Leading Cardiovascular Societies Release New Guidance on Use of Heart Pumps

Expert Consensus Statement Addresses Expanding Options for Percutaneous Mechanical Support Devices

Washington, DC (April 7, 2015) – Greater availability of percutaneous mechanical circulatory support (MCS) devices for treatment of heart failure is helping expand treatment options for a rapidly growing number of acutely and chronically ill cardiac patients who could benefit from the devices. An expert consensus statement released today by the Society for Cardiovascular Angiography and Interventions (SCAI), American College of Cardiology (ACC), Heart Failure Society of America (HFSA) and The Society of Thoracic Surgeons (STS) provides new guidance to help physicians match the right device with the right patient. The statement has been endorsed by the American Heart Association (AHA), Cardiological Society of India (CSI) and the Latin American Society of Interventional Cardiology (SOLACI). The Canadian Association of Interventional Cardiology (CAIC) has affirmed the value of the statement.

“Percutaneous mechanical circulatory support is revolutionizing the treatment of high-risk cardiac patients,” said Charanjit S. Rihal, MD, FSCAI, FACC, chair of the Division of Cardiovascular Diseases at the Mayo Clinic, Rochester, Minn., and lead author of the paper. “In certain patients, these devices can mean the difference between recovery and the need for heart transplant or death, and they may be used to maintain hemodynamic stability during interventional procedures and as a bridge to longer-term treatment. The new consensus statement will help physicians select devices for the patients who are most likely to benefit.”

To develop the new recommendations, a panel of experts reviewed scientific data on all of the available devices, including intraaortic balloon pumps (IABP), left atrial to aorta assist devices (TandemHeart), left ventricle to aorta assist devices (Impella), extracorporeal membrane oxygenation (ECMO) as well as methods for right-sided heart support. The expert panel also reviewed indications for percutaneous MCS, including complications of heart attack, high-risk angioplasty and stenting (also known as percutaneous coronary intervention, or PCI), and advanced heart failure and cardiogenic shock.

Based on the available data and anticipated benefits and risks, the panel determined percutaneous MCS provides superior circulatory support compared to medical therapy, especially when using left ventricular assist devices. Early placement of MCS can benefit patients in cardiogenic shock when initial interventions fail to stabilize the patient. MCS may also benefit high-risk PCI patients and certain patients with acute decompensated heart failure whose symptoms are worsening despite treatment.
MCS may also be used in patients who failed to wean off a heart-lung bypass machine. The evidence does not support routine use of MCS in heart attack patients.

“MCS utilization is clearly increasing, and this document should assist clinicians in recognizing when early support is needed, and what that support should look like,” said Srihari S. Naidu, MD, FSCAI, ACC, FAHA, director of the cardiac cath lab at Winthrop University Hospital and vice chair of the consensus document’s writing committee.

The expert consensus statement also highlights emerging treatment opportunities, such as for patients undergoing percutaneous valve replacement who have severe, non-operable valve disease, and some patients undergoing electrophysiological procedures. Currently, most percutaneous MCS devices cannot be used in children due to size limitations, but the authors note this is an important area for future development. Registries and randomized controlled trials are also critically needed to compare different devices and treatment strategies across patient populations.


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About SCAI
The Society for Cardiovascular Angiography and Interventions is a 4,300-member professional organization representing invasive and interventional cardiologists in approximately 70 nations. SCAI’s mission is to promote excellence in invasive/interventional cardiovascular medicine through physician education and representation, and advancement of quality standards to enhance patient care. SCAI’s public education program, Seconds Count, offers comprehensive information about cardiovascular disease. For more information about SCAI and Seconds Count, visit http://www.SCAI.org or www.SecondsCount.org. Follow @SCAI and @SCAINews on Twitter for the latest heart health news.

About ACC
The American College of Cardiology is a 47,000-member medical society that is the professional home for the entire cardiovascular care team. The mission of the College is to transform cardiovascular care and to improve heart health. The ACC leads in the formation of health policy, standards and guidelines. The College operates national registries to measure and improve care, provides professional medical education, disseminates cardiovascular research and bestows credentials upon cardiovascular specialists who meet stringent qualifications. For more information, visit acc.org.

About HFSA
The Heart Failure Society of America, Inc. (HFSA) represents the first organized effort by heart failure experts from the Americas to provide a forum for all those interested in heart function, heart failure, and congestive heart failure (CHF) research and patient care. HFSA works to promote research, provide education, enhance quality and duration of life for those with heart failure and to serve as a resource for government, private industry, and health care providers to facilitate the establishment of programs and policies that will better serve the patient.

About STS
Founded in 1964, The Society of Thoracic Surgeons is a not-for-profit organization representing more than 6,900 cardiothoracic surgeons, researchers, and allied health care professionals worldwide who are dedicated to ensuring the best possible outcomes for surgeries of the heart, lung, and esophagus, as well as other surgical procedures within the chest. The Society’s mission is to enhance the ability of cardiothoracic surgeons to provide the highest quality patient care through education, research, and advocacy.