Cohere Medical Policy - Positron Emission Tomography (PET), Cardiac

Clinical Policy for Medical Necessity Review

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Important Notices

Notices & Disclaimers:

GUIDELINES ARE SOLELY FOR COHERE'S USE IN PERFORMING MEDICAL NECESSITY REVIEWS AND ARE NOT INTENDED TO INFORM OR ALTER CLINICAL DECISION-MAKING OF END USERS.

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Other Notices:

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Guideline Information:

Specialty Area: Diagnostic Imaging
Policy Name: Positron Emission Tomography (PET), Cardiac
Type: [**X**] Adult (18+ yo) | [**X**] Pediatric (0-17 yo)

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Medical Necessity Criteria

Service: Positron Emission Tomography (PET), Cardiac

Cohere Health takes an evidence-based approach to reviewing imaging and procedure requests, meaning that sufficient clinical information must be provided at the time of submission to determine medical necessity. Documentation must include a recent and detailed history, physical examination related to the onset or change in symptoms, relevant lab results, prior imaging, and details of previous treatments. Advanced imaging or procedures should be requested after a clinical evaluation by the treating provider, which may include a referral to a specialist.

- When a specific clinical indication is not explicitly addressed in the Cohere Health medical policy, medical necessity will be determined based on established clinical best practices, as supported by evidence-based literature, peer-reviewed sources, professional society guidelines, and state or national recommendations, unless otherwise directed by the health plan.
- Requests submitted without clinical documentation, or those that do not align with the provided clinical information—such as mismatched laterality, body part, or CPT code—may be denied for lack of medical necessity due to insufficient or inconsistent clinical information.
- Repeat diagnostic testing due to technical issues—such as patient motion, incomplete exams, or incorrect imaging sequences—may not be considered medically necessary, as it is the responsibility of the imaging center to deliver appropriate, high-quality studies as originally authorized. Similarly, repeat imaging requested at a different facility based solely on provider preference may not be approved for medical necessity.
- When there are multiple diagnostic or therapeutic procedures requested simultaneously or within the past three months, each will be reviewed independently. Clinical documentation must clearly justify all of the following:
    - The medical necessity of each individual request

    - Why prior imaging or procedures were inconclusive or why additional/follow-up studies are needed
    - How the results will impact patient management or treatment decisions
- Requests involving adjacent or contiguous body parts may be considered not medically necessary if the documentation demonstrates that the patient's primary symptoms can be adequately assessed with a single study or procedure.
- Cohere Health evaluates imaging exams based on medical necessity, regardless of contrast use. If an initial non-contrast study is completed and the radiologist later determines that contrast is needed to clarify a finding, the original authorization number may be used—provided the contrast-enhanced exam is performed at the same imaging center and within the original request's validity period, unless otherwise directed by the health plan.

Description

Cardiac PET is considered advanced imaging, and it is best utilized per institutional internal medicine and cardiology protocols. Radiologic and cardiology guidelines from the American Society of Nuclear Cardiology (ASNC), American College of Radiology (ACR), American College of Cardiology (ACC), Society of Nuclear Medicine and Molecular Imaging (SNMMI), and European Association of Nuclear Medicine (EANM) may be consulted prior to ordering.

Cardiac PET is specifically optimized for the evaluation of myocardial perfusion and viability. It may also be utilized to evaluate infection and inflammation. Myocardial perfusion in the setting of suspected or known coronary artery disease (CAD) can be evaluated with cyclotron-produced (^{13}N-ammonia) or generator-produced (^{82}Rb) PET agents.[1-16]

Medical Necessity Criteria

Indications

Positron emission tomography (PET) cardiac perfusion stress testing with or without computed tomography (CT) (CPT codes 78430, 78431, 78491, 78492) is considered appropriate if **ANY** of the following is **TRUE**:

- Evaluation of post-transplant cardiac allograft vasculopathy (CAV); **OR**
- **ALL** of the following[2]:
  - **ANY** of the following:
    - The patient has morbid obesity (i.e., greater than or equal to 35m^2/kg); **OR**
    - The patient has macromastia (i.e., large breasts or very dense breasts); **OR**
    - Equivocal results of MPI SPECT imaging; **AND**
  - Criteria for myocardial perfusion imaging single-photon emission computed tomography (MPI-SPECT) are met, including **ANY** of the following:
    - The patient has angina (or an anginal equivalent[A]) with **ANY** of the following[17]:
      - No known coronary artery disease (CAD) with an intermediate or high pre-test probability (PTP) (as indicated by the CAD Consortium Calculator or coronary calcium score greater than or equal to 100 Agatston); **OR**
      - No known CAD with **ANY** of the following:
        - ECG abnormalities that interfere with the ECG diagnosis of ischemia and **ANY** of the following[18]:
          - An inability to achieve the target heart rate with a standard exercise treadmill test (greater than or equal to 85% of age-predicted maximal heart rate); **OR**
          - Ventricular pre-excitation (Wolff-Parkinson-White pattern); **OR**
          - Ventricular-paced rhythm; **OR**
          - Left bundle branch block (LBBB); **OR**
          - LBBB or pacemaker; **OR**
          - Greater than 1 mm ST depression at rest; **OR**
          - Left ventricular hypertrophy with ST-T abnormalities; **OR**
          - The patient takes digoxin; **OR**
        - Prior stress testing with **ANY** of the following:

        - Plain exercise treadmill test that was equivocal (heart rate that did not reach 85% of age-predicted maximum heart rate, significant chest pain or anginal equivalent during the study, less than or equal to 3 METS); **OR**
        - Previous stress echocardiography had poor echocardiographic windows; **OR**
- No known CAD with prior testing and **ALL** of the following[16]:
    - Symptoms of angina (or an anginal equivalent[A]); **AND**
    - **ANY** of the following:
        - Inconclusive routine stress ECG; **OR**
        - Abnormal routine stress ECG; **OR**
        - Coronary computed tomographic angiography (CCTA) with moderate stenosis 50 to 69%; **OR**
        - Inconclusive CCTA; **OR**
        - Invasive coronary angiography with intermediate severity (maximal coronary diameter stenosis is 40% to 69%) or invasive physiological testing not done; **OR**
- Newly diagnosed heart failure with preserved ejection fraction (HFpEF), heart failure with reduced ejection fraction (HFrEF), or asymptomatic low EF less than 45%, and **ALL** of the following are **TRUE**[19]:
    - No previous evaluation for CAD; **AND**
    - No planned cardiac catheterization; **OR**
- Screening for transplant vasculopathy without a prior MPI in the previous year; **OR**
- Evaluation of (NEW) ventricular arrhythmias without prior cardiac evaluation for ischemia as indicated by **ANY** of the following:
    - Frequent premature ventricular contractions (PVCs) greater than 30 per hour; **OR**
    - Non-sustained ventricular tachycardia (greater than or equal to 3 consecutive beats at greater than 100 beats per minute)[20]; **OR**
    - Exercise-induced ventricular tachycardia; **OR**
    - Sustained ventricular tachycardia; **OR**
    - Ventricular fibrillation; **OR**
- Before initiation of antiarrhythmic therapy (such as flecainide), and the patient has intermediate or high PTP of CAD (as indicated by the CAD Consortium Calculator); **OR**

- Syncope without an ischemic equivalent[A] and the initial evaluation suggests a CV abnormality (e.g., abnormal EKG or echo); **OR**
- Known coronary heart disease (CHD) with a history of prior myocardial infarction (MI) or coronary revascularization and **ANY** of the following[16]:
  - Surveillance testing and **ANY** of the following is **TRUE**:
    - Percutaneous coronary intervention (PCI) performed at least 2 years ago and no testing within the last 2 years; **OR**
    - Coronary artery bypass graft (CABG) performed at least 5 years ago and no testing within the last 5 years; **OR**
    - The patient has prior myocardial infarction or documented incomplete revascularization and is at high-risk for silent ischemia or has a history of silent ischemia as indicated by **ANY** of the following:
      - Diabetes mellitus with known accelerated progression of CAD; **OR**
      - Chronic kidney disease (CKD Stage 3 or above - eGFR 15-59 mL/min/1.73 m2 with or without albuminuria that is not treated with dialysis or kidney transplantation); **OR**
  - Symptoms of ischemia with a change in clinical or functional status on guideline-directed medical therapy (GDMT) (or documented intolerance to GDMT); **OR**
- Preoperative testing before intermediate or high-risk surgery (Table 1) and **ANY** of the following[21]:
  - Planned solid organ transplant (renal, pancreas, combined renal pancreas, liver, lung, or intestinal); **OR**
  - No known or suspected CHD[C] and **ALL** of the following[21]:
    - No recent (3-8 months) testing; **AND**
    - New or worsening possible cardiac symptoms; **AND**
    - Functional status less than 4 METS and **ANY** of the following:
      - High-risk vascular surgery (Table 1); **OR**
      - High-risk nonvascular surgery (Table 1); **OR**
      - Intermediate risk vascular surgery (Table 1); **OR**
      - Intermediate risk non-vascular surgery (Table 1) with at least an intermediate (16% or greater) pre-test probability of obstructive CAD by the CAD Consortium Calculator; **OR**
  - Known or suspected CHD[D] and **ANY** of the following[21]:

- No recent (3-8 months) stress testing and **ANY** of the following:
  - High-risk vascular surgery (Table 1) **OR**
  - High-risk nonvascular surgery (Table 1) **OR**
  - Intermediate risk vascular surgery and **ANY** of the following:
    - Greater than 4 METS and **ALL** of the following:
      - Without new or worsening possible cardiac symptoms; **AND**
      - Revised Cardiac Risk Index of 3 or greater (intermediate or high-risk); **OR**
    - Less than 4 METS with or without new or worsening possible cardiac symptoms; **OR**
    - Greater than 4 METS with new or worsening possible cardiac symptoms **OR**
  - Intermediate nonvascular surgery (Table 1) and **ANY** of the following:
    - Less than 4 METS with or without possible cardiac symptoms; **OR**
    - Greater than 4 METS with new or worsening possible cardiac symptoms; **OR**
  - Low-risk vascular or nonvascular surgery (Table 1) planned and **ANY** of the following:
    - New or worsening possible cardiovascular symptoms; **OR**
    - Revised Cardiac Risk Index of 3 or greater (intermediate or high-risk).

F-Fluorodeoxyglucose (FDG) PET/CT with or without resting perfusion imaging (CPT codes 78429, 78432, 78433, 78459) is considered appropriate if **ANY** of the following is **TRUE**[13]:

- Infective endocarditis with a prosthetic valve[22,23]; **OR**
- Suspected cardiac device infection (e.g., infection of pacemaker, defibrillators, LVAD, metallic implants); **OR**
- **ALL** of the following:
  - Suspected coronary involvement of systemic vasculitis (eg: Takayasu's arteritis, Kawasaki disease); **AND**
  - Advanced imaging (CTA or MRA) is inconclusive or nondiagnostic; **OR**
- Coronary vascular graft infection with **ANY** of the following:

    - CCTA is inconclusive; **OR**
    - Clinical suspicion remains high after negative CCTA; **OR**
- Indeterminate intracardiac mass with **ANY** of the following:
    - Nondiagnostic transthoracic or transesophageal echocardiogram (TTE or TEE); **OR**
    - Cardiac MRI is non-diagnostic[21]; **OR**
- Suspected cardiac sarcoidosis with **ANY** of the following[4,5,24]:
    - **ALL** of the following:
        - High pretest probability remains when cardiac MRI is negative, non-diagnostic, or equivocal; **AND**
        - **ANY** of the following:
            - Systemic sarcoidosis; **OR**
            - The patient is less than 60 years of age with unexplained, new-onset conduction system disease; **OR**
            - Unexplained ventricular arrhythmias; **OR**
    - **ALL** of the following:
        - Cardiac MRI is contraindicated; **AND**
        - **ANY** of the following:
            - Unexplained cardiomyopathy or regional wall motion abnormalities; **OR**
            - Systemic sarcoidosis **OR**
            - The patient is less than 60 years of age with unexplained, new-onset conduction system disease; **OR**
            - Unexplained ventricular arrhythmias; **OR**
- Known cardiac sarcoidosis to monitor disease activity and monitor treatment response: **OR**
- Myocardial viability assessment and **ALL** of the following is **TRUE**:
    - Determination of the appropriateness of invasive revascularization management; **AND**
    - EF less than or equal to 45%; **OR**

Repeat imaging (defined as a repeat request following recent imaging of the same anatomic region with the same or similar modality) will be considered reasonable and necessary if **ALL** of the following are **TRUE**:

- There are no established guidelines; **AND**
- **ANY** of the following:
    - There are new or worsening symptoms not addressed in the guidelines, such that repeat imaging would influence treatment; **OR**

- There is need for a one-time clarifying follow-up of a prior indeterminate finding; **OR**
- In the absence of change in symptoms, there is an established need for monitoring which would influence management.

Non-Indications

Positron Emission Tomography (PET), cardiac is not considered appropriate if **ANY** of the following is **TRUE**:

- The patient has undergone advanced imaging of the same body part and for the same indication within 3 months without undergoing treatment or developing new or worsening symptoms[6]; **OR**
- The imaging request is for **myocardial perfusion PET** with **ANY** of the following:
  - Chest trauma[5,26]; **OR**
- The imaging request is for **FDG PET/CT** with **ANY** of the following:
  - Acute chest pain with suspected aortic dissection; **OR**
  - Chest trauma[26]; **OR**
  - Congenital or acquired heart disease[27]; **OR**
  - Nonischemic myocardial disease (excluding sarcoidosis).[4,5]

*NOTE: PET in pregnant patients should be requested at the discretion of the ordering provider and obstetric care provider.
**NOTE: PET scans should be scheduled at least 4–6 weeks after radiation therapy or surgery to avoid false positives due to inflammation from recent treatments.

Definitions

[A] Anginal equivalent: Any constellation of clinical findings that the physician believes is consistent with CAD manifestations. Examples of such findings include, but are not limited to: pain, pressure, tightness, or discomfort in the chest, shoulders, arms, neck, back, upper abdomen, or jaw, new ECG abnormalities, or other symptoms/findings suggestive of CAD. Clinical presentations in the absence of chest pain (e.g., dyspnea with exertion, fatigue, or reduced/worsening effort tolerance) consistent with a high risk of CAD may be considered an ischemic equivalent.[28]

[B] Likely or typical anginal symptoms: Chest/epigastric/shoulder/arm/jaw pain, chest pressure/discomfort, when occurring with exertion or emotional stress and relieved by rest, nitroglycerin, or both.

[C] No known or suspected heart disease by history, exam, or electrocardiogram[21]: Heart disease is not suspected based on the history of no prior cardiac event, lack of cardiac risk factors, or prior cardiac testing indicating no ischemic heart disease, VHD, or HF. The exam does not suggest underlying heart disease by lack of murmurs, other than functional, and no signs of cardiac decompensation (e.g., rales, edema not explained by other causes, or S3 gallop). ECG does not show prior myocardial infarction, left ventricular hypertrophy, LBBB, or atrial fibrillation. B-type natriuretic peptide (BNP) or proBNP, if measured, is normal.

[D] Known or suspected heart disease by history, exam, or electrocardiogram[21]: PCI, coronary artery bypass graft (CABG), prior infarct, cardiac risk factors (HTN, HLD, DM, tobacco use, FHx premature CAD), disease conditions associated with atherosclerosis (PAD, carotid disease, abdominal aneurysm, stroke due to atherosclerosis), prior cardiac testing showing CAD, heart failure, moderate or severe valvular disease, rales, old infarct on EKG, LVH with repolarization changes, LBBB, or atrial fibrillation. There may be prior evidence of biomarker elevation (troponin, proBNP) in the absence of other explanatory findings. B-type natriuretic peptide (BNP) or proBNP, if measured, is more than 3 times the upper limit of normal.

Tables

Table 1. Definitions of Low, Intermediate, and High-Risk Surgery[21]

	Surgical Risk Level		
Specialty	**Low**	**Intermediate**	**High**
Vascular	1. Carotid stenting (monitored anesthesia care) 2. Renal artery stenosis angioplasty or stent 3. Vein stripping	1. Infra-inguinal peripheral angioplasty/stent 2. Carotid stenting (carotid approach, general anesthesia) 3. Open carotid endarterectomy 4. Above or below-knee amputation	1. Abdominal aortic aneurysm repair 2. Aorto-femoral bypass graft 3. Thoracic aortic aneurysm repair 4. Infra-inguinal open peripheral revascularization
General	1. Laparoscopic appendectomy 2. Hemorrhoidectomy	1. Open appendectomy 2. Ostomy procedures 3. Inguinal/umbilical hernia repair 4. Laparoscopic lysis of adhesions/obstruction 5. Laparoscopic cholecystectomy 6. Laparoscopic colon resection, segmental, for tumor	1. Laparoscopic bariatric surgery 2. Open cholecystectomy 3. Hepatic radiofrequency ablation tumor ablation 4. Splenectomy 5. Open colonic segmental resection tumor 6. Laparoscopic colonic abdominal perineal resection 7. Open lysis of adhesions/bowel obstruction 8. Esophageal Heller myotomy 9. Nissen fundoplication 10. Cancer resection (gastric pull-through) 11. Open bariatric surgery

			12. Pancreatic/Whipple resection 13. Gastric resection (tumor/ulcer) 14. Hepatic segmental resection 15. Colonic open abdominal perineal resection
Endocrine	1. Thyroidectomy 2. Parathyroidectomy	1. Adrenalectomy 2. Pheochromocytoma resection	-
Ortho.	1. Shoulder arthroscopy 2. Knee arthroscopy 3. Ankle arthroscopy 4. Closed joint reduction	1. Shoulder arthroplasty 2. Hip fracture pinning	1. Hip/ankle/knee arthroplasty
Thoracic	-	1. Pleural procedures (decortication, pleurodesis) 2. VATS lung biopsy 3. VATS wedge/lobe resection 4. Thymectomy	1. Open wedge/lobe resection 2. Tracheal surgery 3. Lung reduction 4. Pneumonectomy
Neuro-functional	1. Deep brain stimulator placement 2. Seizure mapping procedures	-	-
Neuro-intracranial	-	1. Hydrocephalus shunt/repair 2. Subdural drainage 3. Transsphenoidal resection	1. Intracranial tumor resection 2. Open intracranial aneurysm resection 3. Acoustic neuroma/cranial nerve tumor resection
Neuro/ Ortho. Spine	-	1. Laminectomy	1. Spinal fusion 2. Extreme lateral interbody fusion

			procedures (abdominal)
Genito-urinary	1. Transurethral prostate resection 2. Transurethral bladder tumor resection 3. Ureteral stents 4. Nephrostomy 5. Extracorporeal shock wave lithotripsy	1. Bladder repair	1. Radical retropubic prostatectomy 2. Nephrectomy 3. Cystectomy
Gyn.	1. Vaginal hysterectomy 2. Diagnostic gynecologic procedures (laparoscopy)	1. Total abdominal hysterectomy 2. Bilateral salpingo-oophorectomy	-
Breast	1. Diagnostic breast surgery (lumpectomy, node dissection) 2. Simple mastectomy	1. Complex breast surgery	-
Plastic Surgery	1. Hand 2. Cosmetic procedures	1. Reconstructive flaps 2. Post-bariatric repair abdominoplasty	-
Ear, Nose, Throat	1. Diagnostic laryngoscopy 2. Diagnostic esophagoscopy	1. Nasal septal procedures 2. Functional endoscopic sinus surgery	1. Head/neck cancer dissection (with/without laryngectomy)
Oral & Maxillofacial Surgery	1. Jaw reduction	1. Temporomandibular procedures/osteotomy	-
Podiatry	1. Arthroplasty 2. Toe amputation 3. Bunion procedure	-	-
Eye	1. Cataract repair 2. Retinal surgery 3. Eye muscle surgery		
Organ Transplant	-	-	1. Renal Transplant 2. Pancreas Transplant

			3. Kidney-Pancreas Combined Transplant 4. Liver 5. Lung 6. Intestinal

Disclaimer on Radiation Exposure in Pediatric Population

Due to the heightened sensitivity of pediatric patients to ionizing radiation, minimizing exposure is paramount. At Cohere, we are dedicated to ensuring that every patient, including the pediatric population, has access to appropriate imaging following accepted guidelines. Radiation risk is dependent mainly on the patient's age at exposure, the organs exposed, and the patient's sex, though there are other variables. The following technical guidelines are provided to ensure safe and effective imaging practices:

Radiation Dose Optimization: Adhere to the lowest effective dose principle for pediatric imaging. Ensure that imaging protocols are specifically tailored for pediatric patients to limit radiation exposure.[29,30]

Alternative Modalities: Prioritize non-ionizing imaging options such as ultrasound or MRI when clinically feasible, as they are less likely to expose the patient to ionizing radiation. For instance, MRI or ultrasound should be considered if they are more likely to provide an accurate diagnosis than CT, fluoroscopy, or radiography.[29,30]

Cumulative Dose Monitoring: Implement systems to track cumulative radiation exposure in pediatric patients, particularly for those requiring multiple imaging studies. Regularly reassess the necessity of repeat imaging based on clinical evaluation.[29,30]

CT Imaging Considerations: When CT is deemed the best method for achieving a correct diagnosis, use the lowest possible radiation dose that still yields reliable diagnostic images.[29,30]

Cohere Imaging Gently Guideline

The purpose of this guideline is to act as a potential override when clinically indicated to adhere to Imaging Gently and Imaging Wisely guidelines and As Low As Reasonably Possible (ALARA) principles.

Level of Care Criteria

Inpatient or Outpatient

Procedure Codes (CPT/HCPCS)

CPT/HCPCS Code	Code Description
78429	Myocardial imaging, positron emission tomography (PET), metabolic evaluation study (including ventricular wall motion[s] and/or ejection fraction[s], when performed), single study; with concurrently acquired computed tomography transmission scan
78430	Myocardial imaging, positron emission tomography (PET), perfusion study (including ventricular wall motion[s] and/or ejection fraction[s], when performed); single study, at rest or stress (exercise or pharmacologic), with concurrently acquired computed tomography
78431	Myocardial imaging, positron emission tomography (PET), perfusion study (including ventricular wall motion[s] and/or ejection fraction[s], when performed); multiple studies at rest and stress (exercise or pharmacologic), with concurrently acquired computed tomography (CT) transmission scan
78432	Myocardial imaging, positron emission tomography (PET), combined perfusion with metabolic evaluation study (including ventricular wall motion[s] and/or ejection fraction[s], when performed), dual radiotracer (eg, myocardial viability)
78433	Myocardial imaging, positron emission tomography (PET), combined perfusion with metabolic evaluation study (including ventricular wall motion[s] and/or ejection fraction[s], when performed), dual radiotracer

	(eg, myocardial viability); with concurrently acquired computed tomography (CT) transmission scan
78459	Myocardial imaging, positron emission tomography (PET), metabolic evaluation study (including ventricular wall motion[s] and/or ejection fraction[s], when performed), single study
78491	Myocardial imaging, positron emission tomography (PET), perfusion study (including ventricular wall motion[s] and/or ejection fraction[s], when performed); single study, at rest or stress (exercise or pharmacologic)
78492	Myocardial imaging, positron emission tomography (PET), perfusion study (including ventricular wall motion[s] and/or ejection fraction[s], when performed); multiple studies at rest and stress (exercise or pharmacologic)
78811	Positron emission tomography (PET) imaging; limited area (e.g., of chest, head/neck)

Medical Evidence

Patel et al. (2020) assess the use of positron emission tomography (PET) myocardial perfusion imaging (MPI) as a way to non-invasively measure myocardial blood flow reserve (MBFR). One aim was to determine if patients with MBFR experienced a survival benefit after revascularization, which helps guide post-test management. A total of 12,594 patients who underwent Rb82 rest/stress PET MPI were included. The MBFR observed on PET MPI correlated with overall mortality risk and can pinpoint individuals who would potentially derive survival advantages from early revascularization as opposed to medical management alone. The authors concluded that utilization of the metric may inform decision-making regarding revascularization strategies; however, further validation through prospective studies was warranted.[31]

Gulati et al. (2021) published a series of cardiac imaging recommendations for intermediate-high risk patients with stable chest pain and no known CAD. PET was felt to be reasonable in preference to SPECT, if available, to improve diagnostic accuracy and decrease the rate of nondiagnostic test results.[17]

Swart et al. (2018) performed a multicenter study to enhance the accuracy of F-Fluorodeoxyglucose (FDG) cardiac PET/CT in patients suspected of having prosthetic heart valve endocarditis (PVE). The study identified and eliminated potential confounding factors using visual and standardized quantitative evaluations. A total of 160 patients with a prosthetic heart valve were included (median age 62; 68% male; 82 mechanical valves; 62 biological; 9 transcatheter aortic valve replacements; 7 other). All patients underwent FDG PET/CT for suspicion of PVE. Early integration of FDG PET/CT into the diagnostic protocol was shown to mitigate the potential impact of low inflammatory activity (for example, that induced by prolonged antibiotic treatment).[23]

Chen et al. (2017) conducted the CORE320 Multicenter Study (NCT00934037) to compare the prognostic significance of combined CT angiography and CT myocardial stress perfusion imaging versus a combination of invasive coronary angiography (ICA) and stress single photon emission CT myocardial perfusion imaging. The study also addressed the time to major adverse cardiovascular events (MACE). Results indicate that the combined use of CT

angiography and CT myocardial perfusion demonstrated comparable predictive ability for 2-year MACE-free survival. This suggested the necessity for myocardial revascularization procedures compared to the standard approach involving ICA and single photon emission CT perfusion imaging.[9]

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Clinical Guideline Revision History/Information

Original Date: August 5, 2024		
Review History		
Version 2	10/30/2024	Edited repeat imaging criteria language.
Version 3	08/21/2025	Annual Review Embedded criteria for MPI-SPECT; added documented need for further imaging or contraindication to MPI-SPECT into this policy to encourage lower-risk imaging via MPI-SPECT. These criteria essentially supplant the previous version of the policy. FDG PET/CT: Removed nonspecific indications and replaced with more specific indications for malignancy and benign processes (infection, vasculitis, intracardiac mass). Cardiac sarcoidosis indication augmented to provide more specific criteria and better capture the appropriate patient population, including delineation between known and suspected cardiac sarcoidosis Defined ischemic heart failure with respect to myocardial viability assessment by providing a specific ejection fraction value Removed relative non-indications for myocardial perfusion PET (other than chest trauma, which remains).

		Edited repeat imaging criteria language.