Name of Policy:
Intraoperative Transesophageal Echocardiography

Policy #: 269
Category: Anesthesia/Other

Latest Review Date: February 2011
Policy Grade: Active Policy but no longer scheduled for regular literature reviews and updates.

Background/Definitions:
As a general rule, benefits are payable under Blue Cross and Blue Shield of Alabama health plans only in cases of medical necessity and only if services or supplies are not investigational, provided the customer group contracts have such coverage.

The following Association Technology Evaluation Criteria must be met for a service/supply to be considered for coverage:

1. The technology must have final approval from the appropriate government regulatory bodies;
2. The scientific evidence must permit conclusions concerning the effect of the technology on health outcomes;
3. The technology must improve the net health outcome;
4. The technology must be as beneficial as any established alternatives;
5. The improvement must be attainable outside the investigational setting.

Medical Necessity means that health care services (e.g., procedures, treatments, supplies, devices, equipment, facilities or drugs) that a physician, exercising prudent clinical judgment, would provide to a patient for the purpose of preventing, evaluating, diagnosing or treating an illness, injury or disease or its symptoms, and that are:

1. In accordance with generally accepted standards of medical practice; and
2. Clinically appropriate in terms of type, frequency, extent, site and duration and considered effective for the patient’s illness, injury or disease; and
3. Not primarily for the convenience of the patient, physician or other health care provider; and
4. Not more costly than an alternative service or sequence of services at least as likely to produce equivalent therapeutic or diagnostic results as to the diagnosis or treatment of that patient’s illness, injury or disease.
Description of Procedure or Service:
Transesophageal echocardiography (TEE) is an imaging technique that uses two-dimensional, M-mode, or Doppler echocardiography to study the heart from the esophagus. It has been used during surgery by anesthesiologists and surgeons to diagnose myocardial ischemia, confirm the adequacy of valve reconstruction and other surgical repairs, determine the cause of hemodynamic disorders and other intraoperative complications, and provide diagnostic information that could not be obtained preoperatively.

Policy:
Effective for dates of service on or after November 16, 2006:
Intraoperative transesophageal echocardiography meets Blue Cross and Blue Shield of Alabama’s medical criteria for coverage when performed by a qualified physician, as evidenced by successful completion of a certification examination in this specialty such as the ASE Examination of Special Competency in Echocardiography (ASE EXAM) or the Examination of Special Competence in Perioperative Transesophageal Echocardiography (PTEeXCAm) for the following indications:

1. Evaluation of acute, persistent, and life-threatening hemodynamic disturbances in which ventricular function and its determinants are uncertain and have not responded to treatment.
2. Surgical repair of valvular lesions, hypertrophic obstructive cardiomyopathy, and aortic dissection with possible aortic valve involvement.
4. Surgical repair of most congenital heart lesions that require cardiopulmonary bypass.
5. Surgical intervention for endocarditis when preoperative testing was inadequate or extension to perivalvular tissue is suspected.
6. Placement of intracardiac devices and monitoring of their position during port-access and other cardiac surgical interventions.
7. Evaluation of pericardial window procedures in patients with posterior or loculated pericardial effusions.
8. Surgical procedures in patients at increased risk of myocardial ischemia, myocardial infarction or hemodynamic disturbances.
9. Evaluation of valve replacement, aortic atheromatous disease, the Maze procedure, cardiac aneurysm repair, removal of cardiac tumors, intracardiac thrombectomy, and pulmonary embolectomy
10. Detection of air emboli during cardiotomy, heart transplant operations, upright neurosurgical procedures, or procedures where the operative site is above the level of the patient’s heart.

Intraoperative transesophageal echocardiography does not meet Blue Cross and Blue Shield of Alabama’s medical criteria for the following indications:
1. Routine use, including patients undergoing cardiopulmonary bypass.
2. Routine monitoring patients having non-cardiac, non-thoracic surgical procedures.
Blue Cross and Blue Shield of Alabama does not approve or deny procedures, services, testing, or equipment for our members. Our decisions concern coverage only. The decision of whether or not to have a certain test, treatment or procedure is one made between the physician and his/her patient. Blue Cross and Blue Shield of Alabama administers benefits based on the members' contract and corporate medical policies. Physicians should always exercise their best medical judgment in providing the care they feel is most appropriate for their patients. Needed care should not be delayed or refused because of a coverage determination.

**Key Points:**
In 2003, the American College of Cardiology, the American Heart Association, and the American Society of Echocardiography published a summary article on the guidelines for the clinical application of echocardiography. This was an update of the original guidelines published in 1997. This article contained a new section on recommendations for intraoperative echocardiography. In 1996, a task force of the American Society of Anesthesiologists/Society of Cardiovascular Anesthesiologists (ASA/SCA) published practice guidelines for perioperative TEE. The guidelines were evidence based and focused on the effectiveness of perioperative TEE in improving clinical outcomes. The original literature search retrieved 588 articles and a more recent search retrieved 118 articles, all related to the intraoperative use of echocardiography. This policy is based on the information from the initial guidelines and the newer information.

In their study, Couture and associates looked at the impact of routine use of intraoperative transesophageal echocardiography during cardiac surgery. Their findings “validate the usefulness of the ASA practice guidelines demonstrating a greater impact of TEE on clinical management for category I indications than for Category II.”

In 2005 the ASA amended their earlier statement to, “the indication for TEE is usually based on the individual patient’s condition rather than the specific procedure….Select patients need echocardiography because of underlying structure (congenital), functional (valvular disease, cardiomyopathy) or ischemic (atherosclerotic) cardiovascular disease.”

**Key Words:**
Transesophageal echocardiography (TEE), Intraoperative, Echocardiography, Cardiac, Heart, Thoracic

**Approved by Governing Bodies:**
Not applicable

**Benefit Application:**
Coverage is subject to member’s specific benefits. Group specific policy will supersede this policy when applicable.

ITS: Home Policy provisions apply
FEP contracts: Special benefit consideration may apply. Refer to member’s benefit plan.
Pre-certification requirements: Not applicable

**Codes:**

CPT Codes: 93318 Echocardiography, transesophageal (TEE) for monitoring purposes, including probe placement, real time 2-dimensional image acquisition and interpretation leading to ongoing (continuous) assessment of (dynamically changing) cardiac pumping function and to therapeutic measures on an immediate time basis

**References**

1. ACC/AHA/ASE Guideline Update for the Clinical Application of Echocardiography: Summary Article; Circulation, September, 2003; 108

**Policy History:**

Medical Policy Group, May 2006 (2)
Medical Review Committee, July 2006
Medical Policy Group, August 2006 (2)
Medical Policy Administration Committee, August 2006
Available for comment August 14-September 27, 2006
Available for comment October 2-November 15, 2006
Medical Policy Group, January 2007 (2)
Medical Policy Administration Committee, January 2007
Available for comment January 30-March 8, 2007

**Medical Policy Group, February 2011: Effective February 4, 2011 this policy is still active but no longer scheduled for regular literature reviews and updates**
This medical policy is not an authorization, certification, explanation of benefits, or a contract. Eligibility and benefits are determined on a case-by-case basis according to the terms of the member’s plan in effect as of the date services are rendered. All medical policies are based on (i) research of current medical literature and (ii) review of common medical practices in the treatment and diagnosis of disease as of the date hereof. Physicians and other providers are solely responsible for all aspects of medical care and treatment, including the type, quality, and levels of care and treatment.

This policy is intended to be used for adjudication of claims (including pre-admission certification, pre-determinations, and pre-procedure review) in Blue Cross and Blue Shield’s administration of plan contracts.