

## Subject: MRI Heart (75557, 75559, 75561, 75563, 75565)

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#### DESCRIPTION OF PROCEDURE/SERVICE/PHARMACEUTICAL

Cardiac computed tomography (Heart CT) can be used to image the cardiac chambers, valves, myocardium and pericardium to assess cardiac structure and function. Applications of Heart CT listed and discussed in this guideline include: characterization of congenital heart disease, characterization of cardiac masses, diagnosis of pericardial diseases, and pre-operative coronary vein mapping.

#### APPROVAL SUPPORT

Where indicated as alternative tests, TTE (transthoracic echocardiography) and SE (Stress Echocardiography) are a better choice, where possible, because of avoidance of radiation exposure. Heart MRI can be considered as an alternative, especially in young patients, where recurrent examinations may be necessary. CCTA is better when details of coronary vessels are needed.

## 75563: MRI (Magnetic Resonance Imaging) Heart w/stress image w/o and w/ contrast)

• Where **Stress Testing is appropriate** and **<u>Inadequate images from other methods</u>** (such as Stress Testing (MPI) (echo or nuclear), (e.g. there were technical difficulties with interpretation, or results were discordant with previous clinical data)



- **Heart MRI (Stress) is preferential** to stress echocardiography including but not limited to following conditions:
  - Ventricular paced rhythm
  - Evidence of ventricular tachycardia
  - Severe aortic valve dysfunction
  - Severe Chronic Obstructive Pulmonary Disease (COPD), with any of: FEV1 < 30% predicted or</li>
  - Respiratory failure or
  - Clinical signs of Right Heart Failure. \*5
  - Congestive Heart Failure (CHF) with current Ejection Fraction (EF), 40%
  - Inability to get an echo window for imaging
  - Prior thoracotomy, (CABG, other surgery)
  - Obesity BMI>40
  - Poorly controlled hypertension [generally above 180 mm Hg systolic
  - Poorly controlled atrial fibrillation (Heart rate > 100 bpm on medication)
  - Inability to exercise requiring pharmacological stress test
  - Segmental wall motion abnormalities at rest (e.g. cardiomyopathy, recent MI, or Pulmonary hypertension)
  - Type 1C anti- arrhythmic drug (i.e. Flecainide or Propafenone) taking drug or eval.to start.

# 75557: MRI (Magnetic Resonance Imaging) Heart for morph/func w/o contrast)

- Assessment of anomalies thoracic arteriovenous vessels
- (NOTE: For "anomalies of coronary arterial vessels" CCTA is preferred.)
- Congenital heart disease after confirmation by TTE echocardiogram
- Suspected arrhythmogenic right ventricular dysplasia
- Evaluation of pulmonary vein anatomy
- Prior to radiofrequency ablation for atrial fibrillation
- Noninvasive coronary vein mapping
- Prior to placement of biventricular pacemaker
- Retrosternal anatomy
- Localization of coronary bypass grafts
- Preoperative chest or cardiac surgery
- Inadequate images from other methods (such as Echocardiography, MRI, Stress Testing (MPI), CCTA)
- Right ventricular morphology
- Right ventricular function
- Left ventricular morphology
- Left ventricular function
- Following acute MI or in HF patients
- Characterization of native cardiac valves
- Clinically significant valvular dysfunction suspected
- Characterization of prosthetic cardiac valves



- Evaluation of cardiac mass (suspected tumor or thrombus)
- Evaluation of pericardial anatomy
- Anomalies of coronary arterial vessels (CCTA preferred)

## Pre/Post Procedural

- Pre-operative/ Pre-procedural evaluation when blood vessel detail is needed
- Post-operative/Post-procedural for routine recommended follow up or for potential post-operative complications.
- A repeat study may be needed to help evaluate a patient's progress after treatment procedure intervention or surgery. The reason for the repeat study and that it will affect care must be clear.

#### ADDITIONAL INFORMATION

- The above medical necessity recommendations are used to determine the best diagnostic study based on a patient's specific clinical circumstances. The recommendations were developed using evidence based studies and current accepted clinical practices. Medical necessity will be determined using a combination of these recommendations as well as the patient's individual clinical or social circumstances.
- Tests that will not change treatment recommendations should not be approved.
- Tests completed recently need a specific reason for repeat

**CODING INFORMATION:** THE CODES LISTED IN THIS POLICY ARE FOR REFERENCE PURPOSES ONLY. LISTING OF A SERVICE OR DEVICE CODE IN THIS POLICY DOES NOT IMPLY THAT THE SERVICE DESCRIBED BY THIS CODE IS COVERED OR NON-COVERED. COVERAGE IS DETERMINED BY THE BENEFIT DOCUMENT. THIS LIST OF CODES MAY NOT BE ALL INCLUSIVE.

CPT	Description
70488	70488: CT (Computed Tomography) Face/Sinuses without and with contrast
75559	75559: MRI (Magnetic Resonance Imaging) Heart with stress image w/o contrast)
75561	75561: MRI (Magnetic Resonance Imaging) Heart for morph/func w/o and
	w/contras)
75563	75563: MRI (Magnetic Resonance Imaging) Heart w/stress image w/o and w/
	contrast)
75565	75565: MRI (Magnetic Resonance Imaging) Heart with velocity flow mapping)

#### **REFERENCES USED FOR DETERMINATIONS**

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