



## Intensity Modulated Radiation Therapy (IMRT)

### I. Policy

University Health Alliance (UHA) will reimburse for intensity modulated radiation therapy (IMRT) when it is determined to be medically necessary and when it meets the medical criteria guidelines (subject to limitations and exclusions) indicated below.

### II. Criteria/Guidelines

- A. IMRT is covered (subject to Administrative Guidelines) for the following conditions:
1. Tumors of the central nervous system, when the tumor is in close proximity to organs at risk (brain stem, spinal cord, cochlea and eye structures, including optic nerve and chiasm, lens and retina) and 3-D CRT planning is not able to meet dose volume constraints for normal tissue tolerance
  2. Head and neck cancers defined as cancers arising from the oral cavity and lip, larynx, hypopharynx, oropharynx, nasopharynx, paranasal sinuses, nasal cavity, salivary glands and occult primaries in the head and neck region
  3. Prostate cancer
  4. Thyroid cancers in close proximity to organs at risk (esophagus, salivary glands, and spinal cord) and 3-D CRT planning is not able to meet dose volume constraints for normal tissue tolerance
  5. Anal carcinoma
  6. Tumors of the abdomen and pelvis when dosimetric planning with standard 3D conformal radiation predicts that the radiation dose to an adjacent organ would result in unacceptable normal tissue toxicity
  7. Lung cancer when all of the following criteria are met:
    - a. Radiation therapy is being given with curative intent
    - b. 3D conformal will expose >35% of normal lung tissue to more than 20Gy dose-volume (V20)
    - c. IMRT dosimetry demonstrates reduction in the V20 to at least 10% below the V20 that is achieved with the 3D plan (e.g., from 40% down to 30% or lower)
  8. Breast cancer:
    - a. As a technique to deliver whole breast irradiation in patients receiving treatment for left-sided breast cancer after breast conserving surgery when all of the following conditions are met:
      - i. Significant cardiac radiation exposure is expected to be greater than or equal to 25Gy to 10cm<sup>3</sup> or more of the heart (V25 greater than or equal to 10cm<sup>3</sup>) with 3D conformal RT despite the use of a complex positioning device
      - ii. With the use of IMRT with or without DIBH, there is a reduction in the absolute heart volume receiving 25Gy or higher by at least 20% (e.g.,

volume predicted to receive 25Gy by 3D RT is 20 cm<sup>3</sup> and the volume predicted by IMRT <16 cm<sup>3</sup>)

- iii. The other conformal radiation fields result in a lung V 20 that exceeds 35%.
  - iv. Target dose heterogeneity is reduced by an absolute 8% (e.g., hot spot reduced from 118% to 110%).
- b. In individuals with large breasts when the treatment planning with 3D conformal results in hot spots (focal regions with dose variation greater than 10% of target) and the hot spots are able to be avoided with IMRT
- B. For all indications, including those listed above, written documentation must include all of the following:
1. A written prescription that defines the goals and requirements of the treatment plan, including specific dose constraints for the targets and nearby critical structures
  2. A statement by the radiation oncologist that documents the medical necessity for IMRT instead of conventional or 3D CRT which includes dose calculation and dose comparisons showing that the radiation dose to an adjacent organ would result in unacceptable normal tissue toxicity.
- C. Due to the rapidly expanding and changing nature of Radiation Oncology, UHA will adhere to current NCCN Guidelines for IMRT treatments with 2A evidence or above.

**NOTE:**

*This UHA payment policy is a guide to coverage, the need for prior authorization and other administrative directives. It is not meant to provide instruction in the practice of medicine and it should not deter a provider from expressing his/her judgment.*

*Even though this payment policy may indicate that a particular service or supply is considered covered, specific provider contract terms and/or member individual benefit plans may apply, and this policy is not a guarantee of payment. UHA reserves the right to apply this payment policy to all UHA companies and subsidiaries.*

*UHA understands that opinions about and approaches to clinical problems may vary. Questions concerning medical necessity (see Hawaii Revised Statutes §432E-1.4) are welcome. A provider may request that UHA reconsider the application of the medical necessity criteria in light of any supporting documentation.*

### **III. Limitations and Exclusions**

- A. IMRT is not covered as a routine replacement therapy for conventional and 3-D conformal radiation therapy methods.
- B. Real-time intra-fraction target tracking during radiation therapy to adjust radiation doses or monitor target movement during individual radiation therapy treatment sessions does not meet payment determination criteria except for DIBH for left breast cancer as warranted.

### **IV. Administrative Guidelines**

- A. Prior authorization is not required.
- B. The following documentation must be carefully documented in the patient's medical record and be made available to UHA upon request.
  1. A statement by the radiation oncologist that documents the medical necessity for IMRT instead of conventional or 3D CRT which includes dose calculations and dose comparisons.

2. A prescription, defining the goals and requirements of the treatment plan, including the specific dose constraints for the targets and nearby critical structures;
  3. A signed and dated IMRT inverse plan that meets prescribed dose constraints for the PTV and surrounding normal tissue;
- C. UHA has adopted Medicare's Correct Coding Initiative (CCI) coding edits for payment of IMRT services. A complete listing and explanation of the CCI edits may be found on the following web site:  
[cms.hhs.gov/NationalCorrectCodInitEd/](https://cms.hhs.gov/NationalCorrectCodInitEd/)

CPT Code	Description
77293	Respiratory motion management simulation (List separately in addition to code for primary procedure)
77301	Intensity modulated radiotherapy plan, including dose-volume histograms for target and critical structure partial tolerance specifications
77338	Multi-leaf collimator (MLC) device(s) for intensity modulated radiation therapy (IMRT), design and construction per IMRT plan
77385	Intensity modulated radiation treatment delivery (IMRT), includes guidance and tracking, when performed; simple
77386	Intensity modulated radiation treatment delivery (IMRT), includes guidance and tracking, when performed; complex
77387	Guidance for localization of target volume for delivery of radiation treatment delivery, includes intrafraction tracking, when performed

HCPCS Code	Description
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 modulation treatment delivery of inverse planned treatment using 3 or more high resolution (milled or cast) compensator, convergent beam modulated fields, per treatment session

## V. Policy History

**Policy Number:** MPP-0059-120301

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