Medical Coverage Policy | Signal-Averaged Electrocardiography (SAECG)

EFFECTIVE DATE: 12|02|2001
POLICY LAST REVIEWED: 02|07|2024

OVERVIEW
Signal-averaged electrocardiography (SAECG) is a technique involving computerized analysis of small segments of a standard ECG to detect abnormalities, termed ventricular late potentials (VLPs), that would be otherwise obscured by "background" skeletal muscle activity.

MEDICAL CRITERIA
Not applicable

PRIOR AUTHORIZATION
Not applicable

POLICY STATEMENT
Medicare Advantage Plans
Signal-averaged electrocardiography is not covered as the evidence is insufficient to determine that the technology results in an improvement in the net health outcome, including, but not limited to, its use:

- as a technique of risk stratification for arrhythmias after prior myocardial infarction;
- in patients with cardiomyopathy;
- in patients with syncope;
- as an assessment of success after surgery for arrhythmia;
- in the detection of acute rejection of heart transplants;
- as an assessment of efficacy of antiarrhythmic drug therapy; or
- in the assessment of success of pharmacological, mechanical, or surgical interventions to restore coronary artery blood flow.

Commercial Products
Signal-averaged electrocardiography is not medically necessary as the evidence is insufficient to determine that the technology results in an improvement in the net health outcome, including, but not limited to, its use:

- as a technique of risk stratification for arrhythmias after prior myocardial infarction;
- in patients with cardiomyopathy;
- in patients with syncope;
- as an assessment of success after surgery for arrhythmia;
- in the detection of acute rejection of heart transplants;
- as an assessment of efficacy of antiarrhythmic drug therapy; or
- in the assessment of success of pharmacological, mechanical, or surgical interventions to restore coronary artery blood flow.

COVERAGE
Benefits may vary between groups/contracts. Please refer to the appropriate Evidence of Coverage, Subscriber Agreement or Benefit Booklet for not medically necessary coverage/benefits.

BACKGROUND
Ventricular late potentials (VLPs) reflect aberrant, asynchronous electrical impulses arising from viable isolated cardiac muscle bordering an infarcted area and are thought to be responsible for ventricular

tachyarrhythmias. Therefore, VLPs, as measured by SAECG, have been investigated as a risk factor for arrhythmic events in patients with a variety of cardiac conditions, including cardiomyopathy and prior history of myocardial infarction (MI). Patients considered at high risk of ventricular arrhythmias and thus sudden death may be treated with drugs to suppress the emergence of arrhythmias or with implantable cardiac defibrillators (ICDs) to promptly detect and terminate tachyarrhythmias when they occur. Because sudden cardiac death, whether from arrhythmias or pump failure, is one of the most common causes of death after a previous MI, there is intense interest in risk stratification to target therapy. Patient groups are divided into those who have not experienced a life-threatening arrhythmia (i.e., primary prevention) and those who have (i.e., secondary prevention). SAECG is just one of many risk factors that have been investigated. Others include left ventricular ejection fraction (LVEF), arrhythmias detected on Holter monitor or electrophysiologic studies, heart rate variability, and baroreceptor sensitivity. T-wave alternans is another technique for risk stratification; it measures beat-to-beat variability, while SAECG measures beat-averaged conduction.

SAECG has not demonstrated improvements in health outcomes and remains not medically necessary for all indications.

CODING

Medicare Advantage Plans and Commercial Products

The following code is not covered for Medicare Advantage Plans and not medically necessary for Commercial Products:

93278 Signal-averaged electrocardiography (SAECG), with or without ECG

RELATED POLICIES

None

PUBLISHED

Provider Update, April 2024
Provider Update, April 2023
Provider Update, July 2022
Provider Update, December 2021
Provider Update, June 2020

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