

Policy #: 085

Original policy date: 6/08  
Revised date: 10/9/09

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#### Title

**Image Guided Radiation Therapy for Prostate Cancer**

#### 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.

Accurate placement of the radiation beam is achieved by placing markers directly into the prostate gland. These markers may be metallic, and can be detected by regular x rays, or they can emit signals that are detected by other means, such as infrared detectors. The radiation therapist knows the position of the prostate tumor relative to the markers and can then properly aim the radiation beam to target the tumor and avoid healthy tissue.

One problem that arises during a treatment session is movement of the patient on the table, which may inadvertently move the tumor away from the radiation beam. Currently, there is one device referred to as 4-D imaging that has been approved by the FDA to address this issue. This 4-D imaging system detects infrared signals emitted from three markers that are permanently placed in the prostate gland of the patient. Any movement of the patient that causes the prostate to shift location relative to the radiation beam is reported by the imaging system, allowing the technician to either refocus the radiation beam or reposition the patient.

See footnote 2 for a listing of FDA-approved 4-D imaging systems. Please note this is not an all inclusive list.

Currently there are insufficient clinical data demonstrating improvement in health outcomes from the use of this technology.

#### **When services are not covered for all Products (including Medicare HMO Blue, Medicare PPO Blue and Blue Medicare PFFS PlusRx)**

We do not cover **image guided radiation therapy to adjust radiation doses or monitor target movement during individual radiation therapy treatment sessions in the treatment of prostate cancer<sup>1</sup>**, because it is considered investigational as it does not meet our Medical Technology Assessment Guidelines, #[350](#).

#### 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

This service is not covered by BCBSMA.

### Indemnity and PPO guidelines

This service is not covered by BCBSMA.

### 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.*

**NOTE:** The procedure noted below will reject as non-covered for all Plans, leaving **no** patient balance, as this procedure does not meet our Medical Technology Assessment Guidelines.

- CPT Category III code 0197T, intra-fraction localization and tracking of target or patient motion during delivery of radiation therapy (e.g., 3D positional tracking, gating, 3D surface tracking), each fraction of treatment (*New CPT Category III code effective 1/1/09*)

### Other information

- For our Medical Technology Assessment Guidelines, see document #[350](#).

### Policy update history

New Policy, effective 10/1/08. Updated 1/09 to add new CPT Category III code effective 1/09. Updated 3/09 to update reference 4 based upon BCBSA national policy 12/08. Reviewed 9/2009 MPG-Hematology and Oncology, no changes in coverage were made.

### Footnotes

<sup>1</sup> Based upon New BCBSA national policy 2.03.10 Image Guided Radiation Therapy for Prostate Cancer issued 5/08.

<sup>2</sup> The following is a listing of 4-D imaging systems approved by the FDA:

- Calypso® 4D Localization System

**Note:** The above is not an all inclusive listing.

### References

#### References for Footnote 1:

1. Dawson LA, Jaffray DA. Advances in image-guided radiation therapy. J Clin Oncol 2007 25(8):938-46.

2. Santanam L, Malinowki K, Hubensmidt J et al. Fiducial-based translational localization accuracy of electromagnetic tracking system and on-board kilovoltage imaging system. *Int J Radiat Oncol Biol Phys* 2008; 70:892-99.
3. Kupelian P, Willoughby T, Mahadevan A et al. Multi-institutional clinical experience with the Calypso System in localization and continuous, real-time monitoring of the prostate gland during external radiotherapy. *Int J Radiat Oncol Biol Phys* 2007; 67:1088-98.
4. Langen KM, Willoughby TR, Meeks SL et al. Observations on real-time prostate gland motion using electromagnetic tracking. *Int J Radiat Oncol Biol Phys* 2008; 71(4): 1084-90.

This document is designed for informational purposes only and is not an authorization, or an explanation of benefits, or a contract. Receipt of benefits is subject to satisfaction of all terms and conditions of the coverage. Medical technology is constantly changing, and we reserve the right to review and update our policies periodically.

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