

Evidence Discussion (CD 3.4)

MUGA Study – Cardiac Indications

Multi-gated acquisition (MUGA) imaging (also referred to as radionuclide angiography, gated blood pool scan, equilibrium radionuclide angiography) is a method to measure ejection fraction and wall motion of the heart.

Appropriate Use Criteria from major professional societies including the American College of Cardiology and the American Heart Association (1-2) support the use of planar imaging and/or single photon emission computed tomography (SPECT) of labeled red blood cells for patients who require accurate assessment of ejection fraction and/or wall motion when echocardiography or other imaging approaches are inadequate or disparate. This includes patients with cardiomyopathy and those exposed to cardio-toxic agents.

REFERENCES

1. Hendel RC, Berman DS, Di Carli MF, et al. ACCF/ASNC/ACR/AHA/ASE/SCCT/SCMR/SNM 2009 appropriate use criteria for cardiac radionuclide imaging: a report of the American College of Cardiology Foundation Appropriate Use Criteria Task Force, the American Society of Nuclear Cardiology, the American College of Radiology, the American Heart Association, the American Society of Echocardiography, the Society of Cardiovascular Computed Tomography, the Society for Cardiovascular Magnetic Resonance, and the Society of Nuclear Medicine. *Circulation*. 2009;119(22):e561-e587. doi:10.1161/CIRCULATIONAHA.109.192519.
2. Klocke FJ, Baird MG, Lorell BH, et al. ACC/AHA/ASNC guidelines for the clinical use of cardiac radionuclide imaging--executive summary: a report of the American College of Cardiology/American Heart Association Task Force on Practice Guidelines (ACC/AHA/ASNC Committee to Revise the 1995 Guidelines for the Clinical Use of Cardiac Radionuclide Imaging). *J Am Coll Cardiol*. 2003;42(7):1318-1333. doi:10.1016/j.jacc.2003.08.011.