NATIONAL INSTITUTE FOR HEALTH AND CARE EXCELLENCE

HealthTech Programme

GID-HTE10085 CaRi-Heart for predicting cardiac risk in adults with suspected coronary artery disease

Final scope

1. Introduction

The technology included in this NICE HealthTech evaluation is CaRi-Heart for predicting cardiac risk in adults with suspected coronary artery disease (CAD).

The technology will be assessed for routine use. Routine use assessments consider HealthTech products that address a national NHS unmet need and may be suitable for routine widespread use in the NHS. Recommendations are based on assessment of clinical and cost effectiveness, or cost comparison.

This scope document describes the context and the scope of the assessment. The methods and process for the assessment follow the NICE HealthTech programme manual.

2. The condition

2.1 Coronary artery disease

Coronary artery disease (CAD) is a form of cardiovascular disease (CVD) that affects the arteries on the surface of the heart, which supply blood to the heart muscle. Fatty plaques can build up on the inside walls of these arteries, leading to narrowing of the arteries (atherosclerosis). This reduces blood flow and can result in chest pain (angina). Over time, the plaques in the coronary artery wall may become inflamed and rupture, leading to blood clots that can

block the artery and cause heart muscle death (myocardial infarction). This may result in sudden cardiac death.

It is estimated that 2.3 million people are living with CAD in the UK (around 1.5 million men and 800,000 women) with around 63,000 deaths per year (BHF, 2024).

CAD is associated with modifiable risk factors, including smoking and excessive alcohol use, and with non-modifiable factors such as a family history of CVD The risk of developing CAD is higher in people with high cholesterol, high blood pressure or diabetes.

CAD may be suspected in people reporting symptoms such as stable angina (chest pain triggered by physical exertion or emotional stress that resolves with rest). Other symptoms can include palpitations, breathlessness, nausea, generalised discomfort, and feeling faint. Some people may be asymptomatic before diagnosis. CAD can lead to cardiovascular complications including unstable angina (more unpredictable chest pain that may persist despite rest), myocardial infarction, heart failure and sudden cardiac death.

3. Current practice

In the NHS, the referral, diagnosis and treatment of cardiovascular disease follows the:

- NICE guideline for cardiovascular disease: risk assessment and reduction, including lipid modification (NG238)
- NICE clinical guideline for recent-onset chest pain of suspected cardiac origin (CG95)
- NICE clinical guideline for stable angina (CG126) and
- European Society of Cardiology 2024 guidelines for the management of chronic coronary syndromes
- European Society of Cardiology 2021 guidelines on cardiovascular disease prevention in clinical practice

Local pathways may vary by setting and capacity (for example, access to CT coronary angiography, specialist chest pain services, and interventional cardiology services).

3.1 Referral

People may enter the pathway through primary care (following risk assessment and management of cardiovascular risk factors), or through urgent and emergency care when presenting with acute chest pain. Some people may also be referred from cardiology services outside rapid access chest pain clinics, for example people with symptoms suggestive of CAD who are already under cardiology follow-up.

People with stable chest pain or symptoms suggestive of angina may be assessed in primary care and referred for further investigation in line with local chest pain pathways and the NICE guideline on assessment and diagnosis of recent-onset chest pain of suspected cardiac origin (CG95).

3.2 Diagnosis

NICE's guideline on recent onset chest pain (CG95) recommends diagnostic testing for people with recent-onset stable chest pain if clinical assessment indicates typical or atypical angina (Figure 1). It recommends offering 64-slice (or above) CT coronary angiography (CTCA) as the first-line diagnostic test if:

- clinical assessment indicates typical or atypical angina, or
- clinical assessment indicates non-anginal chest pain but 12-lead resting ECG has been done and indicates ST-T changes or Q waves.

CTCA is a non-invasive imaging test that uses CT to visualise the coronary arteries. An intravenous contrast dye is usually injected to allow the coronary arteries to be seen clearly. CTCA can identify coronary atherosclerotic plaque and assess the presence and severity of narrowing (stenosis) or obstruction in the coronary arteries. This differs from invasive coronary angiography (ICA), which is an X-ray procedure done in a cardiac catheter laboratory, in which a catheter is inserted into an artery (usually the wrist or groin) and guided to the coronary arteries in the heart so contrast dye can be injected directly to image

them. ICA is more invasive than CTCA and is often used when further assessment is needed, including to help determine suitability for revascularisation.

Experts noted that CTCA provides information that can inform risk assessment and management even when obstructive CAD is not present. This includes assessment of coronary calcium, plaque burden, and plaque characteristics which may help identify higher-risk people. They noted that this information is not consistently used to guide preventive management in current practice.

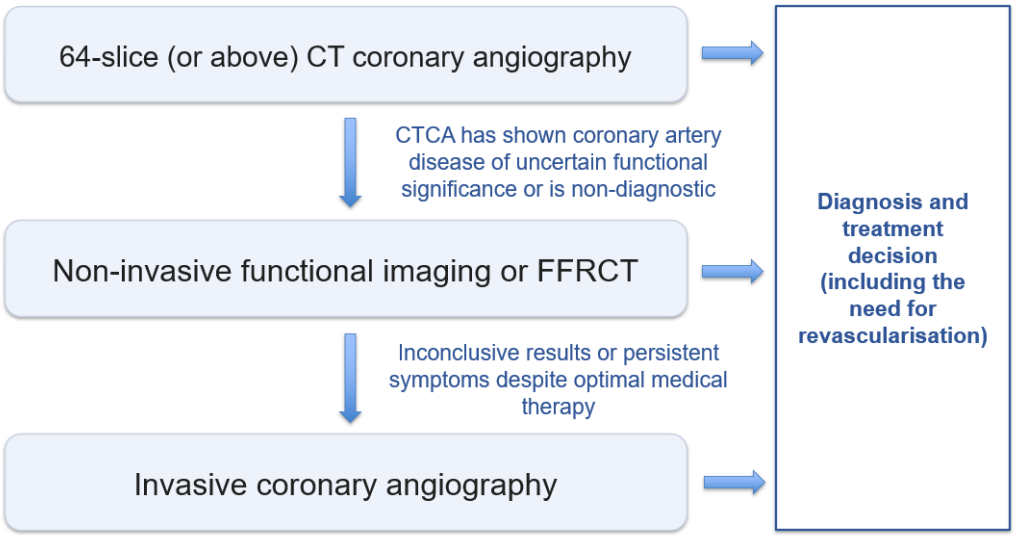
For people in whom CTCA has shown CAD of uncertain functional significance, or CTCA is non-diagnostic, non-invasive functional imaging for myocardial ischaemia should be offered. This includes:

- myocardial perfusion scintigraphy with single-photon emission CT (MPS with SPECT), or
- stress echocardiography, or
- first-pass contrast-enhanced magnetic resonance (MR) perfusion, or
- MRI for stress-induced wall motion abnormalities.

NICE HealthTech guidance HTG429 recommends that HeartFlow FFRCT (fractional flow reserve CT) should be considered as an option for patients with stable, recent-onset chest pain who are offered 64-slice (or above) CTCA. This software provides a non-invasive method of estimating FFR using standard CTCA image data.

ICA should be offered as a third-line investigation when the results of CTCA and non-invasive functional imaging are inconclusive (CG95, updated 2016). ICA can also be used as a second-line investigation (following non-invasive functional imaging) for people for whom CTCA is not suitable, or in centres where 64-slice (or above) CTCA is not available, and for people with a confirmed diagnosis of stable angina who have persistent symptoms despite optimal medical therapy (CG126).

Figure 1: Diagnostic pathway for recent-onset stable chest pain



A diagnosis of stable angina should be made when:

- significant coronary artery disease is found during ICA or CTCA (usually defined as 70% or more diameter stenosis of at least one major epicardial artery segment, or 50% or more diameter stenosis in the left main coronary artery), and/or
- reversible myocardial ischaemia is found during non-invasive functional imaging.

3.3 Management

The aims of managing CAD are to relieve symptoms, improve quality of life, and reduce the risk of future cardiovascular events and mortality. Management options, as described in the NICE clinical guideline on stable angina (CG126), the NICE guideline on cardiovascular disease risk assessment and reduction, and the European Society of Cardiology guideline on chronic coronary syndromes (2024), include:

- Lifestyle and risk factor modification (for example, increasing physical activity, improving diet, achieving a healthy weight and stopping smoking).
- Pharmacological management to control angina symptoms, including a short-acting nitrate for immediate relief and either a beta-blocker or a

calcium-channel blocker as first-line therapy. If symptoms are not adequately controlled, additional anti-anginal therapy may be required.

- Secondary prevention (risk reduction) pharmacotherapy, including lipid-lowering therapy (for example, statins), and other treatments to reduce cardiovascular risk such as angiotensin-converting enzyme [ACE] inhibitors or aspirin. NICE recommends high-intensity statin therapy for secondary prevention of cardiovascular disease. If cholesterol targets are not met on the maximum tolerated statin dose, another lipid-lowering treatment can be considered (for example ezetimibe or a PCSK9 inhibitor).
- Revascularisation for a small proportion of people, using percutaneous coronary intervention (stent placement) or surgical techniques (such as coronary artery bypass surgery).

The choice of appropriate management options depends on accurately identifying coronary disease and characterising any stenoses (obstructions), while ensuring cardiovascular risk assessment and risk reduction are addressed alongside symptom management (CG95; CG126; NG238).

Experts noted that post-CTCA management for people with non-obstructive or no coronary artery disease is variable and often suboptimal. They highlighted uncertainty and variation in whether these people are managed using primary prevention or secondary prevention approaches, with limited follow-up and inconsistent use of or adherence to preventive treatment strategies.

Anti-inflammatory medications may also be considered for secondary prevention. Colchicine is included in European Society of Cardiology guidance as a possible option for this purpose, but clinical experts noted that it is not widely used in routine UK practice for cardiovascular risk reduction, and that evidence supporting its use in this context remains limited.

4. Unmet need

Cardiovascular disease (CVD) remains a major cause of morbidity and mortality in the UK, with around 7 million people affected and substantial associated healthcare costs (NHS, England). Despite established care

pathways for assessing chest pain and diagnosing coronary artery disease (CAD), there remains an ongoing unmet need to improve both early identification of risk and optimal risk reduction in people with CAD.

In NHS chest pain pathways, CT coronary angiography (CTCA) is used to investigate suspected coronary artery disease, but its main role is to identify obstructive disease to guide referral for invasive coronary angiography or revascularisation. Most people having CTCA do not have obstructive CAD (around 81% in a large UK cohort), and are usually reassured and discharged to primary care with limited follow-up. However, people referred for CTCA in chest pain pathways typically have a higher baseline cardiovascular risk than the general population, because referral follows clinical assessment of symptoms or risk factors. This means that some subsequent fatal and non-fatal cardiovascular events still occur in people without obstructive disease, indicating that current risk stratification and management may miss people with ongoing disease activity who may benefit from preventive medical treatment.

Standard CTCA reporting does not quantify coronary inflammation, and post-CTCA management decisions are generally guided by imaging findings and clinical assessment, although traditional risk factors remain relevant. Risk prediction tools such as QRISK3 are mostly used in primary care as they are intended for largely asymptomatic primary prevention populations and do not incorporate CTCA-derived measures such as inflammation or plaque burden. This makes it difficult to identify people with symptoms who are at higher risk of cardiovascular events who could benefit from earlier or more intensive preventive treatment.

Therefore, there is an unmet need to improve risk stratification and subsequent management after CTCA for suspected CAD.

5. The technology

Sections 5.1 to 5.3 describe the properties of the technology based on information provided to NICE by the manufacturer, experts, and publicly

available information. NICE has not carried out an independent evaluation of these descriptions. This technology was available to the NHS at the time of writing this scope.

This assessment is limited to CaRi-Heart. Technologies that do not analyse CT coronary angiography (CTCA) images, or that do not provide outputs intended to support cardiovascular risk assessment and patient management using CTCA-derived measures of coronary inflammation are outside the scope of this evaluation.

5.1 CaRi-Heart (Caristo Diagnostics)

CaRi-Heart is a class IIa CE (EUMDR)/UKCA marked medical imaging analysis software device for adults aged between 30 to 80 years old referred for CTCA. It uses artificial intelligence to analyse standard CTCA images to provide measures of coronary inflammation and plaque burden. These outputs are combined with clinical risk factors (for example age, sex, smoking status, diabetes and cholesterol) to generate a risk estimate for future fatal cardiovascular events, which the company claims may improve risk discrimination compared with risk factor-based models alone (for example QRISK3).

CTCA scans and accompanying clinical information are transferred securely from the hospital picture archiving and communication system (PACS) for analysis by trained company operators, and a report is returned within 48 hours. Reports can be accessed via PACS or as a PDF and are intended to be interpreted by healthcare professionals alongside standard CTCA reporting and other clinical information.

5.1.1 CaRi-Heart report

The company states that CaRi-Heart provides a coronary inflammation, plaque and risk report based on analysis of CTCA images and routinely collected clinical risk factors. The main outputs include vessel-level fat attenuation index (FAI) measures, an FAI-Score (reported as the highest percentile across measured vessels) and a CaRi-Heart Risk output (an

estimated 8-year risk of cardiac mortality). The instructions for use state that the report is not intended to be used as a primary means of diagnosis and is not a substitute for standard CTCA reports.

5.1.1.1 Fat attenuation index (FAI)

FAI is an imaging biomarker intended to reflect coronary inflammation. It is derived from CT attenuation measurements of perivascular adipose tissue surrounding the coronary arteries and is reported at vessel level for the main epicardial coronary arteries (right coronary artery, left anterior descending artery, and left circumflex artery).

5.1.1.2 FAI-Score (standardised inflammation score)

Because raw FAI values can be influenced by technical, anatomical and biological factors, CaRi-Heart provides an FAI-Score, which is a standardised assessment of coronary inflammation. The FAI-Score is presented per vessel and expressed as an age- and sex-specific percentile relative to a reference population. The report includes vessel-specific nomograms and visuals to support interpretation of where a person's results sit relative to the reference population.

5.1.1.3 CaRi-Heart Risk

CaRi-Heart Risk integrates measures of coronary inflammation (including the FAI-Score), plaque and stenosis information derived from CTCA, and clinical risk factors to estimate an individual's risk of cardiac mortality over 8 years. The company provides guidance within the report to support interpretation of the risk output.

5.2 The place of technologies in the care pathway

CaRi-Heart is intended for use as an add-on to standard CTCA in the NICE chest pain pathway for adults with suspected coronary artery disease, with results used to support risk stratification and preventive management decisions alongside routine CTCA interpretation and other clinical information.

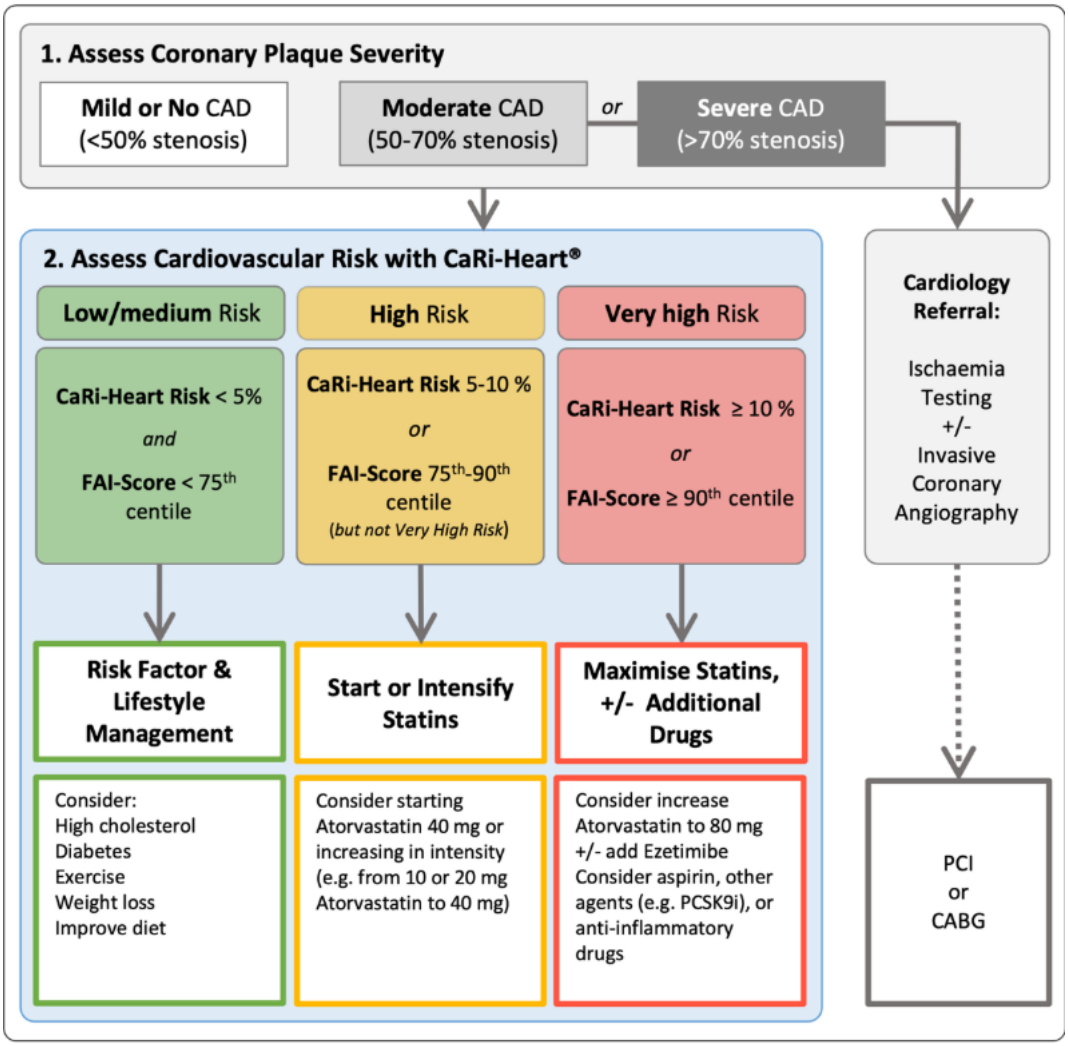
- Care setting: Secondary care diagnostic pathways for chest pain, including Rapid Access Chest Pain Clinics.

- Position in pathway: After CTCA image acquisition and initial CTCA reporting, with CaRi-Heart analysis applied to the existing CTCA dataset (no additional scanning or procedure time, however results may take up to 48 hours to arrive).
- Downstream impact on management: CaRi-Heart provides additional information on coronary inflammation and risk that could inform preventive management decisions (for example initiation or intensification of statin therapy or addition of other preventive therapies) in people with suspected CAD, including those with no or non-obstructive disease on CTCA.

5.2.1 Impact on care pathway

The company states that CaRi-Heart may reclassify people who would otherwise be considered low risk as being at high risk of future major cardiovascular events. It may also help identify people with known coronary artery disease who are at greatest risk and could benefit from more intensive, targeted preventive management. Figure 2 summarises how CaRi-Heart analysis has been incorporated into rapid access chest pain clinic pathways in the 5 NHS Trusts currently using the technology as part of the NHS England funded pilot.

Figure 2: CaRi-Heart treatment algorithm used in NHS pilot scheme



5.3 Innovative aspects

In the context of the Department of Health and Social Care's medical technology innovation classification framework, CaRi-Heart is a potentially transformative or disruptive diagnostic and prognostic decision-support technology because it aims to extend the role of CTCA beyond anatomical stenosis assessment by adding the ability to consider coronary inflammation.

6. Comparator

The main comparator is current practice without CaRi-Heart, in which people with suspected CAD have CTCA interpreted and acted on according to standard NHS practice. This includes routine CTCA reporting of coronary stenosis and plaque, clinical history and examination, and assessment of cardiovascular risk using conventional risk factors and clinical judgement.

7. Patient issues and preferences

CaRi-Heart uses analysis of images from CTCA scans, so it does not require people to undergo any additional testing beyond what is already done in the chest pain pathway. It provides personalised prognostic information on future cardiovascular risk, which could help support more tailored discussions about preventive treatment and follow-up.

However, people's experience of the technology is likely to vary depending on the result. If CTCA findings are normal, this may be reassuring. If CaRi-Heart indicates an elevated risk, this could cause anxiety about the possibility of a future cardiovascular event. For some people, receiving clearer risk information may also be motivating and could support uptake of medicines and lifestyle changes. Experts noted that providing additional personalised risk information may have wider psychosocial implications for some people. For example, some people may have concerns about how documented cardiovascular risk information could affect employment, certification, or insurance assessments.

Clinical experts have noted that careful consideration should be given to how CaRi-Heart risk results are communicated, because interpretation of risk can vary widely and depends on context and individual circumstances. Clear explanation, shared decision-making, and appropriate support are likely to be important for acceptability and to minimise unintended anxiety.

8. Potential equality issues

NICE is committed to promoting equality of opportunity, eliminating unlawful discrimination and fostering good relations between people with protected characteristics (Equality Act 2010) and others.

Equality issues related to the condition and pathway:

- Angina and coronary artery disease can sometimes have a substantial and long-term adverse effect on day-to-day activities. People with these conditions may be covered under the disability provisions of the Equality Act 2010.
- Coronary artery disease is more common in people who are older, men, and people living in more deprived areas. Women may be underdiagnosed.
- People from some ethnic minority backgrounds, including people with African and South Asian heritage, have higher rates of coronary artery disease than people who are white.
- Experts highlighted that people living in more deprived areas have higher rates of recurrent cardiovascular events and poorer outcomes.

Equality issues related to the technology:

- The company states the largest potential benefit may be in people with no or non-obstructive CAD on CTCA, who may otherwise receive limited targeted follow-up or preventive treatment.
- CaRi-Heart reports FAI-Score using age- and sex-specific percentiles and incorporates age and sex in the risk calculation. This may help support equitable interpretation across sex and age groups.

- The report is clinician-facing, but acceptability may be influenced by how results are communicated. People with a sensory impairment, cognitive impairment, learning disability, neurodiverse conditions, limited health literacy, or language barriers may need additional support to understand risk information and participate in shared decision-making.
- The instructions for use specify imaging and age criteria (including an age range of 30 to 80 years). This may limit use in some younger or older adults.
- Demographics of people included in AI training datasets may not be reflective of the population seen in UK clinical practice, including variation by ethnicity and socioeconomic background. This may affect the technology's performance in different groups.
- Technologies that improve risk communication or support adherence to preventive treatment could potentially reduce health inequalities in groups where adherence is low.

9. Guidance type

CaRi-Heart for predicting cardiac risk in adults with suspected coronary artery disease (CAD) is proposed to be assessed for routine use. This approach to guidance development is proposed because:

- the level of evidence on the assessed technology means that it may be suitable for routine widespread use in the NHS
- the technology has been previously assessed in early-use guidance.
- the assessed technology (intervention) is not considered established practice in the NHS, so a comparator separate from the intervention can be defined (NICE's HealthTech programme manual provides more detail on how established practice is determined)
- the technology is a potential transformative or disruptive innovation, as defined by the Department of Health and Social Care's medical technology innovation classification framework.

10. Decision problem

The key decision question for this assessment is:

- Is offering CaRi-Heart for predicting cardiac risk in adults with suspected CAD a clinically and cost-effective use of NHS resources?

Table 1: Decision problem

Proposed type of assessment	Routine use
Population	Adults with suspected CAD who are referred for CTCA as part of NHS chest pain assessment pathways. If the evidence allows, the following subgroups may be considered: • People with no CAD on CTCA • People with non-obstructive CAD on CTCA • People with obstructive CAD Evidence should be considered that evaluates prognostic performance based on the following characteristics: • Age • Sex • Ethnicity • Socioeconomic status
Interventions	CaRi-Heart software used as an add-on to routine CTCA scan interpretation and clinical assessment.
Comparator	Standard care: • Current NHS practice without CaRi-Heart: routine CTCA interpretation and clinical assessment.
Setting	Secondary care chest pain assessment pathways
Outcomes and costs (may include but are not limited to)	Intermediate outcomes: • Prognostic performance of risk prediction (e.g. discrimination, calibration, reclassification) • Changes to clinical management following CaRi-Heart reporting (e.g. initiation or intensification of lipid-lowering therapy and other preventive therapies) • Adherence to or uptake of lifestyle changes or drug treatment • Number of downstream investigations and referrals • Test failure rate • Time to test results

	Clinical outcomes: • Major adverse cardiovascular events (cardiovascular death, non-fatal myocardial infarction, non-fatal stroke) • Cardiovascular mortality and all-cause mortality • Stroke, heart failure events • Adverse events associated with downstream treatments (e.g. statin intolerance or myositis) Patient-reported outcomes: • Health-related quality of life • Anxiety or reassurance related to risk results (where measured) • Acceptability and understanding of risk information (e.g. treatment uptake) Costs and resource use: • Costs of CaRi-Heart testing (including implementation cost, test cost, time to interpret results and staff training costs). • Downstream costs from changes in prescribing, follow-up (including primary care management), referrals and further testing • Costs associated with cardiovascular events avoided or incurred • Costs of managing major adverse cardiovascular events • Costs of repeat imaging tests • NHS resource use across the care pathway (including primary care follow-up, preventive management, prescribing, monitoring, and secondary care services)
Economic analysis	A health economic model will be developed comprising a cost utility or cost-comparison analysis. Costs will be considered from an NHS and Personal Social Services perspective. Sensitivity and scenario analysis should be undertaken to address the relative effect of parameter or structural uncertainty on results. The time horizon should be long enough to reflect all important differences in costs or outcomes between the technologies being compared. For cardiovascular risk prediction and prevention, a lifetime horizon is likely required.

11. Other issues for consideration

11.1 Potential implementation issues

According to clinical experts and the company, adopting CaRi-Heart requires minimal training and can be applied to most CTCA images. Because CaRi-Heart uses an existing CTCA scan, it does not require additional image

acquisition or a separate procedure. It is an add-on procedure and does not replace other investigations that may be needed in the diagnostic pathway, such as invasive coronary angiography or stress imaging.

Potential barriers to adoption include:

- Use requires access to CTCA, which may be limited in some services because of scanner availability, capacity, or image acquisition requirements.
- The cost of the technology.
- Implementation requires secure transfer of CTCA images and receipt of reports, which requires local IT capacity and appropriate information governance.
- Ability of the company to maintain expected reporting turnaround times (within 24 to 48 hours or 1 working day) if adoption increases.
- Changes in resource use (prescribing, follow-up, referrals and additional diagnostic testing). Commissioners and providers may need to consider budget impact if uptake increases.
- The previous early value assessment highlighted uncertainty about downstream management after a CaRi-Heart result. Local protocols or guidance may be needed to support consistent decision-making.
- Services may need staff education and training on interpretation and use of CaRi-Heart reports, and additional clinician time may be needed to review results and incorporate them into management decisions.
- Additional risk information could lead some people to request repeat CT imaging to monitor risk or inflammation, which may not be clinically indicated and could increase demand on services and exposure to ionising radiation.

11.2 Absence of a recognised reference standard test

CaRi-Heart is a prognostic test that estimates an 8-year risk of fatal cardiovascular events using CTCA-derived measures of coronary inflammation (FAI) alongside other clinical risk factors. Risk prediction tools such as QRISK3 are used in the NHS, but they do not include FAI. There is

currently no recognised reference or gold standard test in NHS practice for measuring coronary inflammation. As a result, assessment of prognostic performance is likely to rely on observed clinical outcomes over follow-up (for example cardiac mortality and major adverse cardiovascular events).

11.3 Management following CaRi-Heart results

The company states CaRi-Heart is intended to inform clinical decision-making in a similar way to existing risk tools (for example QRISK3), but with additional information about coronary inflammation that may change individual risk estimates compared with CTCA alone or standard risk tools. Although the company provides guidance on interpreting outputs, there are currently no established guidelines for how CaRi-Heart results should be used to inform clinical management.

11.4 Ongoing studies

Evidence searches identified the following ongoing studies relevant to CaRi-Heart:

- NCT07220304, CaRi-Heart Assessment of Risk and Evaluation of Inflammation in Coronary CT Angiography (CARE-CCTA) is a prospective, community-based study in the USA in people having CTCA for suspected or known coronary artery disease. It assesses whether adding CaRi-Heart analysis changes clinical decision-making and treatment recommendations (for example preventive therapy or referral) compared with decisions made using standard CTCA information alone. Planned enrolment is approximately 15,000 participants. The anticipated completion date is January 2028.

- NCT06986733, Study of Management Alterations Resulting from CaRi-Heart Technology in Patients Undergoing CTCA (SMART-CCTA-1) is a USA multi-centre observational study assessing the impact of CaRi-Heart on clinical management recommendations. Clinicians first review standard CTCA results and relevant clinical details and record a management recommendation, then review the CaRi-Heart analysis

alongside the same information and record any change in recommendation. The planned sample size is approximately 300 participants. No completion date has been indicated.

NICE team

Jakob Falloon (topic lead), Jacob Grant

Technical team

Lee Berry, Izabela Syrek

Project team

March 2026

Appendix A: Provisional stakeholder list

Stakeholders are provisional until a signed Confidentiality Agreement & Undertaking form is submitted to NICE. Registered stakeholders will be published on the topic website.

Companies

- Caristo Diagnostics

National organisations

- Royal College of Radiologists
- British Cardiovascular Society (BCS)
- British Society of Cardiovascular Imaging & British Society of Cardiac CT
- British Atherosclerosis Society (BAS)
- British Association for Cardiovascular Prevention and Rehabilitation (BACPR)
- The Society & College of Radiographers
- Oxford Health Innovation
- Kingston Hospital NHS Trust
- King's College Hospital NHS Foundation Trust
- West Midlands Academic Health Science Network

Patient and carer organisations

- British Heart Foundation (BHF)
- Cardiomyopathy UK
- Heart Research UK
- Pumping Marvellous Foundation
- Arrythmia Alliance
- Blood Pressure UK
- Cardiovascular Care Partnership UK
- Sudden Cardiac Arrest
- Action Heart
- Atrial Fibrillation Association
- Cardiac Risk in the Young (CRY)
- Heart Rhythm Alliance
- Heart Valve Voice
- The Coronary Artery Disease Research Association

Other stakeholders

- Association of British Healthcare Industries (ABHI)

Appendix B: Glossary

- ACE inhibitor: Angiotensin-converting enzyme inhibitor
- Atherosclerosis: Build-up of plaque in artery walls
- CAD: Coronary artery disease
- CCTA: Coronary CT angiography (alternative term for CTCA)
- Colchicine: An anti-inflammatory medicine
- CT: Computed tomography
- CTCA: CT coronary angiography
- CVD: Cardiovascular disease
- Discrimination: Ability of a prognostic model to distinguish between people who do and do not experience an outcome during follow-up
- ECG: Electrocardiogram
- ESC: European Society of Cardiology

- FAI: Fat attenuation index
- FAI-Score: Standardised coronary inflammation score reported as an age- and sex-specific percentile
- FFR: Fractional flow reserve
- FFRCT: CT-derived fractional flow reserve
- ICA: Invasive coronary angiography
- Ischaemia: Reduced blood supply to tissue
- MACE: Major adverse cardiovascular events
- MI: Myocardial infarction
- MRI: Magnetic resonance imaging
- MPS: Myocardial perfusion scintigraphy
- Myocardial infarction: Death of heart muscle caused by prolonged lack of blood supply, usually due to blockage of a coronary artery
- Nomogram: Graphical tool to support interpretation of results relative to a reference population
- Non-obstructive CAD: CAD without obstructive stenosis
- Obstructive CAD: CAD with obstructive stenosis
- PACS: Picture archiving and communication system
- PCI: Percutaneous coronary intervention
- PCSK9: Cholesterol-lowering medicine that reduces LDL cholesterol
- Perivascular adipose tissue: Fat tissue surrounding blood vessels
- Plaque burden: Amount and extent of atherosclerotic plaque
- Primary prevention: Prevention of first cardiovascular events
- Prognostic: Relating to estimation of future risk of an outcome
- QRISK3: UK tool to estimate 10-year cardiovascular disease risk
- RACPC: Rapid access chest pain clinic
- Reclassification: Change in risk category when a new marker/model is added
- Revascularisation: Restoration of coronary blood flow (for example, PCI or surgery)
- Secondary prevention: Prevention of recurrent cardiovascular events
- SPECT: Single-photon emission computed tomography

- Stable angina: Predictable exertional chest pain relieved by rest or nitrates
- Stenosis: Narrowing of a vessel