## Coverage Summary

### Radiologic Diagnostic Procedures

**Policy Number:** R-002  
**Products:** UnitedHealthcare Medicare Advantage Plans  
**Original Approval Date:** 04/02/2008  
**Approved by:** UnitedHealthcare Medicare Benefit Interpretation Committee  
**Last Review Date:** 05/11/2018

### Related Medicare Advantage Policy Guidelines:
- **Computed Tomography (NCD 220.1)**
- **Infrared Therapy Devices (NCD 270.6)**
- **Magnetic Resonance Imaging (NCD 220.2)**
- **Magnetic Resonance Spectroscopy (NCD 220.2.1)**
- **Mammograms (NCD 220.4)**
- **Percutaneous Image-Guided Breast Biopsy (NCD 220.13)**
- **Portable Hand-Held X-Ray Instrument (NCD 220.10)**
- **Single Photon Emission Computed Tomography (SPECT) (NCD 220.12)**
- **Thermography (NCD 220.11)**
- **Transillumination Light Scanning or Diaphanography (NCD 30.9)**
- **Ultrasound Diagnostic Procedures (NCD 220.5)**

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### I. COVERAGE

**Coverage Statement:** Diagnostic radiologic procedures are covered when Medicare criteria are met.


**Guidelines/Notes:**

1. Diagnostic radiological services (inpatient or outpatient) used for screening, detection or treatment of disease, **are covered** when such services are determined to be reasonable and necessary. Examples include, but are not limited to:

   a. **Diagnostic X-Rays**

      *See the following:*


      *Local Coverage Determinations (LCDs)/Local Coverage Articles (LCAs) exist and compliance with these policies is required where applicable. See the following LCDs/LCAs at [http://www.cms.gov/medicare-coverage-database/overview-and-quick-search.aspx](http://www.cms.gov/medicare-coverage-database/overview-and-quick-search.aspx):*

      - Radiologic Examination, Chest
      - Chest X-ray Policy
      - Sinus X-rays

      *(Accessed May 9, 2018)*

   b. **X-Ray, Radium, and Radioactive Isotope Therapy**

      *See the Medicare Benefit Policy Manual Chapter 15, §90 - X-Ray, Radium and Radioactive Isotope Therapy*

   

### II. DEFINITIONS

### III. REFERENCES

### IV. REVISION HISTORY
c. Screening Mammogram

*See the Coverage Summary for Preventive Health Services and Procedures*

d. Obstetrical Ultrasound

*See the NCD for Ultrasound Diagnostic Procedures (220.5).*

*Also see the Coverage Summary for Maternity and Newborn Care.*

e. Bone Density Studies

Bone density studies are covered when criteria are met; *see the Coverage Summary for Bone Density Studies/Bone Mass Measurements.*

f. Diagnostic Mammogram

*See the NCD for Mammograms (220.4).*

Local Coverage Determinations (LCDs)/Local Coverage Articles (LCAs) exist and compliance with these policies is required where applicable. See the LCDs/LCAs for Breast Imaging Mammography/Breast Echography (Sonography)/Breast MRI/Ductography and the LCDs/LCAs for Screening and Diagnostic Mammography at [http://www.cms.gov/medicare-coverage-database/overview-and-quick-search.aspx](http://www.cms.gov/medicare-coverage-database/overview-and-quick-search.aspx).

(Accessed May 9, 2018)

g. Ultrasonography/Ultrasound

*See the NCD for Ultrasound Diagnostic Procedures (220.5).*


(Accessed May 9, 2018)

h. Computerized Tomography (CT scan)

*See the NCD for Computerized Tomography (220.1).*

Notes:

- Local Coverage Determinations (LCDs)/Local Coverage Articles (LCAs) exist and compliance with these policies is required where applicable. See the LCDs/LCAs for CT Scan at [http://www.cms.gov/medicare-coverage-database/overview-and-quick-search.aspx](http://www.cms.gov/medicare-coverage-database/overview-and-quick-search.aspx).

(Accessed May 9, 2018)

- For states with no LCDs/LCAs, for uses of CT scans not specifically addressed by the NCD for Computerized Tomography (220.1), refer to the following:
  - 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.

i. Single Photon Emission Computed Tomography (SPECT)

*See the NCD for Single Photon Emission Computed Tomography (SPECT) (220.12).*
Notes:
- Local Coverage Determinations (LCDs)/Local Coverage Articles (LCAs) exist for SPECT and compliance with these policies is required where applicable. The LCDs/LCAs are available at [http://www.cms.gov/medicare-coverage-database/overview-and-quick-search.aspx](http://www.cms.gov/medicare-coverage-database/overview-and-quick-search.aspx). (Accessed May 9, 2018)
- For states with no LCDs/LCAs, for uses of SPECT not specifically addressed by the NCD for SPECT (220.12), refer to the following:
  - 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.

j. Magnetic Resonance Imaging (MRI)
See the NCD for Magnetic Resonance Imaging (220.2). (Accessed May 9, 2018)

Notes:
- Local Coverage Determinations (LCDs)/Local Coverage Articles (LCAs) exist for MRI and compliance with these policies is required where applicable. These LCDs/LCAs are available at [http://www.cms.gov/medicare-coverage-database/overview-and-quick-search.aspx](http://www.cms.gov/medicare-coverage-database/overview-and-quick-search.aspx). (Accessed May 9, 2018)
- For states with no LCDs/LCAs, for uses of MRI not specifically addressed by the NCD for MRI (220.2), refer to the following:
  - 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.
- For payment rules for NCDs requiring CED, see the Coverage Summary for Experimental Procedures and Items, Investigational Devices and Clinical Trials.

k. Magnetic Resonance Angiography (MRA)
See the NCD for Magnetic Resonance Imaging (220.2). (Accessed May 9, 2018)

Notes:
- Local Coverage Determinations (LCDs)/Local Coverage Articles (LCAs) exist for MRA and compliance with these policies is required where applicable. These LCDs/LCAs are available at [http://www.cms.gov/medicare-coverage-database/overview-and-quick-search.aspx](http://www.cms.gov/medicare-coverage-database/overview-and-quick-search.aspx). (Accessed May 9, 2018)
- For states with no LCDs/LCAs, for uses of MRA not specifically addressed by the NCD for MRI (220.2), refer to the following:
  - 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.

- On June 3, 2010, CMS made the determination that the existence of a separate NCD for MRA was unnecessary and moved/merged the MRA NCD 220.3 to the MRI NCD 220.2, and allowed the local Medicare contractors to cover (or not cover) all indications of MRA (and MRI) that are not specifically nationally covered or nationally non-covered. The CMS decision memo is available at http://www.cms.gov/transmittals/downloads/R123NCD.pdf. (Accessed May 9, 2018)

l. Ultra Fast or Multislice CT
Ultra Fast or Multislice CT is covered when criteria are met. See the Coverage Summary for Computed Tomographic Angiography (CTA)/Electron Beam Computed Tomography (EBCT) of the Chest.

m. Proton Emission Tomography
Proton Emission Tomography is covered when criteria are met; see the Coverage Summary for Positron Emission Tomography (PET)/Combined PET-CT (Computed Tomography) for coverage criteria and information.

n. Percutaneous Image-Guided Breast Biopsy
See the NCD for Percutaneous Guided Breast Biopsy (220.13). (Accessed May 9, 2018)

o. Portable Hand-Held X-Ray Instrument
See the NCD for Portable Hand-Held X-ray Instrument (220.10). (Accessed May 9, 2018)

2. The following are examples of radiologic procedures that are not covered. This is not an exhaustive list of non-covered radiologic procedures. Any test that is not reasonable or necessary to diagnose, treat or screen for an illness or injury is not covered.

a. Thermography
   See the NCD for Thermography NCD (220.11). (Accessed May 9, 2018)

b. Infrared Devices
   See the NCD for Infrared Therapy Devices (270.6). (Accessed May 9, 2018)

c. UltraFast CT Scanning for Screening Purposes
   See the Coverage Summary for Gastroesophageal and Gastrointestinal (GI) Services and Procedures and the Coverage Summary for Computed Tomographic Angiography (CTA)/Electron Beam Computed Tomography (EBCT) of the Chest.
   Note: This is never covered for screening, i.e., in the absence of signs, symptoms or disease.

d. Experimental or Investigational Procedures
   See the Coverage Summary for Experimental Procedures and Items, Investigational Devices and Clinical Trials

e. Transillumination Light Scanning or Diaphanography
   See the NCD for Transillumination Light Scanning and Diaphanography (30.9). (Accessed May 9, 2018)
f. Magnetic Resonance Spectroscopy

See the NCD for Magnetic Resonance Spectroscopy (MRS) (220.2.1). (Accessed May 9, 2018)

II. DEFINITIONS

Diagnostic Services: A service is "diagnostic" if it is an examination or procedure to which the patient is subjected, or which is performed on materials derived from a hospital outpatient, to obtain information to aid in the assessment of a medical condition or the identification of a disease. Among these examinations and tests are diagnostic laboratory services such as hematology and chemistry, diagnostic x-rays, isotope studies, EKGs, pulmonary function studies, thyroid function tests, psychological tests, and other tests given to determine the nature and severity of an ailment or injury.

See the Medicare Benefit Policy Manual, Chapter 6, §20.4.1 Diagnostic Services Defined. (Accessed May 9, 2018)

III. REFERENCES

See above

IV. REVISION HISTORY

04/01/2019 Updated policy introduction; added language to clarify:

- There are instances where [the Coverage Summary] may direct readers to a UnitedHealthcare Commercial Medical Policy, Medical Benefit Drug Policy, and/or Coverage Determination Guideline (CDG)
- In the absence of a Medicare National Coverage Determination (NCD), Local Coverage Determination (LCD), or other Medicare coverage guidance, CMS allows a Medicare Advantage Organization (MAO) to create its own coverage determinations, using objective evidence-based rationale relying on authoritative evidence (Medicare IOM Pub. No. 100-16, Ch. 4, §90.5)

05/11/2018 Annual review; no updates

05/16/2017 Annual review with the following updates:

- Guideline 1.h [Computerized Tomography (CT scan)]
  - Added a statement that LCDs are available
  - Deleted Added instruction to use the Radiology Prior Auth Program or nationally recognized guidelines for states with no LCDs or for uses of CT scans not specifically addressed by the reference NCD

- Guideline 1.i [Single Photon Emission Computed Tomography (SPECT)]
  - Added a statement that LCDs are available
  - Deleted Added instruction to use the Radiology Prior Auth Program or nationally recognized guidelines for states with no LCDs or for uses of SPECT not specifically addressed by the reference NCD

- Guideline 1.j [Magnetic Resonance Imaging (MRI)]
  - deleted detailed guideline as the reference NCD provides the same guideline

- Guideline 1.n (Percutaneous Image-guided Breast Biopsy)
  - deleted detailed guideline as the reference NCD provides the same guideline

- Guideline 1.o (Portable Hand-Held X-ray Instrument)
• deleted detailed guideline as the reference NCD provides the same guideline

Guideline 1 - deleted the following statement as this is now explained in the applicable guideline section of this Coverage Summary. The corresponding asterisk (*) in the applicable guideline section was also deleted.

*Radiology prior authorization programs exist for some markets for MRIs, MRAs, PET scans and nuclear medicine studies. Reference materials are available at the Imaging: Evidence-Based Clinical Guidelines.

05/17/2016 Annual review with the following updates:
• Guideline 1.f (Diagnostic Mammogram) – Deleted reference to the “Diagnostic mammography” LCD and added reference to the LCDs for Breast Imaging Mammography/Breast Echography (Sonography)/Breast MRI/Ductography.
• Guideline 1.g (Ultrasonography/Ultrasound) - Deleted reference to the “Diagnostic mammography” LCD and added reference to the LCDs for Breast Imaging Mammography/Breast Echography (Sonography)/Breast MRI/Ductography.
• Guideline 2.c (UltraFast CT Scanning for screening purposes) – Added cross reference to the “Computed Tomographic Angiography (CTA)/Electron Beam Computed Tomography (EBCT) of the Chest” coverage summary.

06/16/2015 Annual review with the following updates:
• Updated reference link to the UnitedHealthcare Medicare Solutions Evidence Based Clinical Guidelines Radiology
• Guideline 1.d (Obstetrical Ultrasound) - Added reference link to the NCD for Ultrasound Diagnostic Procedures (220.5)
• Guideline 2.c (Ultra Fast CT Scanning for screening purposes) - Added reference link to the Coverage Summary for Gastroesophageal and Gastrointestinal (GI) Services and Procedures

04/21/2015 Re-review with the following updates:
• NCD 220.7 Xenon Scan and NCD 220.8 Nuclear Radiology Procedure were retired. Any references to these NCDs will be deleted.
• Guideline #1.j (Magnetic Resonance Imaging)
  o Added reference link to the list of Medicare approved clinical trials.
  o Added reference link to the Coverage Summary for Experimental Procedures and Items, Investigational Devices and Clinical Trials for payment rules for NCDs requiring CED.

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

06/20/2014 Annual review with the following updates:
• Guideline #1.a Diagnostic X-rays
  o Changed section from “Standard X-rays/plain-films” to “Diagnostic X-rays”
  o Added the reference to the Medicare Benefit Policy Manual, Chapter 15, §80 - Requirements for Diagnostic X-Ray, Diagnostic Laboratory, and Other Diagnostic Tests
  o Deleted the reference to the Medicare Benefit Policy Manual, Chapter 15, §90 X-Ray, Radium and Radioactive Isotope
• Guideline #1.b X-Ray, Radium, and Radioactive Isotope Therapy - Added as separate section (from Guideline #1.a)
• Guideline #1.c Intravenous Pyelogram (IVP) - Deleted; no CMS reference available; falls under #1.a Diagnostic X-rays above

• Guideline #1.d Kidney, Ureter and Bladder (KUB) X-ray - Deleted; no CMS reference available; falls under #1.a Diagnostic X-rays above

• Guideline #1.n Invasive Radiological Procedures - Deleted; no CMS reference available; falls under #1.a Diagnostic X-rays above

• Guideline #1.o Percutaneous Image-guided Breast Biopsy
  o Added the definition of Percutaneous image-guided breast biopsy from the Definition section (based on the reference NCD)
  o Added language based on the reference NCD to indicate:
    • Non-Palpable Breast Lesions
      Medicare covers percutaneous image-guided breast biopsy using stereotactic or ultrasound imaging for a radiographic abnormality that is non-palpable and is graded as a BIRADS III, IV, or V.
    • Palpable Breast Lesions
      Medicare covers percutaneous image guided breast biopsy using stereotactic or ultrasound imaging for palpable lesions that are difficult to biopsy using palpation alone.

• Guideline #1.p Portable Hand-Held X-ray Instrument
  o Added the definition of Portable Hand-Held X-ray Instrument from the Definition section based on the reference NCD

• Guideline #1.q Xenon Scan
  o Added language based on the reference NCD to indicate:
    • Program payment may be made for this diagnostic procedure which involves perfusion lung imaging with 133 xenon. However, review for evidence of abuse which might include absence of reasonable indications, inappropriate sequence, or excessive number or kinds of procedures used in the care of individual patients.

• Definitions
  o Moved to Section I the definition of:
    • Portable Hand Held X-ray Equipment
    • Percutaneous Image Guided Breast Biopsy
  o Deleted definition of Transillumination Light (no CMS reference available)

06/24/2013 Annual review; no updates

06/18/2012
• Guidelines #1.k Magnetic Resonance Imaging (MRI)
  o Updated to include noncoverage language for MRI with specific contraindications (based on MRI NCD 220.2)
  o Updated the reference/link to the UnitedHealthcare Physician Guidelines Evidenced Based regarding Imaging

• Guidelines #1.l Magnetic Resonance Angiography (MRA)
  o Updated the reference/link to the UnitedHealthcare Physician Guidelines Evidenced Based regarding Imaging.

06/30/2011
• Deleted the section for Intravascular Coronary Ultrasound
• Moved to the CS for Cardiovascular Diagnostic Procedures
• Added the definition of Diagnostic Services

02/21/2011 Updated to further clarify guidelines to use for MRA and MRI when there are no specific state LCDs for uses of MRA and MRI not specifically addressed by the NCDs
Updated Section III (References)
Deleted references that are no longer used in the CS
Moved current references under Guidelines #1