



Cardiac Solutions Program

Frequently Asked Questions

Cardiac Studies for Iowa Total Care

Why do some cardiac-related studies now require prior authorization?

Prior authorization is required to minimize radiation exposure and promote the most appropriate test for the continuum of care.

When does the program begin?

The Iowa Total Care program begins on July 1, 2019.

How does the program work?

The cardiac imaging management program assesses imaging technologies used to diagnose and monitor patients with cardiac-related conditions in non-emergent cases. The program takes a comprehensive approach to determine if a recommended test is the proper next step in diagnosing cardiac-related conditions or if another test is more appropriate.

What cardiac-related imaging procedures are included in the Iowa Total Care program?

Prior authorization through National Imaging Associates, Inc. (NIA) will be required for the following cardiac modalities (members 21 y/o or older):

- CCTA
- MUGA Scan
- Myocardial Perfusion Imaging (MPI)
- Echocardiography
- Stress Echocardiography

What additional services are provided?

- Evidence-based algorithms to support the best diagnostic options for each patient
- Consultations with cardiologists related to elective cardiac diagnostic imaging when peer-to-peer review is required

What do ordering providers need to do?

Ordering providers need to get prior authorization for non-emergent, outpatient:

- Magnetic Resonance Imaging (MRI)/Magnetic Resonance Angiography (MRA)
- Computed Tomography (CT)/Computed Tomography Angiography (CTA)
- Positron Emission Tomography (PET)
- CCTA (members 21 y/o or older)
- MUGA Scan (members 21 y/o or older)
- Myocardial Perfusion Imaging (members 21 y/o or older)
- Stress Echocardiography (members 21 y/o or older)
- Nuclear Cardiology/Nuclear Stress/MPI (members 21 y/o or older)

Who will administer clinical oversight of the cardiac program?

Board-certified cardiologists worked with community-based physicians to develop evidence-based clinical guidelines and algorithms that determine the best available diagnostic pathway. These board-certified cardiologists also consult with referring physicians to apply these guidelines and algorithms to a patient's specific symptoms and medical history. By determining the most appropriate clinical imaging protocol for each patient, we can reduce duplicative testing, minimize patient radiation exposure, avoid indication drift, shorten diagnosis time, and improve the overall health care experience.

Is there anything I should be doing before the program begins?

If you haven't done so already, please take a few minutes to register on www.RadMD.com. This portal gives you the most expedient way to process your imaging requests.

What happens if I need to have an inpatient or emergent cardiac procedure performed?

Iowa Total Care will continue to manage inpatient and emergency cardiac procedures as is done today.

KEY PROVISIONS

- Services rendered in an emergency room, observation room, or inpatient setting do not require authorization through NIA. A complete list of services that require prior authorization is available on the Iowa Total Care website at www.iowatotalcare.com.

Tip Sheet For Prior-Authorization of Cardiac Services

Provider requests for the following cardiac studies are reviewed by National Imaging Associates, Inc. ABIM certified cardiologists:

- **Myocardial Perfusion Imaging (MPI)**
- **Stress Echocardiography (SE)**, often preferred over MPI, due to lower cost and absence of radiation exposure (See separate Tip Sheet for choice of MPI vs. SE).
- **Coronary Computed Tomographic Angiography (CCTA)**
- **Cardiac PET, MRI, CT and EBCT** may be considered part of a Cardiac Solution, **OR** alternatively, included in a Radiology Benefits Management Program.
- Left heart **cardiac catheterization** and/or selective **coronary arteriography**
- **Echocardiography**, either transthoracic (TTE) or transesophageal (TEE)
- **Cardiac Implantable Electrical Devices (CIEDs)**: ICD, Pacemaker, or CRT (cardiac resynchronization therapy or biventricular pacemaker) implantation
- **Prior-authorization is NOT required for EKG treadmill stress testing without imaging**, which may be more appropriate for certain patient subgroups, as described in the Guideline documents.
- **Prior-authorization for CCTA, MUGA Scan, MPI, Stress Echocardiography, and Echocardiography is NOT required for Iowa Total Care members under 21 years of age.**

Radiation Exposure

MPI: 7 - 24 mSv
SE: 0 mSv
Chest X-Ray: 0.06 mSv
Annual Background: 3 mSv
(For comparison)
Radiation exposure should be limited when possible.



Important Data when Medical Records are Required for Prior-Authorization:

- **Symptoms** and rationale for visit with cardiologist
- **Functional limitations** and **comorbidities** (COPD, renal, stroke, chemotherapy, etc.)
- **Cardiac risk factors**, lipid levels when available
- **Cardiac history and prior cardiac surgery/intervention**
- **Relevant non-cardiac history**, especially respiratory history and smoking history
- **Medication**, particularly antianginal medication, respiratory medication, and anti-GERD medication, with appropriate emphasis on adequate therapy for BP, angina, respiratory illness, congestive heart failure
- **Vital signs**, including BMI, BP, HR, respiratory rate, and pulse oximetry, and pertinent physical exam findings
- **Any recent cardiac imaging tests** (stress testing, echocardiogram, etc.) **Actual EKG** (rest and any exercise) and pertinent EKG rhythm tracing; troponin and BNP when relevant

- **Relevant non-cardiac evaluation** results: e.g. in dyspnea cases - chest X-ray, d-dimer, CT scan of chest, PFTs (pulmonary function tests)
- **Provider's diagnostic impressions**, working diagnoses, clinical concerns

Examples of Highly Pertinent Data from the Medical Record:

- **Stress Testing:** Age, description of symptoms, functional limitations, cardiac history, risk factors, comorbidities (COPD, renal, stroke, chemotherapy, etc.), antianginal medication, VS and exam, EKG tracing, troponin
- **Cardiac catheterization:** Recent symptoms, antianginal medication, left ventricular function studies, and stress test results
- **Pacemaker or ICD:** Symptoms of syncope/presyncope, information on structural heart disease, EKG and rhythm data (Holter, event monitor, electrophysiologic study, tilt table testing)
- **CRT (Biventricular pacing):** Congestive heart failure symptoms with associated NYHA functional class, heart failure medications, EKG tracing, and left ventricular ejection fraction studies
- **Echocardiography:** Symptoms or history suggestive of structural heart disease, particularly shortness of breath, chest pain, syncope/presyncope, thromboembolic events, prior myocardial infarction, cardiac surgery, or coronary revascularization without known left ventricular ejection fraction, prominent/loud systolic or any diastolic heart murmurs, rales, lower extremity edema, unexplained hypoxia, EKG changes, arrhythmias, radiographic evidence of congestive heart failure

Pediatric echocardiography guidelines focus on a different spectrum of cardiac pathology:

- **Congenital:** cyanosis, failure to thrive, syncope, chest pain, abnormal murmurs, prior surgery, arrhythmogenic cardiomyopathy, pulmonary hypertension
- **Acquired:** Kawasaki disease, infective endocarditis and sepsis, pericarditis, HIV myocarditis, toxic cardiomyopathy, thromboembolism, rheumatic heart disease

Myocardial Perfusion Imaging (MPI)

VS.

Stress Echocardiography (SE)


Prior-authorization for MPI and Stress Echocardiography is NOT required for Iowa Total Care members under 21 years of age.

Main Points about the Two Tests:

- **Both tests have equal diagnostic accuracy** for coronary artery disease, with MPI showing greater sensitivity and SE showing greater specificity.
- **MPI is based upon the expectation of relatively reduced blood flow** in a myocardial segment during exercise or pharmacologic coronary micro vessel dilation, while **SE is based upon development of wall motion abnormality** provoked by myocardial ischemia during treadmill exercise or similar stress.
- **In order to perform a SE, one would prefer to have a patient who could perform treadmill exercise well, along with a good acoustic imaging window, while MPI can be performed with either exercise or the pharmacologic option.** Exercise can also provide the additional information from the EKG, when the baseline EKG does not already have substantial abnormality (e.g. a 1 mm ST segment depression at baseline, left bundle branch block, ventricular pacing, PVCs, or pre-excitation).
- Even with MPI, an exercise modality is preferred over pharmacologic vasodilation due to the additional functional and EKG information inherent in exercise testing. However, **in some patients, such as those with a pre-existing wall motion abnormality, left bundle branch block, ventricular paced rhythms, frequent PVCs, or pre-excitation (WPW), the related cardiac contraction pattern during exercise could obscure the effects of ischemia, making a pharmacologic approach more helpful.**
- **The radiation exposure of SE is zero, while MPI incurs a radiation dose of 7-24 mSv (the equivalent of about 117-400 PA & lateral chest X-rays), with an increase in lifetime radiation exposure and its associated cancer risk.**

Radiation Exposure
MPI: 7 - 24 mSv
SE: 0 mSv
Annual Background: 3 mSv

Radiation exposure should be limited when possible.



Clinical Applications that Prefer MPI:

- I. Technique Related
 - A. Obesity with BMI over 40 or poor acoustic imaging window, even with use of contrast
- II. Functional Capacity Related
 - A. Physical infirmities precluding a reasonable ability to exercise for at least 4 METS or at least 3 full minutes of Bruce protocol
 - B. Patients who cannot walk up a single flight of stairs at even a slow pace or even perform ADLs based upon documented limitations
- III. Comorbidity Related
 - A. Prior cardiac surgery (CABG or valvular), CHF with left ventricular ejection fraction < 40%
 - B. Severe COPD with PFT documentation, severe shortness of breath on minimal exertion, or requirement of home oxygen during the day
 - C. Poorly controlled hypertension, with systolic BP > 180 or Diastolic BP > 120
 - D. Medical instability or serious acute illness, where maximal exercise is not recommended or appropriate (e.g. acute myocarditis or pericarditis, active infective endocarditis, acute aortic dissection, etc.)
- IV. EKG Related
 - A. Pacemaker or ICD
 - B. Left bundle branch block
 - C. Poorly controlled atrial fibrillation
 - D. Frequent PVCs
 - E. Ventricular Pre-excitation (WPW)