Coverage Summary

Computed Tomographic Angiography (CTA)/Electron Beam Computed Tomography (EBCT) of the Chest

<table>
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<tr>
<th>Policy Number: C-008</th>
<th>Products: UnitedHealthcare Medicare Advantage Plans</th>
<th>Original Approval Date: 02/26/2008</th>
</tr>
</thead>
<tbody>
<tr>
<td>Approved by:</td>
<td>UnitedHealthcare Medicare Benefit Interpretation Committee</td>
<td>Last Review Date: 09/18/2018</td>
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</table>

Related Medicare Advantage Policy Guidelines:
- Computed Tomography (NCD 220.1)
- Coronary Fractional Flow Reserve Using Computed Tomography (FFR-ct)

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The benefit information in this Coverage Summary is based on existing national coverage policy, however, Local Coverage Determinations (LCDs) may exist and compliance with these policies are required where applicable.

INDEX TO COVERAGE SUMMARY

I. COVERAGE
   1. Computed Tomographic Angiography (CTA)
   2. Multidetector (Multidetector-row/Multislice) Computed Cardiac Tomography (MDCT) also known as Cardiac Computed Tomographic Angiography (CCTA) or Computed Tomography of the Heart and Coronary Arteries
   3. Electron Beam Computed Tomography (EBCT) also known as Ultrafast CT scan or Electron-beam Tomography (EBT)

II. DEFINITIONS

III. REFERENCES

IV. REVISION HISTORY

V. ATTACHMENTS

I. COVERAGE

Coverage Statement: Computed tomographic angiography is covered in accordance with Medicare coverage criteria.

Guidelines/Notes:

1. Computed Tomographic Angiography (CTA)

CTA is a general phrase used to describe a non-invasive method, using intravenous contrast, to visualize the coronary arteries (or other vessels) using high-resolution, high-speed CT.

On March 12, 2008, after examining the medical evidence, the Centers for Medicare and Medicaid Services (CMS) has determined that no national coverage determination (NCD) is appropriate at this time and coverage decisions should be made by local contractors through Local Coverage Determinations (LCDs) may exist and compliance with these policies are required where applicable.
local coverage determination process or case-by-case adjudication.

See the NCD for Computed Tomography (220.1). Local Coverage Determinations (LCDs)/Local Coverage Articles (LCAs) exist and compliance with these policies is required where applicable. These policies are available at http://www.cms.gov/medicare-coverage-database/overview-and-quick-search.aspx. (Accessed September 4, 2018)

2. Multidetector (Multidetector-row/Multislice) Computed Cardiac Tomography (MDCT) [also known as Cardiac Computed Tomographic Coronary Angiography (CCTA) or Computed Tomography of the Heart and Coronary Arteries]
   - Medicare does not have a National Coverage Determination (NCD) for Multidetector Computed Tomography.
   - Local Coverage Determinations (LCDs)/Local Coverage Articles (LCAs) exist and compliance with these policies must be used where applicable. For state-specific LCDs/LCAs, see the LCD Availability Grid (Attachment A).
   - For states with no LCDs/LCAs, see the following for coverage guideline:
     - For regions involved in the Radiology Prior Auth Program, see the Medicare Advantage Imaging: Evidence-Based Clinical Guidelines for coverage guidelines.
     - For regions not involved in the Radiology Prior Auth Program, see the nationally recognized guidelines, i.e., MCG™ Care Guidelines, 22nd edition, 2018, Cardiac CT Scan ACG: A-0020 (AC). (IMPORTANT NOTE: After searching the LCD Availability Grid and the Medicare Coverage Database, if no state LCD/LCA is found, then use the above referenced policy.)
   - Committee approval date: May 11, 2018
   - Accessed September 4, 2018

3. Electron Beam Computed Tomography (EBCT) [also known as Ultrafast CT scan or Electron-beam Tomography (EBT)]
   - Medicare does not have a National Coverage Determination (NCD) for Electron Beam Computed Tomography (EBCT).
   - Local Coverage Determinations (LCDs)/Local Coverage Articles (LCAs) for EBCT exist and compliance with these policies must be used where applicable. All LCDs agree that EBCT is not covered. For state-specific LCDs/LCAs, see the LCD Availability Grid (Attachment B).
   - For states with no LCD/LCAs, see the following for coverage guideline:
     - For regions involved in the Radiology Prior Auth Program, see the Medicare Advantage Imaging: Evidence-Based Clinical Guidelines for coverage guidelines.
     - For regions not involved in the Radiology Prior Auth Program, see the nationally recognized guidelines, i.e., MCG™ Care Guidelines, 22nd edition, 2018, Cardiac CT Scan ACG: A-0020 (AC). (IMPORTANT NOTE: After searching the LCD Availability Grid and the Medicare Coverage Database, if no state LCD/LCA is found, then use the above referenced policy.)
   - Committee approval date: May 11, 2018
   - Accessed September 4, 2018

II. DEFINITIONS

Electron Beam Computed Tomography (EBCT): A noninvasive imaging technique that can detect calcium deposits in coronary arteries. These calcium deposits are often associated with
atherosclerotic plaques, and it has been proposed that detection of coronary calcification can provide an early and sensitive method of diagnosing coronary artery disease (CAD). Hayes, Inc. Medical Technology Directory. Electron Beam Computed Tomography for Coronary Artery Disease. May 27, 2008.

**Multidetector Row Computed Tomography (MDCT):** A technology which requires thin (up to 1 mm) slices, 0.5 to 0.75 mm reconstructions, multiple simultaneous images (e.g. 16, 32, 64 or more slices), and cardiac gating (often requiring beta blockers for ideal heart rate). There is significant post-processing, depending on the number of slices per second for image generation. For coronary artery imaging, the resulting images show a high correlation with stenotic lesions noted on diagnostic cardiac catheterization but more importantly, with atheromas on intracoronary ultrasound. Multiple LCDs/LCAs for Cardiac Computed Tomography (CCT) and Coronary Computed Tomography Angiography (CCTA); available at [http://www.cms.gov/medicare-coverage-database/overview-and-quick-search.aspx?from2=search.asp&](http://www.cms.gov/medicare-coverage-database/overview-and-quick-search.aspx?from2=search.asp&). (Accessed September 4, 2018)

### III. REFERENCES

See above

### IV. REVISION HISTORY

09/18/2018  Updated Local Coverage Determination (LCD) Availability Grids; removed instruction to “use the applicable LCD based on member’s residence/place and type of service” (this note only applies when selecting the appropriate DME LCD Policy)

05/11/2018  Annual review; no updates.

03/20/2018  Re-review with the following updates:

  Guideline 2 [Multidetector (Multidetector-row/Multislice) Computed Cardiac Tomography (MDCT) also known as Cardiac Computed Tomographic Coronary Angiography (CCTA) or Computed Tomography of the Heart and Coronary Arteries]


  Guideline 3 [Electron Beam Computed Tomography (EBCT) also known as Ultrafast CT scan or Electron-beam Tomography (EBT)]


01/18/2018  Re-review with the following updates:

  Guideline 2 [Multidetector (Multidetector-row/Multislice) Computed Cardiac Tomography (MDCT) also known as Cardiac Computed Tomographic Coronary Angiography (CCTA) or Computed Tomography of the Heart and Coronary Arteries]

  - Updated the applicable LCDs to include the most recent website links and effective dates related to the Cahaba-Palmetto jurisdiction transition; no change in guideline.

  Guideline 3 [Electron Beam Computed Tomography (EBCT) also known as Ultrafast CT scan or Electron-beam Tomography (EBT)]

  - Updated the applicable LCDs to include the most recent website links and effective dates related to the Cahaba-Palmetto jurisdiction transition; no change in guideline.

05/16/2017  Annual review; no updates.

03/21/2017  Re-review with the following update:
• Guideline 2 [Multidetector (Multidetector-row/Multislice)Computed Cardiac Tomography (MDCT) also known as Cardiac Computed Tomographic Coronary Angiography (CCTA) or Computed Tomography of the Heart and Coronary Arteries] - Updated reference from MCG 20th to the 21st edition 2017.

05/16/2016 Annual review with the following updates:

• Guideline 2 [Multidetector (Multidetector-row/Multislice)Computed Cardiac Tomography (MDCT) also known as Cardiac Computed Tomographic Coronary Angiography (CCTA) or Computed Tomography of the Heart and Coronary Arteries]- Deleted “Indications for coverage within available LCDs vary.” And added “For state-specific LCDs, see” to 2nd bullet point.

Guideline 3 [Electron Beam Computed Tomography (EBCT) also known as Ultrafast CT scan or Electron-beam Tomography (EBT)] – Deleted “CCTA and MDCT which address” from 2nd bullet point.

03/15/2016 Re-review with the following updates:

• Guideline 2 [Multidetector (Multidetector-row/Multislice)Computed Cardiac Tomography (MDCT) also known as Cardiac Computed Tomographic Coronary Angiography (CCTA) or Computed Tomography of the Heart and Coronary Arteries]- Updated reference from MCG 19th to the 20th edition.

• Guideline 3 [Electron Beam Computed Tomography (EBCT) also known as Ultrafast CT scan or Electron-beam Tomography (EBT)]- Updated reference from MCG 19th to the 20th edition.

• Updated reference link(s) of the applicable LCDs in the Availability Grids to reflect the condensed link.

05/19/2015 Annual review with the following updates:

Guideline 2 [Multidetector (Multidetector-row/Multislice)Computed Cardiac Tomography (MDCT)] - Added reference to the MCG™ Care Guidelines, 19th edition Cardiac CT Scan ACG: A-0020 (AC)

Guideline 3 [Electron Beam Computed Tomography (EBCT)] - Added reference to the MCG™ Care Guidelines, 19th edition Cardiac CT Scan ACG: A-0020 (AC)

04/01/2015 Replaced references to “Milliman Care Guidelines” with “MCG™ Care Guidelines”

05/20/2014 Annual review; updated definition of Electron Beam Computed Tomography (EBCT) and Multidetector Row Computed Tomography (MDCT).

06/24/2013 Annual review; no updates.

06/18/2012 Guidelines #2 & Guidelines # 3 - updated the reference/link to the UnitedHealthcare Physician Guidelines Evidenced Based regarding Imaging.

12/05/2011 LCD Availability Grid (Attachment A) updated.

06/30/2011 Annual review; no updates.
V. ATTACHMENT(S)

Attachment A - LCD Availability Grid
Multidetector (Multidetector-row/Multislice) Computed Cardiac Tomography (MDCT)
[also known as Cardiac Computed Tomographic Coronary Angiography (CCTA) or
Computed Tomography of the Heart and Coronary Arteries]

CMS website accessed September 4, 2018

<table>
<thead>
<tr>
<th>LCD ID</th>
<th>LCD Title</th>
<th>Contractor Type</th>
<th>Contractor</th>
<th>States</th>
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<tbody>
<tr>
<td>L33423</td>
<td>Cardiac Computed Tomography &amp; Angiography (CCTA)</td>
<td>A and B MAC</td>
<td>Palmetto GBA</td>
<td>AL, GA, NC, SC, TN, VA, WV</td>
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<td>L33559</td>
<td>Cardiac Computed Tomography (CCT) and Coronary Computed Tomography Angiography (CCTA)</td>
<td>A and B MAC</td>
<td>National Government Services, Inc.</td>
<td>IL, MN, CT, MA, ME, NH, NY, RI, VT, WI</td>
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<td>L33947</td>
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<td>CGS Administrators, LLC</td>
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<td>L33282</td>
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<td>A and B MAC</td>
<td>First Coast Service Options, Inc.</td>
<td>FL, PR, VI</td>
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<td>L35121</td>
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<td>MAC - Part A and B</td>
<td>Wisconsin Physicians Service Insurance Corporation</td>
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<td>L35121</td>
<td>Coronary Computed Tomography Angiography (CCTA)</td>
<td>MAC - Part A</td>
<td>Wisconsin Physicians Service Insurance Corporation</td>
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<td>L33629</td>
<td>Non-covered Services</td>
<td>A and B MAC</td>
<td>National Government Services, Inc</td>
<td>CT, IL, MA, ME, MN, NH, NY, RI, VT, WI</td>
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End of Attachment A

Attachment B - LCD Availability Grid
Electron Beam Computed Tomography (EBCT)
[also known as Ultrafast CT scan or Electron-beam Tomography (EBT)]

CMS website accessed September 4, 2018

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End of Attachment B