Medical Policy
Acoustic Cardiography

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Policy Number: 537
BCBSA Reference Number: 2.02.27

Related Policies
- Biventricular Pacemakers for the Treatment of Heart Failure, #101

Policy
Commercial Members: Managed Care (HMO and POS), PPO, and Indemnity
Medicare HMO BlueSM and Medicare PPO BlueSM Members
Acoustic cardiography is INVESTIGATIONAL for:
- the diagnosis of heart failure and for
- the optimization of cardiac resynchronization therapy (CRT) hemodynamic parameters.

Prior Authorization Information
Pre-service approval is required for all inpatient services for all products.
See below for situations where prior authorization may be required or may not be required for outpatient services.
Yes indicates that prior authorization is required.
No indicates that prior authorization is not required.
N/A indicates that this service is primarily performed in an inpatient setting.

<table>
<thead>
<tr>
<th>Outpatient</th>
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<tbody>
<tr>
<td>Commercial Managed Care (HMO and POS)</td>
<td>This is not a covered service</td>
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<tr>
<td>Commercial PPO and Indemnity</td>
<td>This is not a covered service</td>
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<td>Medicare HMO BlueSM</td>
<td>This is not a covered service</td>
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<td>Medicare PPO BlueSM</td>
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CPT Codes / HCPCS Codes / ICD Codes
Inclusion or exclusion of a code does not constitute or imply member coverage or provider reimbursement. Please refer to the member’s contract benefits in effect at the time of service to determine coverage or non-coverage as it applies to an individual member.

Providers should report all services using the most up-to-date industry-standard procedure, revenue, and diagnosis codes, including modifiers where applicable.
CPT Codes
There are not any specific CPT codes for this service.

Description
Acoustic cardiography utilizes 3 inputs: a single electrocardiogram (EKG) lead from 2 standard electrodes, 2 audio sensors placed at the usual V3, and V4 positions on the chest. These 3 channels synchronously record electrical and audio information. The audio information is processed using wavelet signal processing techniques and a diagnostic algorithm that filters out extraneous noise and uses time-frequency analysis to objectively define the heart sounds and the intervals between sounds. An analogue visual display of the audio data is then displayed and paired with the electrical data from the EKG recording.

1. Output from acoustic cardiography can generate numerous parameters, some of which may have clinical applicability. Three of these measures are: Electromechanical activation time (EMAT), defined as the interval between the onset of the QRS complex and the closure of the mitral valve. EMAT is the main parameter that is used to optimize CRT therapy by choosing the interval that optimizes cardiac output, and

2. Left ventricular systolic time (LVST), the interval between mitral valve closure and aortic valve closure. This length of the LVST has been correlated with changes in ejection fraction.

No studies have demonstrated that acoustic cardiography is superior to echocardiography for this purpose, and therefore there is no evidence that acoustic cardiography improves outcomes when used for optimization of CRT therapy.

Summary
A number of published articles support that acoustic cardiography improves the detection of an S3 compared to auscultation alone. However, there is no evidence that acoustic cardiography contributes independent predictive information when added to a standard clinical workup for heart failure that includes physical exam findings, laboratory testing, and routine imaging studies. When used to optimize CRT settings, several studies report that acoustic cardiography has a high correlation with Doppler

Policy History

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<th>Date</th>
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<tr>
<td>1/2016</td>
<td>Clarified coding information.</td>
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<tr>
<td>9/2014</td>
<td>New references added from BCBSA National medical policy.</td>
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<tr>
<td>1/1/2012</td>
<td>New policy, effective 01/01/2012, describing ongoing non-coverage.</td>
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Information Pertaining to All Blue Cross Blue Shield Medical Policies
Click on any of the following terms to access the relevant information:
Medical Policy Terms of Use
Managed Care Guidelines
Indemnity/PPO Guidelines
Clinical Exception Process
Medical Technology Assessment Guidelines

References