

# JACC: Clinical Electrophysiology Instructions for Authors

JACC: Clinical Electrophysiology will encompass all aspects of the epidemiology, pathogenesis, diagnosis and treatment of cardiac arrhythmias. Submissions of original research and state-of-the-art reviews from cardiology, cardiovascular surgery, neurology, outcomes research, and related fields are encouraged. Experimental and preclinical work that directly relates to diagnostic or therapeutic interventions are also encouraged. In general, case reports will not be considered for publication. We request that all manuscripts be submitted online at <http://www.jaccsubmit-clinicalep.org>.

## ARTICLE TYPES

**ORIGINAL RESEARCH PAPERS.** Submissions for meta-analyses as original research articles will be considered upon invitation from the editors or with preapproval upon request from the authors. Meta-analyses of prior clinical trials and studies should focus on areas where the prior original works may not have been adequately powered to detect notable outcomes and an increase in sample size is valuable and/or where there is controversy with regards to benefit or risks of an intervention and its extrapolation to greater populations. Meta-analyses will be evaluated on whether they provide important new insight, beyond the original studies, on translation of novel therapies and/or clinical management/treatment of patients. For preapproval, please email the editors at [jacccep@acc.org](mailto:jacccep@acc.org).

Because of the printed page limitations, the manuscripts should be ≤5,000 words (including text, references, and figure legends). Note that if you are asked to revise your paper, an alternate word limit may be specified by the Editors. Illustrations and tables should be limited to those necessary to highlight key data. Please provide sex-specific data, when appropriate, in describing outcomes of epidemiologic analyses or clinical trials, or specifically state that no sex-based differences were present. For original research dealing with genetic associations, authors should refer to the following article: Ginsburg GS, Shah SH, McCarthy JJ. Taking cardiovascular genetic association studies to the next level. *J Am Coll Cardiol.* 2007;50:930–2.

- Authors: No more than two corresponding authors; no more than two joint authors in any position
- Abstract: Structured with the following headings and no more than 250 words: Background, Objectives, Methods, Results and Conclusions. The abstract should present essential data in 5 paragraphs. Use complete sentences. All data in the abstract also must appear in the manuscript texts or tables.
- Results: Please report all P-values to three digits after the decimal point.
- Study limitations (required): Please include the limitations of your investigation at the end of the discussion section of your manuscript.
- Figure/Table Limit: None
- Central Illustration: Required (See Manuscript Content section for more information about Central Illustrations)
- Clinical Perspectives: Required (See Manuscript Content section for more information about Clinical Perspectives)
- Ethical Approval (required): Please denote that your study received proper ethical oversight in both your cover letter and Methods section. For manuscripts reporting data on human subjects, note institutional review board/ethics committee approval (or formal review and exemption), including the specific name of the board or committee. For studies involving animal experiments, note that the study complied with all

institutional and national requirements for the care and use of laboratory animals and, if applicable, received approval from an animal care and use committee approval. State the animal-handling protocol in your Methods.

Please be sure you have obtained or will obtain permission for previously published tables, figures, or any material for which you cannot grant copyright. Please contact us with suggestions before you start to prepare such review articles.

**STATE-OF-THE-ART AND TOPIC REVIEW PAPERS.** The Editors will consider invited review articles. For uninvited review articles, please submit a proposal to the editorial office at [jacccep@acc.org](mailto:jacccep@acc.org) before submitting your article. Manuscripts can be submitted as either a State-of-the-Art Review or as a Topic Review/Viewpoint. Authors should detail in their cover letters how their submission differs from existing reviews on the subject:

### State-of-the-Art Review

- Word count: no more than 10,000 words (text from the introduction to the conclusion, plus references and figure legends)
- Abstract: Unstructured and no more than 250 words
- Figure Limit: None
- Table Limit: None
- Central Illustration: Required
- Highlights: Required (See Manuscript Content section for more information about Highlights)
- Clinical Perspectives: Not applicable

### Topic Review/Viewpoint

- Word count: no more than 5,000 words (text from the introduction to the conclusion, plus references and figure legends)
- Abstract: Unstructured and no more than 250 words
- Figure Limit: None
- Table Limit: None
- Central Illustration: Required
- Highlights: Required (See Manuscript Content section for more information about Highlights)
- Clinical Perspectives: Not applicable

Please be sure you have obtained or will obtain permission for previously published tables, figures, or any material for which you cannot grant copyright.

**IMAGES AND VIGNETTES IN CLINICAL ELECTROPHYSIOLOGY.** The editors will consider clinical or basic science images—including studies in motion—that illustrate either important classic or novel findings in the field of clinical electrophysiology. The aim is to convey important concepts in cardiac electrophysiology using a series of images/tracings. Typical submissions would involve a series of clinical and/or basic science images that:

1. Comprehensively illustrate a typical spectrum of important classic features or significantly novel findings;
2. Provide unique insight into fundamental mechanisms of disease or pathophysiology; comprehensively illustrate major, but less well-known, facets of an abnormality; or clarify a new therapy;
3. Present hypothesis generating and/or cutting-edge concepts through images/tracings;
4. Present previously unavailable/unclear correlations between tracings/images and pathology.

Though often presented within the context of a clinical scenario, this section is not meant to be a vehicle for case reports. It is expected that submissions will typically involve images/tracings from one or several subjects. Only submissions that align closely with the above criteria will be processed for this section and will be subject to regular peer review. A series of images that can be 2 to 3 images or up to 10 to 20 images (ECGs, tracings, maps, etc.) can be provided. Text should consist of a title page, an introduction of 150 words, a descriptive figure legend of up to 150 words per figure, and—only if absolutely necessary—up to 3 references. Video clips (of catheters/maps) can be submitted in mp4 format (see “Video Requirements”). If movies are used, they must be linked to a specific figure and be mentioned in the text.

**INNOVATIONS IN CLINICAL ELECTROPHYSIOLOGY.** This article type is intended to present highly novel clinical findings or procedural approaches in a small number of patients. Ideal studies for Innovations in Clinical Electrophysiology are not suited for a case report or a full clinical study and must include data from at least 3 patients. You may also submit original investigations of a focused nature under Innovations in Clinical Electrophysiology:

- Word count: No more than 2,000 words, including references and figure legends
- References: No more than 10
- Authors: No more than 10; no joint authorship permitted
- Figures/Tables: No more than two figures (each containing  $\leq 4$  sub-panels); figures may be substituted by concise tables
- Supplemental Material: Not permitted
- Abstract: Unstructured and no more than 100 words, stressing novelty and clinical implications
- Central Illustration: Required
- Clinical Perspectives: Required

**INNOVATIONS IN BASIC/TRANSLATIONAL ELECTROPHYSIOLOGY.** This article type is intended to present brief, focused, and highly innovative basic/translational research findings in cardiac electrophysiology. You may also submit original investigations of a focused nature under Innovations in Basic/Translational Electrophysiology:

- Word count: No more than 2,000 words, including references and figure legends
- References: No more than 10
- Authors: No more than 10; no joint authorship permitted
- Figures/Tables: No more than two figures (each containing  $\leq 4$  sub-panels); figures may be substituted by concise tables
- Supplemental Material: Not permitted
- Abstract: Unstructured and no more than 100 words, stressing novelty and clinical implications
- Central Illustration: Required
- Clinical Perspectives: Required

**PRIMERS IN CLINICAL ELECTROPHYSIOLOGY.** The Editors will consider both invited and volunteered evidence-based, rigorously developed articles regarding research methodology in both basic and clinical science; evidence-based best clinical practices; and procedural aspects of clinical electrophysiology training and career development; health care innovation; or explanation of mechanisms of action and relevance to clinical electrophysiology. Primers can be submitted as short-form or long-form articles:

#### Short Form

- Word count: No more than 2,000 words (text from the introduction to the conclusion, including references and figure legends); please refrain from using subheadings within the text

- Abstract: Not applicable
- Authors: No more than 10; no joint authorship permitted
- References: No more than 10
- Figures/Tables: Two single-paneled figures OR one simple table and one single-paneled figure
- Central Illustration: Not applicable
- Highlights/Main Messages: Required
- Clinical Perspectives: Not applicable
- Supplemental Material: Not permitted

#### Long Form

Authors should detail in their cover letters how their submission differs from existing publications on this topic. The authors are encouraged to develop this with the Editors.

- Word count: No more than 10,000 words (text from the introduction to the conclusion, including references and figure legends)
- Authors: No more than two corresponding authors
- Abstract: Unstructured and no more than 150 words
- Figure Limit: None
- Table Limit: None
- Central Illustration: Required
- Highlights/Main Messages: Required
- Clinical Perspectives: Not applicable

Please be sure you have obtained or will obtain permission for previously published tables, figures, or any material for which you cannot grant copyright.

**RESEARCH LETTERS.** This section is intended to highlight recent development or other important pieces of information. You may submit original reports of preliminary data and findings or studies with small numbers demonstrating the need for further investigation as Research Letters, which are published as such in the Letters to the Editor section. These can include scientific studies with brief content and results such as phase II trial results, investigator-initiated studies funded by federal or society research grants (NIH K, R grant recipients), and/or emerging investigators. Research Letters should be  $\leq 1,000$  words (including text, references, and figure legend).

- Abstract: Not applicable
- Authors: No more than 10; no joint authorship permitted
- References: No more than 5
- Figures/Tables: No more than 1 simple figure (in no more than 2 parts) or 1 simple table
- Central Illustration: Not applicable
- Clinical Perspectives: Not applicable
- Supplemental Material: Not permitted
- Ethical Approval (required): Please denote that your study received the proper ethical oversight in both your cover letter and the body of the article. For manuscripts reporting data on human subjects, note approval from institutional review board/ethics committee (or formal review and exemption), including the specific name of the board or committee. For studies involving animal experiments, note that the study complied with all institutional and national requirements for the care and use of laboratory animals and, if applicable, received animal care and use committee approval. State the animal-handling protocol in the body of your article.

**LETTERS TO THE EDITOR AND REPLIES.** We welcome readers to submit formal comments on the content of articles published in *JACC: Clinical Electrophysiology*. Such comments should provide constructive scientific remarks. Readers may submit these comments as a Letter to the Editor within 3 months of the article's online publication date. Letters should be  $\leq 500$

words (including text and references). Replies will be solicited by the Editors and study authors will have 10 days to respond. The author's reply should be  $\leq 500$  words (including text and references) unless the author is responding to multiple letters in which case the reply should be  $\leq 800$  words (including text and references). Titles must be  $\leq 15$  words (not including the labels "To the Editor" and "Reply"). Replies to multiple letters need a title that is generic and encompasses all of the letters to which they are responding. Both letters and replies are limited to 5 authors, 5 references, and 1 table OR 1 figure in 1 or 2 panels. Please include the cited article as the first reference.

**EDITORIAL COMMENTS.** All Editorial Comments published in *JACC: Clinical Electrophysiology* are invited by the Editors. If you are invited to write an editorial, specific requirements will be sent to you. Papers should be  $\leq 1,500$  words (including text, references, and figure legends) and must include the cited article as a reference. In some cases, a table or figure may be helpful and appropriate. Please do not submit unsolicited editorials.

### PREPRINT DEPOSITION

*JACC: Clinical Electrophysiology* is now offering authors the opportunity to post their manuscripts on a SSRN preprint server (<https://www.ssrn.com/index.cfm/en/jacc-clinical-electrophysiology/>). Preprints are research papers that are at the early submission stage that have not gone through peer review nor editorial oversight and guidance and are primarily intended for research use. All papers on the "*JACC: Clinical Electrophysiology* First Look" server will be free to upload and download.

Authors may post a preprint of their manuscript during the journal submission process and in advance of manuscript decision. This service is not a requirement to submit to the Journal and has no bearing on the peer review process. Authors who wish to opt in and have their paper considered for posting should answer "Yes" in the Preprint Deposition section of the submission site. Please note that agreeing to post a manuscript to SSRN does not guarantee it will be posted. Only manuscripts sent out for peer review (at the editors' discretion) will be posted to SSRN. Papers that are accepted for publication will remain on the "*JACC: Clinical Electrophysiology* First Look" server indefinitely.

### MANUSCRIPT ORGANIZATION

1. Cover Letter (not required for Editorial Comments)
2. Rebuttal Letter (revision or appeal only)
3. Manuscript File
  - a) Title Page with title ( $\leq 15$  words), author names, author affiliations, author/funding disclosures, running title ( $\leq 7$  words), corresponding author contact information (including mailing address, phone, fax, and email address), and word count (beginning with text and ending with the last figure legend; not including tables)
  - b) Abstract (Structured Abstract of  $\leq 250$  words for Original Research Papers, Unstructured Abstract of  $\leq 150$  words); Clinical Trial Registration (if applicable); Key Words, 3-6; Abbreviations List,  $\leq 10$  Abbreviations
  - c) Text
  - d) Clinical Perspectives (core clinical competencies and translational outlook implications on a separate page after the conclusions, and only for Original Research Papers)
  - e) Acknowledgments (if appropriate)
  - f) References
  - g) Figure Titles and Legends
  - h) Tables (each on a separate page)
4. Figures/Central Illustration
5. Supplemental Material (uploaded as one single Microsoft Word document containing all supplemental figures and tables)

### FORMATTING

Please use Times New Roman 12-point font with 1-inch margins. The Title Page, Abstract(s), Key Words, and Abbreviations should be single-spaced. The remaining text should be double-spaced. Page numbering should begin with the Title Page.

### REPORTING SEX- AND GENDER-BASED ANALYSES

**REPORTING GUIDANCE.** For research involving or pertaining to humans, animals or eukaryotic cells, investigators should integrate sex and gender-based analyses (SGBA) into their research design according to funder/sponsor requirements and best practices within a field. Authors should address the sex and/or gender dimensions of their research in their article. In cases where they cannot, they should discuss this as a limitation to their research's generalizability. Importantly, authors should explicitly state what definitions of sex and/or gender they are applying to enhance the precision, rigor and reproducibility of their research and to avoid ambiguity or conflation of terms and the constructs to which they refer (see Definitions section below). Authors can refer to the [Sex and Gender Equity in Research \(SAGER\) guidelines](#) and the [SAGER guidelines checklist](#). These offer systematic approaches to the use and editorial review of sex and gender information in study design, data analysis, outcome reporting and research interpretation—however, please note there is no single, universally agreed-upon set of guidelines for defining sex and gender.

**DEFINITIONS.** Sex generally refers to a set of biological attributes that are associated with physical and physiological features (e.g., chromosomal genotype, hormonal levels, internal and external anatomy). A binary sex categorization (male/female) is usually designated at birth ("sex assigned at birth"), most often based solely on the visible external anatomy of a newborn. Gender generally refers to socially constructed roles, behaviors, and identities of women, men, and gender-diverse people that occur in a historical and cultural context and may vary across societies and over time. Gender influences how people view themselves and each other, how they behave and interact and how power is distributed in society. Sex and gender are often incorrectly portrayed as binary (female/male or woman/man) and unchanging whereas these constructs actually exist along a spectrum and include additional sex categorizations and gender identities such as people who are intersex/have differences of sex development (DSD) or identify as non-binary. Moreover, the terms "sex" and "gender" can be ambiguous—thus it is important for authors to define the manner in which they are used. In addition to this definition guidance and the SAGER guidelines, the [resources on this page](#) offer further insight around sex and gender in research studies.

### MANUSCRIPT CONTENT

**COVER LETTER.** A short paragraph telling the editors why the authors think their paper merits publication may be included in the cover letter. Potential reviewers may be suggested in the cover letter, as well as reviewers to avoid. However, final reviewer assignment is determined by the editors. The corresponding author should be specified in the cover letter and on the title page. All editorial communications and submission queries will be sent to this author. Cover letters must include the following 4 ICJME Statements:

1. The paper is not under consideration elsewhere;
2. None of the paper's contents have been previously published;
3. All authors have read and approved the manuscript;
4. The full disclosure of any potential conflict of interest (see "Relationship with Industry Policy") or that no such relationship exists. Exceptions

must be explained. If there is no conflict of interest, this should also be stated in the cover letter.

5. **Ethical Approval (required):** Please denote that your study received the proper ethical oversight in both your cover letter and the body of the article. For manuscripts reporting data on human subjects, note institutional review board/ethics committee approval (or formal review and exemption), including the specific name of the board or committee. For studies involving animal experiments, note that the study complied with all institutional and national requirements for the care and use of laboratory animals and, if applicable, received approval from animal care and use committee. State the animal-handling protocol in the body of your research correspondence or the Methods section of your manuscript.

**TITLE PAGE.** Include the full title (no more than 15 words), authors' names (full given name, middle initial, and surname), degree, total word count, and a running title of #7 words. List the departments and institutions with which the authors are affiliated, and indicate the specific affiliations if the work is generated from more than one institution (use superscript letters <sup>a, b, c, d</sup>, and so on). Provide information on clinical trials, grants, contracts, and other forms of financial support, and list the cities and states of all foundations, funds and institutions involved in the work. This must include the full disclosure of any relationship with industry (see "Relationship with Industry Policy"). If there are no relationships with industry, this should be stated. Corresponding author contact information: Under the heading, "Address for correspondence," provide the full name and complete postal address of the author to whom communications should be sent. Also provide telephone and fax numbers, an email address, and a Twitter handle, if available. Please also provide a short tweet summarizing your paper to your title page. The tweet should be approximately 280 characters, including spaces. Please include up to three hashtags with your tweet (Example: #ACCIntl, #ACCFIT, #WomenInCardiology, #CVD, #Heart-Failure). You may also review our [hashtag guide](#). Please note that the editors will review your content, and it may not ultimately be published on the @JACCJournals Twitter account. The corresponding author will be the sole contact for all submission queries.

**Word Count:** Word count should include text, references, and figure legends.

**ABSTRACT.** Provide a structured abstract of no more than 250 words for Original Research Papers, presenting essential data in 5 paragraphs introduced by separate headings in the following order: Background, Objectives, Methods, Results, Conclusions. All data in the abstract also must appear in the manuscript text or tables. For general information on preparing structured abstracts, see "Haynes RB, Mulrow CD, Huth EJ, Altman DG, Gardner MJ. More informative abstracts revisited. *Ann Intern Med.* 1990;113:69-76." An unstructured 150-word abstract should be provided for State-of-the-Art Reviews.

**KEY WORDS.** Immediately after the abstract, provide a maximum of 6 key words, using American spelling and avoiding general and plural terms and multiple concepts (avoid, for example, 'and', 'of'). These key words will be used for indexing purposes, and therefore should be different than the terms/words already used in the title of the paper.

**ABBREVIATIONS.** The abbreviations of common terms (e.g., ECG, PTCA, CABG) or acronyms (GUSTO, SOLVD, TIMI) may be used in the manuscript. On a separate page following the Abstract, list the selected abbreviations and their definitions (e.g., TEE=transesophageal echocardiography). The Editors may determine which lesser-known terms should not be abbreviated. Please consult "Recommendations for the Conduct, Reporting, Editing and

Publication of Scholarly Work in Medical Journals (ICMJE Recommendations)," available from [www.icmje.org](http://www.icmje.org) for appropriate use of units of measure.

**TEXT.** All text should be double-spaced. Page numbering should start with the Title Page. The text for Original Research Papers should be structured as Introduction, Methods, Results, Discussion, and Conclusions. Use headings and subheadings in the Methods, Results, and particularly, Discussion sections. Every reference, figure, and table should be cited in the text in numerical order according to order of mention. All supplemental figures, tables, and appendices should also be cited in the text.

**CLINICAL PERSPECTIVES.** These are for Original Research Papers only. The authors should delineate clinical implications and translational outlook recommendations for their manuscripts. These should be listed in the manuscript after the Text and before the Acknowledgments and References. The competencies describe the implications of the study for current practice. The translational outlook identifies the potential barriers to clinical translation, emphasizing directions for additional research.

**Clinical Competencies.** Competency-based learning in cardiovascular medicine addresses the 6 domains promulgated by the Accreditation Council on Graduate Medical Education (ACGME) and endorsed by the American Board of Internal Medicine (Medical Knowledge, Patient Care and Procedural Skills, Interpersonal and Communication Skills, Systems-Based Practice, Practice-Based Learning, and Professionalism) ([www.acgme.org](http://www.acgme.org)). The ACCF has adopted this format for its competency and training statements, career milestones, lifelong learning, and educational programs. The ACCF also has developed tools to assist physicians in assessing, enhancing, and documenting these competencies ([www.acc.org/education-and-meetings/products-and-resources/competencies](http://www.acc.org/education-and-meetings/products-and-resources/competencies)).

Authors are asked to consider the clinical implications of their report and identify applications in one or more of these competency domains that could be used by clinician readers to enhance their competency as professional caregivers. This applies not only to physicians in training, but to the sustained commitment to education and continuous improvement across the span of their professional careers.

**Translational Outlook.** Translating biomedical research from the laboratory bench, clinical trials or global observations to the care of individual patients can expedite discovery of new diagnostic tools and treatments through multidisciplinary collaboration. Effective translational medicine facilitates implementation of evolving strategies for prevention and treatment of disease in the community. The Institute of Medicine identified two areas in need of improvement: testing basic research findings in properly designed clinical trials and, once the safety and efficacy of an intervention has been confirmed, more efficiently promulgating its adoption into standard practice (Sung NS, Crowley WF, Genel M. The meaning of translational research and why it matters. *JAMA.* 2008;299:3140-3148).

The National Institutes of Health (NIH) has recognized the importance of translational biomedical research, emphasizing multifunctional collaborations between researchers and clinicians to leverage new technology and accelerate the delivery of new therapies to patients (<https://ncats.nih.gov/translation>).

Authors are asked to position their work in the context of the scientific continuum, by identifying impediments and challenges requiring further investigation and anticipating next steps and directions for future research.

**HIGHLIGHTS.** These are for State-of-the-Art Review and Topic Review papers.

Please provide a list of 3-4 brief (of no more than 15 words each) bullet points that highlight the main messages of the review. The first bullet should provide the translational/clinical context or background that establishes the relevance or need for this review. The second bullet should speak to the main message and focus of the review, including any recommendations made by the authors. The final bullet should summarize where the field needs to move forward from this point. Example:

- Cardiovascular aging leads to a progressive decline in function and structure.
- Calorie reduction and adjusted diurnal rhythm of feeding may help to prevent cardiovascular disease.
- Lowered intake of protein and nutritional modulation of the gut microbiome can be cardioprotective.
- Regular exercise, stress-reduction programs, and calorie-restriction mimetic medications can impact a healthy diet.

**ACKNOWLEDGEMENTS.** Acknowledgments should contain 100 words or less.

#### REFERENCES

- Identify references in the text with superscript numerals. Do not use EndNote.
- The reference list should be double-spaced on pages separate from the text; journal titles should be italicized. References must be numbered consecutively in the order in which they are mentioned in the text. List all authors if 6 or fewer, otherwise list the first 3 and add “et al.” Do not use periods after author initials.
- Do not cite personal communications, manuscripts in preparation, or other unpublished data in the references; these may be cited in the text in parentheses by name rather than by number. Do not cite abstracts that are older than 2 years. Identify abstracts by the abbreviation “abstr” in parentheses. If letters to the editor are cited, identify them with the word “letter” in parentheses. Websites must be cited as references (i.e., any URLs cited in the text or tables must be included as references rather than in the text or table).
- Use Index Medicus (National Library of Medicine) abbreviations for journal titles. It is important to note that when citing an article from *JACC: Clinical Electrophysiology*, the correct citation format is *J Am Coll Cardiol EP*.
- Use the following style and punctuation for references:
  - Periodical. Do not use periods after the authors’ initials. Please provide all page numbers: Example: “5. Glantz SA. It is all in the numbers. *J Am Coll Cardiol*. 1993;21:835-837.”
  - DOI-based citation for an article in press.
    - If the ahead-of-print date is known, please provide. EXAMPLE: “16. Winchester D, Wen X, Xie L, et al. Evidence for preprocedural statin therapy: meta-analysis of randomized trials. *J Am Coll Cardiol*. 2010. <https://doi.org/10.1016/j.jacc.2010.09.028>.”
    - If the ahead-of-print date is unknown, please omit. EXAMPLE: “16. Winchester D, Wen X, Xie L, et al. Evidence for pre-procedural statin therapy: meta-analysis of randomized trials. *J Am Coll Cardiol*. <https://doi.org/10.1016/j.jacc.2010.09.028>.”
  - Chapter in book. Provide author(s), chapter title, editor(s), book title, publisher location, publisher name, year, and inclusive page numbers. EXAMPLE: “27. Meidell RS, Gerard RD, Sambrook JF. Molecular biology of thrombolytic agents. In: Roberts R, editor. *Molecular Basis of Cardiology*. Cambridge, MA: Blackwell Scientific Publications, 1993:295-324.”

- Book (personal author or authors.) Provide a specific (not inclusive) page number. EXAMPLE: “23. Cohn PF. *Silent Myocardial Ischemia and Infarction*. 3rd edition. New York, NY: Marcel Dekker, 1993:33.”
- Online media. Provide specific URL address and date information was accessed. EXAMPLE: “10. Henkel J. Testicular Cancer: Survival High With Early Treatment. FDA Consumer magazine [serial online]. January-February 1996. Accessed August 31, 1998. [http://www.fda.gov/fdac/features/196\\_test.html](http://www.fda.gov/fdac/features/196_test.html).”
- Material presented at a meeting but not published. Provide authors, presentation title, full meeting title, meeting dates, and meeting location. EXAMPLE: “20. Eisenberg J. Market forces and physician workforce reform: why they may not work. Paper presented at: Annual Meeting of the Association of Medical Colleges; October 28, 1995; Washington, DC.”

**AMA Manual of Style.** The *JACC* journals follow the *AMA Manual of Style* with minor modifications. This guide provides guidance on usage, including but not limited to sociodemographic descriptors and nomenclature. For more detailed information on what’s new in the 11th edition, see the slide set here: <https://www.amamanualofstyle.com/page/aboutAMAMOS11>.

#### FIGURES

- All figures must have a number, title, and caption.
- TIF figures are preferred.
- Typeset figures should be no smaller than 7 inches wide.
- Lettering should be of sufficient size to be legible after reduction for publication; the optimal size is 12 points but should be no less than 10 points. Symbols should be of a similar size.
- Color and gray scale images must be at least 300 DPI. Line art should be at least 1200 DPI.
- All abbreviations used in the figure should be identified in an alphabetical order at the end of each legend.
- All symbols used (arrows, circles, etc.) must be explained.
- Figure numbers must correspond with the order in which they are mentioned in the text.
- If previously published figures are used, written permission from the original publisher (or copyright holder, if not the publisher) is required. See STM Guidelines for details: <https://www.stm-assoc.org/intellectual-property/permissions/permissions-guidelines/>.
- If the figure has been previously published, cite the figure source in the legend.
- Do not include trial logos in figures.

Decimals, lines, and other details must be strong enough for reproduction. Use only black and white—not gray—in charts and graphs. Place crop marks on photomicrographs to show only the essential field. Designate special features with arrows. All symbols, arrows, and lettering on half-tone illustrations must contrast with the background. There is no fee for the publication of color figures. Our editors encourage authors to submit figures in color, as we feel it improves the clarity and visual impact of the images.

Graphs of quantitative data must be presented to ensure that the distribution of data and variation is discernible. Graphs must be presented as dot plots, with the average and the appropriate error bars indicated; or as box-and-whisker plots, with values defined in the legend (the bounds of the boxes, the lines within the boxes, the whiskers, and any outlying values). Data presented as columns with error bars (dynamite plunger plots etc) is not acceptable.

Any ECG or electrogram signals should be black on a white background for ease of interpretation. If constructing a figure using signals from a mapping

system, please use the “white background” option. Please label all ECG and electrogram signals. All color bars (voltage and/or time) should be clearly labeled with early/late activation times or high/low voltages. Please delete any extraneous tags or color bars that are not relevant. Any tags (pacing sites, late potentials, etc) on a map should be defined in the figure legend. Please turn on markers for all “data points” that make up the activation/voltage map rather than just including interpolated colors. If the number of data points obscures interpretation of the map, then the points can be turned off but please include the fill-threshold in the legend.

**FIGURE LEGENDS.** Figure legends should be an in-depth explanation of each figure, including a figure TITLE and a CAPTION that includes the purpose of the figure, and brief method, results, and discussion statements pertaining to the figure. All abbreviations used in the figure should be identified either after their first mention in the legend or in alphabetical order at the end of each legend. All symbols used (arrows, circles, etc.) must be explained. **Target length should be 50-100 words per figure, with the title no more than 10 words. Legends should not exceed 150 words.**

- All figures must have a number, title, and caption.
- Figure legends should be double-spaced on pages separate from the text.
- Figures should be cited in numerical order in the text with each figure called out individually, rather than using a range (for instance, Figures 1, 2, and 3, rather than Figures 1-3). Supplemental figures should be cited as “Supplemental Figure 1, Supplemental Figure 2,” etc.
- Figure titles should be short and followed by a 2- to 3-sentence caption.
- Your Central Illustration should be listed last.
- If the figure has been previously published, cite the figure source in the legend.

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1. Wheeler DL, Barrett T, Benson DA, et al. Database resources of the National Center for Biotechnology Information. *Nucleic Acids Res.* 2007;35:D5-12.
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