

Policy #: 090

Original policy date: 1/1/09
Revised date: 10/2/09

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Title

Intensity Modulated Radiation Therapy (IMRT) of the Prostate

Description

Radiation therapy is an effective treatment for prostate cancer. The radiation disrupts the biochemistry of the cancer cells in a localized tumor and causes them to die. Unfortunately, the radiation also kills and injures healthy cells surrounding the tumor. It is important to aim the radiation beam so that all of the radiation enters the tumor and misses surrounding healthy tissue.

Intensity Modulated Radiation Therapy (IMRT) is a new technology, a computer-based method of planning for, and delivery of, narrow, patient specific, modulated beams of radiation to solid tumors within a patient. IMRT targets the lesion with better sparing of surrounding normal tissue than with conventional radiation therapy, thereby limiting side effects. It also allows for dose escalation, when clinically appropriate, which can potentially improve local control of a tumor.

NOTE: This policy only addresses intensity modulated radiation therapy of the prostate.

When services are covered for commercial products (excluding Medicare HMO Blue, Medicare PPO Blue, and Blue Medicare PFFS PlusRx products)

We cover **intensity modulated radiation therapy (IMRT) in the treatment of localized prostate cancer** at radiation doses of 75 to 80 Gy.¹

When services are covered for Medicare HMO Blue, Medicare PPO Blue and Blue Medicare PFFS PlusRx products

We cover **intensity modulated radiation therapy (IMRT) for patients with prostate cancer** for Medicare HMO Blue, Medicare PPO Blue, and Blue Medicare PFFS PlusRx products, in accordance with local Medicare guidelines when any **one** of the following criteria is met:²

- Where sparing the surrounding normal tissue is essential **or**
- Only IMRT techniques would decrease the probability of grade 2 or grade 3 radiation toxicity as compared to conventional radiation in greater than 15 percent of irradiated similar cases **or**
- Important dose limiting structures adjacent to, but outside the Planned Treatment Volume (PTV) are sufficiently close and require IMRT to assure for safety and morbidity reduction **or**
- An immediately adjacent volume has been irradiated and abutting portals must be established with high precision **or**
- Gross Tumor Volume (GTV) margins are in close proximity to critical structures that must be protected to avoid unacceptable morbidity.

Individual consideration

All our medical policies are written for the majority of people with a given condition. Each policy is based on medical science. For many of our medical policies, each individual's unique clinical circumstances may be considered in light of current scientific literature. For consideration of an individual patient, physicians may send relevant clinical information to:

For services already billed

Blue Cross Blue Shield of Massachusetts
 Provider Appeals
 PO Box 986065
 Boston, MA 02298

Prior to performance of service

Blue Cross Blue Shield of Massachusetts
 Case Creation/Medical Policy
 One Enterprise Drive
 Quincy, MA 02171
 Tel: 1-800-327-6716
 Fax: 1-888-641-5330

Managed care guidelines

No authorization required for IMRT.

Indemnity and PPO guidelines

No authorization required for IMRT.

Coding information

Procedure codes are from current CPT, HCPCS Level II, Revenue Code, and/or ICD-9-CM manuals, as recommended by the American Medical Association, Centers for Medicare and Medicaid Services and American Hospital Associations. Blue Cross Blue Shield Association national codes may be developed when appropriate.

The following codes are included below for informational purposes. Inclusion or exclusion of a code does not constitute or imply member coverage or provider reimbursement. Please refer to the member's contract benefits in effect at the time of service to determine coverage or non-coverage as it applies to an individual member.

CPT codes:

- **77301:** intensity modulated radiotherapy plan, including dose-volume histograms for target and critical structure partial tolerance specifications
- **77418:** intensity modulated treatment delivery, single or multiple fields/arcs, via narrow spatially and temporally modulated beams, binary, dynamic MLC, per treatment session
- **0073T:** compensator-based beam modulation treatment delivery of inverse planned treatment using three or more high resolution (milled or cast) compensator convergent beam modulated fields, per treatment session

Policy update history

New Policy, effective 1/1/09. Updated 6/09 after review of BCBSA policy issued 4/09; with change noted in BCBSA policy number without change in coverage of IMRT of the prostate; added two additional references under footnote 1. Reviewed 9/2009 MPG-Hematology and Oncology, no change in coverage were made.

Footnotes

¹ Based upon BCBSA national policy 2.03.09 Intensity-Modulated Radiation Therapy (IMRT) of the Prostate, issued 2/08. BCBSA policy renumbered; changed from 2.03.09 to 8.01.47, issued 4/09.

² Intensity Modulated Radiation Therapy is covered for prostate cancer for our Medicare HMO Blue, Medicare PPO Blue and Blue Medicare PFFS PlusRx products in accordance with NHIC Local Medicare Coverage Determination (LCD), #L3244:
http://www.cms.hhs.gov/mcd/viewlcd.asp?lcd_id=3244&lcd_version=20&show=all

References**References for footnote 1:**

1. Wilt TJ, Shamliyan T, Taylor B et al. Comparative effectiveness of therapies for clinically localized prostate cancer. Comparative Effectiveness Review No. 13. Agency for Healthcare Research and Quality.

February 2008. Accessible online at:

<http://effectivehealthcare.ahrq.gov/healthInfo.cfm?infotype=rr&ProcessID=9&DocID=79>

2. Pearson SD, Ladapo, Prosser L. Intensity modulated radiation therapy (IMRT) for localized prostate cancer. Institute for Clinical and Economic Review. 2007. Accessible online at: www.mgh-ita.org/index.php?option=com_content&task=blogsection&id=15&Itemid=106
3. National Comprehensive Cancer Network. Practice Guidelines in Oncology: Prostate Cancer. V.2.2007. Accessible online at http://www.nccn.org/professionals/physician_gls/PDF/prostate.pdf.

2009 Update:

4. Zelefsky JF, Levin EJ, Hunt M et al. Incidence of late rectal and urinary toxicities after three-dimensional conformal radiotherapy and intensity-modulated radiotherapy for localized prostate cancer. *Int J Radiat Oncol Biol Phys* 2008; 70(4):1124-9.
5. Cahlon O, Zelefsky JM, Shippy A et al. Ultra-high dose (86.4 Gy) IMRT for localized prostate cancer: toxicity and biochemical outcomes. *Int J Radiat Oncol Biol Phys* 2008; 71(2):330-7.

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