

EDITOR'S PAGE



## State-of-the-Art Papers Gemstones



David J. Moliterno, MD, *Editor-in-Chief, JACC: Cardiovascular Interventions*

In the November 26, 2017, issue of the journal I highlighted an article submission type, Research Correspondence, and described the value of these letters to the editor and pointed out what they should be and what they should not be. For the current Editor's Page, I thought it would be an appropriate time to write about another article submission type, State-of-the-Art Papers. I am getting ready to revise the "Instructions for Authors" section in the front matter of the journal, so now is a good time to write about state-of-the-art (SOA) papers.

*JACC*, *JACC: Cardiovascular Interventions*, and some of the sister journals have published a limited number of state-of-the-art papers with variability among the journals regarding how much the SOA paper is a topical overview versus a focus on the current state of knowledge and practice as well as anticipated future directions. Just as the *JACC: Cardiovascular Interventions'* editors discussed what we wanted submissions in the Research Correspondence category to be, we have considered what an ideal SOA paper should be. As always we want to publish the best quality papers that are of most value to our readers. And we continue to hear from readers there is interest and value to having focus or theme issues. So, pulling these thoughts together, the editors created a number of focus issues last year—often centered on a SOA paper.

So, what describes an attractive SOA paper? We believe the SOA should be an authoritative, up-to-date, critical appraisal of a focused area of interventional cardiology science. The work should be comprehensive yet only to the degree needed to present current, cutting-edge material. This is in contrast to a textbook chapter, which is often a broader overview with in-depth background and history. As compared to full-length original research papers with instructions to be under 4,500 words, a

comprehensive yet focused SOA paper may take twice this many words especially because word counts include references and figure legends, and there is no limit to either of these. A SOA paper might have as few as 25 references, but many need 50 to 100 references. As mentioned, a SOA should present value to the reader by helping to educate, guide, or appropriately influence clinical practice. As a first example, I think nearly all will agree that in order to achieve the highest level of success with chronic total occlusions, operators need to be highly experienced, knowledgeable regarding best practices and equipment, gain additional training and experience as needed, and be aware when to refer patients to operators with the highest rate of success. So the chronic total occlusion SOA by Harding et al. (1) fits the bill and garnered a high priority for publication. Other similar SOA examples would include a focus on interventional imaging beyond angiography (which has been shown to improve outcomes but is only used in the minority of cases) by Ali et al. (2) and contemporary arterial access (where ultrasound-guided femoral access and radial artery access have been shown to reduce adverse events, but both are under used) by Sandoval et al. (3).

While some SOA papers will have a robust foundation in scientific evidence, others will involve new or rapidly evolving areas. A great example is in this issue of the journal, the SOA covering cerebral embolic risk during transcatheter mitral valve procedures by Pagnesi et al. (4). Another desirable SOA might address an important topic that has not been recently covered or covered well previously, such as the paper on coronary artery embolus by Raphael et al. (5). What each SOA paper will have in common is a well thought-out central illustration, the purpose of which is to pull together most or all of the key components of the manuscript. Detail and attention are

put into each central illustration making them highly attractive and informative.

So, what should a SOA paper not be? As stated, it should not be a review article in an area without recent major change or evolution (unless again it is a truly important area that has not been covered recently or well). A SOA on drug-eluting stents would not be nearly as attractive as one on bioresorbable vascular scaffolds, hence the paper by Bangalore et al. (6). If you are considering writing a SOA paper, begin by asking yourself whether the topic has importantly changed without a systematic and focused update in the existing publications. It is easy to check on PubMed to see what the published reports already contain on the topic. Like my recommendations regarding Research Correspondence, the SOA paper should not be duplicative of recent efforts or an “n + 1 update” but should provide edification to the reader. And similar to my feelings about meta-analysis, I think the authors should be recognized as directly

involved with the subject matter rather than new to the scene. Writing a SOA paper is not the time to become a new expert. Lastly, the associate editors and I are happy to hear your ideas and give our impressions on whether a particular topic would be attractive to the journal.

So whether like minerals that have formed over great periods of time (such as diamond) or relatively newer formed organic material (such as amber), a great SOA paper expertly brings information and thought together, shaping it, polishing it, transforming it into a valuable piece for the reader—a real gemstone.

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**ADDRESS FOR CORRESPONDENCE:** Dr. David J. Moliterno, Department of Internal Medicine, University of Kentucky, 900 S. Limestone Avenue, 329 Wethington Building, Lexington, Kentucky 40536-0200. E-mail: [Moliterno@uky.edu](mailto:Moliterno@uky.edu).

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## REFERENCES

1. Harding SA, Wu EB, Lo S, et al. A new algorithm for crossing chronic total occlusions from the Asia Pacific Chronic Total Occlusion Club. *J Am Coll Cardiol Intv* 2017;10:2135-43.
2. Ali ZA, Karimi Galougahi K, Maehara A, et al. Intracoronary optical coherence tomography 2018: current status and future directions. *J Am Coll Cardiol Intv* 2017;10:2473-87.
3. Sandoval Y, Burke MN, Lobo AS, et al. Contemporary arterial access in the cardiac catheterization laboratory. *J Am Coll Cardiol Intv* 2017;10:2233-41.
4. Pagnesi M, Regazzoli D, Ancona MB, et al. Cerebral embolic risk during transcatheter mitral valve interventions: an unaddressed and unmet clinical need? *J Am Coll Cardiol Intv* 2018;10:517-28.
5. Raphael CE, Heit JA, Reeder GS, Bois MC, Maleszewski JJ, Tilbury RT, Holmes DR. Coronary embolus: an underappreciated cause of acute coronary syndromes. *J Am Coll Cardiol Intv* 2018;11:172-80.
6. Bangalore S, Bezerra HG, Rizik DG, et al. The state of the absorb bioresorbable scaffold: consensus from an expert panel. *J Am Coll Cardiol Intv* 2017;10:2349-59.