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As the leader in its field, JACC publishes original peer-reviewed clinical and experimental reports on all aspects of cardiovascular disease. Topics covered include coronary artery and valve disease, congenital heart defects, vascular surgery, cardiomyopathy, drug treatment, new diagnostic techniques, findings from the laboratory, and large multicenter studies of new therapies. JACC also publishes abstracts of papers presented at the annual scientific sessions of the American College of Cardiology and the reports and recommendations of the Bethesda Conferences on current topics in cardiovascular disease.

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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.

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Abstract

Provide a structured abstract of no more than 250 words for Original Investigations, 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;113:6976.” 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 (e.g., ECG, PTCA, CABG) or acronyms (GUSTO, SOLVD) may be listed. On a separate page following the abstract, list the selected abbreviations and their definitions (e.g., 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)” 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/acgmeweb). 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 (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 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 (http://www.ncats.nih.gov/about/about.html). 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]:

AUTHOR INFORMATION PACK 20 Mar 2021 www.elsevier.com/locate/jac
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

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
Identify references in the text by numerals in parentheses on the line. 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, or other unpublished data in the references; these may be cited in the text in parentheses. 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 inclusive page numbers: Example: "5. Glantz SA. It is all in the numbers. *J Am Coll Cardiol* 1993;21:835-7." DOI-based citation for an article in press.


**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.

All figures must have a number, title, and caption. Figures should be cited in numerical order in the text. Supplemental figures should be cited as “Online Figure 1, Online 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.

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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. Abbreviations should be listed in a footnote under the table in alphabetical order. Footnote symbols should appear in the following order: *, †, ‡, §, ||, #, **, ††, 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**

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Studies should be in compliance with human studies committees and animal welfare regulations of the authors' institutions and the U.S. Food and Drug Administration guidelines. Human studies must be performed with the subjects’ written informed consent. Authors must provide the details of this procedure and indicate that the institutional committee on human research has approved the study protocol. If radiation is used in a research procedure, the radiation exposure must be specified in the Methods.

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