

THV Expansion

Since treating the first patient with a catheter-based aortic valve replacement prosthesis in 2002, the field of transcatheter aortic valve replacement (TAVR) has come a long way. With two prostheses commercially available in the United States (ie, the Sapien valve [Edwards Lifesciences] and the CoreValve device [Medtronic]) and multiple others in clinical trials, this therapy will undoubtedly continue to grow.

To begin, Ravinder Singh Rao, MD; Hersh Maniar, MD; and Alan Zajarias, MD, provide an overview on the Sapien family of prostheses, including the original Sapien valve, Sapien XT, Sapien 3, and Centera devices, and give us an update on where each stands in terms of clinical trial data available to date. For the more recently approved CoreValve, Rajiv Goswami, DO, and Neal S. Kleiman, MD, share the current progress and experience with that device. Further development of these first-generation devices is already well underway.

Next, David R. Holmes, MD, and Michael J. Mack, MD, discuss the status of the TVT (Transcatheter Valve Therapy) registry while looking into the reasons for initiating it, challenges faced in implementing it, the overall design, as well as possible directions for the future.

Another topic of much interest in the field of valvular therapy is the use of transcatheter valve-in-valve procedures for both aortic and mitral disease. Jose F. Condado, MD; Brian Kaebnick, MD; and Vasilis Babaliaros, MD, summarize today's state-of-the-art techniques for valve-in-valve therapy, which they suggest provide a feasible treatment option in well-selected high-surgical-risk patients with failing bioprostheses.

We then have an update from Arash Arshi, MD; Daniel R. Watson, MD; and Steven J. Yakubov, MD, on the use of TAVR in intermediate-risk patients in which they review the current indications for TAVR, how surgical risk is defined, the necessary considerations if TAVR is to be expanded to intermediate-risk patients, and non-randomized and randomized trials studying the use of TAVR in this group.

We then focus on solutions for mitral valve disease, as Peter S. Fail, MD, and Vinod Nair, MD, provide a data review on the trials currently studying the MitraClip device (Abbott Vascular), which include EVEREST and COPAPT, in order to assess its utility in treating function-

al and degenerative mitral regurgitation. Mayra Guerrero, MD; Adam B. Greenbaum, MD; and William O'Neill, MD, then follow up with a discussion on the experience with transcatheter mitral valve replacement for failed mitral bioprostheses and annuloplasty rings, mitral regurgitation, and calcific mitral stenosis, as well as some of the devices being utilized for these applications.

To wrap our focus on valvular interventions, a group of experts share their opinions on the CMS NCD requirement for surgical and interventional co-operators for TAVR procedures.

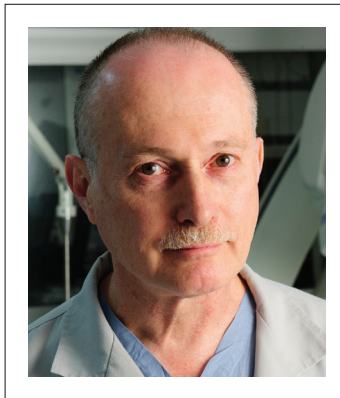
Also in this issue, we present two Today's Practice articles. In the first, Navin K. Kapur, MD, describes the potential of adopting a "door-to-unload" approach, in which a bypass pump is used to unload the heart to potentially reduce the infarct size, instead of focusing all of our energy to achieve the quickest "door-to-balloon" times. Barry T. Katzen, MD, then tackles the concept of facility

expansion and investment during a time that has largely seen consolidation and how he made this leap of faith.

We also have a Pharmacology article by Suzanne V. Arnold, MD, and Mikhail Kosiborod, MD, in which they consider the role that diabetes may play in the effectiveness of the cardiac medications, as well as how these medications in turn affect their glycemic control, and the weight these factors have when choosing medications at the time of discharge when diabetic patients are hospitalized for acute coronary syndromes.

Finally, we conclude this issue featuring an interview with Sameer Gafoor, MD, who talks about his time working abroad at the CardioVascular Center Frankfurt in Germany and shares his take on many issues of interest in the field of structural heart intervention.

We strive to help summarize the vast and rapidly evolving interventional literature and landscape and hope this issue addresses that mission. ■



Ted E. Feldman, MD, MScAI, FACC, FESC
Chief Medical Editor
citeditorial@bmctoday.com