

NICE Guidance for HeartFlow Analysis



The National Institute for Health and Care Excellence (NICE) in the United Kingdom (UK) has issued guidance statements on the assessment and diagnosis of patients with recent onset chest pain (CG95) and the use of the HeartFlow® FFR_{CT} Analysis to evaluate lesion-specific physiology in patients with identified coronary artery disease (CAD) (MTG32).

Patients with Recent Onset Chest Pain

Clinical guidelines (CG95) recommend the use of CT coronary angiography (CTCA) as a frontline test for any patient whose clinical assessment indicates typical or atypical chest pain.

When CTCA "has shown coronary artery disease of uncertain functional significance or is non-diagnostic", CG95 recommends use of a non-invasive functional or physiological test.

Non-invasive Assessment of Physiology: The HeartFlow FFR_{CT} Analysis

NICE has reiterated their Technology Assessment (MTG32) endorsing the HeartFlow FFR_{CT} Analysis to aid clinicians in assessing lesion-specific physiology in patients with CAD.

The 2021 review found that the HeartFlow FFR_{CT} Analysis:



Has been chosen by clinicians for more than 15,000 NHS patients



Is increasingly available in NHS hospitals, with line of sight to nearly 100 sites offering HeartFlow to patients in 2021



Improves the specificity of CTCA and reduces "false positives by as much as 50%" and reduces the need for diagnostic angiography



Provides cost saving of £391 per patient to NHS (£177 higher than 2017 assessment) relative to other noninvasive testing modalities



Funding for HeartFlow has transitioned to the new MedTech Funding Mandate. "All NHSE providers and NHSE Commissioners are expected to comply with the Mandate guidance and CCG's are expected to fund HeartFlow from 1st April 2021."

NICE Recommended Pathway for Patients with Recent Onset Chest Pain



Use CTA as a frontline test for patients with typical or atypical chest pain, or abnormal 12-lead resting EKG.



When results of CTA indicate CAD of uncertain physiologic significance or are otherwise indeterminate, proceed with a non-invasive functional test*, such as the HeartFlow FFR_{CT} Analysis.



The HeartFlow FFR_{CT} Analysis non-invasively provides clinicians with lesion-specific physiology to assess, vessel by vessel, the impact of coronary artery disease.

CLINICAL IMPROVEMENTS

Avoidance of invasive investigation and simplification of patient pathway

COST SAVINGS

Significant cost reduction (~£391 per patient) when compared to all other non-invasive functional tests

The NHS is Increasing Access to HeartFlow

As part of the NHS MedTech Funding Mandate, begun on 1 April 2021, the HeartFlow FFR_{CT} Analysis is available to order via the NHS Supply Chain catalogue and is managed by the Medical IT Departmental Software and Hardware Solutions Framework within NHS Supply Chain.

More information can be found through the NHS Supply Chain website.

For more information on NICE and the final guidance on HeartFlow $FFR_{CT'}$ please visit www.nice.org.uk.

*The NICE Committee reviewed common functional tests in use (e.g., SPECT, CCTA, ECHO, MRI, and ICA) to assess suspected CAD. In all cases, the HeartFlow FFR_{CT} Analysis was found to be significantly more cost effective while also providing clinicians with improvements in diagnostic specificity and/or sensitivity.

REFERENCES

Addendum to Clinical Guideline (CG95), Chest pain of recent onset: Assessment and diagnosis. Clinical Guideline Addendum: CG95.1, November 2016.

National Institute for Health and Care Excellence (2021). HeartFlow FFR_{CT} for estimating fractional flow reserve from coronary CT angiography. NICE medical technology guidance, April 2021. London: NICE.

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