**Medical Policy**

Joint Medical Policies are a source for BCBSM and BCN medical policy information only. These documents are not to be used to determine benefits or reimbursement. Please reference the appropriate certificate or contract for benefit information.

**Category:** Medicine  
*Current Policy Effective Date: 1/1/08*

**Title:** Signal-Averaged Electrocardiography (SAECG)  
**Procedure Code(s):** 93278

**Description/Background**

Signal-averaged electrocardiography is intended to assist in identifying individuals at high risk of ventricular arrhythmias or sudden death. It is a tool that uses computerized digital analysis of a standard surface electrocardiogram to identify ventricular late potentials that can be obscured by skeletal muscle activity in the standard electrocardiogram (ECG). It has been in use since the 1970s and clinical trials are still ongoing. It has primarily been investigated in the settings of acute myocardial infarction (MI) and cardiomyopathy but is also being evaluated as a tool for detection of cardiac transplant rejection, monitoring of antiarrhythmic drug therapy, the work-up of syncope and in the surgical management of ventricular arrhythmias. Study results to date have been consistent in showing a high negative predictive value for adverse outcomes in post-MI patients with a negative SAECG. There is also high negative predictive value for patients with ischemic heart disease and syncope in whom the likelihood of ventricular arrhythmia is low. Results for other applications have not been conclusive.

**CPT/HCPCS Level II Codes and Description** *(Note: The inclusion of a code in this list is not a guarantee of coverage. Please refer to the medical policy statement to determine the status of a given procedure)*

**Established codes:**  
93278 Signal-averaged electrocardiography (SAECG), with or without ECG

**Other codes (investigational, not medically necessary, etc.):**  
N/A
**Diagnoses/Medical Conditions**

- Acute myocardial infarction
- Cardiac syncope
- Ischemic heart disease

**Medical Policy Statement**

The safety and effectiveness of signal-averaged electrocardiography (SAECG) have been established. It may be considered a useful diagnostic option when indicated for identifying patients at high risk of sudden death or ventricular arrhythmia following myocardial infarction and for evaluation of patients with ischemic heart disease and syncope.

**Rationale**

In 1996, the American College of Cardiology published an expert consensus document that concluded that SAECG had an established or valuable role in clinical care in the following situations:

- Stratification of risk of developing sustained ventricular arrhythmias in patients recovering from MI who are in sinus rhythm without electrocardiographic evidence of bundle branch block or intraventricular conduction delay.
- Identification of patients with ischemic heart disease and unexplained syncope who are likely to have inducible sustained ventricular tachycardia.
- Stratification of risk of developing sustained ventricular arrhythmia in patients with nonischemic cardiomyopathy.
- Assessment of success of operation for sustained ventricular tachycardia.

**Medical Policy Position Summary (Non-clinical summary statement for customer use)**

Signal-averaged electrocardiography (SAECG) is a tool that uses computerized digital analysis of a standard electrocardiogram (ECG) that can identify individuals at high risk of irregular heartbeats or sudden death. The safety and effectiveness of signal-averaged electrocardiography (SAECG) have been established. It may be considered a useful diagnostic option for certain indications.

**Inclusionary and Exclusionary Guidelines (Clinically based guidelines that may support individual consideration and pre-authorization decisions)**

N/A
Related Policies

N/A

Medicare Information

Medicare pays procedure code 93278 for post myocardial infarction assessment for arrhythmia potential and for past proven episodes of ventricular tachycardia.

(The above Medicare information is current as of the review date for this policy. However, the coverage issues and policies maintained by the Centers for Medicare & Medicare Services [CMS, formerly HCFA] are updated and/or revised periodically. Therefore, the most current CMS information may not be contained in this document. For the most current information, the reader should contact an official Medicare source.)

References

Medical Policy Title: Signal-Averaged Electrocardiography


*The articles reviewed in this research include those obtained in an Internet based literature search for relevant medical references through 8/27/07, the date the research was completed.*
Medical Policy Title: Signal-Averaged Electrocardiography

Joint BCBSM/BCN Medical Policy History

<table>
<thead>
<tr>
<th>Policy Effective Date</th>
<th>BCBSM Signature Date</th>
<th>BCN Signature Date</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>5/13/04</td>
<td>5/13/04</td>
<td>6/22/04</td>
<td>Joint policy established</td>
</tr>
<tr>
<td>1/1/08</td>
<td>10/16/07</td>
<td>12/02/07</td>
<td>References updated; policy retired.</td>
</tr>
</tbody>
</table>

Next Review: This is an established policy and no longer subject to routine review.

Pre-Consolidation Medical Policy History

<table>
<thead>
<tr>
<th>Original Policy Date</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>BCN N/A</td>
<td>Revised: N/A</td>
</tr>
<tr>
<td>BCBSM 4/16/01</td>
<td>Revised: N/A</td>
</tr>
</tbody>
</table>
BLUE CARE NETWORK BENEFIT COVERAGE
POLICY: SIGNAL-AVERAGED ELECTROCARDIOGRAPHY (SAECG)

I. Short Description

Signal-averaged electrocardiography (SAECG) is a tool that uses computerized digital analysis of a standard surface electrocardiogram to identify ventricular late potentials that can be obscured by skeletal muscle activity in the standard ECG.

II. Coverage Determination:

<table>
<thead>
<tr>
<th>Coverage Category</th>
<th>Coverage Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Commercial HMO (includes Self-Funded groups unless otherwise specified)</td>
<td>Covered</td>
</tr>
<tr>
<td>BCNA (Medicare Advantage)</td>
<td>Covered</td>
</tr>
<tr>
<td>BCN65 (Medicare Complementary)</td>
<td>Coinsurance covered if primary Medicare covers the service. &lt;Exception: If BCN65 member has an &quot;exact-fill&quot; option, BCN may cover the service even if Medicare does not.&gt;</td>
</tr>
<tr>
<td>BlueCaid (Medicaid)</td>
<td>Covered</td>
</tr>
</tbody>
</table>

III. Administrative Guidelines:

- The member's contract must be active at the time the service is rendered.
- The service must be authorized by the member's PCP except for Self-Referral Option (SRO) members seeking Tier 2 coverage.
- Services must be performed by a BCN-contracted provider, if available, except for Self-Referral Option (SRO) members seeking Tier 2 coverage.
- Payment is based on BCN payment rules, individual certificate benefits and certificate riders.
- Appropriate copayments will apply. Refer to individual certificate and riders for amounts.
- CPT - HCPCS codes are used for descriptive purposes only and are not a guarantee of coverage.

IV. Effective Dates:

- Policy updated: 01/01/08; policy retired as established
- JUMP policy effective date: 5/13/04