. Reprints may be purchased using the order form that is sent with the page proofs. Neither the Editors nor the Publisher accept responsibility for the views and statements expressed by authors in their communications.

**Peer review**
This journal operates a single blind review process. All contributions will be initially assessed by the editor for suitability for the journal. Papers deemed suitable are then typically sent to a minimum of two independent expert reviewers to assess the scientific quality of the paper. The Editor is responsible for the final decision regarding acceptance or rejection of articles. The Editor's decision is final. More information on types of peer review.

**REVISED SUBMISSIONS**
**Use of word processing software**
Regardless of the file format of the original submission, at revision you must provide us with an editable file of the entire article. Keep the layout of the text as simple as possible. Most formatting codes will be removed and replaced on processing the article. The electronic text should be prepared in a way very similar to that of conventional manuscripts (see also the Guide to Publishing with Elsevier). See also the section on Electronic artwork.
To avoid unnecessary errors you are strongly advised to use the 'spell-check' and 'grammar-check' functions of your word processor.

At revision, a file with tracked changes from the original submission is required.

**Article structure**
**Subdivision - numbered sections**
Divide your article into clearly defined and numbered sections. Subsections should be numbered 1.1 (then 1.1.1, 1.1.2, ...), 1.2, etc. (the abstract is not included in section numbering). Use this numbering also for internal cross-referencing: do not just refer to 'the text'. Any subsection may be given a brief heading. Each heading should appear on its own separate line.

**Appendices**
If there is more than one appendix, they should be identified as A, B, etc. Formulae and equations in appendices should be given separate numbering: Eq. (A.1), Eq. (A.2), etc.; in a subsequent appendix, Eq. (B.1) and so on. Similarly for tables and figures: Table A.1; Fig. A.1, etc.

**Essential Title Page Information**
- **Title.** Concise and informative. Titles are often used in information-retrieval systems. Avoid abbreviations and formulae where possible. *JCE* has adopted the editorial policy of “more informative titles” (MITs) that crisply and concisely tell our readers what our authors found in their research. A MIT states the study type and summarizes its key findings, using the past tense for individual studies and the present tense for systematic reviews. Although we are ready to assist authors in generating MITs for their work, we encourage them to submit draft MITs with their original submissions.
- **Author names and affiliations.** Where the family name may be ambiguous (e.g., 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 address. Provide the full postal address of each affiliation, including the country name and, if available, the e-mail address of each author.
• **Corresponding author.** Clearly indicate who will handle correspondence at all stages of refereeing and publication, also post-publication. Ensure that phone numbers (with country and area code) are 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. Superscript Arabic numerals are used for such footnotes.

**Abstract**
Each original article must have an abstract/summary not exceeding 200 words. Abstracts must be structured with the following headings: Objective, Study Design and Setting, Results, and Conclusion. An abstract is often presented separately from the article, so it must be able to stand alone. For this reason, References should be avoided, but if essential, then cite the author(s) and year(s). Also, non-standard or uncommon abbreviations should be avoided, but if essential they must be defined at their first mention in the abstract itself. Double-space abstracts, and print them on a separate page. Abstracts not in compliance with this format will be returned to the authors for revision. The bottom of the abstract page should list six key words (index-appropriate terms), a running title and a word count. Commentaries do not require abstracts.

**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.

**What is new?**
• Authors are asked to provide a text box entitled “What is new” that summarized what this paper adds to the existing literature, with up to 5 items/points addressing the following areas:
  - Key findings
  - What this adds to what is known
  - What is the implication, what should change now

Please place this box below the abstract but before the introduction of your paper and upload as a separate document as the required file type HIGHLIGHTS during submission.

**Abbreviations**
Well-known abbreviations (e.g., DNA, EKG) may be used without definition; all others must be defined when first used. Units of measurement should be used in accordance with current custom and acceptability. Generic names of drugs are preferred; a proprietary name may be used if its generic equivalent is identified.

**Acknowledgements**
Collate acknowledgements in a separate section at the end of the article before the references and do not, therefore, include them on the title page, as a footnote to the title or otherwise. List here those individuals who provided help during the research (e.g., providing language help, writing assistance or proof reading the article, etc.).

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

Correct Use of Statistical Methods
The correct use of statistical methods is paramount for a proper interrogation and interpretation of study data. There are several checklists available that can be used to help authors. One checklist found to be helpful is from the Department of Biostatistics, Vanderbilt University School of Medicine (http://biostat.mc.vanderbilt.edu/ManuscriptChecklist) and we refer authors submitting articles to the JCE to this checklist. The list covers general statistical problems, filtering, missing data, multiple comparison problems, multivariate modeling issues, use of imprecise language, graphics, tables, and other areas.

Embedded math equations
If you are submitting an article prepared with Microsoft Word containing embedded math equations then please read this (related support information).

Footnotes
Footnotes should be used sparingly. Number them consecutively throughout the article. Many word processors build footnotes into the text, and this feature may be used. Should this not be the case, indicate the position of footnotes in the text and present the footnotes themselves separately at the end of the article.

Artwork
Please ensure your tables and figures adhere to the guidance provided in the Common issues in tables and figures checklist. See also this series of videos from Maarten Boers on improving figures and tables.

Illustrations include charts, drawings, graphs, and photographs. Charts, drawings and graphs must be computer-generated and should use a Sans-serif typeface (e.g., Arial). Number figures consecutively in the order they are to appear in the text (e.g., Fig. 1, Fig. 2, Fig. 3, etc.). Figures should be uploaded as separate files, not embedded in the manuscript file. TIFF, EPS, or PDF are the preferred file formats. MS Office files (Word, Excel, and PowerPoint) are also accepted. The following image file formats are not acceptable because they are low resolution: JPG, GIF, ONG, PCX, PNG, and XBM. Figure resolution for pixel-based images should be at least 1,200 dpi for line art (e.g., graphs, flow charts) or 500 dpi for photographs, micrographs, CT scans, and related images. Color images should use CMYK color mode.

Additional instructions for the electronic submission of artwork can be found https://www.elsevier.com/authors/author-schemas/artwork-and-media-instructions. You are urged to visit this site; some excerpts from the detailed information are given here.

Formats
Regardless of the application used, 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 the font or save the text as 'graphics'.
- TIFF (or JPG): Color or grayscale photographs (halftones): always use a minimum of 300 dpi. TIFF (or JPG): Bitmapped line drawings: use a minimum of 1000 dpi. TIFF (or JPG): Combinations bitmapped line/half-tone (color or grayscale): a minimum of 500 dpi is required.

Please do not:
- Supply files that are optimized for screen use (e.g., GIF, BMP, PICT, WPG); the resolution is too low.
- Supply files that are too low in resolution.
- Submit graphics that are disproportionately large for the content.

If any table or figure has been published previously, a copy of the letter of permission from the copyright holder must accompany the manuscript. The original source of the table or figure should be acknowledged in full reference form in the reference section of the manuscript. The figure legend (or table footnotes) should conclude with "Reprinted with permission" followed by the appropriate reference number. Authors are responsible for applying for permission for both print and electronic rights for all borrowed materials, and they are responsible for paying any fees related to the application of these permissions.
Electronic artwork

General points

• Make sure you use uniform lettering and sizing of your original artwork.
• Preferred fonts: Arial (or Helvetica), Times New Roman (or Times), Symbol, Courier.
• Number the illustrations according to their sequence in the text.
• Use a logical naming convention for your artwork files.
• Indicate per figure if it is a single, 1.5 or 2-column fitting image.
• For Word submissions only, you may still provide figures and their captions, and tables within a single file at the revision stage.
• Please note that individual figure files larger than 10 MB must be provided in separate source files.

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

Regardless of the application used, 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 the font or save the text as 'graphics'.
TIFF (or JPEG): Color or grayscale photographs (halftones): always use a minimum of 300 dpi.
TIFF (or JPEG): Bitmapped line drawings: use a minimum of 1000 dpi.
TIFF (or JPEG): Combinations bitmapped line/half-tone (color or grayscale): a minimum of 500 dpi is required.

Please do not:

• Supply files that are optimized for screen use (e.g., GIF, BMP, PICT, WPG); the resolution is too low.
• Supply files that are too low in resolution.
• Submit graphics that are disproportionately large for the content.

Color artwork

Please make sure that artwork files are in an acceptable format (TIFF (or JPEG), EPS (or PDF), or MS Office files) and with the correct resolution. If, together with your accepted article, you submit usable color figures then Elsevier will ensure, at no additional charge, that these figures will appear in color online (e.g., ScienceDirect and other sites) regardless of whether or not these illustrations are reproduced in color in the printed version. For color reproduction in print, you will receive information regarding the costs from Elsevier after receipt of your accepted article. Please indicate your preference for color: in print or online only. Further information on the preparation of electronic artwork.

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.

Figure captions

Ensure that each illustration has a caption. A caption should comprise a brief title (not on the figure itself) and a description of the illustration. Keep text in the illustrations themselves to a minimum but explain all symbols and abbreviations used.

Tables

Please submit tables as editable text and not as images. Tables can be placed either next to the relevant text in the article, or on separate page(s) at the end. Number tables consecutively in accordance with their appearance in the text and place any table notes below the table body. Be sparing in the use of tables and ensure that the data presented in them do not duplicate results described elsewhere in the article. Please avoid using vertical rules and shading in table cells.

Figures and Tables accompanying manuscripts should not exceed a total of 6 and should be numbered and provided with suitable legends, in a separate electronic file. Do not insert vertical lines in tables. Include a title for each table. Number tables consecutively within the manuscript (Table 1, Table 2, Table 3, etc.). Use asterisks (*, **, ***), for P values and otherwise use standard citation superscript symbols (*, †, ‡, § . . .). Authors should place footnotes in order, reading from left to right and top to bottom, and should begin a new series of footnotes for each table. Footnotes should not appear in table titles. Lengthy tables should be avoided as they might be too large to be reproduced in print. However, they may be submitted as a web-only appendix.
**References**

*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. If these references are included in the reference list they should follow the standard reference style of the journal and should include a substitution of the publication date with either 'Unpublished results' or 'Personal communication'. 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.

A DOI can be used to cite and link to electronic articles where an article is in-press and full citation details are not yet known, but the article is available online. A DOI is guaranteed never to change, so you can use it as a permanent link to any electronic article. An example of a citation using DOI for an article not yet in an issue is: VanDecar J.C., Russo R.M., James D.E., Ambeh W.B., Franke M. (2003). Aseismic continuation of the Lesser Antilles slab beneath northeastern Venezuela. Journal of Geophysical Research, https://doi.org/10.1029/2001JB000884. Please note the format of such citations should be in the same style as all other references in the paper.

*Web references*
As a minimum, the full URL should be given and the date when the reference was last accessed. Any further information, if known (DOI, author names, dates, reference to a source publication, etc.), should also be given. Web references can be listed separately (e.g., after the reference list) under a different heading if desired, or can be included in the reference list.

*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.

*Reference management software*
Most Elsevier journals have their reference template available in many of the most popular reference management software products. These include all products that support Citation Style Language styles, such as Mendeley and Zotero, as well as EndNote. Using the word processor plug-ins from these products, authors only need to select the appropriate journal template when preparing their article, after which citations and bibliographies will be automatically formatted in the journal’s style. If no template is yet available for this journal, please follow the format of the sample references and citations as shown in this Guide.

Users of Mendeley Desktop can easily install the reference style for this journal by clicking the following link:
http://open.mendeley.com/use-citation-style/journal-of-clinical-epidemiology
When preparing your manuscript, you will then be able to select this style using the Mendeley plug-ins for Microsoft Word or LibreOffice.

*Reference formatting*
There are no strict requirements on reference formatting at submission. References can be in any style or format as long as the style is consistent. Where applicable, author(s) name(s), journal title/book title, chapter title/article title, year of publication, volume number/book chapter and the pagination must be present. Use of DOI is highly encouraged. The reference style used by the journal will be applied to the accepted article by Elsevier at the proof stage. Note that missing data will be highlighted at proof stage for the author to correct. If you do wish to format the references yourself they should be arranged according to the following examples:
Reference style
Text: Indicate references by number(s) in square brackets in line with the text. The actual authors can be referred to, but the reference number(s) must always be given.
List: Number the references (numbers in square brackets) in the list in the order in which they appear in the text.
Examples:
Reference to a journal publication:
Reference to a book:
Reference to a chapter in an edited book:
Reference to a website:
Reference to a dataset:
Note shortened form for last page number. e.g., 51–9, and that for more than 6 authors the first 6 should be listed followed by 'et al.' For further details you are referred to 'Uniform Requirements for Manuscripts submitted to Biomedical Journals' (J Am Med Assoc 1997;277:927–34) (see also Samples of Formatted References).

Journal abbreviations source
Journal names should be abbreviated according to the List of Title Word Abbreviations.

Video
Elsevier accepts 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 file in one of our recommended file formats with a preferred maximum size of 150 MB per file, 1 GB in total. Video and animation files supplied will be published online in the electronic version of your article in Elsevier Web products, including ScienceDirect. 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. 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.

AudioSlides
The journal encourages authors to create an AudioSlides presentation with their published article. AudioSlides are brief, webinar-style presentations that are shown next to the online article on ScienceDirect. This gives authors the opportunity to summarize their research in their own words and to help readers understand what the paper is about. More information and examples are available. Authors of this journal will automatically receive an invitation e-mail to create an AudioSlides presentation after acceptance of their paper.

Data visualization
Include interactive data visualizations in your publication and let your readers interact and engage more closely with your research. Follow the instructions here to find out about available data visualization options and how to include them with your article.

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.

**Research data**

This journal encourages and enables you to share data that supports your research publication where appropriate, and enables you to interlink the data with your published articles. Research data refers to the results of observations or experimentation that validate research findings. To facilitate reproducibility and data reuse, this journal also encourages you to share your software, code, models, algorithms, protocols, methods and other useful materials related to the project.

Below are a number of ways in which you can associate data with your article or make a statement about the availability of your data when submitting your manuscript. If you are sharing data in one of these ways, you are encouraged to cite the data in your manuscript and reference list. Please refer to the "References" section for more information about data citation. For more information on depositing, sharing and using research data and other relevant research materials, visit the [research data page](#).

**Data linking**

If you have made your research data available in a data repository, you can link your article directly to the dataset. Elsevier collaborates with a number of repositories to link articles on ScienceDirect with relevant repositories, giving readers access to underlying data that gives them a better understanding of the research described.

There are different ways to link your datasets to your article. When available, you can directly link your dataset to your article by providing the relevant information in the submission system. For more information, visit the [database linking page](#).

For [supported data repositories](#) a repository banner will automatically appear next to your published article on ScienceDirect.

In addition, you can link to relevant data or entities through identifiers within the text of your manuscript, using the following format: Database: xxxx (e.g., TAIR: AT1G01020; CCDC: 734053; PDB: 1XFN).

**Mendeley Data**

This journal supports Mendeley Data, enabling you to deposit any research data (including raw and processed data, video, code, software, algorithms, protocols, and methods) associated with your manuscript in a free-to-use, open access repository. During the submission process, after uploading your manuscript, you will have the opportunity to upload your relevant datasets directly to [Mendeley Data](#). The datasets will be listed and directly accessible to readers next to your published article online.

For more information, visit the [Mendeley Data for journals page](#).

**Data statement**

To foster transparency, we encourage you to state the availability of your data in your submission. This may be a requirement of your funding body or institution. If your data is unavailable to access or unsuitable to post, you will have the opportunity to indicate why during the submission process, for example by stating that the research data is confidential. The statement will appear with your published article on ScienceDirect. For more information, visit the [Data Statement page](#).

**AFTER ACCEPTANCE**

**Online proof correction**

Corresponding authors will receive an e-mail with a link to our online proofing system, allowing annotation and correction of proofs online. The environment is similar to MS Word: in addition to editing text, you can also comment on figures/tables and answer questions from the Copy Editor. Web-based proofing provides a faster and less error-prone process by allowing you to directly type your corrections, eliminating the potential introduction of errors.

If preferred, you can still choose to annotate and upload your edits on the PDF version. All instructions for proofing will be given in the e-mail we send to authors, including alternative methods to the online version and PDF.
We will do everything possible to get your article published quickly and accurately. 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. 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 will, at no cost, receive a customized Share Link providing 50 days free access to the final published version of the article on ScienceDirect. The Share Link can be used for sharing the article via any communication channel, including email and social media. 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. Corresponding authors who have published their article gold open access do not receive a Share Link as their final published version of the article is available open access on ScienceDirect and can be shared through the article DOI link.

**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 check the status of your submitted article or find out when your accepted article will be published.

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