

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



Department of Origin:	Effective Date:
Integrated Healthcare Services	06/05/24
Approved by:	Date Approved:
Medical Policy Quality Management Subcommittee	06/04/24
Clinical Policy Document:	Replaces Effective Clinical Policy Dated:
Radiation Therapy, Intensity Modulated (IMRT)	06/06/23
Reference #:	Page:
MC/L009	2 of 4

- 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



Department of Origin:	Effective Date:
Integrated Healthcare Services	06/05/24
Approved by:	Date Approved:
Medical Policy Quality Management Subcommittee	06/04/24
Clinical Policy Document:	Replaces Effective Clinical Policy Dated:
Radiation Therapy, Intensity Modulated (IMRT)	06/06/23
Reference #:	Page:
MC/L009	3 of 4

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

CPT® codes copyright 2024 American Medical Association. All Rights Reserved. CPT is a trademark of the AMA. The AMA assumes no liability for the data contained herein.

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.
- 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.



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

- 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: organspecific paper. Int J Radiat Oncol Biol Phys. 2010; 76(3):S94-S100.
- 18. Michalski JM, Lawton C, El Naga 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-
- 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.

DOCUMENT HISTORY:

Created Date: 08/12/11

Reviewed Date: 07/30/13, 09/17/13, 09/17/14, 11/13/15, 04/18/16, 04/04/17, 04/04/18, 04/04/19,

03/26/20, 03/26/21, 03/21/22, 03/21/23, 03/20/24

Revised Date: 02/02/12, 06/05/13, 09/17/13, 01/07/14, 09/17/14, 06/15/15, 08/05/15, 11/10/15, 04/18/16, 05/02/17, 01/09/18, 05/09/18, 11/06/20, 05/04/22, 05/02/24

Nondiscrimination & Language Access Policy



Discrimination is Against the Law. Aspirus Health Plan, Inc. complies with applicable Federal civil rights laws and does not discriminate on the basis of race, color, national origin, age, disability, or sex, (including sex characteristics, including intersex traits; pregnancy or related conditions; sexual orientation, gender identity and sex stereotypes), consistent with the scope of sex discrimination described at 45 CFR § 92.101(a)(2). Aspirus Health Plan, Inc. does not exclude people or treat them less favorably because of race, color, national origin, age, disability, or sex.

Aspirus Health Plan, Inc.:

Provides people with disabilities reasonable modifications and free appropriate auxiliary aids and services to communicate effectively with us, such as:

- Qualified sign language interpreters.
- Written information in other formats (large print, audio, accessible electronic formats, other formats).

Provides free language assistance services to people whose primary language is not English, which may include:

- Qualified interpreters.
- Information written in other languages.

If you need reasonable modifications, appropriate auxiliary aids and services, or language assistance services, contact the Nondiscrimination Grievance Coordinator at the address, phone number, fax number, or email address below.

If you believe that Aspirus Health Plan, Inc. has failed to provide these services or discriminated in another way on the basis of race, color, national origin, age, disability, or sex, you can file a grievance with:

Nondiscrimination Grievance Coordinator

Aspirus Health Plan, Inc.

PO Box 1890

Southampton, PA 18966-9998

Phone: 1-866-631-5404 (TTY: 711)

Fax: 763-847-4010

Email: customerservice@aspirushealthplan.com

You can file a grievance in person or by mail, fax, or email. If you need help filing a grievance, the Nondiscrimination Grievance Coordinator is available to help you.

You can also file a civil rights complaint with the U.S. Department of Health and Human Services, Office for Civil Rights, electronically through the Office for Civil Rights Complaint Portal, available at https://ocrportal.hhs.gov/ocr/portal/lobby.jsf, or by mail or phone at:

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)

Complaint forms are available at http://www.hhs.gov/ocr/office/file/index.html. This notice is available at Aspirus Health Plan, Inc.'s website: https://aspirushealthplan.com/webdocs/70021-AHP-NonDiscrim_Lang-Assist-Notice.pdf.

Language Assistance Services

Albanian: KUJDES: Nëse flitni shqip, për ju ka në dispozicion shërbime të asistencës gjuhësore, pa pagesë. Telefononi në 1-800-332-6501 (TTY: 711).

Arabic تنبيه : إذا كنت تتحدث اللغة العربية، فإن خدمات المساعدة اللغوية متاحة لك مجاناً اتصل بن اعلى رقم الهاتف6501-332-800-1(رقم هاتف الصم والبك : 711)

French: ATTENTION: Si vous parlez français, des services d'aide linguistique vous sont proposés gratuitement. Appelez le 1-800-332-6501 (ATS: 711).

German: ACHTUNG: Wenn Sie Deutsch sprechen, stehen Ihnen kostenlos sprachliche Hilfsdienstleistungen zur Verfügung. Rufnummer: 1-800-332-6501 (TTY: 711).

Hindi: _यान द _: य _द आप िहंदी बोलते ह _तो आपके िलए मु _त म _ भाषा सहायता सेवाएं उपल _ध ह _11-800-332-6501 (TTY: 711) पर कॉल कर _ I

Hmong: LUS CEEV: Yog tias koj hais lus Hmoob, cov kev pab txog lus, muaj kev pab dawb rau koj. Hu rau 1-800-332-6501 (TTY: 711).

Korean: 주의: 한국어를 사용하시는 경우, 언어 지원 서비스를 무료로 이용하실 수 있습니다.1-800-332-6501 (TTY: 711)번으로 전화해 주십시오.

Polish: UWAGA: Jeżeli mówisz po polsku, możesz skorzystać z bezpłatnej pomocy językowej. Zadzwoń pod numer1-800-332-6501 (TTY: 711).

Russian: ВНИМАНИЕ: Если вы говорите на русском языке, то вам доступны бесплатные услуги перевода. Звоните 1-800-332-6501 (телетайп:

Spanish: ATENCIÓN: si habla español, tiene a su disposición servicios gratuitos de asistencia lingüística. Llame al1-800-332-6501 (TTY: 711).

Tagalog: PAUNAWA: Kung nagsasalita ka ng Tagalog, maaari kang gumamit ng mga serbisyo ng tulong sa wika nangwalang bayad. Tumawag sa 1-800-332-6501 (TTY: 711).

Traditional Chinese: 注意: 如果您使用繁體中文, 您可以免費獲得語言援助服務。請 致電 1-800-332-6501 (TTY: 711)

Vietnamese: CHÚ Ý: Nếu bạn nói Tiếng Việt, có các dịch vụ hỗ trợ ngôn ngữ miễn phí dành cho bạn. Gọi số 1-800-332-6501 (TTY: 711).

Pennsylvania Dutch: Wann du Deitsch (Pennsylvania German / Dutch) schwetzscht, kannscht du mitaus Koschte ebbergricke, ass dihr helft mit die englisch Schprooch. Ruf selli Nummer uff: Call 1-800-332-6501 (TTY: 711).

Lao: ໂປດຊາບ: ຖ້າວ່າ ທ່ານເວົ້າພາສາ ລາວ, ການບໍລິການຊ່ວຍເຫຼືອດ້ານພາສາ,ໂດຍບໍ່ເສັຽຄ່າ, ແມ່ນມີພ້ອມໃຫ້ທ່ານ. ໂທຣ 1-800-332-6501 (TTY: 711).