AN INTERVIEW WITH...

Adhir Shroff, MD, MPH

Dr. Shroff tells us about the TRAnsition for VALUE initiative, as well as offers advice for those who'd like to switch to radial first, optimal radiation protection, and more.

Can you tell us about your role as Chair of the Society for Cardiovascular Angiography and Interventions' (SCAI) Vascular Access Working Group (VAWG), and specifically the TRAnsition for VALUE initiative and how the initial rollout of the program is going thus far?

This working group within SCAI has been meeting for several years. I became involved with this group when it was known as the Transradial Working Group. I was invited by Drs. Samir Pancholy and Sunil Rao, who formed the group when transradial access for cardiac catheterization was utilized in < 1% of cases in the United States (only 10 years ago). We organized educational courses and consensus statements that helped to provide guidance for physicians and staff around the country. A few years back, we noted that use of transradial access was well over 25%, but we believed that dedicated education for other access techniques were lacking. We expanded the Transradial Working Group into the VAWG. We are focusing on developing educational programs to promote safe techniques for all vascular access sites.

TRAnsition for VALUE is an interactive, web-based education program that leverages the benefits of transradial access to create "value" for patients, clinicians, and medical centers. Many of the benefits of radial access have an impact on the economics of cardiac catheterization, specifically percutaneous coronary intervention (PCI). Many of us in the radial community have noted significant variation in uptake of radial access across the United States. Furthermore, centers don't often modify their care pathways to take advantage of the benefits of radial access to decrease length of stay, decrease workload, and lower complications. Many of the members of the VAWG served as coauthors of the individual modules and will be providing webinars reviewing their topics. The hope is that clinicians and administrators can access modules that are relevant to their practice. In the future, we hope to expand the scope of this program based on funding and users' recommendations. I want to thank Medtronic and Terumo for providing an unrestricted education grant to support this program with SCAI.

What advice would you give to those who are open to switching to a radial-first approach? How can they achieve competence of these specialized skills with already busy case loads?

Interesting questions. We actually cover that exact topic in one of the modules. In short, if you want to switch, you just have to do it. Here are some observations/advice that I can share:

- Let your staff know what you are thinking and why radial access is beneficial to your patients
- Some orientation is helpful, so attend a course or have a proctor
- Don't make things overly complicated, most of your femoral equipment will work for radial (some exceptions are the access needle, wire, and sheath)
- Ask your patients what they think, as they tend to greatly prefer radial access
- Don't cherry-pick cases

There is no doubt that when you are learning something new, it will take time. Although it may seem like a cliché, think about what's best for the patient. For the first few weeks, it makes sense to decrease your case load by 25% to accommodate for the increased procedure time. Otherwise, I do not think you need to modify much else. It is best to jump in with both feet. Your staff must understand the motivation for making the conversion and they will be supportive. In my practice, the staff are the biggest proponents and spokespeople for radial access.

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With the finding that angiographic image noise reduction technology can significantly lower radiation dose during transradial coronary angiography, do you think that this technology will be adopted, and what other steps should be taken to optimize patient and operator safety during this procedure?

Radiation safety is an important issue for all cath lab personnel. It has been my observation that radial access does contribute to slightly higher radiation doses to the operators and cath lab personnel. Several well-studied steps will mitigate some of this risk, some easy and some not so easy. Specifically, operators can use accessory radiation draping/shielding, extension tubing, low fluoroscopy settings, storing fluoroscopic images instead of recording cine angiograms, using lower magnifications settings, and purchasing newer cath lab systems that require much lower doses of radiation to yield similar-quality images. Cath lab personnel must also be vigilant; recent data suggest that use of a radiation shield dramatically reduced radiation dose to cath lab personnel.

What are your thoughts on the use of novel oral anticoagulants (NOACs) as an alternative to warfarin in patients undergoing left atrial appendage (LAA) closure?

As our LAA closure program has grown, the issue of choosing a suitable anticoagulation regimen before and after the implantation occurs on a regular basis. The large pivotal trials and the industry sponsors studied warfarin. We have many patients who have been unable to tolerate warfarin but have been successfully managed with a NOAC. Consequently, we have been using one of the newer anticoagulation agents based on smaller studies showing efficacy. We look forward to clinical studies that will further study these practices and provide better guidance.

With the positive results in medication possession ratio with use of the My Interventional Drug-Eluting Stent Educational App (MyIDEA), will this or an app like it be made available to interventionalists and their patients who wish to utilize such a tool? What other improvements to patient-centered care do you think could be addressed with novel apps? Are there any that you currently use?

Stemming from my interest in providing more efficient care for patients undergoing PCI, I plotted the care pathway for outpatients who undergo PCI. I noticed that one of the critical responsibilities of the recovery staff and pharmacy team is to provide education to the patient about dual antiplatelet therapy (DAPT), lipid-lowering medications, smoking cessation, and post-PCI complications. In addition to providing the education, these interactions must be documented in the medical record. They are clinically important and required to satisfy quality metrics. For patients tracking to go home on the same day as their PCI procedure, there can be very little time to conduct this education. Given the time pressure, the education may be very brief or consist of a stack of preprinted handouts. Many patients have language barriers, issues with literacy, or otherwise have difficulty comprehending the education.

We created the aforementioned tablet-based, education tool that was interactive and sensitive to health literacy. In a randomized pilot study, we demonstrated that with our DAPT education tool, patients had improved medication adherence at 90 days. Patients spent 16 to 20 minutes on the tablet interacting with the application. Ultimately, we hope to develop more educational modules to cover all the required elements for PCI patients then expand to other conditions such as heart failure, hypertension, and diabetes. We would like to link completion of the modules into the electronic medical record. ■

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