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Echo Training Post-COVID: Response from the National Board of Echocardiography



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We read with interest the timely comments from Dr. Madrazo concerning the adverse impact of the current pandemic on echocardiographic training among cardiology fellows.¹ There is no question that coronavirus disease 2019 (COVID-19) has affected just about everything in our lives. The basic principles of how we provide patient care have certainly been changed. Equally impacted have been our training programs and in particular the education of cardiology fellows. As rightly pointed out by Dr. Madrazo, the volume of echocardiographic studies being performed has been reduced, particularly transesophageal echocardiography. Although there is no way to accurately predict how long this decrease will last, it is likely that echocardiography procedural volume will rebound to near prepandemic levels sometime in the future. Even with the current increase in telemedicine, the appropriate use of echocardiography in patient management seems more important than ever. What to do in the meantime to maintain adequate training of cardiology fellows in echocardiography is important to discuss.

We agree with Dr. Madrazo that educational methods beyond patient-based procedural experience for cardiology fellows should be enhanced, such as simulators for basic learning of acquisition of transthoracic and transesophageal echocardiography views and the recognition of cardiac pathology. This should be coupled with a review of and independent interpretation of echocardiography teaching cases illustrative of protean pathology and pitfalls. However, we respectfully disagree that this meaningful approach will dramatically reduce the needed level of direct patient procedural experience to achieve a level of clinical proficiency in the performance of transthoracic and transesophageal echocardiography as endorsed by the American College of Cardiology, American Heart Association, and American Society of Echocardiography.^{2,3} The technical challenges that occur in the performance of transthoracic echocardiography in patients are diverse, such as body habitus, patient positioning, respiratory interferences, pulmonary disease, and so on. In our opinion, direct patient procedural experience is critical for becoming proficient in the acquisition of echocardiography views and data. Importantly, this process greatly enhances the interpretation of transthoracic echocardiography, as it teaches recognition of pitfalls and exposes misconceptions of interpretations. Transesophageal echocardiography is an equally daunting challenge to undertake without adequate procedural experience with patients. We believe that cardiology fellows need adequate patient experience with performing transesophageal

echocardiography to learn the appropriateness and safety of the procedure, administration of moderate sedation, passage of transesophageal echocardiography probes in ambulatory and intubated patients, acquisition of basic views, and methods to optimize difficult acoustic windows and imaging planes, as well as how to minimize potential complications that enhance patient safety.

The demonstration of special competency in echocardiography in adult cardiology, by achieving certification from the National Board of Echocardiography, remains important, with a potential impact on future careers. However, the current pandemic has greatly hampered procedural training in transthoracic and transesophageal echocardiography for individuals in adult cardiology fellowships. Recognizing this change, the National Board of Echocardiography thought it wise to immediately extend the amount of time during which those applying for echocardiography certification would be able to obtain the requisite procedural experience by 1 year. The practice experience pathway has been reinitiated for examinees who seek certification and who were unable to complete the required procedure volume in fellowship during the COVID-19 pandemic. Please review all pertinent details and criteria specific for each certification on the National Board of Echocardiography website (www.echoboards.org). A great deal of thought and discussion went into this decision, including but not limited to what constitutes adequate training, Core Cardiovascular Training Statement recommendations, and decades of precedence on which these certification criteria are based.

While we agree that it is appropriate to examine supplemental methods of teaching echocardiography, we feel that it is too early to recommend a wholesale change in the existing proven training approach.

None of us is sure what the future holds and what the practice of medicine, cardiology, and echocardiography will look like in the years to come. We believe that it is important to continue to monitor these changes and to respond with continued flexibility in a manner that seems most appropriate to maintain quality in echocardiography.

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