Use of Heartflow Planner Leads to Change in Treatment Strategy in Nearly Half of Patients with Coronary Heart Disease

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REDWOOD CITY, Calif. – May 23, 2019 – Heartflow, Inc., today announced new data demonstrating that the use of the investigational Heartflow Planner, a real-time, non-invasive interactive planning tool, led to a change in treatment strategy in 45% of patients with coronary artery disease (CAD) and reduced the need for invasive physiology. The data from the BOWIE (Benefits of Obtaining information for planning With noninvasive FFR_{CT} prior to Invasive Evaluation) study were presented by Eric Van Belle, M.D., Ph.D., Professor of Cardiology, Head of the Lille Heart & Lung Institute, and principal investigator for BOWIE, as a late-breaking trial at the EuroPCR Conference in Paris, France.

"The BOWIE results highlight the potential benefit of using a real-time interactive tool prior to a revascularization procedure as it can help inform the treatment plan, optimize completeness of revascularization, and streamline resource utilization in the cath lab," said Campbell Rogers, M.D., Chief Medical Officer, Heartflow.

BOWIE is a retrospective study that included 101 patients. Three interventional cardiologists independently reviewed the diagnostic angiogram for each patient and provided a treatment recommendation. The same three interventional cardiologists then reviewed each patients' Heartflow Analysis and used the Heartflow Planner to virtually explore different treatment scenarios and provide a treatment recommendation. The study compared the differences in recommended treatment plans.

For example, in one case, the interventionalists initially recommended that a lesion be treated with a 38mm stent based on the diagnostic angiogram. After reviewing different treatment options with the Heartflow Planner, the interventionalists changed the recommendation to treat the lesion with a 15mm stent as the reduced stent length demonstrated a similar physiologic effect.

The Heartflow Planner is an interactive tool that enables interventional cardiologists and heart teams to modify vessels virtually, and thereby determine the optimal treatment strategy prior to an invasive procedure. Every Heartflow Analysis case is accompanied by enough data to allow Heartflow Planner to modify vessel narrowings and arrive at a personalized ideal anatomical model, and to allow additional computations based on altered flow rates resulting from modified vessels. With Heartflow Planner, an interventional cardiologist or heart team can explore the treatment area and view the modified vessel and resulting FFR_{CT} changes in real time. This tool allows non-invasive study of treatment scenarios to identify which intervention is optimal. The Heartflow Planner is currently not available for commercial use and is under review with the U.S. Food and Drug Administration (FDA).

About the Heartflow FFR_{CT} Analysis

Data from a patient's non-invasive coronary CTA are securely uploaded from the hospital's system to Heartflow's software application running in the AWS cloud. Heartflow leverages deep learning and highly trained analysts to create a personalized, digital 3D model of the patient's coronary arteries. The Heartflow Analysis then uses powerful computer algorithms to solve millions of complex equations to simulate blood flow and assess the impact of blockages on coronary blood flow. The Heartflow Analysis is provided via a secure online interface to offer actionable information to enable clinicians to determine the optimal course of treatment.

The Heartflow Analysis offers the highest per-vessel diagnostic performance available from a non-invasive test.[1] To date, clinicians around the world have used the Heartflow Analysis for more than 30,000 patients to aid in the diagnosis of heart disease.

About Heartflow, Inc.

Heartflow, Inc. is a medical technology company uniquely positioned at the intersection of advanced artificial intelligence and healthcare to transform how heart disease is diagnosed and treated. Our non-invasive Heartflow FFR_{CT} Analysis leverages deep learning to create a personalized 3D model of the heart. By using this model, clinicians can better evaluate the impact a blockage has on blood flow and determine the best treatment for patients. Our technology is reflective of our Silicon Valley roots and incorporates decades of scientific evidence with the latest advances in artificial intelligence. The Heartflow FFR_{CT} Analysis is commercially available in the United States, Canada, Europe and Japan. For more information, visit www.Heartflow.com.

1. Driessen, R., et al. Comparison of Coronary Computed Tomography Angiography, Fractional Flow Reserve, and Perfusion Imaging for Ischemia Diagnosis. J Am Coll Cardiol. 2019;73(2),161-73.