

EFFECTIVE DATE: 1 | 1 | 2015

POLICY LAST UPDATED: 06 | 07 | 2016

OVERVIEW

Secondary lymphedema may develop following surgery for breast cancer. Bioelectrical impedance is being studied as a diagnostic test for lymphedema, particularly for subclinical disease. Bioimpedance, which uses resistance to electrical current in comparing the composition of fluid compartments, could potentially be used as a tool to diagnose lymphedema.

MEDICAL CRITERIA

Not applicable

PRIOR AUTHORIZATION

Not applicable

POLICY STATEMENT

Devices using bioimpedance (bioelectrical impedance spectroscopy, or BIS) as based on the current scientific evidence and because the impact on net health outcome is not known, use of this testing in the diagnosis or management of patients with known or suspected lymphedema, or to detect subclinical lymphedema, is considered not medically necessary.

COVERAGE

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

BACKGROUND

Secondary lymphedema of the upper extremity may develop following surgical treatment for breast cancer; it has been reported in approximately 25% to 50% of women following mastectomy. This can be a chronic, disfiguring condition. It results from lymphatic dysfunction or disruption and can be difficult to accurately diagnose and manage. One challenge is identifying the presence of clinically significant limb swelling through simple noninvasive methods. Many techniques have been used for documenting lymphedema, including measuring differences in limb volume (volume displacement) and limb circumference. A number of newer techniques are being evaluated, including bioimpedance with use of BIS analysis, which uses resistance to electrical current in comparing the composition of fluid compartments. BIS is based on the theory that the amount of opposition to flow of electric current (impedance) through the body is inversely proportional to the volume of fluid in the tissue. In lymphedema, with the accumulation of excess interstitial fluid, tissue impedance decreases.

The detection of subclinical lymphedema, that is, the early detection of lymphedema before clinical symptoms become apparent, is another area of study. Detection of subclinical lymphedema (referred to as stage 0 lymphedema) is problematic. Subclinical disease may exist for months or years before overt edema is noted. This approach generally involves comparison of preoperative (i.e., baseline) with postoperative measurements, because existing differences between upper extremities (like the effects of a dominant extremity) may obscure early, subtle differences resulting from the initial accumulation of fluid. Bioimpedance has been proposed as a diagnostic test for this condition. Those who support this approach to diagnose subclinical disease believe that early treatment of subclinical lymphedema should result in less severe chronic disease.

There is minimal information about the technical and diagnostic performance of bioimpedance testing in the diagnosis (surveillance) of secondary lymphedema, especially for subclinical disease. In addition, there are no data from comparative clinical trials that demonstrate the impact of this test (bioimpedance) on clinical outcomes (clinical utility). Thus, based on the current scientific evidence and because the impact on net health outcome is not known, use of this testing in the diagnosis or management of patients with known or suspected lymphedema, or to detect subclinical lymphedema, is considered not medically necessary.

CODING

The following code is not medically necessary for BlueCHIP for Medicare and Commercial Products:
93702 Bioimpedance spectroscopy (BIS), extracellular fluid analysis for lymphedema assessment(s) (new code 01/01/15)

RELATED POLICIES

None

PUBLISHED

Provider Update, August 2016
Provider Update, October 2015

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