

AJR Guidelines for Authors

Authors must submit all manuscripts using the online submission and peer review system at www.ARRS.org or <http://ajr.edmgr.com>.

Submission and peer review questions should be addressed to:

American Roentgen Ray Society
Publications Department, Attn: Peer Review Manager
1891 Preston White Dr., Reston, VA 20191
Telephone: 703-648-8900 or 1-800-347-7748 • Fax: 703-729-4839
Email: AJRsubmit@arrs.org

GENERAL INFORMATION

The *AJR* publishes original contributions to the advancement of medical diagnosis and treatment.

- Submitted manuscripts should not contain previously published material and must not be under consideration for publication elsewhere.
- The *AJR* follows the guidelines of the International Committee of Medical Journal Editors (ICMJE). The guidelines may be viewed at www.icmje.org. Any clinical trials on which the article may be based must be registered as outlined in the ICMJE guidelines.
- For studies dealing with diagnostic accuracy, please refer to the Standards for Reporting of Diagnostic Accuracy (STARD) checklist on the STARD Website: <http://www.stard-statement.org/>.
- Manuscripts that do not conform to the *AJR* Author Guidelines or exceed the Maximums for Articles Submitted to the *AJR* may be returned to the author without review or put on hold until the submission is deemed in compliance with the requirements.
- Manuscript decisions are based on the Editors' discretion and/or input from the peer review process. Reviewers receive manuscripts that have the author and affiliation information blinded from the PDF to ensure an unbiased review.
- Once an accepted manuscript is assigned to a specific issue, authors will be notified as to the scheduled publication date and when they can expect to receive the galley and page proofs via e-mail. If the corresponding author will be unavailable to review these proofs, arrangements should be made for a coauthor or colleague to read and return the proofs.
- Statements made in the article, including changes made by the Editor or manuscript editor, are the responsibility of the author and not of the *AJR* or ARRS.
- Articles will be edited to conform to the individual style of the *AJR*.

COPYRIGHT AND CONFLICT OF INTEREST INFORMATION

- All authors must sign the *Transfer of Copyright Agreement, Conflict of Interest Acknowledgment, Certification of Coauthors, Exclusive Publication Statement, and Disclosure of Commercial Interest* form. The signatures should be on the same page if possible, but can be on separate sheets. Forms must be mailed or faxed to the Journal Office in Leesburg, Virginia with the manuscript number clearly marked.
- All authors must certify that they have disclosed any conflicts of interest as noted in item 2 of the Transfer of Copyright Agreement and in the submission cover letter.
- Reprints of your article may be ordered by e-mail to reprints@arrs.org or by phone at 703-648-8900 request "AJR reprints".

GENERAL GUIDELINES FOR ALL SUBMISSIONS

- A cover letter must be included with the online submission that lists the corresponding author's telephone, fax, and e-mail information and states the type of article being submitted.
- Manuscripts must follow the *AJR* Guidelines for that specific type of article. Articles adhere to the maximums listed in the Maximums for Articles table for the specific type of article.
- The manuscript, including references, tables, and figure legends, is double-spaced in 12-point typeface. Right-hand margins are not justified.
- All manuscript pages are numbered consecutively beginning with the abstract.
- Neither author's names nor their affiliations appear anywhere on the manuscript pages or on the images.
- For any study involving human subjects (or animals), state in the Subjects (or Materials) and Methods section of the manuscript that an appropriate institutional review board approved the study.
- Informed consent must be obtained from patients who participated in clinical investigations. If experiments were performed on animals, authors complied with NIH guidelines for use of laboratory animals.
- Use of acronyms and abbreviations is discouraged and kept to a minimum. When used, they are defined at first mention, followed by the acronym or abbreviation in parentheses.
- International System of Units (SI) measurements are used throughout, or the SI equivalent is given in parentheses.
- Names of manufacturers are given for equipment and non-generic drugs.

MANUSCRIPT ORGANIZATION

The manuscript is organized as follows: full title page, abstract, introduction, materials (or subjects) and methods, results, discussion, acknowledgments, references, tables, figure legends, and figures.

Full Title Page:

A separate Word document with the following information is given: title of article; names and complete addresses (including zip code) of all authors; present addresses of authors who have moved since study; and acknowledgment of grants or other assistance. The corresponding author is clearly identified; a present address, telephone and fax numbers, and an e-mail contact are given. (NOTE: This information will not be included in the PDF that goes to the reviewers.)

(The following are uploaded as a single Microsoft Word document.)

Abstract:

The abstract should clearly state the objective, materials (or subjects) and methods, results, and conclusions of the study. Include actual data. Do not use abbreviations. Do not use reference citations.

Introduction:

Describe the objective of the investigation and explain why it is important. Indicate the specific goal or purpose of the article, and indicate why it is worthy of attention. Explain the hypothesis to be tested, the dilemma to be resolved, or the deficiency to be remedied. The objective stated here must be identical to the one given in the title.

Materials (or Subjects) and Methods:

Describe the methods used to achieve the objective explained in the introduction. Describe the research plan, the materials (or subjects), and the methods used, in that order. Explain in detail how disease was confirmed and how subjectivity in observations was controlled. Explain what data were collected, and how the data were analyzed.

Results:

The findings of the methods are presented here. All results should flow in a clear, logical sequence from the methods described and not stray from the specific objective of the paper. If tables are used, do not duplicate tabular data in text, but do describe important trends and points.

Discussion:

Describe the limitations of the research plan, materials (or subjects), and methods, considering both the objective and the outcome of the study. When results differ from those of previous investigators, explain the discrepancy.

References:

- References are **numbered consecutively in the order in which they appear in the text.**
- All references are cited in the text, are enclosed in brackets, and are typed on line with the text (not superscripted).
- Unpublished data are not cited in the reference list, but are cited parenthetically in the text, for example: (Smith DJ, personal communication), (Smith DJ, unpublished data). This includes papers submitted, but not yet accepted, for publication.
- Papers presented at a meeting are not cited in the reference list but are cited parenthetically in the text, for example: (Smith DJ et al., presented at the 2003 annual meeting of the American Roentgen Ray Society). After first mention, use (Smith DJ et al., 2003 ARRS meeting).
- Inclusive page numbers (e.g., 333–335) are given for all references.
- Journal names are abbreviated according to *Index Medicus*.
- Style and punctuation of references follow the format illustrated in the following examples. (All authors are listed when six or fewer; when seven or more authors, the first three are listed, followed by et al.)

Journal article

1. Long RS, Roe EW, Wu EU, et al. Membrane oxygenation: radiographic appearance. *AJR* 1986; 146:1257–1260

Book

2. Smith LW, Cohen AR. *Pathology of tumors*, 6th ed. Baltimore, MD: Williams & Wilkins, 1977:100–109

Chapter in a book

3. Breon AJ. Serum monitors of bone metastasis. In: Clark SA, ed. *Bone metastases*. Baltimore, MD: Williams & Wilkins, 1983:165–180

Tables:

- Tables must be relevant and provide the reader with a good summary of the study. They should not simply repeat the working data used by researchers during the execution of the study.
- Each table has a short, descriptive title, and each column has a heading.
- Tables do not exceed two pages in length and must contain at least four lines and two columns of data.
- Tables are numbered in the order in which they are cited in the text.
- Abbreviations are defined in an explanatory note below each table.
- Tables are self-explanatory and do not duplicate data given in the text or figures.
- All arithmetic (percentages, totals, differences) has been double-checked for accuracy, and tabular data agree with data given in the text.
- Tables should be prepared in MS Word by entering data across the row (or horizontally) divided by tabs, with a return at the end of each row.

Figure Legends and Figures:

- Legends use *AJR* style: **Fig. 1**—47-year-old woman with rheumatoid arthritis. For each subject, supply age, sex, and condition or diagnosis.
- All figure parts relating to one patient should have the same figure number.
- Electronic manipulation of images that materially alters the medical information must be identified and the nature of the alterations described.
- Symbols are uniform in size and style and are large enough to withstand reduction.
- Line drawings and graphs are in black on a white background, using the same size type as the text. Avoid 0.5-mm hairline rules.
- Authors' names and affiliations do not appear anywhere on the images.
- Written permission to reprint in print and electronic media, including online use, has been obtained for use of all previously published illustrations, and an appropriate credit line is given in the legends. A form is available at www.ajronline.org/misc/ifora.shtml to request permission from copyright owners. Permission letters should be faxed to ARRS with the author's name, manuscript title, and number included.
- When published, figures become the property of *AJR*/ARRS.

Figure Files (Original Submission):

- For the original submission, **Authors are required to submit their figures as embedded images in the MS Word document.** The figures should be inserted at the end of the manuscript on the page with the figure legends. This will make it easier for the author to upload the file and will produce a PDF that is easier for the Editors and Reviewers to download.
- Figure captions should be directly above or below the corresponding image.
- TIFF files are not required unless the manuscript is accepted or the Editors ask for revisions.

Figure Files (Resubmissions & Accepted Papers):

- For resubmissions, the files must be submitted as TIFF files. Other formats (e.g., JPEG, EPS, GIF, PICT, PowerPoint) or lower resolutions will not be usable.
- Authors must use the following naming convention and submit a separate file for each figure part: Figure_01a.tif, Figure_01b.tif, Figure_02a.tif, etc.
- **Image Size**—All images should be no more than 5 inches in height or width.
- **Black & white images:** TIFF format, Grayscale mode, 300 DPI resolution, No layered files, No alpha channels, No color profiles assigned
- **Color images:** 300 DPI resolution, No layered files, No alpha channels, Color profile if used: CMYK (No Indexed Color, Lab, or RGB profiles)
- **Line art:** 1,200 DPI resolution, Grayscale or Bitmap mode, No layered files, No alpha channels, Color profile if used: CMYK (No Indexed Color, Lab, or RGB profiles)

Resubmission Requirements:

Resubmissions must be submitted through the online submission and peer review system. Resubmissions must include the following files:

- A point-by-point, detailed response to the Editors and/or reviewers' comments must be included either in the Rebuttal section on the submission page or attached as a MS Word document. Responses should be identified by including the reviewer comment preceding the response and by the reviewer number and comment number, for example, comment number 4 provided by reviewer number 2 should be labeled as "[rev 2, comment 4]."
- An updated, full title page.
- An annotated copy of the revised manuscript with changes highlighted. Changes should be identified by the reviewer number and comment number in the margins or in the text to make it clear to the Editors and reviewers which comment the change is addressing.
- A clean, un-annotated final version of the revised manuscript (without any embedded figures).
- All figures must be uploaded as individual TIFF files (even if there are no changes or revisions to the figures). You can include your originally submitted images in your revision by selecting them for inclusion during the resubmission process.

AJR Guidelines for Authors

TYPES OF ARTICLES

The *AJR* publishes specific types of articles. Each type serves a distinct and separate purpose and is judged by different criteria. Manuscripts should be constructed according to specific guidelines for that type of article.

As of April 1, 2009, the following manuscript types are no longer accepted:

- Clinical Observations
- Radiologic-Pathologic Conferences
- Computers in Radiology (articles on computer and informatics subjects may be submitted under Technical Innovations, for example, or any other valid article type)
- Illustrated Letters to the Editor

The following notes on authorship and conflict of interest apply to ALL article types.

- **Authorship:** Brief contributions such as Letters to the Editor should, under most circumstances, have no more than three coauthors, with one to two being the norm. Original Research, Clinical Observations, Pictorial Essays, and Technical Innovations may have up to seven coauthors. Under special circumstances, such as when the study involves the participation of multiple centers, a larger list of authors would be acceptable. However, the participation and contributions of the larger number of individuals must be explained in detail on the cover letter to the submission.
- **Conflict of interest:** Authors submitting manuscripts to the *AJR* must appropriately disclose any financial relationship with a commercial organization that may have an interest in the content. Please refer to the Transfer of Copyright Agreement for more information on this topic.

Original Research:

This is the most important type of article because it provides new information based on original research. If the information is accurate and important, and the conclusions are substantiated by the data provided, the paper serves to advance radiology. Statistical analysis to support conclusions is usually necessary. Often an Original Research article is hypothesis based and attempts to provide conclusive evidence as to the validity of the hypotheses. **Maximums:** Pages of text – 18 (4,500 words); References – 35; Figures – 7 or total of 15 images; Tables – 4

Pictorial Essay:

This is a continuing medical education exercise with the teaching message in the figures and their legends. Text is limited to four pages and should include teaching points, educational goals, and a brief abstract; there may be as many as 30 figure parts; and between 4 and 6 multiple-choice, single-best answer questions to be used for CME. No new information is included. The value of the paper turns on the quality of the illustrations as well as the timeliness and utility of the teaching points. Authors are encouraged to submit dynamic images or include supplemental image files for online presentation that further illustrate the educational purpose of the essay. **Maximums:** Pages of text – 4 (1,250 words [includes questions, teaching points, and educational goals]); References – 15; Figures – 15 or total of 30 images; Questions – 4 to 6; Teaching Points and Educational Objectives to be included; Tables – 0

For instructions on drafting multiple-choice questions, please see “Writing Multiple Choice Questions” at <http://www.arrs.org/uploadedFiles/ARRS/Publications/writingMultipleChoiceHandout.pdf>

Technical Innovation:

This is a brief description of a specific technique, procedure, unique software application, modification of a technique, or new equipment of interest to radiologists. Discussion is limited to the specific message, including the uses of the technique, equipment, or software. Literature reviews and lengthy descriptions of cases are not appropriate. **Maximums:** Pages of text – 5 (1250 words); References – 8; Figures – 3 or total of 6 images; Tables – 4

Clinical Perspective:

This is a description of authors’ retrospective experience with a specific clinical subject. The text describes “how and/or why we do it.” There may be little or no original information and limited analysis of the literature. Compared with a pictorial essay, text is longer and the figures, fewer. This is not an appropriate venue for a Case Report-type of paper. **Maximums:** Pages of text – 15 (3750 words); References – 75; Figures – 10 or total of 24 images; Tables – 4

Review Article:

Scholarly analysis of recent developments on a specific topic as reported in the literature. No new information is described, and no opinions or personal experiences are expressed. Reviews are not encyclopedic like a chapter in a textbook; rather, they include only the highlights. **Maximums:** Pages of text – 15 (3750 words); References – 75; Figures – 10 or total of 24 images; Tables – 4

Opinion Paper:

Short article (five or fewer pages) giving the author's personal judgment on a controversial topic. Illustrations are few. Review of the literature is limited to articles that serve to justify the author's opinion. **Maximums:** *Pages of text – 5 (1250 words); References – 5; Figure parts and tables cannot exceed 4*

Letter to the Editor and Reply:

Letters to the Editor and Replies should offer objective and constructive criticism of published articles. Letters may also discuss matters of general interest to radiologists and may include images. Material being submitted or published elsewhere should not be duplicated in letters. **Maximums:** *Pages of text – 2 (500 words); References – 4; Figures – 2 or total of 4 images; Tables – 0*

Maximums for Articles Submitted to the AJR

Type of Article	Pages of Text (words)*	Number of Authors	Abstract required (words)	References	Figures (or total number of images)	Tables
Original Research	18 (4500)	7	Yes (250)	35	7 (15)	4
Pictorial Essay**	4 (1,250)	7	Yes (75)	15	15 (30)	0
Technical Innovation	5 (1250)	7	Yes (75)	8	3 (6)	4
Clinical Perspective/Review	15 (3750)	7	Yes (75)	75	10 (24)	4
Opinion	5	4	Yes (75)	5	Figure parts and tables cannot exceed 4	0
Letter to the Editor/Reply	2	3	No	4	2 (4)	0

*Maximum number of pages is exclusive of full title page, references, and figure legends.

**See full description for information on CME questions.