

Department of Origin: Integrated Healthcare Services	Effective Date: 06/05/24
Approved by: Medical Policy Quality Management Subcommittee	Date Approved: 06/04/24
Clinical Policy Document: Radiation Therapy, Intensity Modulated (IMRT)	Replaces Effective Clinical Policy Dated: 06/06/23
Reference #: MC/L009	Page: 1 of 4

PURPOSE:

The intent of this clinical policy is to ensure services are medically necessary.

Please refer to the member's benefit document for specific information. To the extent there is any inconsistency between this policy and the terms of the member's benefit plan or certificate of coverage, the terms of the member's benefit plan document will govern.

POLICY:

Benefits must be available for health care services. Health care services must be ordered by a provider. Health care services must be medically necessary, applicable conservative treatments must have been tried, and the most cost-effective alternative must be requested for coverage consideration.

GUIDELINES:

Medical Necessity Criteria - Must satisfy any of the following: I or II

- I. IMRT is considered medically necessary for any of the following conditions: A – L
 - A. Anus or anal canal cancer⁴; or
 - B. Breast cancer in the following circumstances^{5,12} - must satisfy any of the following: 1 - 2
 1. When the left-sided internal mammary nodes are being treated; or
 2. Partial breast irradiation of up to 5 fractions.
 - C. Central nervous system (CNS) tumors⁴ (primary or benign) including the brain, brain stem and spinal cord⁴
 - D. Cervical cancer⁴
 - E. Endometrial cancer⁴
 - F. Esophageal cancer⁷
 - G. Gastroesophageal junction⁷ (Siewert III tumors)
 - H. Head and neck cancer, including lymphoma and solitary plasmacytomas, when treatment includes the following areas: pharynx (nasopharynx, oropharynx, hypopharynx), larynx cancer (stage III or IV glottic cancer)^{4,11}, salivary glands, oral cavity (includes the tongue), nasal cavity, paranasal sinuses
 - I. Mediastinal tumors (eg, lymphoma^{6,8,9}, thymoma, including tracheal cancer)
 - J. Non-small cell lung cancer, stage III, undergoing chemoradiation therapy^{26,27}
 - K. Pancreatic cancer²⁵
 - L. Prostate cancer²⁴

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- II. IMRT may be covered for a condition that is not listed above as proven, including recurrences or metastases in select cases. Requests for exceptions will be evaluated on a case-by-case basis when at least one of the following conditions is present^{3,4}: A or B
- A. A non-IMRT technique would increase the probability of clinically meaningful normal tissue toxicity (eg, as specified by the Radiation Therapy Oncology Group [RTOG] or QUANTEC guidelines) and demonstrated on a comparison of treatment plans for the IMRT and non-IMRT technique (eg, three-dimensional conformal treatment plan); or
 - B. The same or immediately adjacent area has been previously irradiated, and the dose distribution within the individual must be sculpted to avoid exceeding the cumulative tolerance dose of nearby tissue.

EXCLUSIONS (not limited to):

Refer to member's Certificate of Coverage or Summary Plan Description.

BACKGROUND:

IMRT technology is an advanced version of three-dimensional radiation therapy, utilizing multiple radiation beams. The intensity of each beam is controlled and the beam shapes change throughout treatment angle in order to conform to the tumor being irradiated. IMRT is radiation to a well-defined treatment volume with radiation beams whose intensity varies across the beam. IMRT is useful for delivering a highly conformal radiation dose to targets positioned near sensitive normal tissues. IMRT treatment results in lesser exposure of healthy tissues to radiation.

IMRT treatment plans are tailored to the target volumes and are more accurate than conventional or three-dimensional radiation therapy plans. IMRT Planning defines the necessary field sizes and other beam characteristics needed to achieve the desired radiation dose distribution. The benefit of IMRT is the reduction of dose to normal structures that are close to the tumor, and by reducing the dose of radiation to these normal tissues reducing side effects and allow for the desired dose to the tumor being treated.

Volumetric Modulated Arc Therapy (VMAT) is a faster type of IMRT wherein the gantry moves around the patient as the beam is being modulated.¹¹ Tomotherapy (aka helical tomotherapy) is also another type of IMRT in which radiation is aimed at a tumor from many different directions in a spiral pattern while the patient lays on a table and is moved through a donut-shaped machine.²⁵

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Prior Authorization: Yes, per network provider agreement

Form: Intensity Modulated Radiation Therapy Authorization Form

CODING

CPT® or HCPCS

77385 Intensity modulated treatment delivery, includes guidance and tracking, when performed; simple
 77386 Intensity modulated treatment delivery, includes guidance and tracking, when performed; complex
 G6015 Intensity modulated treatment delivery, single or multiple fields/arcs via narrow spatially and temporally modulated beams, binary, dynamic MLC, per treatment session
 G6016 Compensator-based beam modulated treatment delivery of inverse planned treatment using 3 or more high resolution (milled or cast) compensator, convergent beam modulated fields, per treatment session

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REFERENCES:

1. Integrated Healthcare Services Process Manual: UR015 Use of Medical Policy and Criteria
2. Clinical Policy: MP/C009 Coverage Determination Guidelines
3. American College of Radiology (ACR). ACR-ARS Practice Parameter for Intensity Modulated Radiation Therapy (IMRT). 2011. Revised 2021. Retrieved from <https://www.acr.org/Clinical-Resources/Practice-Parameters-and-Technical-Standards>. Accessed 04-16-24.
4. American Society for Radiation Oncology (ASTRO) Model Policies Intensity Modulated Radiation Therapy (IMRT). 2019. Retrieved from <https://www.astro.org/ASTRO/media/ASTRO/Daily%20Practice/PDFs/IMRTMP.pdf>. Accessed 04-16-24.
5. National Comprehensive Cancer Network (NCCN) Guidelines. Breast Cancer. BINV-I. Version 2.2024, 03/11/24. Accessed 04-16-24.
6. National Comprehensive Cancer Network (NCCN) Guidelines. B-Cell Lymphomas. Principles of Radiation Therapy. NHODG-D. Version 1.2024, 01/18/24. Accessed 04-16-24.
7. National Comprehensive Cancer Network (NCCN) Guidelines. Esophageal and Esophagogastric Junction Cancer. Principles of Radiation Therapy. ESOPH-G. Version 1.2024, 03/07/24. Accessed 04-16-24.
8. National Comprehensive Cancer Network (NCCN) Guidelines. Hodgkin Lymphoma. Principles of Radiation Therapy. HODG-C. Version 3.2024, 03/18/24. Accessed 04-16-24.
9. National Comprehensive Cancer Network (NCCN) Guidelines. T-Cell Lymphomas. Principles of Radiation Therapy. TCLYM-D. Version 3.2024, 04/11/24. Accessed 04-16-24.
10. National Comprehensive Cancer Network (NCCN) Guidelines. Thyroid Carcinoma. Principles of Radiation and Radioactive Iodine Therapy. THYR-C. Version 2.2024, 03/12/24. Accessed 04-16-24.
11. Koyfman SA. General principles of radiation therapy for head and neck cancer. (Topic 3406 Version 35.0; last updated: 10/30/23) In: Shah S, ed. *UpToDate*. Waltham, Mass.: UpToDate; 2023. www.uptodate.com. Accessed 04-16-24.
12. Taghian A. Radiation therapy techniques for newly diagnosed, non-metastatic breast cancer. (Topic 789 Version 36.0; last updated: 06/16/23) In: Vora SR, ed. *UpToDate*. Waltham, Mass.: UpToDate; 2023. www.uptodate.com. Accessed 04-16-24.
13. Smith V, Chintagumpala M. Treatment and prognosis of Wilms tumor. (Topic 6237 Version 53.0; last updated: 11/01/23) In: Shah S ed. *UpToDate*. Waltham, Mass.: UpToDate; 2023. www.uptodate.com. Accessed 04-16-24.

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14. Mitin T. Radiation therapy techniques in cancer treatment. (Topic 89528 Version 28.0; last updated: 03/16/23) In: Vora SR, ed. *UpToDate*. Waltham, Mass.: UpToDate; 2023. www.uptodate.com. Accessed 04-16-24.
15. Werner-Wasik M, Yorke E, Deasy J, et al. Radiation dose-volume effects in the esophagus. QUANTEC organ- specific paper. *Int J Radiat Oncol Biol Phys*. 2010; 76(3):S86-S93.
16. Michalski JM, Gay H, Jackson A, et al. Radiation dose-volume effects in radiation-induced rectal injury. QUANTEC organ-specific paper. *Int J Radiat Oncol Biol Phys*. 2010; 76(3):S123-S129.
17. Pan CC, Kavanagh BD, Dawson LA, et al. Radiation-associated liver injury. QUANTEC: organ-specific paper. *Int J Radiat Oncol Biol Phys*. 2010; 76(3):S94-S100.
18. Michalski JM, Lawton C, El Naqa I, et al. Development of RTOG consensus guidelines for the definition of the clinical target volume for postoperative conformal radiation therapy for prostate cancer. *Int J Radiat Oncol Biol Phys*. 2010; 76(2):361-368.
19. Michalski JM, Yan Y, Watkins-Bruner D, et al. Preliminary toxicity analysis of 3-dimensional conformal radiation therapy versus intensity modulated radiation therapy on the high-dose arm of the Radiation Therapy Oncology Group 0126 prostate cancer trial. *Int J Radiat Oncol Biol Phys*. 2013; 87(5):932-938.
20. MedlinePlus. Ewing's sarcoma. U.S. National Library of Medicine: National Institutes of Health. Retrieved from <http://www.nlm.nih.gov/medlineplus/ency/article/001302.htm>. Accessed 04-16-24.
21. Alongi F, Fiorino C, Cozzarini C, et al. IMRT significantly reduces acute toxicity of whole-pelvis irradiation in patients treated with post-operative adjuvant or salvage radiotherapy after radical prostatectomy. *Radiother Oncol*. 2009; 93(2):207-212.
22. National Cancer Institute. NCI Dictionary of Cancer Terms. Retrieved from <https://www.cancer.gov/publications/dictionaries/cancer-terms>. Accessed 04-16-24.
23. National Comprehensive Cancer Network (NCCN) Guidelines. Prostate Cancer. Principles of Radiation Therapy PROS-I. Systemic Therapy for M1 Castration-Sensitive Prostate Cancer. PROS-13. Version 3.2024, 03/08/24. Accessed 04-16-24.
24. National Comprehensive Cancer Network (NCCN) Guidelines. Pancreatic Adenocarcinoma. Principles of Radiation Therapy. PANC-G. Version 1.2024, 12/13/23. Accessed 04-16-24.
25. National Comprehensive Cancer Network (NCCN) Guidelines. Non-Small Cell Lung Cancer. NSCLC-C. Version 4.2024, 04/10/24. Accessed 04-16-24.
26. Schild SE, Ramalingam SS, Vallieres E. Management of stage III non-small cell lung cancer. (Topic: 4623, Version: 87.0) In: Vora SR, ed. *UpToDate*. Waltham, Mass.: UpToDate; 2024. www.uptodate.com. Accessed 05-02-24.

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PO Box 59052
Minneapolis, MN 55459-0052
Phone: 1.800.940.5049 (TTY: 763.847.4013)
Fax: 763.847.4010
customerservice@preferredone.com

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U.S. Department of Health and Human Services
200 Independence Avenue, SW
Room 509F, HHH Building
Washington, D.C. 20201
1-800-368-1019, 800-537-7697 (TDD)

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U.S. Department of Health and Human Services
200 Independence Avenue, SW
Room 509F, HHH Building
Washington, D.C. 20201
1-800-368-1019, 800-537-7697 (TDD)

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