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Medicare Advantage Policy Manual **Policy ID:** M-MED167

Intensity Modulated Radiotherapy (IMRT) for Tumors in Close Proximity to Organs at Risk

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IMPORTANT REMINDER

The Medicare Advantage Medical Policy manual is not intended to override the member Evidence of Coverage (EOC), which defines the insured's benefits, nor is it intended to dictate how providers are to practice medicine. Physicians and other health care providers are expected to exercise their medical judgment in providing the most appropriate care for the individual member, including care that may be both medically reasonable and necessary.

The Medicare Advantage medical policies are designed to provide guidance regarding the decision-making process for the coverage or non-coverage of services or procedures in accordance with the member EOC and Centers of Medicare and Medicaid Services (CMS) policies and manuals, along with general CMS rules and regulations. In the event of a conflict, applicable CMS policy or EOC language will take precedence over the Medicare Advantage Medical Policy. In the absence of a specific CMS coverage determination for a requested service, item or procedure, the health plan may apply CMS regulations, as well as their Medical Policy Manual or other applicable utilization management vendor criteria developed with an objective, evidence-based process using scientific evidence, current generally accepted standards of medical practice, and authoritative clinical practice guidelines.

Some services or items may appear to be medically indicated for an individual but they may also be a direct exclusion of Medicare or the member's benefit plan. Medicare and member EOCs exclude from coverage, among other things, services or procedures considered to be investigational (experimental) or cosmetic, as well as services or items considered not medically reasonable and necessary under Title XVIII of the Social Security Act, §1862(a)(1)(A). In some cases, providers may bill members for these non-covered services or procedures. Providers are encouraged to inform members in advance when they may be financially responsible for the cost of non-covered or excluded services. Members, their appointed representative, or a treating provider can request coverage of a service or item by submitting a pre-service organization determination prior to services being rendered.

DESCRIPTION

Intensity modulated radiotherapy (IMRT) is a form of radiation therapy that conforms closely to the targeted tumor shape and allows higher doses of radiation to be delivered while minimizing toxicity to surrounding healthy tissues.

MEDICARE ADVANTAGE POLICY CRITERIA

CMS Coverage Manuals

None

National Coverage Determinations (NCDs)

For Medicare Coverage Determinations and Articles, see the Medicare Coverage Database

None

Noridian Healthcare Solutions (Noridian) Local Coverage Determinations (LCDs) and Articles

For Medicare Coverage Determinations and Articles, see the Medicare Coverage Database

None

Medical Policy Manual

Local coverage determination is not available for IMRT. Therefore, the health plan's medical policies are applicable. See "Note" below:

Intensity Modulated Radiotherapy (IMRT) for Tumors in Close Proximity to Organs at Risk, Medicine, Policy No. 167

NOTE: If a procedure or device lacks scientific evidence regarding safety and efficacy because it is investigational or experimental, the service is noncovered as not reasonable and necessary to treat illness or injury. (*Medicare IOM Pub. No. 100-04, Ch. 23, §30 A*). According to Title XVIII of the Social Security Act, §1862(a)(1)(A), only medically reasonable and necessary services are covered by Medicare. In the absence of a NCD, LCD, or other coverage guideline, CMS guidelines allow a Medicare Advantage Organization (MAO) to make coverage determinations, applying an ***objective, evidence-based process, based on authoritative evidence***. (*Medicare IOM Pub. No. 100-16, Ch. 4, §90.5*). The Medicare Advantage Medical Policy - Medicine Policy No. M-MED149 - provides further details regarding the plan's evidence-assessment process (see Cross References).

POLICY GUIDELINES

The health plan allows coverage of IMRT only when deemed medically necessary. There is a planning phase for IMRT to determine whether the IMRT treatment is medically reasonable and necessary. If it is determined IMRT does not meet medical necessity requirements, denial will include denial of the planning phase of IMRT, as well as the actual treatment.

REQUIRED DOCUMENTATION

The information below **must** be submitted for review to determine whether policy criteria are met. If any of these items are not submitted, it could impact our review and decision outcome. **All** IMRT requests must include at least the following documentation:

- Chart notes/medical records providing history of the condition, including tumor type and location.
- ICD-10 (diagnosis) code(s), coded to the highest level of specificity. *(Note: Providers are responsible for reviewing the clinical documentation and coding to the highest level.).*
- Documentation whether the member has already received a maximum amount of radiation delivered by conventional means *(if applicable)*.
- When indicated (see below), a comparative 3D versus IMRT dose/volume histogram (DVH) in color AND a completed summary analysis is required. The submitted information must demonstrate the need for IMRT to meet dose constraints not achievable through 3D

planning. If possible, please render both planning lines on the same graph to better permit review of contrasting lines.

- The best way to ensure criteria are met is to submit the provided summary analysis table with preauthorization request. If using the table, please ensure all components are completed prior to submission. If any of these items are not provided it could impact our review and decision outcome.

See tables and example DVH below:

Table 1: No dose/volume histogram analysis needed

Policy criteria are met = No dose/volume histogram analysis required
• Intensity Modulated Radiotherapy (IMRT) of the Central Nervous System (CNS), Head, Neck, and Thyroid, Medicine, Policy No. 164 • Intensity Modulated Radiotherapy (IMRT) of the Thorax, Abdomen, Pelvis, and Extremities, Medicine, Policy No. 165 • Intensity Modulated Radiotherapy (IMRT) for Breast Cancer, Medicine, Policy No. 166 only for the following: o Accelerated partial breast irradiation (APBI) o Prior radiation to the planned target volume
It is sufficient to provide physical/chart notes, relevant imaging, tumor type, and tumor location for review. *The policies listed above may receive auto-approval in the electronic authorization tool when policy criteria are met.*

Table 2: Dose/volume histogram analysis (in color) needed

Submit dose/volume histogram in color and summary analysis (see Section 4)
• Policy criteria from Table 1 above are not met • Intensity Modulated Radiotherapy (IMRT) for Breast Cancer, Medicine, Policy No. 166 • Intensity Modulated Radiotherapy (IMRT) for Tumors in Close Proximity to Organs at Risk, Medicine, Policy No. 167
For cases where IMRT is medically necessary to meet published dose/volume constraints for organs at-risk (see Medical Policy MED167) the table below (Section 4 on IMRT form) is intended to aid the provider in submitting the prior authorization.

Summary Analysis (Click here for a template to use):

Summary Analysis of 3D vs IMRT Planning					
Organ(s) At Risk	**Dose Constraint**	**Source of Constraint**	**3D result**	**IMRT result**	**Can constraint *only* be met with IMRT?**
Example: Brachial plexus	Max < 66 Gy	RTOG	58 Gy	52 Gy	No (both meet constraint)
Example: Cauda equina	Max < 16 Gy	RTOG #0631	19	17	No (neither meets constraint)
Example: Brainstem	Max < 54 Gy	Quantec	62 Gy	52 Gy	Yes (only IMRT meets constraint)

CROSS REFERENCES

1. Intensity Modulated Radiotherapy (IMRT) of the Central Nervous System (CNS) Head, Neck and Thyroid, Medicine, Policy No. M-MED164
2. Intensity Modulated Radiotherapy (IMRT) of the Thorax, Abdomen, Pelvis, and Extremities, Medicine, Policy No. M-MED165
3. Intensity Modulated Radiotherapy (IMRT) for Breast Cancer, Medicine, Policy No. M-MED166
4. Investigational (Experimental) Services, New and Emerging Medical Technologies and Procedures, and Other Non-Covered Services, Medicine, Policy No. M-149

REFERENCES

1. Medicare Claims Processing Manual, Chapter 4 - Part B Hospital (Including Inpatient Hospital Part B and OPPS, §200.3.1 - Billing for IMRT Planning and Delivery
2. Noridian *Radiation Therapy Documentation Requirements* web page
3. American Society for Radiation Oncology (ASTRO) Model Policy for IMRT; Available at: https://www.astro.org/ASTRO/media/ASTRO/Daily%20Practice/PDFs/IMRTMP.pdf [Last Cited 10/31/2025]

CODING

NOTE: The correct code to use for image fusion performed to provide enhanced delineation of target and normal critical structures is CPT code 77399 *(Unlisted procedure, medical radiation physics, dosimetry and treatment devices, and special services)*; however, it is considered part of the treatment planning. CPT codes 77385 and 77386 are Medicare Status "I" codes, and therefore, are not valid for Medicare or Medicare Advantage use under the Medicare Physician Fee Schedule (MPFS), but they may be used by facilities under the Hospital Outpatient Prospective Payment System (OPPS).

Codes	Number	Description
CPT	77301	Intensity modulated radiotherapy plan, including dose volume histograms for target and critical structure partial tolerance specification
	77338	Multi-leaf collimator (MLC) device(s) for intensity modulated radiation therapy (IMRT), design and construction per IMRT plan
	~~77385~~	~~Intensity modulated treatment delivery, including guidance and tracking if performed; simple *(Not valid for Medicare purposes for physician claims)*~~ (Deleted 01/01/2026)
	~~77386~~	~~;complex *(Not valid for Medicare purposes for physician claims)*~~ (Deleted

Codes	Number	Description
		01/01/2026)
HCPCS	~~G6015~~	~~Intensity modulated treatment delivery, single or multiple fields/arcs, via narrow spatially and temporally modulated beams, binary, dynamic MLC, per treatment session~~ (Deleted 01/01/2026)
	~~G6016~~	~~Compensator-based beam modulation treatment delivery of inverse planned treatment using 3 or more high resolution (milled or cast) compensator, convergent beam modulated fields, per treatment session~~ (Deleted 01/01/2026)