



Medical Policy

Policy: 200704
SUBJECT: Intensity Modulated Radiation Therapy

Initial Effective Date: 02/06/2007

Annual Review Date: 09/15/2018

Last Revised Date: 03/06/2019

Prior approval is required for all procedure codes listed in the policy

Definition: Intensity modulated radiation therapy (IMRT) is a type of highly conformal radiation therapy in which the high-energy particles are broken up into many smaller beams called “beamlets.” Each beamlet’s intensity can be independently modulated to allow different areas of a tumor or nearby tissues to receive different doses of radiation. This results in greater target accuracy via the ability to conform or shape the individual beamlets around the three-dimensional shape of the tumor and also results in significant radiation sparing of surrounding sensitive healthy tissue.

Medical Necessity: The Company considers IMRT (CPT Codes 77301, 77338, 77385, 77386, HCPCS Codes G6015 and G6016) medically necessary and eligible for reimbursement for the following indications when there is a concern about damage to surrounding critical structures with the use of external beam radiation therapy (EBRT) or three-dimensional conformal radiation therapy (3D-CRT) and *at least one* of the following medical criteria is met:

- Repeat irradiation is required of a field that has received prior irradiation and conventional technique cannot be safely utilized; or
- Primary or benign tumors of the central nervous system including the brain and spinal cord; or
- Head and neck cancer (cancer of the glottis [except stage I and II], hypopharynx, larynx, lip, maxillary sinus, nasopharynx, oral cavity, oropharynx, paranasal/ethmoid sinuses, salivary gland tumors, supraglottic larynx); or
- Pediatric tumor (e.g., Ewing’s sarcoma, Wilm’s tumor of the kidney); or
- Cervical cancer in patients who have had a hysterectomy; or
- Cervical cancer in patients treated with definitive chemoradiation who require para-aortic treatment; or
- Endometrial cancer post hysterectomy; or
- Primary pelvic sarcoma; or
- Retroperitoneal sarcoma, unresectable; or
- Anal cancer; or
- Localized prostate cancer, nonmetastatic; or
- Post-prostatectomy for dose escalation greater than or equal to 64 Gy, and *at least one* of the following is met:
 1. Serum prostate-specific antigen (PSA) detectable at 6 months post-op; or
 2. PSA is detectable and increases with ≤ 2 laboratory test results; or
 3. Post-operative staging of T3 to T4; or
 4. Post-operative pathology result documents positive surgical margins; or

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- Breast cancer (whole breast radiation or postmastectomy radiation) and tumor is in close proximity to organs at risk and comparative 3D plan [obtained by use of techniques such as forward planned field-in-field technique, mixed beam energy, or electron beams] versus IMRT dose/volume histograms are submitted demonstrating that only through IMRT can published dose/volume constraints be met for organs at risk.
- When tumor is in close proximity to organs at risk and comparative 3D-CRT versus IMRT dose/volume histograms are submitted *and* the summary analysis is completed demonstrating that only through IMRT can published dose/volume constraints be met for organs at risk in any of the following:
 1. Lung cancer; or
 2. Tracheal cancer; or
 3. Mediastinal tumors; or
 4. Esophageal cancer; or
 5. Abdominal cancer (i.e., gastric, gastroesophageal junction, pancreas or hepatobiliary).

Frequency limitations: For treatment of non-small cell lung cancer (stage I - III), when concurrent chemotherapy and radiation therapy is to be utilized, >30 fractions of radiation therapy is considered **not medically necessary** and **not** eligible for reimbursement.

Medical record documentation: The Company requires that documentation must address the specific indication for IMRT as compared with conventional 3D-CRT. Documentation must also include the following: specific dose constraints for the target volume; critical structures in which high doses of radiation must be avoided and therapeutic goals.

The Company considers IMRT for *all* other clinical conditions **not medically necessary** and **not** eligible for reimbursement.

NOTE: The Company considers reimbursement for image guided radiation therapy (IGRT) (**CPT Codes 77014, 77387 and applicable ICD-10-PCS Codes**) as included in payment for the primary procedure. Therefore, separate billing for IGRT is **not** eligible for reimbursement when performed with intensity modulated radiation therapy.

Documentation Requirements:

The Company reserves the right to request additional documentation as part of its coverage determination process. The Company may deny reimbursement when it has determined that the services performed were not medically necessary, investigational or experimental, not within the scope of benefits afforded to the member, and/or a pattern of billing or other practice has been found to be either inappropriate or excessive. Additional documentation supporting medical necessity for the services provided must be made available upon request to the Company. Documentation requested may include patient records, test results, and/or credentials of the provider ordering or performing a service. The Company also reserves the right to modify, revise, change, apply, and interpret this policy at its sole discretion, and the exercise of this discretion shall be final and binding.



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Sources of Information

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Applicable Code(s):	
CPT:	77301, 77338, 77385 and 77386
HCCPS:	G6015 and G6016
ICD-10-CM Procedure:	N/A

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