



The Society for Cardiovascular Angiography and Interventions

2400 N Street NW, Suite 500, Washington, DC 20037-1153

Main: 202.741.9854 ♦ Toll Free: 800.992.7224 ♦ Fax: 202.689.7224 ♦ E-mail: info@scai.org

Statement of the
Society for Cardiovascular Angiography & Interventions

Presented by

Augusto D. Pichard, MD, FSCAI

Before the

Food and Drug Administration's

Circulatory System Devices Advisory Panel Meeting

Wednesday 20, 2011

Review of the Premarket Approval application for the

Edwards SAPIEN Transcatheter Heart Valve

Contact: Joel C. Harder, MBA
Director, Quality Initiatives, SCAI
Email: jharder@scai.org

Good afternoon members of the Advisory Panel, FDA staff, and guests:

My name is Dr. Augusto Pichard. I am the Director of the Catheterization Laboratory at the Washington Hospital Center. I am a practicing interventional cardiologist with over 30 years of experience. I am also a Professor of Medicine (Cardiology) at Georgetown University. My conflicts of interest include that I am both the Principal Investigator for the PARTNER Trial at the Washington Hospital Center, and a Proctor for the Percutaneous Valve for Edwards Lifesciences.

Today, I am speaking on behalf of the Society for Cardiovascular Angiography and Interventions (*SCAI* or *The Society*).

SCAI is the leader in science, education, and advocacy for interventional cardiologists and their patients. The Society promotes excellence in cardiac catheterization, angiography, and interventional cardiology through physician education and representation, and through quality initiatives to enhance patient care. The Society represents over 4,000 invasive and interventional cardiologists. The Society is committed to providing the best care possible for patients with severe aortic stenosis.

The Society believes the recent advent of transcatheter treatment of aortic stenosis (TAVI) is a viable alternative to standard open valve replacement in select patient populations at specialized heart centers with expert physicians. Inoperable patients with severe aortic disease are currently treated with medication only since they may be too sick or too old to undergo surgery, despite the extensive historical information that medical therapy alone has no effect on the natural history of the disease. The Edwards SAPIEN device clinical trial demonstrated that TAVI is a superior alternative to medical management in select inoperable patients and is “non-inferior” in patients at high risk for open heart surgery. Many patients, who did not qualify for this particular clinical trial, ultimately do not undergo surgery and might benefit from this therapy.

The Society believes the PARTNER clinical trial provides a foundation for the essential requirements of a percutaneous valve program; and, if this medical device is deemed to be reasonably safe and effective by the Agency, these requirements must be implemented in the real world environment to help assure a successful patient outcome. The clinical trial provides evidence that the most successful patient outcomes occur under the following circumstances: (1) performance in a specialized heart center with sufficient patient volume, (2) management using a multidisciplinary team in which each member has appropriate expertise, (3) access to a modified conventional cardiac laboratory or hybrid operating room that contains the specialized equipment necessary

for the procedure, and (4) a planned approach to co-management decision making as well as proficient technical insertion of the medical device.

The Society, in partnership with other medical societies, is committed to ensuring that these essential requirements of a percutaneous valve program continue in the real world so that this technology continues to benefit the sickest patients who have no other treatment options. SCAI and other medical societies are committed to the development of expert consensus statements, guidelines, appropriate use criteria, credentialing criteria, and training paradigms, thereby supporting responsible diffusion of this technology. Specialized heart centers should be accredited through Accreditation for Cardiovascular Excellence (ACE), an organization currently accrediting facilities for other invasive and interventional cardiovascular procedures. The Society agrees that the sponsor's proposed comprehensive training program for new practitioners is essential to evaluate operator experience level and management of vascular complications. The Society recommends a nationwide TAVI registry be developed to track long-term follow-up in the real world and provide data to answer critical research questions not addressed by the clinical trial. The Society is leading the development of a SCAI/AATS/ACC/STS multi-societal competency statement on institutional and operator requirements to define the essential criteria for optimal patient outcomes. We agree that defining these characteristics is challenging and that many factors need to be taken under consideration rather than a single rigid set of criteria.

The Society provides the following responses to key questions for the Circulatory System Device Advisory Panel.

Q.1 Please comment on whether the proposed wording adequately addresses the concerns mentioned, as well as any other patient selection factors that should be addressed by refining the indications statement.

With respect to Q.1, the Society believes the proposed wording for indications of use is adequate and addresses patient selection factors. The multi-disciplinary team needs to be accountable for these joint decisions, especially among patients who are too ill or too high risk to benefit from surgical heart valve therapy. A similar multi-disciplinary approach has been implemented in the real world for other treatment options in high risk situations, such as patients with cardiogenic shock.

Q.2 Please comment regarding the impact of heterogeneity of treatment options received by the Control group on the evaluation of safety and effectiveness of the SAPIEN THV in this patient population.

With respect to Q.2, the Society believes that the natural history of medical therapy alone is well established and known to be dismal. The Society believes that the Control group reflects current best practice and that the heterogeneity of the treatment does not impact the positive benefit in mortality of the Edwards SAPIEN Transcatheter Heart Valve (THV). No existing therapy other than surgical valve replacement has been demonstrated to significantly improve survival.

Q.3.a and b Please comment on the clinical significance of the neurological adverse event risk observed in patients treated with the SAPIEN THV. Please comment on the proposed anticoagulation/antiplatelet protocol included in the post-approval study as well as any other risk mitigation measures that should be taken into account to reduce the neurological event risk in patients receiving the SAPIEN THV.

With respect to Q.3, the Society is concerned about patients who may suffer stroke after THV therapy. The Society fully supports the proposed anticoagulation/antiplatelet protocol in question **Q.3.b** as a counterbalance to the risk of stroke. However, the frequency of this complication does not offset the significant beneficial mortality effect observed in the clinical trial.

Q.4.a and b Please comment on the clinical significance of the vascular complications observed in the patients treated with the SAPIEN THV. Please comment on the proposed training program for new practitioners as well as any other risk mitigation measures that should be taken into account to reduce the vascular complication rate in patients receiving the SAPIEN THV.

With respect to Q.4, the Society believes that vascular complications are important, and are also manageable and in most cases reversible. The Society supports the Sponsor-proposed comprehensive training program as one approach to reduce vascular complications. However, the frequency of these complications does not offset the significant mortality benefit observed in the clinical trial.

Q.5 Please comment on the hemodynamic performance of the SAPIEN valve based on the data available from this study. Please also discuss the potential long-term clinical significance of these findings.

With respect to Q.5, the Society is impressed that the aortic regurgitation in this high risk population did not counterbalance either the survival benefit or the sustained clinical patient improvement. The Society believes that the data are clearly favorable.

Q.6 Please provide input regarding the appropriate way to address potential valve-in-valve use with the SAPIEN valve, including device labeling, practitioner training, and/or additional testing requirements.

With respect to Q.6, the Society believes that the operator should have the option to use THV therapy for inoperable patients with degenerated valves. There is a body of international experience with valve-in-valve therapy that supports this approach in patients with no other option.

Q.8 Based upon the study results that included a significant reduction in mortality but increase in neurological events and vascular complications for the TAVI group, please discuss whether you believe the overall data demonstrates a reasonable assurance of safety and effectiveness for the SAPIEN THV in the intended patient population. Please discuss all the key factors that influence your assessment.

While there are significant concerns about the risk of stroke, the Society believes that the overall survival benefit for this therapy is significant. An absolute survival advantage of this therapy of 20% far exceeds the penalties of adverse events such as stroke and vascular complications. The Society believes that appropriate physician expertise will lead to a reduction in the number of complications as observed in PARTNER Trial, Cohort A versus the later PARTNER Trial, Cohort B. Stroke decreased from 5.0% to 3.8%, respectively. Vascular complications decreased from 16.2% to 11.0%, respectively. Therefore, the Society hopes that patients with severe aortic stenosis will have access to this treatment option.

Conclusion

Thank you for accepting our testimony today. The Society is fully committed to providing the best patient care possible and welcomes all opportunities to provide recommendations to the Advisory Panel and the Agency. The Society is encouraged by the information provided to date and looks forward to the Advisory Panel's recommendations and the FDA's final regulatory decision.