Local Coverage Determination (LCD): Intensity Modulated Radiation Therapy (IMRT) (L34217)

Links in PDF documents are not guaranteed to work. To follow a web link, please use the MCD Website.

**Contractor Information**

<table>
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<tr>
<th>CONTRACTOR NAME</th>
<th>CONTRACT TYPE</th>
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**LCD Information**

**Document Information**

**Original Effective Date**
For services performed on or after 10/01/2015

**Revision Effective Date**
For services performed on or after 10/01/2019

**Revision Ending Date**
N/A

**Retirement Date**
N/A

**Proposed LCD in Comment Period**
N/A

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CMS National Coverage Policy

Title XVIII of the Social Security Act (SSA), §1862(a)(1)(A) states that no Medicare payment shall be made for items or services that “are not reasonable and necessary for the diagnosis or treatment of illness or injury or to improve the functioning of a malformed body member.”

Title XVIII of the Social Security Act, §1862(a)(7) and 42 Code of Federal Regulations, §411.15 et seq. exclude routine physical examinations.

Title XVIII of the Social Security Act, §1833(e) prohibits Medicare payment for any claim lacking the necessary documentation to process the claim.
Coverage Guidance

Coverage Indications, Limitations, and/or Medical Necessity

Intensity Modulated Radiation Therapy (IMRT) is a technology in radiation oncology that delivers radiation more precisely to the tumor while relatively sparing the surrounding normal tissues. It is an advanced form of three-dimensional conformal radiation therapy (3D CRT) that allows for varying intensities of radiation to produce dose distributions that are more conformal than those possible with standard 3D CRT. It introduces inverse planning and computer-controlled radiation deposition, and normal tissue avoidance in contrast to the conventional trial-and-error approach.

The clinical objectives are defined mathematically and the IMRT optimization process determines the beam parameters that will lead to the desired solution while sparing normal tissues.

Examples of situations where IMRT is covered include tumors of the prostate, head and neck, brain, and paraspinal regions when needed to reduce the incidence and severity of the side effects of radiation, including compromise of visual function, mucositis, and xerostomia.

An IMRT candidate includes a patient who has already received a maximum amount of radiation delivered by conventional means. IMRT allows these patients to receive additional radiation safely, which can result in a prolonged survival and an improved quality of life.

Coverage:

One or more of the following required criteria for coverage must be documented in the medical record:

- The target volume is irregularly shaped and in close proximity to critical structures that must be protected.

- The volume of interest is in such location that its parameters can only be defined by MRI or CT.

- Important structures adjacent to, but outside the volume of interest are sufficiently close to the margin such that IMRT is required for additional safety and morbidity reduction related to radiation.

- An immediately adjacent area has been irradiated and abutting portals must be established with high precision.

- Tumor volume margins are concave and in close proximity to critical structures.
• IMRT is covered when the tumor tissue lies in areas associated with target motion caused by cardiac and pulmonary cycles, and the IMRT is necessary in order to protect adjacent normal tissues.

• Non-IMRT techniques would cause grade 2 or grade 3 radiation toxicity in greater than 15 percent of radiated cases.

• IMRT is the only option to cover the volume of interest with narrow margins and protect immediately adjacent structures.

• Only IMRT can produce dose distributions that can cover extremely concave target geometries.

Summary of Evidence

N/A

Analysis of Evidence
(Rationale for Determination)

N/A

General Information

Associated Information
N/A

Sources of Information


**Note:** Some of the websites used in development of this policy may no longer be available.

**Bibliography**

N/A

**Revision History Information**

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<th>REVISION HISTORY DATE</th>
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<tr>
<td>10/01/2019</td>
<td>R7</td>
<td>As required by CR 10901, all billing and coding information has been moved to the companion article, this article is linked to the LCD.</td>
<td>• Revisions Due To Code Removal</td>
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<td>At this time 21st Century Cures Act will apply to new and revised LCDs that restrict coverage which requires comment and notice. This revision is not a restriction to the coverage determination; and, therefore not all the fields included on the LCD are applicable as noted in this policy.</td>
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<td>10/01/2018</td>
<td>R6</td>
<td>03/28/2019: At this time 21st Century Cures Act will apply to new and revised LCDs that restrict coverage which requires comment and notice. This revision is not a restriction to the coverage determination; and, therefore not all the fields</td>
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<td>• Creation of Uniform LCDs Within a MAC Jurisdiction</td>
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<td>10/01/2018</td>
<td>R5</td>
<td>09.05.18: At this time 21st Century Cures Act will apply to new and revised LCDs that restrict coverage which requires comment and notice. This revision is not a restriction to the coverage determination; and, therefore not all the fields included on the LCD are applicable as noted in this policy. The following ICD-10 codes were deleted from the ICD-10 Codes that Support Medical Necessity field: C43.11; C43.12; C4A.11; C4A.12; C4A.112; C4A.119; C44.122; C44.192; C44.199; D03.11; D03.12. The following ICD-10 Codes were added to the ICD-10 Codes that Support Medical Necessity field: C43.111; C43.112; C43.121; C43.122; C4A.111; C4A.112; C4A.121; C4A.122; C44.1121; C44.112; C44.1191; C44.1192; C44.1221; C44.1222; C44.1921; C44.1922; C44.1991; C44.1992; D03.111; D03.112; D03.121; D03.122. This revision is due to the Annual ICD-10 Code Update and becomes effective October 1, 2018.</td>
<td>• Revisions Due To ICD-10-CM Code Changes</td>
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<td>10/01/2017</td>
<td>R4</td>
<td>08/20/2017: At this time 21st Century Cures Act will apply to new and revised LCDs that restrict coverage which requires comment and notice. This revision is not a restriction to the coverage determination; and, therefore not all the fields included on the LCD are applicable as noted in this policy. LCD is revised to add the following diagnoses effective 10/01/2017: C78.01 and C78.02, per reconsideration request. C96.20, C96.21, C96.22 and C96.29 are added and C96.2 is deleted per the 2017 ICD-10 annual update.</td>
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### REVISION HISTORY

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<td>10/01/2015</td>
<td>R3</td>
<td>LCD is revised to add the following diagnoses effective 10/1/2015: C34.91 and C34.92.</td>
<td>• Creation of Uniform LCDs Within a MAC Jurisdiction</td>
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<td>10/01/2015</td>
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<td>LCD is revised to include ICD-10 diagnosis C09.9 effective 10/1/2015.</td>
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<td>10/01/2015</td>
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<td>The following HCPCS codes were replaced due to CPT/HCPCS 2015 updates: 77418 with G6015 and 0073T with G6016. CPT 77421 was deleted.</td>
<td>• Revisions Due To CPT/HCPCS Code Changes</td>
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### Associated Documents

**Attachments**

N/A

**Related Local Coverage Documents**

Article(s)

A57013 - Billing and Coding: Intensity Modulated Radiation Therapy (IMRT)

**Related National Coverage Documents**

N/A

**Public Version(s)**

- Updated on 09/19/2019 with effective dates 10/01/2019 - N/A
- Updated on 04/01/2019 with effective dates 10/01/2018 - 09/30/2019
- Updated on 09/06/2018 with effective dates 10/01/2018 - N/A
- Updated on 08/21/2017 with effective dates 10/01/2017 - 09/30/2018

Some older versions have been archived. Please visit the MCD Archive Site to retrieve them.

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### Keywords

- IMRT
- Intensity
- Modulated
- Radiation
- Therapy