

TAVR Update



Transcatheter aortic valve replacement (TAVR) has been a truly disruptive therapy within medicine. Although TAVR was first used as a therapy for extreme-surgical-risk patients with severe aortic stenosis who had no other options, TAVR is now a mainstream therapy for aortic stenosis patients ranging from low to extreme surgical risk. In this edition of

Cardiac Interventions Today, we explore areas of continued advancement and controversy within this field.

We lead this assessment of the TAVR environment with a survey by Lauren S. Ranard, MD, and Torsten P. Vahl, MD, of available TAVR devices—both off-label and emerging dedicated devices—for the treatment of aortic insufficiency.

Syed Zaid, MD, and Vinayak N. Bapat, MD, provide us with a hypothetical case study in an effort to evaluate the decision-making process between TAVR and surgical AVR (SAVR) for a younger, lower-risk patient.

Then, Juan del Cid Fratti, MD, and Christine J. Chung, MD, explore the diagnosis and management of multivalvular heart disease, with specific discussion around the main subtypes of mixed and multivalvular heart disease.

Choosing the appropriate imaging modality is of crucial importance in any interventional procedure, and TAVR is no exception. Vratika Agarwal, MD, appraises the role of transesophageal echocardiography (TEE) in TAVR procedures, and makes the case for when it may be better suited than its imaging cousins, transthoracic echocardiography and fluoroscopy.

Next, Hasan Jilaihawi, MD, and Raj Makkar, MD, share their expert outlook on the key concerns to consider when performing TAVR in patients with bicuspid aortic stenosis.

We round out our review of the current affairs of TAVR with a look ahead at what's next for intraprocedural embolic protection to limit stroke during TAVR. Amit N. Vora, MD; Yousif Ahmed, MD; and Alexandra

Lansky, MD, examine the data from the PROTECTED TAVR trial and discuss the next-generation of devices on the horizon.

Elsewhere in this issue, we feature two commentaries on pulmonary embolism (PE) care. First, we summarize a publication by Kobayashi et al that used data from The PERT Consortium Registry to study practice patterns and outcomes for high-risk PE. Jay Giri, MD, a study investigator, answers questions to further contextualize the findings. Second, we recap an article by Orly Leiva, MD, et al about the impact of catheter-based therapy for patients with both cancer and intermediate- or high-risk PE. Dr. Leiva and coauthor Sripal Bangalore, MD, then provide further insights on their study results.

Rounding out our PE feature, Riyaz Bashir, MD; William R. Auger, MD; and Kenneth Rosenfield, MD, inspect the role of balloon pulmonary angioplasty in the treatment of chronic thromboembolic pulmonary hypertension (CTEPH) and chronic thromboembolic pulmonary disease (CTEPD).

Among our departmental articles, Ginger Biesbrock, DSc, with MedAxiom, highlights their survey data that show the impact procedural staffing has within the structural heart programs and patient care. We close this issue with a discourse with Shrilla Banerjee, MD, about her experiences with disparities in cardiovascular care, her involvement with organizations to address equity concerns in interventional cardiology, and more.

The benefits of TAVR technology in treating severe aortic stenosis patients has been well defined in multiple large clinical trials. It is incumbent upon us to identify all the patients who could potentially benefit from TAVR and to continue to refine this technology. This edition of *Cardiac Interventions Today* highlights some of the key future directions within this field. ■

Vivian G. Ng, MD
Guest Chief Medical Editor