To assist physicians genuinely wanting to be current in their knowledge and practice (this is the overwhelming majority of practitioners), Li *et al*. suggested strategies to offset the barriers, including the development of external mentorship and accountability. Experts in specific medical practice areas and in medical education are the mentors from whom we all benefit when they guide the content to learn and suggest our learning expectations to gain that education. Recognition of this is one of the key messages from the study of decision support tools by Hand *et al*.

Kempen claims that our Editorial promotes, "… the unproven utility of recertification …" and supports, "… transferring simulation and OSCE [Objective Structured Clinical Examination] applications for medical student/resident education onto Recertification …" As educators, we champion a very different message than claimed by Kempen; we asked a question and provided our answer, "How best then to teach and learn safe provider autonomy? … provide … 'perfect practice' *via* simulation and use of decision support tools …"[2] We champion simulation, decision support tools and other cognitive aids, and all types of hands-on experiences for their ability to facilitate relevant lifelong learning. We are especially supportive of utilizing the Internet to make the transmission of new information instantaneous. We make no assertion that these learning tools enhance any certification/recertification program, but decreasing practice variability and improving adherence to published guidelines are beneficial to our patients, and there are data to support the role of cognitive aids in these goals.

Competing Interests

The authors declare no competing interests.

Justin L. Lockman, M.D., Alan Jay Schwartz, M.D., M.S.Ed. University of Pennsylvania, The Children's Hospital of Philadelphia, Philadelphia, Pennsylvania (A.J.S.). schwartza@email.chop.edu

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In Reply:

We thank Dr. Kempen for his interest in our recent study published in Anesthesiology about the effect of a decision support tool (DST) on adherence to published guidelines.[1]

Dr. Kempen endorses the importance of evidence-based practice, demonstrated by his thorough reiteration of the narrative related to perioperative β-blockade, and this underlying premise to his letter is very important. Physicians *should* try to practice with the most up-to-date and clinically-applicable evidence available. The effort of our study was not surrounding the validity of the claims of the 2007 American College of Cardiologists/American Heart Association perioperative guidelines,[2] but rather to test the ability of mobile health technology to help physicians apply this guideline to patient scenarios. It is not lost on the authors that evidence will continue to be refined, and, in fact, we have already begun to modify the DST application based on the 2014 update to the American College of Cardiologists/American Heart Association guidelines released this fall.[3] This point is perhaps the most important reason we believe a DST to be superior to memory alone. The DST can be updated centrally with push updates sent to end users quickly; and, in theory, practice patterns can be modified almost instantly when this occurs.

However, Dr. Kempen also notes that there may be a "fundamental problem" with assuming that the 2014 practice guidelines are "correct." To this we would state that we are aware that these guidelines, as the former ones, will almost certainly require amendment in the future. However, the reality of this fact does not negate the validity of the approach to producing a practice guideline founded on a rigorous evidence-based review, as detailed in the guidelines. Additionally, we believe that understanding such guidelines can aid physicians in the very struggles that Dr. Kempen notes concerning patient expectations and responsible testing considerations. Dr. Kempen points out that resources are inconsistently available depending on the location and size of a facility. Regarding the interventions indicated by the 2007 American College of Cardiologists/American Heart Association guidelines discussed, we agree that select patients might be simply better served having surgery only where there is

access to echocardiography, stress tests, and perhaps medical management, although we hope this doesnot limit access to care as we expect they are nearly ubiquitous, even outside the "University hospital."

Concerning Dr. Kempen's statements about board certification, we make no comment here as that was not the object under consideration in our article.

Dr. Kempen's concluding remarks should be heeded—revalidation on the premise of our study needs to be published—that a DST will improve adherence to published guidelines, ideally in actual patient care. It then falls upon the practitioner and software developer to ensure the guidelines are internally valid and up to date, representing what is actually published and then allowing the clinical to make the final decision in application.

Competing Interests

The authors declare no competing interests.

William R. Hand, M.D., Matthew D. McEvoy, M.D. Medical University of South Carolina, Charleston, South Carolina (W.R.H.). handw@musc.edu

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