



Position Statement by the Society of Interventional Radiology: Maintenance of Privileges for Image-guided Interventions

Timothy P. Murphy, MD, Michael D. Kuo, MD, James F. Benenati, MD, Robert G. Dixon, MD, Scott C. Goodwin, MD, Marshall Hicks, MD, Donald L. Miller, MD, Manrita K. Sidhu, MD, James E. Silberzweig, MD, Suresh Vedantham, MD, and John F. Cardella, MD

PREAMBLE

This credentialing document pertains to maintenance of noncoronary percutaneous interventional procedures privileges in the hospital setting. Safe and efficacious delivery of these services requires proficiency in the performance of image-guided interventions. The education, experience, and skills required to perform image-guided interventions are extensive. Many interventional radiologists have demonstrated adequate training and education to provide these services by obtaining Subspecialty Certification in Vascular and Interventional Radiology from the American Board of Radiology. The Society of Interventional Radiology (SIR) believes that the global skill set of those practitioners who have obtained and maintain this certificate be considered strongly for maintenance of privileges for image-guided interventions. Specifically, those who have achieved and maintain that certificate should be considered qualified unless there is specific evidence in terms of outcomes of procedures that indicates competency is lacking.

From the Department of Diagnostic Imaging, Division of Vascular and Interventional Radiology (T.P.M.), Rhode Island Hospital, 593 Eddy St., Providence, RI 02903-4970; Department of Radiology (M.D.K.), David Geffen School of Medicine at the University of California, Los Angeles, Los Angeles; Department of Radiology (S.C.G.), University of California, Irvine, Medical Center, Orange, California; Baptist Cardiac and Vascular Institute (J.F.B.), Miami, Florida; Department of Radiology (R.G.D.), University of North Carolina, Chapel Hill, North Carolina; Department of Diagnostic Radiology, Section of Interventional Radiology (M.H.), University of Texas M. D. Anderson Cancer Center, Houston, Texas; Department of Radiology (D.L.M.), Uniformed Services University of the Health Sciences; Department of Radiology (D.L.M.), National Naval Medical Center, Bethesda, Maryland; Department of Radiology (M.K.S.), Seattle Children's Hospital, University of Washington, Seattle, Washington; Department of Radiology (J.E.S.), Beth Israel Medical Center, New York, New York; Department of Radiology (S.V.), Mallinckrodt Institute of Radiology, Washington University School of Medicine, St. Louis, Missouri; and Department of Radiology (J.F.C.), Geisinger Health System, Danville, Pennsylvania. Final revision received July 27, 2011; accepted August 1, 2011. Address correspondence to T.P.M.; E-mail: tmurphy@lifespan.org

J.F.B. serves as a paid consultant for Gore (Flagstaff, Arizona), Abbott Laboratories (Abbott Park, Illinois), Cordis (Warren, New Jersey), Navilyst (Marlborough, Massachusetts), and Amaranth Medical (Palo Alto, California), and is a shareholder in Endovascular Forum (Boston, Massachusetts). R.G.D. is a paid consultant for Bard Access Systems (Salt Lake City, Utah). None of the other authors have identified a conflict of interest.

The views expressed in this article are those of the authors and do not necessarily reflect the official policy or position of the Department of the Navy, Army, Department of Defense, nor the United States Government.

© SIR, 2011

J Vasc Interv Radiol 2011; 22:1353-1354

DOI: 10.1016/j.jvir.2011.08.001

Maintaining Privileges for Image-guided Interventional Procedures

Practitioners who have met the training and experience requirements for Subspecialty Board Certification in Vascular and Interventional Radiology are trained and engaged regularly during their clinical practice in the performance of image-guided interventional procedures throughout many organ systems in the body. They are capable of using a wide variety of interventional devices, including needles, guide wires, catheters, balloon catheters, drainage catheters, and embolic devices. They are expected to perform clinical assessments of patients for whom image-guided intervention may be an option, and interpret a wide range of imaging modalities. They are qualified to analyze a wide range of imaging modalities, including fluoroscopy, radiography, computed tomography, ultrasound, and magnetic resonance imaging; determine what laboratory of physiologic testing is needed; integrate this information into a comprehensive assessment of the appropriateness of image-guided therapy; and use this information to plan the specific image-guided procedures. This broad experience complements their skills in performing interventional procedures. For maintenance of credentials for image-guided interventional procedures, this skill set should be considered strongly, especially if the practitioner has obtained and is maintaining subspecialty board certification to practice interventional radiology (ie, Subspecialty Certification in Vascular and Interventional Radiology). We note that the American Board of Radiology's criteria in issuing and maintaining a Subspecialty Certificate in Vascular and Interventional Radiology are quite rigorous, and include (i) successful passage of a board examination that incorporates knowledge of clinical medicine, imaging, and image-guided procedures; (ii) completion of advanced educational modules and successful passage of test questions that measure comprehension; (iii) documentation of performance of a large volume of image-guided procedures; (iv) demonstration that the practitioner is engaged in continuous practice quality improvement, and (v) accredited fellowship training.

The comprehensive training in image-guided interventional procedures and maintenance of the Subspecialty Board Certification in Vascular and Interventional Radiology should be considered strongly by hospital credential committees when developing criteria for individual or specific image-guided interventional procedures. SIR believes that outcomes are a much more important measure of quality than procedure volume alone, and a preferred method to qualify for maintenance of hospital privileges, and that maintenance of credentials initiatives should not disenfranchise those with considerable experience and board certification to provide those services. For example, SIR has called for quality assurance programs for angioplasty that consist of reviews of complications and unexpected admissions after procedures (1). Although there are considerable data that indicate procedure volume is associated with outcomes, in fact the relationship is greater for the hospital experience than for the physician experience, and greater for high-risk procedures than low-risk procedures. For example, the absolute difference in mortality rates for coronary angioplasty between physicians with high versus low procedure volumes is only 0.06% (2). Conversely, for higher-risk procedures like carotid artery

endarterectomy or open elective abdominal aortic aneurysmorrhaphy, the differences are 1.4% and 3.2%, respectively. There are also data that better outcomes for proceduralists with high procedure volumes can be attributable to patient mix, with the physicians with the highest procedure volumes treating a greater percentage of patients with milder disease (2). With regard to interventions like angioplasty and stent placement, which are lower-risk procedures than coronary angioplasty, there are no data that indicate an effect of high versus low procedure volume on patient outcomes, but given the low risk, the effect is anticipated to be low. Additionally, these effects are only average effects, and may or may not pertain to specific individual physicians. Finally, the threshold for “high” versus “low” physician procedure volume is not known. For all these reasons, hospital credential committees are discouraged from relying on ongoing procedure volumes among individual physicians as a “litmus test” of ongoing competency, which may disenfranchise experienced and board-certified interventional radiologists in some cases. SIR believes that maintenance of board certification credentials and ongoing review of outcomes, as determined by performance measurement with use of a robust measures set, should be the focus of maintenance of credential requirements. SIR further believes that credentialing criteria that focus primarily on the volume of specific procedures rather than specialized training, board certification, and maintenance of certification in image-guided procedures

do not serve the best interests of patients because they can inadvertently permit practitioners lacking adequate training or quality outcomes to obtain hospital privileges and maintain them simply doing the procedures, while potentially making it difficult for skilled practitioners to retain their privileges even when they have obtained board certification, performed large volumes of procedures with excellent outcomes during their careers, and maintained their board certification.

ACKNOWLEDGMENTS

Sanjoy Kundu, MD, FRCPC, served as SIR Standards Division Councilor during the development of this document and contributed to its content.

REFERENCES

1. Spies JB, Bakal CW, Burke DR, et al. Angioplasty standard of practice. *J Vasc Interv Radiol* 2003; 14(Suppl):S219–S221.
2. Halm EA, Lee C, Chassin MR. Is volume related to outcome in health care? A systematic review and methodologic critique of the literature. *Ann Intern Med* 2002; 137:511–520.