

2011 Imaging Criteria

Computed Tomography (CT), Cardiac^(1*RIN)

ICD-9-CM: 87.41
 CPT: 75572
 I/O Setting: Outpatient

INDICATION(S)

- 100 Suspected constrictive pericarditis
 200 Suspected intracardiac mass

- 100 Suspected constrictive pericarditis [**All**]⁽²⁾
 110 Right heart failure by PE⁽³⁾
 120 TTE nondiagnostic for constrictive pericarditis⁽⁴⁾
 130 MRI not feasible^(5, 6, 7, 8)
- 200 Suspected intracardiac mass [**Both**]⁽⁹⁾
 210 Suspected intracardiac mass by TTE⁽¹⁰⁾
 220 MRI not feasible^(5, 6, 11)

InterQual® criteria are intended solely for use as screening guidelines with respect to the medical appropriateness of healthcare services and not for final clinical or payment determination concerning the type or level of medical care provided, or proposed to be provided, to the patient.

The Clinical Content is confidential and proprietary information and is being provided to you solely as it pertains to the information requested. Under copyright law, the Clinical Content may not be copied, distributed or otherwise reproduced. Use permitted by and subject to license with McKesson Corporation and/or one of its subsidiaries.

InterQual® copyright © 2011 and CareEnhance® Review Manager copyright © 2011 McKesson Corporation and/or one of its subsidiaries. All Rights Reserved.

May contain CPT® codes. CPT only © 2010 American Medical Association. All Rights Reserved.

Licensed for use exclusively by Royal Health Care.

Notes

(1)-RIN:

These criteria apply to conventional CT only. For criteria covering CT of the coronaries, see the "Computed Tomography (CT), Coronaries" subset. For criteria covering CT angiography of the coronaries, see the "Computed Tomography Angiogram (CTA), Coronaries" subset.

(2)-DEF:

Constrictive pericarditis results when a thick, fibrotic, or calcified pericardium restricts diastolic filling. Potential causes of constrictive pericarditis include infectious diseases, trauma, metastases, and connective tissue disorders.

(3)

Findings of right heart failure include weight gain, peripheral edema, hepatomegaly, distended neck veins, and ascites. Therapy for HF may include digoxin, ACE inhibitors, and diuretics. The HF associated with constrictive pericarditis, however, may not respond to digoxin or ACE inhibitors because the primary problem is not associated with myocardial contractility but with constriction. In these cases, diuretics are the mainstay of therapy. Often patients have biventricular (both right and left) heart failure.

(4)

TTE is the initial modality used in the evaluation of suspected pericardial disease. It is inexpensive, rapidly performed, and available in virtually all hospital settings.

(5)

The following are examples of relative and absolute contraindications to the use of magnetic resonance imaging:

- Implanted devices that are electrically or magnetically activated (e.g., cardiac pacemakers, automatic cardioverter defibrillators, drug infusion pumps, cochlear implants)
- Ferromagnetic metal objects (e.g., cerebral aneurysm clips, intraocular metallic foreign body, prostheses, screws)
- Pregnancy, first trimester
- Renal insufficiency in cases when magnetic resonance imaging is performed with gadolinium-based contrast

(6)

MRI is not feasible if it is not readily available or if the patient cannot tolerate the MRI study.

(7)

MRI provides comprehensive, multiplanar imaging of pericardial disease without ionizing radiation (Napolitano et al., *Can Assoc Radiol J* 2009; 60(1): 40-46). Therefore, cardiac MRI is a useful tool in making a definitive diagnosis when echocardiographic diagnosis remains unclear (Pennell, *Circulation* 2010; 121(5): 692-705; White and Patel, *Magn Reson Imaging Clin N Am* 2007; 15(4): 541-564).

(8)

CT is an alternative to MRI for evaluation of the heart. Like MRI, CT can provide multiplanar imaging but does carry the risk of radiation exposure. CT is able to detect the presence of calcification which is sometimes present in constrictive pericarditis (Napolitano et al., *Can Assoc Radiol J* 2009; 60(1): 40-46; Bogaert and Francone, *J Cardiovasc Magn Reson* 2009; 11(1): 14).

(9)

Intracardiac masses include tumor, thrombus (most common), or vegetation. Echocardiography, CT, and MRI are among the modalities used to evaluate patients with an intracardiac mass; each modality has its own advantages and disadvantages (Grizzard and Ang, *Cardiol Clin* 2007; 25(1): 111-140).

(10)

Echocardiography has traditionally been the initial modality used in the evaluation of suspected cardiac masses. It is inexpensive, rapidly performed, and available in virtually all hospital settings (Kirkpatrick et al., *J Am Coll Cardiol* 2004; 43(8): 1412-1419). TTE is noninvasive and does not expose the patient to radiation.

(11)

CT and MRI can provide information regarding the morphology of cardiac masses not obtained by echocardiography. MRI is superior to CT in the comprehensive evaluation of cardiac masses due to its ability to differentiate a cardiac mass based on its soft-tissue composition. MRI is useful for further evaluation of a mass suspected but incompletely imaged on echocardiography. In addition to its ability to characterize the tissue, MRI provides detail on the relation of the mass to surrounding tissue and organs (Pennell, *Circulation* 2010; 121(5): 692-705; Grizzard and Ang, *Cardiol Clin* 2007; 25(1): 111-140).