Recent Study from England's National Health Service Highlights Positive Impact of Implementing Heartflow's FFRCT Analysis for Diagnosis of Coronary Artery Disease

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Significant reduction in cardiovascular mortality and all-cause mortality for CCTA coupled with FFRCT versus CCTA alone

MOUNTAIN VIEW, Calif. – August 26, 2023 —Two-year results from FISH&CHIPS, a real world, multi-center, retrospective clinical study with 90,553 patients conducted by the National Health Service (NHS) England were presented at the 2023 European Society of Cardiology (ESC) Congress meeting in Amsterdam by Principal Investigator, Dr. Tim Fairbairn, Consultant Cardiologist, Liverpool Heart and Chest Hospital.

FFR_{CT} (CCTA-derived Fractional Flow Reserve) is part of a clinical pathway for evaluation and diagnosis of coronary artery disease (CAD) that provides clear insight into a patient's condition with a patient-specific visual model of the heart's blood flow, helping physicians make more accurate diagnoses and treatment decisions.

The FISH&CHIPS study was designed to assess at a national level the incremental impact of adding Heartflow FFR_{CT} to a CCTA-first (Coronary Computed Tomography Angiography) diagnostic pathway to evaluate and manage CAD.

FISH&CHIPS two-year key outcomes associated with availability of FFR_{CT} include:

- A significant 14% relative reduction in cardiovascular mortality and a significant 8% relative reduction in all-cause mortality.
- An increase in cath lab efficiency, driven by a 5% relative reduction in invasive cardiac angiography (ICA) and an 8% relative increase in Percutaneous Coronary Intervention (PCI).
- A 14% relative reduction in additional non-invasive heart testing following CCTA.
- High prognostic value for FFR_{CT} whereby patients with severely abnormal FFR_{CT} values (≤0.50) had a 2x risk of all-cause death and a 3x risk of non-fatal MI compared to patients with normal FFR_{CT} values.

"The foresight and continued leadership of NHS England in challenging the status quo and implementing new approaches like the CCTA+FFR_{CT} pathway has a widespread impact on the industry globally," said Campbell Rogers, Chief Medical Officer, Heartflow. "The nationwide CCTA-first approach for evaluating patients with possible cardiovascular disease has become the model of both clinical efficacy and efficiency, which is why clinical guidelines across the globe have adopted it. FISH&CHIPS demonstrates that NHS England's decision to incorporate the Heartflow FFR_{CT} Analysis into that pathway extended the lives of many English patients and ensured efficient and effective use of noninvasive and invasive testing and treatment."

"At NIHR Clinical Research Network North West Coast (CRN NWC), we are delighted to see these impressive results from the FISH&CHIPS study, which shows that the introduction of a new health technology, FFR_{CT}, at a national level was associated with a reduction in cardiovascular death and invasive angiography," said Professor Enitan Carrol, Clinical Director, Clinical Research Network: North West Coast. "The study was funded by the MRC, which followed on from CRN NWC capacity building support for Dr. Fairbairn as a Research Scholar between 2017 and 2019."

Building on results seen in the recent Prospective Randomized Trial of the Optimal Evaluation of Cardiac Symptoms and Revascularization (PRECISE) Trial, which compared a non-invasive Precision Pathway to Traditional Testing, proved the CCTA+FFR_{CT} pathway to be a more effective path in guiding and informing treatment. FISH&CHIPS confirms and extends these results at a population level, delivering marked improvements in the hard clinical endpoints of all-cause and CV mortality, extending patients' lives without adversely impacting other clinical events.

Additionally, the data reinforce observations from 3-year follow-up of the ADVANCE-DK registry, including the value of attaining FFR_{CT} information early to assess patient risk effectively, and the relationship between lower FFR_{CT} values and increased patient risk.

About FISH&CHIPS

FISH&CHIPS is a real world, multi-center, retrospective clinical study designed to assess at a national level the incremental impact of adding FFR_{CT} to a CCTA-first diagnostic paradigm for coronary artery disease. The two-year study analyzed data from twenty-five hospital sites in England including 90,553 patients. The primary objective is to determine whether a CCTA and FFR_{CT} diagnostic pathway reduces health-related events, time to diagnosis, and overall healthcare costs compared to a 'standard of care'

CCTA diagnostic chest pain pathway. The study was funded by the UK Medical Research Council (MRC).

About Heartflow

Heartflow is transforming precision coronary care with the only non-invasive integrated heart care solution across the CCTA pathway. As the pioneer of FFR_{CT}, which is now supported by the ACC/AHA Chest Pain Guidelines, Heartflow continues to advance the diagnosis and management of CAD. Our suite of non-invasive technologies helps clinicians identify stenoses in the coronary arteries (Roadmap™ Analysis), assess coronary blood flow (FFR_{CT} Analysis), and characterize and quantify coronary atherosclerosis (Plaque Analysis). To date, more than 500 peer-reviewed publications have validated our approach and, more importantly, our technologies have helped clinicians diagnose and manage over 200,000 patients. For more information, visit www.Heartflow.com and connect on Twitter and LinkedIn.

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