

JACC Instructions for Authors

INTRODUCTION

The *Journal of the American College of Cardiology (JACC)* publishes peer-reviewed articles highlighting all aspects of cardiovascular disease, including original research, experimental investigations with clear clinical relevance, state-of-the-art papers, and viewpoints. All manuscripts must be submitted online at www.jaccsubmit.org. Manuscript submissions should conform to the guidelines set forth in the “Recommendations for the Conduct, Reporting, Editing and Publication of Scholarly Work in Medical Journals (ICMJE Recommendations),” available online at www.icmje.org/recommendations and most recently updated in May 2023.

ARTICLE TYPES

JACC publishes the following manuscript types: Original Research, JACC State-of-the-Art Reviews, JACC Review Topics of the Week, JACC Historical Breakthroughs in Perspective, JACC Expert Panels, JACC Guideline Comparisons, JACC International, JACC Focus Seminars, Cardiovascular Medicine and Society, Research Letters, Letters to the Editor, and Fellows-in-Training & Early Career Sections. We also publish Editorial Comments for each Original Research article, although these are specifically invited by the editorial board and should not be submitted as unsolicited articles. In general, case reports will not be considered for publication.

Proposals for JACC State-of-the-Art Review, JACC Review Topic of the Week, JACC Historical Breakthroughs in Perspective, JACC Expert Panel, JACC Guideline Comparison, JACC International, and JACC Focus Seminar submissions should first be emailed to the editorial office at jacc@acc.org to determine if the editor is interested in considering your review for publication. The majority of reviews are solicited by the editors; however, proposals may be considered.

ORIGINAL RESEARCH. JACC Original Research should relate to cardiovascular science and medicine that may include studies conducted in humans or analyses of human data, or novel translational studies with direct clinical relevance that significantly advance the field.

- Word count: No more than 5,000 words. The word count includes text from introduction through the conclusion, references, and figure legends. It excludes abstract, clinical perspectives, and tables.
- 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, Conclusions. The abstract should present essential data in 5 paragraphs. Use complete sentences. 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.”
- Condensed Abstract: Unstructured and no more than 100 words, stressing clinical implications
- Study limitations (required): Please include the limitations of your research at the end of the discussion section of your manuscript.
- Figure/Table Limit: None
- Central Illustration: Required
- Clinical Perspectives: Required
- Ethical Approval: Required. Please denote that your study received the proper ethical oversight in both your cover letter and the first paragraph of your 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 animal care and use committee approval. State the animal-handling protocol in your Methods.

- The Methods should note the geographical location and institution at which the research was performed.

JACC STATE-OF-THE-ART REVIEW. The Present and Future: JACC State-of-the-Art Review: As with all submissions to JACC, JACC State-of-the-Art Reviews should focus on the patient. From basic mechanisms to clinical manifestations and interventional approaches to global health implications, such manuscripts will focus on a contemporary, controversial, or translational topic with 4 to 5 major sections written by multiple authors or author groups.

- 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; no more than two joint authors in any position
- Abstract: Unstructured and no more than 150 words
- Condensed Abstract: No more than 100 words, stressing clinical implications
- Figure Limit: None
- Table Limit: None
- Central Illustration: Required
- Clinical Perspectives: Not applicable

Please provide a list of 3-4 brief (85 characters, 15 words or fewer per bullet) 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.

Please be sure you have obtained or will obtain permission for previously published tables, figures, or any material for which you cannot grant copyright. **NOTE: JACC State-of-the-Art Review submissions must be invited by the Editor-in-Chief or proposed to and approved by the Editor-in-Chief prior to submission. Please submit proposals to jacc@acc.org.**

JACC REVIEW TOPIC OF THE WEEK. The Present and Future: Review Topic of the Week: As with all submissions to JACC, JACC Review Topics of the Week should focus on the patient. They provide a literature review on a contemporary topic of basic, translational, or clinical science. Such manuscripts may be written by a single author or an author group.

- Word count: no more than 5,000 words (text from the introduction to the conclusion, including references and figure legends)
- Authors: No more than two corresponding authors; no more than two joint authors in any position
- Abstract: Unstructured and no more than 150 words
- Condensed Abstract: No more than 100 words, stressing clinical implications

- Figure Limit: None
- Table Limit: None
- Central Illustration: Required
- Clinical Perspectives: Not applicable

Please provide a list of 3-4 brief (85 characters, 15 words or fewer per bullet) 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.

Please be sure you have obtained or will obtain permission for previously published tables, figures, or any material for which you cannot grant copyright. **NOTE: JACC Review Topic of the Week submissions must be invited by the Editor-in-Chief or proposed to and approved by the Editor-in-Chief prior to submission. Please submit proposals to jacc@acc.org.**

JACC HISTORICAL BREAKTHROUGHS IN PERSPECTIVE. Addressing the historical foundations of all aspects of cardiovascular practice, highlighting the important moments of breakthrough since its inception, and examining the recent literature in a comprehensive manner. Written by a group of experts who have substantially contributed to the developments being covered. No more than 10,000 words, including the references and figure legends. Follow the requirements listed for JACC State-of-the-Art Reviews (although they are not categorized as a JACC State-of-the-Art Review when published). Please include “: JACC Historical Breakthroughs in Perspective” at the end of the manuscript title. **NOTE: JACC Historical Breakthroughs in Perspective submissions must be invited by the Editor-in-Chief or proposed to and approved by the Editor-in-Chief prior to submission. Please submit proposals to jacc@acc.org.**

JACC EXPERT PANEL. Written by a group of key opinion leaders from multiple institutions and aiming to provide insight and guidance for a particular clinical situation wherein the Clinical Practice Guidelines are not substantial. Authors should be limited to those who have contributed substantially to the field. No more than 10,000 words or 5,000 words (as specified in the invitation), including the references and figure legends. Follow the requirements listed for JACC State-of-the-Art Review or JACC Review Topic of the Week, as appropriate (although they are not categorized as a JACC State-of-the-Art Review or JACC Review Topic of the Week when published). Please include “: JACC Expert Panel” at the end of the manuscript title. **NOTE: JACC Expert Panel submissions must be invited by the Editor-in-Chief or proposed to and approved by the Editor-in-Chief prior to submission. Please submit proposals to jacc@acc.org.**

JACC GUIDELINE COMPARISON. Review comparing the U.S. and European guidelines for a particular cardiovascular condition, highlighting areas where differences exist and discussing implications for clinical practice. Authors should be limited to key opinion leaders. No more than 5,000 words, including the references and figure legends. Follow the requirements listed for JACC Review Topic of the Week (although they are not categorized as a

JACC Review Topic of the Week when published). Please include “: JACC Guideline Comparison” at the end of the manuscript title. **NOTE: JACC Guideline Comparison submissions must be invited by the Editor-in-Chief or proposed to and approved by the Editor-in-Chief prior to submission. Please submit proposals to jacc@acc.org.**

JACC INTERNATIONAL. Focusing on cardiovascular care in other regions of the world. No more than 5,000 words, including the references and figure legends. Follow the requirements listed for JACC Review Topic of the Week (although they are not categorized as a JACC Review Topic of the Week when published). Please include “: JACC International” at the end of the manuscript title. **NOTE: JACC International submissions must be invited by the Editor-in-Chief or proposed to and approved by the Editor-in-Chief prior to submission. Please submit proposals to jacc@acc.org.**

JACC FOCUS SEMINAR. Groups of related manuscripts commissioned to be published all in one issue or in consecutive issues. Each article is no more than 10,000 words or 5,000 words (as specified in the invitation), including the references and figure legends. Follow the requirements listed for JACC State-of-the-Art Review or JACC Review Topic of the Week, as appropriate (although they are not categorized as a JACC State-of-the-Art Review or JACC Review Topic of the Week when published). Please include “: JACC Focus Seminar” at the end of the manuscript title. **NOTE: JACC Focus Seminar submissions must be invited by the Editor-in-Chief or proposed to and approved by the Editor-in-Chief prior to submission. Please submit proposals to jacc@acc.org.**

CARDIOVASCULAR MEDICINE AND SOCIETY. These submissions should focus on the impact that government policy (federal, state, and local) and social considerations have on cardiovascular care and its global delivery systems. Such manuscripts may be written by a single author or an author group.

- Word count: No more than 2,000 words (text from the introduction to the conclusion, including references and figure legends)
- Abstract: Not applicable
- Authors: No more than 10; no more than two corresponding authors; no joint authorship permitted
- References: No more than 10
- Figures/Tables: One simple table (no larger than 1 page with 12-point Times New Roman font and 1-inch margins) OR one figure (in no more than two parts)
- Central Illustration: Not applicable
- Supplemental Material: Not permitted.
- Clinical Perspectives: Not applicable

RESEARCH LETTERS. Both Research Letters and Letters to the Editor are published under the heading “Letters.”

You may submit original research of a focused nature as a research letter.

- Word count: No more than 800 words, including references and figure legend
- References: No more than 5
- Authors: No more than 10; no joint authorship permitted; no joint corresponding authors
- Figures/Tables: One simple table (no larger than 1 page with 12-point Times New Roman font and 1-inch margins) OR one figure (in no more than two parts)
- Supplemental Material: Not permitted.
- Address the manuscript’s clinical question and findings with two bullets on the first page of your submission, totaling no more than 40 words:
 - What is the clinical question being addressed?
 - What is the main finding?

- **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 animal care and use committee approval. State the animal-handling protocol in the body of your article.

LETTERS TO THE EDITOR AND REPLIES. Focus on a specific manuscript that has appeared in *JACC*. Letters must be submitted within 3 weeks of the print issue date of the article. We will seek a reply to your letter from the authors of the original paper and publish the letter and the reply together, when possible. Letters may be submitted about Original Research articles only. *JACC* does not consider letters to the editors on review articles, editorials, or any correspondence, including research letters. Letters to the editor on guidelines are also no longer considered. Letters to the editor and replies are now published only in the online version of the journal and do not appear in print issues.

- **Word count:** No more than 400 words, including references and a figure legend, if applicable
- **References:** No more than 5
- **Figures/Tables:** 1 simple figure (in no more than 2 parts) or 1 simple table (no larger than 1 page with 12-point Times New Roman font and 1-inch margins)
- Please include the cited article as the first reference
- **Authors:** No more than 5; no joint authorship permitted; no joint corresponding authors
- **Title:** Unique title of 15 words or less that does not include the title of the Original Research paper
- **Title page:** Required

EDITORIAL COMMENTS. The editors invite all Editorial Comments published in the Journal. If you are invited to write an editorial, specific requirements will be sent to you. Please do not submit unsolicited editorials.

FELLOWS-IN-TRAINING & EARLY CAREER SECTION. These articles focus on topics that are specifically germane to FITs and early career cardiologists, and carry a maximum of 1,500 words and no more than three authors. The submissions must be substantive, engaging in hard-hitting topics. In terms of style, they must be formal in their presentation, as these are not blogs, and include citations (if relevant). We would encourage specificity when choosing a topic on which to write, as opposed to something that is too broad. All authors must be within 7 years of medical training. Please note that these articles will be reviewed and may be rejected by the *JACC* Editors. This content should now be submitted online at <https://www.jaccsubmit.org/>.

MANUSCRIPT ORGANIZATION

- **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.
- **Rebuttal Letter** (revisions or appeals only)
- **Manuscript file** (see individual manuscript types and Manuscript Content for specific formatting, and you may also email jacc@acc.org for a template on how to format your submission)
 - The entire manuscript (including tables) should be uploaded as a Microsoft Word document, with 1-inch margins and 12-point Times New Roman font. The title and abstract pages, including

keywords and abbreviations, should be single-spaced. All text (including tables) should be double-spaced. Page numbering should start with the title page.

- Page 1: Title page: See also Manuscript Content, below
- Page 2: Abstract, Condensed Abstract, Key Words, Abbreviations list
- Text
- Perspectives: Core Clinical Competencies and Translational Outlook implications (on a separate page after the conclusions, and only for Original Research submissions) OR Highlight bullet points (for review articles only)
- References
- Figure titles and captions, including a title and caption for the Central Illustration (if applicable)
- Tables, each on a separate page
- **Figures**
- **Supplemental material**

Please upload all supplemental materials, with the exception of videos, as one separately uploaded Word document, labeled Supplemental Material. This should include all supplemental text, tables and figures, figure legends, etc. If there are investigator names in the supplemental material that need to be captured as collaborators for PubMed, please indicate this in your Cover Letter.

MANUSCRIPT CONTENT

The order in which these items appear should also be the order in which they appear in your submission.

TITLE PAGE

- **Title** (no more than 15 words) and brief title of no more than 7 words
- **Authors' names** (including full first name, middle initial, last name, and degrees—MD, PhD, etc)
- **Total word count**
- **Departments and institutions** with which the authors are affiliated. Indicate the specific affiliations if the work is generated from more than one institution (use superscript letters ^a, ^b, ^c, ^d, and so on). List only the departments and institutions for co-authors.
- **Funding:** Information on grants, contracts, and other forms of financial support. List the cities and states of all foundations, funds, and institutions involved in the work.
- **Disclosures:** State each author's disclosures (or lack thereof). This must include the full disclosure of any relationship with industry. (See Relationship with Industry section.) 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 e-mail address, and an X (formerly Twitter) handle, if available. Please also provide a short tweet summarizing your paper on your title page. The tweet should be approximately 280 characters, including spaces Please include up to 3 hashtags with your tweet (Example: #ACCIntl, #ACCFIT, #WomenInCardiology, #CVD, #HeartFailure). You may also review our hashtag guide (<https://www.acc.org/-/media/Non-Clinical/Files-PDFs-Excel-MS-Word-etc/About-ACC/Social-Media/ACC-Social-Media-Hashtag-Reference-Guide.pdf>). Please note that the editors will review your content, and it may not ultimately be published on the @JACCJournals X (formerly Twitter) account. The corresponding author will be the sole contact for all submission queries.
- **Acknowledgements:** 100 words or less.

ABSTRACT. Provide a structured abstract of no more than 250 words for Original Research submissions, 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 either type of review article.

KEYWORDS. 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’). Be sparing with abbreviations. 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. Up to 10 abbreviations (eg, ECG, PTCA, CABG) or acronyms (GUSTO, SOLVD) may be listed. On a separate page following the abstract, list the selected abbreviations and their definitions (eg, TEE = transesophageal echocardiography). The editors will determine which lesser-known terms should not be abbreviated. Consult “Recommendations for the Conduct, Reporting, Editing and Publication of Scholarly Work in Medical Journals (ICMJE Recommendations),” available at www.icmje.org/recommendations, for appropriate use of units of measure.

TEXT. Use Times New Roman 12-point font. The text should be structured as: Introduction, Methods, Results, Discussion, and Conclusions. Use headings and subheadings in the Methods, Results, and, particularly, in the Discussion sections. **Every reference, figure, and table should be cited in the text in numerical order according to order of mention.**

CLINICAL PERSPECTIVES. The authors should delineate clinical competencies and translational outlook recommendations for their manuscripts. These competencies should not restate the questions underlying the work but describe the implications of the study and how the new information can be integrated into current practice based on the 6 domains delineated by the Accreditation Council on Graduate Medical Education (ACGME) and adopted by the American College of Cardiology Foundation (ACCF). These should be listed in the manuscript after the text and before the references. Please review the examples provided below. The competencies describe the implications of the study for current practice. The translational outlook places the work in a futuristic context, emphasizing directions for additional research.

CLINICAL COMPETENCIES. Competency-based learning in cardiovascular medicine addresses the 6 domains promulgated by the 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) (<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). 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 2 areas needing 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;299:3140-8). 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 place 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.

CLINICAL TRIALS

EXAMPLE 1: For a Clinical Trial [*N Engl J Med* 2012;367:2375-84]:

PERSPECTIVES

Competency in Medical Knowledge: CABG surgery is the preferred method of revascularization for patients with diabetes and multivessel coronary artery disease.

Competency in Patient Care: The diabetic patient with coronary symptomatology, prior to the diagnostic catheterization, should be made aware that if multivessel disease is identified and intervention is indicated, surgical consultation should be entertained.

Translational Outlook 1: Although this is a relatively short-term study (median of 3.8 years), longer-term follow up of FREEDOM will lead to better understanding of the comparative benefit by CABG, specifically on mortality.

Translational Outlook 2: Compliance to medication is nonsatisfactory in patients with coronary artery disease. Comparing the compliance of FREEDOM patients taking a “polypill” approach (including aspirin, statin, and an angiotensin-converting enzyme inhibitor) with the compliance of patients treated conventionally with individual agents should be undertaken.

TRANSLATIONAL SCIENCE STUDIES

EXAMPLE 2: For a Translational Science Study [*Nat Med* 2014;20:215-9]:

PERSPECTIVES

Competency in Medical Knowledge: Inflammation is one of the major determinants of atherosclerotic plaque instability. Positron emission tomography with F18-labeled FDG has been employed for the identification of the macrophages in high-risk patients. Imaging with mannose, the isomer of glucose, may have an advantage because a subset of macrophages in high-risk plaques develop mannose receptors.

Translational Outlook 1: Although circulating biomarkers of inflammation, such as hs-CRP, provide reliable information of systemic inflammation, detection of inflammation at the plaque level may allow identification of the high-risk plaques.

Translational Outlook 2: Plaque imaging with sugars, although feasible, must in a randomized fashion investigate whether treatment of individual high-risk plaques would favorably influence major adverse outcomes in atherosclerotic disease.

REVIEW ARTICLE.

EXAMPLE 3: For a Review Article [*Lancet* 2014;383:955-62]:

PERSPECTIVES

Competency in Medical Knowledge 1: Selection of antithrombotic therapy for prevention of thromboembolism in patients with atrial fibrillation must consider several clinical factors, including the patient’s values and preferences.

Competency in Medical Knowledge 2: The oral direct thrombin inhibitor, dabigatran, and factor Xa inhibitors, rivaroxaban, apixaban, and edoxaban

(so-called novel oral anticoagulants or NOACs) avoid the dietary restrictions and need for routine coagulation monitoring that are cumbersome aspects of anticoagulation with vitamin K antagonists such as warfarin.

Competency in Patient Care: All 3 NOACs currently approved for clinical use in the United States represent advances over warfarin because of their more predictable pharmacological profiles, fewer drug interactions, and considerably lower risk of intracranial bleeding than warfarin, but these advantages come at greater monetary cost, and there is presently no approved antidote or validated strategy rapid reversal of anticoagulation induced by any of the NOACs.

Competency in Interpersonal & Communication Skills: It is important to discuss the available options with patients who are candidates for the newer agents.

Translational Outlook 1: The mechanism by which each of the NOACs evaluated to date cause less intracerebral hemorrhage than well-managed warfarin anticoagulation requires further investigation.

Translational Outlook 2: Additional research is needed to understand the safety and efficacy of the NOACs, alone or in combination in patients with mechanical prosthetic heart valves to overcome the toxicity of this type of anticoagulation in the limited studies undertaken to date that contraindicate their use in patients who have undergone heart valve replacement with mechanical prostheses.

REFERENCES

- Cite references using superscript numerals without parentheses.
- The reference list should be double-spaced on pages separate from the text; 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, preprint publications, 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.
- Use Index Medicus (National Library of Medicine) abbreviations for journal titles. It is important to note that when citing an article from the *Journal of the American College of Cardiology*, the correct citation format is *J Am Coll Cardiol*.
- 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 pre-procedural statin therapy: meta-analysis of randomized trials. *J Am Coll Cardiol*. Published online Sept 28, 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.”
- 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.”

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.
- 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, if not an existing figure, should be listed last.
- If the figure has been previously published, cite the figure source in the legend.

TABLES. Each table should be on a separate page, with the table number and title centered above the table and explanatory notes below the table. Use Arabic numbers. Table numbers must correspond with the order cited in the text. Tables should be self-explanatory, and the data presented in them should not be duplicated in the text or figures.

- All tables must have a title of up to 15 words.
- Each table may include a caption of up to 100 words. Abbreviations, which do not count toward the caption word limit, should be listed in a footnote under the table in alphabetical order.
- Footnote symbols should use lowercase, superscript letters, in alphabetical order: ^a, ^b, ^c, etc.
- If previously published tables are used, written permission from the original publisher (or copyright holder, if not the publisher) is required.
- Cite the source of the table in the footnote.

CENTRAL ILLUSTRATION. All Original Research manuscripts, *JACC* State-of-the-Art Reviews, and *JACC* Review Topics of the Week should develop at least 1 Central Illustration (that may be a hand-drawn figure), which summarizes the entire manuscript or at least a major section of the manuscript. Our in-house medical illustrators will create the final printable versions of these figures in consultation with the authors and the editors. The purpose of these illustrations is to provide a snapshot of your paper in a single visual, conceptual manner. Trial logos should not appear in Central Illustrations. The illustration should be labeled as “Central Illustration,” rather than as a numbered figure, and it must not duplicate content from other figures in the manuscript. This illustration must be called out in the body of the article. It must be accompanied by a legend (title and caption). The Central Illustration legend

should be listed last in your list of figure legends. For best practices on creating Central Illustrations, please see The Art and Challenge of Crafting a Central Illustration or Visual Abstract at <https://www.jacc.org/doi/full/10.1016/j.jacc.2019.10.035>.

FIGURES

- Figures and graphs should be provided in TIF format.
- Color and gray-scale images must be at least 300 DPI. Line art should be at least 1,200 DPI.
- All abbreviations used in the figure should be identified in alphabetical order at the end of each legend.
- All symbols used (arrows, circles, etc) must be explained.
- Figure legends should be double-spaced on pages separate from the text.
- 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.

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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.
2. Edgar R, Barrett T. NCBI GEO standards and services for microarray data. *Nat Biotechnol* 2006;24:1471-2.

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