Medica Coverage Policy

Policy Name: Myocardial Strain Imaging (e.g., Cardiac Magnetic resonance, Speckle Tracking Echocardiography, Tissue Doppler Echocardiography)

Effective Date: 9/14/2020

Important Information – Please Read Before Using This Policy

These services may or may not be covered by all Medica plans. Please refer to the member’s plan document for specific coverage information. If there is a difference between this general information and the member’s plan document, the member’s plan document will be used to determine coverage. With respect to Medicare and Minnesota Health Care Programs, this policy will apply unless those programs require different coverage. Members may contact Medica Customer Service at the phone number listed on their member identification card to discuss their benefits more specifically. Providers with questions about this Medica coverage policy may call the Medica Provider Service Center toll-free at 1-800-458-5512.

Medica coverage policies are not medical advice. Members should consult with appropriate health care providers to obtain needed medical advice, care and treatment.

Coverage Policy
Myocardial strain imaging including, but not limited to, cardiac magnetic resonance, speckle tracking echocardiography, and tissue Doppler echocardiography is investigative and unproven and therefore NOT COVERED. There is insufficient reliable evidence in the form of high quality peer-reviewed medical literature to establish the efficacy or effects on health care outcomes.

Description
Myocardial strain refers to the deformation under force (shortening, lengthening, or thickening) of the myocardium through the cardiac cycle. It is proposed that a reduction in myocardial strain may indicate sub-clinical impairment of the heart and can be used to inform treatment before development of symptoms and irreversible myocardial dysfunction. Relevant strain values along strain curves include, but are not limited to:

• End-systolic strain: the value at end-systole
• Peak systolic strain: the peak value during systole
• Positive peak systolic strain
• Peak strain: the peak value during the entire heart cycle. The peak strain may coincide with the systolic or end-systolic peak, or may appear after aortic valve closure (AVC) (it may be described as “post-systolic strain”).

Myocardial strain can be measured by the following non-invasive technologies:
1. Cardiovascular magnetic resonance imaging: a medical imaging technology for non-invasive assessment of the function and structure of the cardiovascular system. Conventional MRI sequences are adapted for cardiac imaging by using electrocardiogram (ECG) gating and high temporal resolution protocols.
2. Speckle tracking echocardiography: an echocardiographic imaging technique that analyzes the motion of heart tissues by using the naturally occurring speckle pattern in the myocardium or blood when imaged by ultrasound. It uses imaging software to assess the movement of specific markers in the myocardium.
3. Tissue Doppler echocardiography: a medical ultrasound technology, specifically a form of echocardiography that measures the velocity of the heart muscle through the phases of one or more heartbeats by the Doppler effect of reflected ultrasound.
Myocardial Strain Imaging

FDA Approval
Myocardial strain imaging (MSI) is a procedure and, therefore, not subject to FDA regulation. However, any medical devices, drugs, biologics, or tests used as a part of this procedure may be subject to FDA regulation. A number of image analysis systems have been cleared for marketing by the U.S. Food and Drug Administration (FDA) through the 510(k) process. Examples included, but are not limited to:
1. Myostrain (Myocardial Solutions)
2. 2D Cardiac Performance Analysis (Tomtec)
3. Echolnsight (Epsilon Imaging)
4. Q-lab (Phillips)
5. Vivid (GE)
6. Aplio (Toshiba)

Prior Authorization
Prior authorization is not applicable. Claims for this service are subject to retrospective review and denial of coverage, as investigative services are not eligible for reimbursement.

Coding Considerations
Use the current applicable CPT/HCPCS code(s). The following codes are included below for informational purposes only, and are subject to change without notice. Inclusion or exclusion of a code does not constitute or imply member coverage or provider reimbursement.

CPT Codes:
93356 - Myocardial strain imaging using speckle tracking-derived assessment of myocardial mechanics (List separately in addition to codes for echocardiography imaging)

Original Effective Date: 9/14/2020
Re-Review Date(s):