## TABLE OF CONTENTS

- Description: p.1
- Abstracting and Indexing: p.1
- Editorial Board: p.2
- Guide for Authors: p.3

## DESCRIPTION

Founded in 1912, *Radiología* is the official journal of the Spanish Society of Medical Imaging (Spanish Acronym: SERAM).

*Radiología* is published bimonthly (6 issues per year) in Spanish and English. All articles undergo a rigorous double-blind review process.

*Radiología* focuses mainly on original research and review articles, although it also publishes other material.

The journal is indexed in: Emerging Sources Citation Index (Thomson Reuters), Medline, and EMBASE/Excerpta Medica

For further information consult, [http://www.elsevier.es/rx](http://www.elsevier.es/rx)

## ABSTRACTING AND INDEXING

- Emerging Sources Citation Index (ESCI)
- PubMed/Medline
- Embase
EDITORIAL BOARD

Editor-in-Chief / Editor Jefe
Luis H. Ros Mendoza, Servicio de Radiodiagnóstico, Hospital Universitario Miguel Servet, Zaragoza, Spain

Co-Editors / Editores Adjuntos
Lucía Flors Blasso, Departamento de Radiología e Imagen Médica, University of Missouri, Columbia, USA
Nieves Gómez León, Servicio de Radiodiagnóstico, Hospital Universitario La Princesa, Madrid, Spain
Antonio López Rueda, Centre de Diagnostic per la Imatge Clinic (CDIC), Hospital Clinic i Provincial de Barcelona, Barcelona, Spain

Junior Co-Editors / Editores Adjuntos Juniors
Sara Lojo Lendoiro, Servicio de Radiodiagnóstico, Hospital Povisa, Vigo, Pontevedra, Spain
Carmen Parra Fariñas, Servicio de Radiodiagnóstico, Hospital Universitario Vall d’Hebron, Barcelona, Spain

Associate Editors / Editores Asociados
Beatriz Cabeza Martínez, Servicio de Radiodiagnóstico, Hospital Clínico Universitario San Carlos, Madrid, Spain
Daniel Castellón Plaza, Servicio de Radiodiagnóstico, Hospital de Fuenlabrada, Madrid, Spain
José Luis del Cura, Servicio de Radiodiagnóstico, Hospital de Basurto, Bilbao, Spain
Marta Drake Pérez, Servicio de Radiodiagnóstico, Hospital U. Marques de Valdecilla, Santander, Spain
Cristina García Villar, Servicio de Radiodiagnóstico, Hospital Universitario Puerta del Mar, Cádiz, Spain
Paloma Puyaltó de Pablo, Servicio de Radiodiagnóstico, Hospital Universitari Germans Trias i Pujol, Barcelona, Spain

Area Editor / Editor de Área
Jesús Dámaso Aquerreta Beola, Pamplona, Spain
Gorka A. Bastarrika Alemán, Pamplona, Spain
Ana Bustos García de Castro, Madrid, Spain
Elena Martínez Chamorro, Madrid, Spain
Diana Hernández Jover, Pamplona, Spain
Silvia Martín Martín, Madrid, Spain
Luis Javier Pina Insauti, Pamplona, Spain
Pilar Piñero González de la Peña, Sevilla, Spain
Tomás Ripollés, Valencia, Spain
Sonia Rodríguez Gómez, Barcelona, Spain
Cinta Sangüesa Nebot, Valencia, Spain
José Vilar Samper, Valencia, Spain
Luis Jesús Zurera Tendero, Córdoba, Spain
INTRODUCTION

Founded in 1912, Radiología is the official journal of the Spanish Society of Medical Imaging (Spanish Acronym: SERAM).

Radiología is published bimonthly (6 issues per year) accepts articles in Spanish or in English and the Journal publishes two editions Spanish and English. All articles undergo a rigorous double-blind review process.

Radiología focuses mainly on original research and review articles, although it also publishes other material.

The journal is indexed in: Emerging Sources Citation Index (Thomson Reuters), Medline, and EMBASE/Excerpta Medica.

We suggest that articles by Spanish authors should comply with the general criteria of Law 14/2007, from 3rd July, for biomedical research (BOE n 159), which protects the rights of individuals who are subjects of research. Clinical assays should be registered with public databases prior to their initiation and patient recruitment, and only after approval of the institutional or regional Clinical Research Ethics Committee. The authors should provide the archive number and database where the assay is registered. For all clinical assays that initiate patient recruitment as of 1 January 2017, registration in public databases will be mandatory. Assays with patient recruitment prior to this date may still be submitted to the Journal for evaluation.

Types of article

The Journal publishes the following sections or article types:

1. Original article:

   1. Original article

   Original research articles

   Radiología will give priority to the publication of works of this type, so that they will have a shorter wait to the moment they appear. These papers are on clinical or basic research, including meta-analysis, on aspects related to diagnostic imaging, interventional Radiology or any technological aspect in which the image is applied. They can be prospective or retrospective. In this section, reports that do not include a statistical study will not be accepted. The maximum number of authors is 7 and the maximum length is 4,000 words (Introduction, Material and methods, Results and Discussion). There can be up to 40 citations in the reference list. The authors should include the images and tables that are indispensable for illustrating and improving the understanding of the text, although a maximum of 4 tables and 7 figures is recommended. The abstract should be structured. The authors should provide 3 to 10 keywords, according to the terms used in the MeSH (Medical Subject Headings) of the Index Medicus/Medline, available at: https://www.ncbi.nlm.nih.gov/mesh.

   Clinical original article

   These works are generally retrospective, and should describe a sufficient number of cases to make it possible to reach conclusions regarding a disease or a disease process, or the technological application. Statistical analysis is not generally necessary, but it is important to address novel aspects of the subject or the disease being dealt with, either because of the characteristics of the image itself or due to the management of the disease in question. The maximum number of authors is 7 and the maximum length is 2,000 words (Introduction, Material and methods, Results and Discussion). References should not exceed 20. The authors should include the images and tables that are indispensable for illustrating and improving the understanding of the text, although a maximum of 1 table and 5 figures is recommended. The abstract should be structured. The authors should provide 3 to 10 keywords, according to the terms used in the MeSH (Medical Subject Headings) of the Index Medicus/Medline, available at: https://www.ncbi.nlm.nih.gov/mesh.

2. Update in Radiology

   These articles review different aspects of diagnostics using images, interventional Radiology or the technology applied to the image. These are not in-depth reviews as though they were scientific papers, but updates. Thus, the maximum length is 4,000 words (excluding references, figure
legends and tables). There should not be more than 75 references, and the tables and images that are indispensable for illustrating and improving the understanding of the text (a maximum of 3 tables and 10 figures is recommended). These are usually commissioned by the Editorial Board, although Radiología will consider spontaneous communications. In the latter case, the authors must, necessarily, consult first with the editor-in-chief through the E-mail address: rx@elsevier.com. The maximum number of authors is 5. The abstract is not structured and should not exceed the maximum of 150 words. The authors should provide 3 to 10 keywords, according to the terms used in the MeSH (Medical Subject Headings) of the Index Medicus/Medline, available at: https://www.ncbi.nlm.nih.gov/mesh

For continuing training credits, 10 multiple choice questions should be included (five responses, only one correct).

3. Article from a resident

These articles are reviews of various aspects of the image, both in its technical and diagnostic or interventional aspects. They are not about exhaustive reviews like a scientific treatise, but about a brief updated review of a topic of interest to the residents. Therefore, its maximum length will be 4,000 words (excluding references, figure legends and tables). There should not be more than 40 references, and the tables and images that are indispensable to illustrate and improve the understanding of the text (a maximum of 3 tables and 10 figures is recommended). The abstract will not structured and should not exceed the maximum of 150 words. Authors should provide 3 to 5 keywords, according to the terms used in the MeSH (Medical Subject Headings) of the Index Medicus/Medline, available at: https://www.ncbi.nlm.nih.gov/mesh. It will include a section of "Key Points" with a minimum of 3 and a maximum of 5, which includes the main key ideas of the article. The maximum number of authors will be 4, among which the first one will be an active resident at the date of sending the manuscript and at least one specialist who supervises him.

4. Radiology through images

These are educational works focused on continuing medical training, based mainly on the images and the figure legends. The text will concentrate on the key aspects of a general term that is illustrated in the images. The maximum number of figures is 15, with a maximum number of images of 30. All of the figures portraying a single patient will have the same number as the figure and will begin with the following data: Patient, age, sex, situation or main clinical topic (e.g. Fig. 1 48-year-old man with chest pain). The maximum number of words is 2,000 and this must include the key educational points (from 3 to 5), with the legend It should be remembered that with the words in color. It can include up to 30 references. The maximum number of authors is 5. It must include a structured abstract in the sections Objective and Conclusion, with a limit of 150 words. The authors should provide 3 to 10 keywords, according to the terms used in the MeSH (Medical Subject Headings) of the Index Medicus/Medline, available at: https://www.ncbi.nlm.nih.gov/mesh

For continuing training credits, 10 multiple choice questions should be included (five responses, only one correct).

5. Humanities in Radiology

These articles provide informative contents on different subjects that relate Humanities to Medicine and, specifically to Radiology, that may be of interest to the journal's readers. This includes all the branches of Humanities, and the articles can be anthropological, sociological, historic, artistic or the biography of relevant figures, among others. The objective of this section is to recall the figure of the physician (radiologist) as someone with experience in human conception as a whole, in all of its aspects. These are review articles that will follow the same structure and publication standards as those of "Update in Radiology". Thus, the maximum length is 4,000 words (excluding the references, figure legends and tables). The articles should include available evidence on the subject being dealt with, supported by its corresponding references (no more than 75). It can be accompanied by tables and figures (no more than 3 tables and 10 figures). Before preparing the text, it should be proposed to the editor, at the address: rx@elsevier.com. Once the manuscripts are ready, they will be included in the database and their final acceptance will undergo the same review circuit by peers from the journal. The maximum of authors is four.

6. Evidence-based Radiology

Critically Appraised Topics (CATs) are structured abstracts from research articles that respond to a specific clinical query with the best available evidence, and are evaluated critically to confirm their validity. Articles of this type are characterized by their conciseness and, thus, the maximum length of the text is 1,100 words (excluding the references). A maximum of 12 references are permitted.
The maximum number of authors is 4. The abstract is not structured. The authors should provide 3 to 10 keywords, according to the terms used in the MeSH (Medical Subject Headings) of the Index Medicus/Medline, available at: https://www.ncbi.nlm.nih.gov/mesh

The manuscript should be structured using the following sections: - Clinical problem: brief summary of the clinical setting and of the diagnostic doubt generated. - Clinical query: Structured according to the PICO strategy (patient-intervention-comparison-outcome). The translation of the query into search terms will also be provided. - Search strategy employed: the major databases consulted and the number of references found. The documents to be selected are those that best synthesize the evidence of the clinical problem or those original articles with the highest level of evidence, according to the Oxford classification. This section can be summarized in a Table. Critical reading of the articles selected: summarize the major parameters analyzed that will guarantee the quality of the results. Applicability and conclusions: brief commentary that explains whether the results of other investigations serve to solve our query and if they are sufficiently important to change any aspect of our routine practice.

7. Brief report
These works are short in length, and are based on one or several clinical-radiological cases. Radiología considers publishing them, although it will be restrictive when the time comes to accepting them. The reasons for presenting a work of this type could be the extreme rarity of the disease or how unusual its manifestation in a more common disease. In the case of interventional Radiology a reason could also be how innovative or the rarity of its management. In the presenting letter, the authors should highlight what it is that makes the case something exceptional, more than just its rarity. The authors should consider that it is a concise description, and a review of the literature is not appropriate. Therefore, the maximum extension is 1,100 words, with 10 references, and the figures will be limited to those essential to illustrate the findings described, up to a maximum of three. In general, tables should not be included. The maximum number of authors is 4. The abstract will not be structured. The authors should provide 3 to 10 keywords, according to the terms used in the MeSH (Medical Subject Headings) of the Index Medicus/Medline, available at: https://www.ncbi.nlm.nih.gov/mesh

Necessarily, in the letter of presentation, the authors must refer to the reason for the exceptionality of the case and why they consider that it should be reviewed. The simple rarity, without adding anything beyond the previously described cases, is not a sufficient criteria. The discussion of the article should begin with an explicit allusion to what makes the case exceptional and, then, the discussion should focus on that exceptionality, and not simply review what has been reported elsewhere.

8. Opinion article
These contributions are brief compositions that reflect the opinion of the author on any controversial issue within the scope of the specialty. The author must necessarily consult with the editor-in-chief before submitting it. The maximum extension is 1,300 words. It can be accompanied by a maximum of 4 figures or tables, and can include no more than 5 references. As these are personal views, they will generally be contributions of a single author or, at most, two. Opinion articles do not require an abstract.

9. Radiology today
These articles provide a review of the most recent information related to controversial matters or the current situation in the area of diagnostic imaging and therapy guided by imaging techniques. The articles are commissioned, although the editor is open to considering individual proposals. They should never be sent to Radiología without having consulted previously with the editor-in-chief. The style is free, although it must always have an introductory section, which ends with a specific objective, and a conclusion at the end of the manuscript. The maximum extension is 2,500 words and 30 references. A maximum of 5 figures or tables can be included. The number of authors is a maximum of three. The abstract is not structured. The authors should provide 3 to 10 keywords, according to the terms used in the MeSH (Medical Subject Headings) of the Index Medicus/Medline, available at: https://www.ncbi.nlm.nih.gov/mesh.

10. Letter to the Editor
The Editorial Board encourages the readers of Radiología to send their objections or comments relative to articles published in Radiología, as well as their comments on any aspect related to Radiología. This section will also include comments concerning the editorials of Radiología. The maximum extension is 500 words and there can be 5 references, In general the number of authors will be one or two. They should not include abstract, tables or figures. Exceptionally, a figure may be published, but it would first have to be considered by the Editorial Board.
11. Scientific letters
The Editorial Board of Radiología will evaluate clinical descriptions that contain information that, because of their relevance, could have a clearly instructive value for the journals readers. The maximum extension is 650 words and it can include up to 2 figures and 5 references. The number of authors will be a maximum of two. They do not include abstract or tables.

12. Other sections
Radiología is a dynamic journal and, as such, considers the introduction of new sections over time. These sections will generally be grouped under the title special articles. The articles in these sections will be commissioned by the editor-in-chief and, in principal, spontaneous contributions will not be considered.

Contact details for submission
All manuscripts must be submitted online through the Radiología EES Web site at http://ees.elsevier.com/rx/.

Page charges
This journal has no page charges.

Language
This journal is published in Spanish and in English language.

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.

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.

**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 competing interests 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).

**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').

**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.

**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.

**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.
**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 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 Author Services.

**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. 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 [http://ees.elsevier.com/rx](http://ees.elsevier.com/rx).

**Referees**
Please submit the names and institutional e-mail addresses of several potential referees. For more details, visit our Support site. Note that the editor retains the sole right to decide whether or not the suggested reviewers are used.

**PREPARATION**

**Peer review**
This journal operates a double 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.
**Double-blind review**
This journal uses double-blind review, which means the identities of the authors are concealed from the reviewers, and vice versa. More information is available on our website. To facilitate this, please include the following separately:

**Title page (with author details):** This should include the title, authors' names, affiliations, acknowledgements and any Declaration of Interest statement, and a complete address for the corresponding author including an e-mail address.

**Blinded manuscript (no author details):** The main body of the paper (including the references, figures, tables and any acknowledgements) should not include any identifying information, such as the authors' names or affiliations.

**Use of word processing software**
It is important that the file be saved in the native format of the word processor used. The text should be in single-column format. 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 word processor's options to justify text or to hyphenate words. However, do use bold face, italics, subscripts, superscripts etc. When preparing tables, if you are using a table grid, use only one grid for each individual table and not a grid for each row. If no grid is used, use tabs, not spaces, to align columns. The electronic text should be prepared in a way very similar to that of conventional manuscripts (see also the Guide to Publishing with Elsevier). Note that source files of figures, tables and text graphics will be required whether or not you embed your figures in the text. 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.

**Article structure**

**Subdivision - unnumbered sections**
Divide your article into clearly defined sections. Each subsection is given a brief heading. Each heading should appear on its own 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.

**Material and methods**
Provide sufficient details to allow the work to be reproduced by an independent researcher. Methods that are already published should be summarized, and indicated by a reference. If quoting directly from a previously published method, use quotation marks and also cite the source. Any modifications to existing methods should also be described.

**Results**
Results should be clear and concise.

**Discussion**
This should explore the significance of the results of the work, not repeat them. A combined Results and Discussion section is often appropriate. Avoid extensive citations and discussion of published literature.

**Conclusions**
The main conclusions of the study may be presented in a short Conclusions section, which may stand alone or form a subsection of a Discussion or Results and Discussion section.

**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.
- **Author names and affiliations.** Please clearly indicate the given name(s) and family name(s) of each author and check that all names are accurately spelled. You can add your name between parentheses in your own script behind the English transliteration. 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. This responsibility includes answering any future queries about Methodology and Materials. **Ensure that the e-mail address is given and that contact details are 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.

**Highlights**

Highlights are optional yet highly encouraged for this journal, as they increase the discoverability of your article via search engines. They consist of a short collection of bullet points that capture the novel results of your research as well as new methods that were used during the study (if any). Please have a look at the examples here: example Highlights.

Highlights should be submitted in a separate editable file in the online submission system. Please use 'Highlights' in the file name and include 3 to 5 bullet points (maximum 85 characters, including spaces, per bullet point).

**Structured abstract**

A structured abstract, by means of appropriate headings, should provide the context or background for the research and should state its purpose, basic procedures (selection of study subjects or laboratory animals, observational and analytical methods), main findings (giving specific effect sizes and their statistical significance, if possible), and principal conclusions. It should emphasize new and important aspects of the study or observations.

The headings will consist of: «Introduction and Objectives», «Patients or Materials and Methods», «Results» y «Conclusions».

**Graphical abstract**

Although a graphical abstract is optional, its use is encouraged as it draws more attention to the online article. The graphical abstract should summarize the contents of the article in a concise, pictorial form designed to capture the attention of a wide readership. Graphical abstracts should be submitted as a separate file in the online submission system. Image size: Please provide an image with a minimum of 531 × 1328 pixels (h × w) or proportionally more. The image should be readable at a size of 5 × 13 cm using a regular screen resolution of 96 dpi. Preferred file types: TIFF, EPS, PDF or MS Office files. You can view Example Graphical Abstracts on our information site.

Authors can make use of Elsevier's Illustration Services to ensure the best presentation of their images and in accordance with all technical requirements.

**Keywords**

Immediately after the abstract, provide a maximum of 6 keywords, using British 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**

Define abbreviations that are not standard in this field in a footnote to be placed on the first page of the article. Such abbreviations that are unavoidable in the abstract must be defined at their first mention there, as well as in the footnote. Ensure consistency of abbreviations throughout the article.

**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.

Artwork

Image manipulation
Whilst it is accepted that authors sometimes need to manipulate images for clarity, manipulation for purposes of deception or fraud will be seen as scientific ethical abuse and will be dealt with accordingly. For graphical images, this journal is applying the following policy: no specific feature within an image may be enhanced, obscured, moved, removed, or introduced. Adjustments of brightness, contrast, or color balance are acceptable if and as long as they do not obscure or eliminate any information present in the original. Nonlinear adjustments (e.g. changes to gamma settings) must be disclosed in the figure legend.

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.
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). Further information on the preparation of electronic artwork.

Illustration services
Elsevier's Author Services 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. Supply captions separately, not attached to the figure. 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.

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 highly encouraged.

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.
References in a special issue
Please ensure that the words 'this issue' are added to any references in the list (and any citations in the text) to other articles in the same Special Issue.

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. Using citation 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. If you use reference management software, please ensure that you remove all field codes before submitting the electronic manuscript. More information on how to remove field codes from different reference management software.

Reference style
Text: Indicate references by superscript numbers in the text. The actual authors can be referred to, but the reference number(s) must always be given.
List: Number the references in the list in the order in which they appear in the text.
Examples:
Reference to a journal publication:
Reference to a journal publication with an article number:
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.
**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 (if we do not have an e-mail address then paper proofs will be sent by post) or, a link will be provided in the e-mail so that authors can download the files themselves. Elsevier now provides authors with PDF proofs which can be annotated; for this you will need to download the free Adobe Reader, version 9 (or higher). Instructions on how to annotate PDF files will accompany the proofs (also given online). The exact system requirements are given at the Adobe site.

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 scan the pages and return via e-mail. 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 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 Author Services. 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