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Abiomed Surpasses 50,000 Impella® Patients Treated in the United States

Milestone Highlights Significant Unmet Need for Treatment Options Among Advanced Heart Failure Patients

DANVERS, Mass., Feb. 23, 2017 (GLOBE NEWSWIRE) -- [Abiomed, Inc.](#) (NASDAQ:ABMD), a leading provider of breakthrough heart support technologies, announced that it has supported more than 50,000 patients in the U.S. with its Impella® line of heart pumps. Impella heart pumps enable minimally invasive treatment for high risk heart failure patients who might otherwise have no treatment options.

The 50,000th patient supported with an Impella device was treated by Dr. Subhash Banerjee, Professor of Medicine at the University of Texas Southwest Medical Center and Chief of Cardiology at the Dallas VA Medical Center. "Impella heart pumps enable percutaneous treatment options for high risk heart failure patients who have been turned-down for surgery," said Dr. Banerjee, who performed the procedure with the Impella CP®. "Hemodynamic stability is essential to treating these types of high risk patients and with the support of an Impella device, we are able to safely perform complete and complex coronary interventions on patients that might not have been treated previously."

Impella heart pumps are the first and only temporary percutaneous ventricular support devices that are FDA-approved as safe and effective for use in high-risk percutaneous coronary interventions (PCI) as well as the treatment of cardiogenic shock, a life-threatening condition that typically occurs during or after a heart attack, or post-cardiopulmonary bypass surgery.

Heart failure and coronary heart disease are the number one cause of death in the United States, causing one out of every three deaths, or nearly 900,000 deaths each year.¹ This heart failure epidemic currently affects 5.7 million Americans and by the year 2030 that number is expected to grow by 46 percent.^{1,2} While, to date, over 50,000 patients have been treated with Impella in the United States, Impella is currently used in only 1 percent of PCIs and in less than 10 percent of patients experiencing an AMI complicated by cardiogenic shock. As a result, tens of thousands of patients remain undertreated and potentially unaware of the procedural options Impella can afford physicians.

In Detroit, an unprecedented collaboration between metro cardiologists across five hospitals is providing an early indication of the potential to improve heart attack survival rates using Impella early in the cardiogenic shock spiral.

"People are aware that heart disease is the number one killer, but they may not know what a major role coronary artery disease plays in the development of cardiogenic shock, which has had the same devastating mortality rate for 30 years in spite of the major advances in cardiac care," said William W. O'Neill, M.D., director of the Center for Structural Heart Disease at Henry Ford Health System. "In our collaborative approach crossing the usual hospital system boundaries, we have utilized a common protocol since July 2016 in an effort to improve the outcomes for our entire community."

Continued Dr. O'Neill: "In reviewing the observational data generated from treating a small group of 30 patients, we continue to develop and prove the hypothesis that Impella, used early, can be an effective tool to improve survival of cardiogenic shock and enable patients to keep their own hearts after events that may otherwise have resulted in transplant, chronic heart failure, or death." These results and other data observed in Abiomed's IQ Assurance Database will be discussed in March at the annual American College of Cardiology Scientific Sessions in Washington, D.C.

The Impella pumps offer the unique ability to both stabilize the patient's hemodynamics before or during a percutaneous coronary intervention (PCI) procedure and unload the heart, which allows the muscle to rest and potentially recover its native function. Impella is now recognized by multiple medical guidelines and regulatory bodies worldwide and is supported in published expert consensus documents and nearly 400 clinical publications. Heart recovery is the ideal option for patient quality of life and, as documented in several clinical papers, has the ability to save costs for the healthcare system^{3,4,5}.

In 2014, a study analyzed all adult patients receiving short-term mechanical circulatory support (MCS) in the United States from 2004 to 2011 (12,000 patients) using the Nationwide Inpatient Sample from the Healthcare Cost and Utilization Project. The study showed the use of short term mechanical support in the U.S. had reduced hospital mortality rates while also reducing hospital costs.⁶ Additionally, Impella has been shown to reduce length of stay⁷, reduce readmission rates⁸ and

has been proven cost effective in multiple clinical studies.⁹

"Treating 50,000 patients in the United States is an incredible milestone for the Company, as it reflects our unyielding commitment to addressing the significant unmet need for advanced heart failure patients who might otherwise have no treatment options," said Michael R. Minogue, Chairman, President and Chief Executive Officer of Abiomed. "By working to change the standard of care and building the field of heart recovery, it is our goal to continue to improve patient outcomes and increase access to this life-changing innovation."

Founded in 1981 in Danvers, Massachusetts, Abiomed develops and manufactures Impella, a line of the world's smallest heart pumps that are inserted minimally invasively in a hospital catheterization lab without the need for surgery. The Impella heart pumps are in over 1,200 U.S. hospitals and are used in 98% of the top U.S. heart hospitals.

ABOUT IMPELLA

The Impella 2.5[®], Impella CP[®] and Impella 5.0[®] are FDA-approved to treat heart attack patients in cardiogenic shock, and have the unique ability to enable native heart recovery, allowing patients to return home with their own heart. The Impella 2.5 and Impella CP[®] are also approved to treat certain advanced heart failure patients undergoing elective percutaneous coronary interventions (PCI) such as stenting or balloon angioplasty, to re-open blocked coronary arteries. Abiomed's right-side heart pump, the Impella RP[®], is approved to treat certain patients experiencing right heart failure.

To learn more about the Impella platform of heart pumps, including their approved indications and important safety and risk information associated with the use of the devices, please visit: www.protectedpci.com.

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ABOUT ABIOMED

Based in Danvers, Massachusetts, Abiomed, Inc. is a leading provider of medical devices that provide circulatory support. Our products are designed to enable the heart to rest by improving blood flow and/or performing the pumping of the heart. For additional information, please visit: www.abiomed.com.

FORWARD-LOOKING STATEMENTS

This release contains forward-looking statements, including statements regarding development of Abiomed's existing and new products, the Company's progress toward commercial growth, and future opportunities and expected regulatory approvals. The Company's actual results may differ materially from those anticipated in these forward-looking statements based upon a number of factors, including uncertainties associated with development, testing and related regulatory approvals, including the potential for future losses, complex manufacturing, high quality requirements, dependence on limited sources of supply, competition, technological change, government regulation, litigation matters, future capital needs and uncertainty of additional financing, and other risks and challenges detailed in the Company's filings with the Securities and Exchange Commission, including the most recently filed Annual Report on Form 10-K and Quarterly Report on Form 10-Q. Readers are cautioned not to place undue reliance on any forward-looking statements, which speak only as of the date of this release. The Company undertakes no obligation to publicly release the results of any revisions to these forward-looking statements that may be made to reflect events or circumstances that occur after the date of this release or to reflect the occurrence of unanticipated events.

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7. Gregory D, et al. *Am Health Drug Benefits.* 2013;6(2):88-99; Maini B, et al. *Catheter Cardiovasc Interv.* 2014;83(6):E183-E192.
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