CARDIAC OUTPUT MONITORING BY THORACIC ELECTRICAL BIOIMPEDANCE (TEB) (NCD 20.16)

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INSTRUCTIONS FOR USE

This Policy Guideline is applicable to UnitedHealthcare Medicare Advantage Plans offered by UnitedHealthcare and its affiliates for health care services submitted on CMS 1500 forms and, when specified, to those billed on UB04 forms (CMS 1450), or their electronic comparative. The information presented in this Policy Guideline is believed to be accurate and current as of the date of publication.

This Policy Guideline provides assistance in administering health benefits. All reviewers must first identify member eligibility, any federal or state regulatory requirements, Centers for Medicare and Medicaid Services (CMS) policy, the member specific benefit plan coverage, and individual provider contracts prior to use of this Policy Guideline. When deciding coverage, the member specific benefit plan document must be referenced. The terms of the member specific benefit plan document may differ greatly from the standard benefit plan upon which this Policy Guideline is based. In the event of a conflict, the member specific benefit plan document supersedes this Policy Guideline. Other Policies and Guidelines may apply. UnitedHealthcare reserves the right, in its sole discretion, to modify its Policies and Guidelines as necessary.

Related Medicare Advantage Coverage Summary

Cardiovascular Diagnostic Procedures

INSTRUCTIONS FOR USE

UnitedHealthcare follows Medicare coverage guidelines and regularly updates its Medicare Advantage Policy Guidelines to comply with changes in CMS policy. UnitedHealthcare encourages physicians and other healthcare professionals to keep current with any CMS policy changes and/or billing requirements by referring to the CMS or your local carrier website regularly. Physicians and other healthcare professionals can sign up for regular distributions for policy or regulatory changes directly from CMS and/or your local carrier. This Policy Guideline is provided for informational purposes. It does not constitute medical advice.

POLICY SUMMARY

Overview
Thoracic electrical bioimpedance (TEB) devices, a form of plethysmography, monitor cardiac output by non-invasively measuring hemodynamic parameters, including: thoracic fluid status, stroke volume, and systemic vascular resistance.

Guidelines
Nationally Covered Indications
TEB is covered for the following uses:
- Evaluation for rejection in patients with a heart transplant as a predetermined alternative to a myocardial biopsy. Medical necessity must be documented should a biopsy be performed after TEB.
- Optimization of fluid management in patients with congestive heart failure when physical examination, medical history, and standard assessment tools provide insufficient information and the treating physician has determined that TEB hemodynamic data is necessary.
- Differentiation of cardiogenic from pulmonary causes of acute dyspnea when physical examination, medical history, and standard assessment tools provide insufficient information and the treating physician has determined that TEB hemodynamic data is necessary.
- Optimization of atrioventricular (A/V) interval for patients with A/V sequential cardiac pacemakers when physical examination, medical history, and standard assessment tools provide insufficient information, and the treating physician has determined that TEB hemodynamic data is necessary.
- Monitoring of continuous inotropic therapy for patients with terminal congestive heart failure, when those patients have chosen to die with comfort at home, or for patients waiting at home for a heart transplant.
Nationally Non-Covered Indications
• TEB is non-covered when used for:
  o During cardiac bypass surgery;
  o With proven or suspected disease involving severe regurgitation of the aorta;
  o With minute ventilation (MV) sensor function pacemakers, since the device may adversely affect the functioning of that type of pacemaker; or,
  o In the management of all forms of hypertension (with the exception of drug-resistant hypertension as outlined below).
• TEB for all other uses not otherwise specified remains non-covered.

Other
UnitedHealthcare has the discretion to determine whether the use of TEB for the management of drug-resistant hypertension is reasonable and necessary. Drug resistant hypertension is defined as failure to achieve goal blood pressure in patients who are adhering to full doses of an appropriate 3-drug regimen that includes a diuretic.

APPLICABLE CODES

The following list(s) of codes is provided for reference purposes only and may not be all inclusive. Listing of a code in this guideline does not imply that the service described by the code is a covered or non-covered health service. Benefit coverage for health services is determined by the member specific benefit plan document and applicable laws that may require coverage for a specific service. The inclusion of a code does not imply any right to reimbursement or guarantee claim payment. Other Policies and Guidelines may apply.

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<tr>
<td>93701</td>
<td>Bioimpedance-derived physiologic cardiovascular analysis</td>
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REFERENCES

CMS National Coverage Determinations (NCDs)
NCD 20.16 Cardiac Output Monitoring by Thoracic Electrical Bioimpedance (TEB)

CMS Transmittals
Transmittal 1580, Change Request 9252, Dated 12/03/2015 (ICD-10 Conversion/Coding Infrastructure Revisions to National Coverage Determinations (NCDs)--3rd Maintenance CR)

UnitedHealthcare Commercial Policies
Electrical Bioimpedance for Cardiac Output Measurement

GUIDEINE HISTORY/REVISION INFORMATION

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<tr>
<th>Date</th>
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<tbody>
<tr>
<td>10/12/2016</td>
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