

**Health Technology Clinical Committee
FINAL Findings and Decision**

Topic: Noninvasive Cardiac Imaging
Meeting date: November 5, 2021
Final adoption: March 18, 2022

Number and coverage topic:

20211105A – Noninvasive Cardiac Imaging for Coronary Artery Disease

HTCC coverage determination:

Noninvasive cardiac imaging is a **covered benefit with conditions**.

HTCC reimbursement determination:

Limitations of coverage: The following noninvasive cardiac imaging technologies are **covered with conditions**:

- Stress echocardiography for:
 - Symptomatic adult patients (≥ 18 years of age) at intermediate or high risk of Coronary Artery Disease (CAD), or
 - Adult patients with known CAD who have new or worsening symptoms.
- Single Positron Emission Tomography (SPECT) for:
 - Patients under the same conditions as stress echocardiography when stress echocardiography is not technically feasible or clinically appropriate.
- Positron Emission Tomography (PET) for:
 - Patients under the same conditions as SPECT, when SPECT is not technically feasible or clinically appropriate.
- Coronary Computed Tomographic Angiography (CCTA) for:
 - Symptomatic adult patients (≥ 18 years of age) at intermediate or high risk of CAD, or
 - Adult patients with known CAD who have new or worsening symptoms.
- CCTA with Fractional Flow Reserve (FFR) for:
 - Patients under the same conditions as CCTA, when further investigation of functional significance of stenoses is clinically indicated.

Non-covered indicators:

N/A

Notes:

- Out of scope/data not reviewed for this decision:
 - Asymptomatic individuals, follow up of prior abnormal cardiac imaging studies, myocardial viability, preoperative evaluation
 - Patients presenting for evaluation of cardiac pathologies other than CAD
- This determination supersedes the following previous determinations:

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- Coronary Computed Tomographic Angiography for detection of Coronary Artery Disease (20081114A)
- Cardiac Nuclear Imaging (20130920A)

Related documents:

- [Final key questions](#)
- [Final evidence report](#)
- [Meeting materials and transcript](#)

Agency contact information:

Agency	Phone Number
Labor and Industries	1-800-547-8367
Public and School Employees Health Plan	1-800-200-1004
Washington State Medicaid	1-800-562-3022

HTCC coverage vote and formal action:

Committee decision

Based on the deliberations of key health outcomes, the committee decided that it had the most complete information: a comprehensive and current evidence report, public comments, and state agency utilization information. The committee decided that the current evidence on noninvasive cardiac imaging for coronary artery disease (CAD) was sufficient to make a determination. The committee discussed and voted on the evidence for the use of echocardiography, coronary computed tomography angiography (CCTA), single positron emission computed tomography (SPECT) and positron emission tomography (PET), and CCTA with fractional flow reserve (FFR). The committee considered the evidence, public comment and expert input, and gave greatest weight to the evidence it determined, based on objective factors, to be the most valid and reliable.

Based on these findings, the committee voted to cover with conditions noninvasive cardiac imaging technology review. The committee voted unanimously to cover with conditions.

	Not covered	Covered under certain conditions	Covered unconditionally
Noninvasive cardiac imaging for coronary artery disease	0	9	0

Discussion

The committee reviewed and discussed the available studies for use of noninvasive cardiac imaging for CAD. Conditions for coverage were discussed, drafted, and voted on. A majority of committee members supported the conditions of coverage for echocardiography, CCTA, SPECT, PET, and CCTA-FFR. Echocardiography, SPECT, CCTA, PET, and CCTA-FFR have conditional coverage. Details of study

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design, inclusion criteria, outcomes, cost, cost-effectiveness, and other factors affecting study quality were discussed.

Limitations

Stress echocardiography is a covered benefit with conditions for:

- Symptomatic adult patients (≥ 18 years of age) at intermediate or high risk of CAD, or
- Adult patients with known coronary artery disease who have new or worsening symptoms.

SPECT is a covered benefit with conditions for:

- Patients under the same conditions as stress echocardiography when stress echocardiography is not technically feasible or clinically appropriate.

PET is a covered benefit with conditions for:

- Patients under the same conditions as SPECT, when SPECT is not technically feasible or clinically appropriate.

CCTA is a covered benefit with conditions for:

- Symptomatic adult patients (≥ 18 years of age) at intermediate or high risk of CAD, or
- Adult patients with known CAD who have new or worsening symptoms.

CCTA with FFR is a covered benefit with conditions for:

- Patients under the same conditions as CCTA, when further investigation of functional significance of stenoses is clinically indicated.

Action

The committee checked for availability of a Centers for Medicare and Medicaid Services (CMS) national coverage decision (NCD). There is a Medicare LCD for non-invasive fractional flow reserve for stable ischemic heart disease. There is no NCD for cardiac imaging for CAD as reviewed.

The committee discussed clinical guidelines identified from the following organizations:

- American College of Cardiology Foundation/American Heart Association Task Force on Practice Guidelines, and the American College of Physicians, American Association for Thoracic Surgery, Preventive Cardiovascular Nurses Association, Society for Cardiovascular Angiography and Interventions, and Society of Thoracic Surgeons *Guideline for the Diagnosis and Management of Patients with Stable Ischemic Heart Disease* (2012)
- The Task Force for the diagnosis and management of chronic coronary syndromes of the European Society of Cardiology (ESC) *ESC Guidelines for the diagnosis and management of chronic coronary syndromes* (2019)
- National Institute for Health and Care Excellence (NICE) *Recent-onset chest pain of suspected cardiac origin: assessment and diagnosis* (2016)
- American College of Cardiology (ACC) and the American Heart Association (AHA) *Guideline for the Management of Patients With Non-ST-Elevation Acute Coronary Syndromes* (2014)

The recommendations of the guidelines vary. The committee's determination is consistent with the noted guidelines.

The committee vice chair directed HTA staff to prepare a findings and decision document on use of noninvasive cardiac imaging for coronary artery disease for public comment to be followed by consideration for final approval at the next committee meeting.

Health Technology Clinical Committee Authority:

Washington State's legislature believes it is important to use a science-based, clinician-centered approach for difficult and important health care benefit decisions. Pursuant to chapter 70.14 RCW, the legislature has directed the Washington State Health Care Authority (HCA), through its Health Technology Assessment (HTA) program, to engage in an evaluation process that gathers and assesses the quality of the latest medical evidence using a scientific research company that takes public input at all stages.

Pursuant to RCW 70.14.110, a Health Technology Clinical Committee (HTCC) composed of eleven independent health care professionals reviews all the information and renders a decision at an open public meeting. The Washington State HTCC determines how selected health technologies are covered by several state agencies (RCW 70.14.080-140). These technologies may include medical or surgical devices and procedures, medical equipment, and diagnostic tests. HTCC bases its decisions on evidence of the technology's safety, efficacy, and cost effectiveness. Participating state agencies are required to comply with the decisions of the HTCC. HTCC decisions may be re-reviewed at the determination of the HCA Director.