



## Radiation & Prostate Cancer: Dilemma & Decisions

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Controversies over screening and treatment for early stage prostate disease are not the only debates going on in prostate cancer care. Physicians and radiation oncology leaders planning to expand their prostate treatment service lines must also assess the clinical (i.e. outcomes, side effects and biochemical control) and financial (i.e. cost versus reimbursement) aspects of the available radiation-based treatment modalities.

Radiation to the prostate is commonly delivered using an external source with techniques like 3D conformal therapy, intensity modulated radiation therapy (IMRT), stereotactic body radiation therapy (SBRT) or proton beam therapy. Another possibility, brachytherapy, delivers radiation internally by implanting low or high dose radioactive sources directly into the prostate tissue.

IMRT, currently considered a standard of care for prostate cancer treatment, is reimbursed by most if not all payers when submitted with a prostate cancer diagnosis code. Due to a lack of clinical data regarding efficacy many payers consider SBRT and proton beam therapy investigational for prostate cancer and reimburse them only under special considerations. For example, Wisconsin Physician Service (WPS), the current Medicare Administrative Contractor (MAC) for IA, KS, MO and NE, outlines the specific criteria for which they consider SBRT and proton beam therapy medically necessary in their respective policies. The following excerpt, obtained from [www.cms.gov](http://www.cms.gov) on April 4, 2012, is from the WPS Proton Beam Therapy policy:

*There is as yet no good comparative data to determine whether or not Proton Beam Therapy for prostate cancer is superior, inferior, or equivalent to external beam radiation, IMRT, or brachytherapy in terms of safety or efficacy.*

*The prostate cancer should be locally contained and not be an advanced prostate cancer (i.e. T3 or T4 where the tumor has spread through the capsule or has invaded seminal vesicles or other structures) and not any N disease (i.e. no spread to lymph nodes or there has been spread to the pelvic lymph nodes). Note: spread into pelvic lymph nodes is considered metastatic disease.*

*Coverage and payments of Proton Beam Therapy for prostate cancer will require:*

- a. Physician documentation of patient selection criteria (stage and other factors as represented in the NCCN guidelines);*
- b. Documentation and verification that the patient was informed of the range of therapy choices, including risks and benefits.*

*Other factors considered favorable for coverage include enrollment of the patient in an appropriate clinical registry for planned assessment and publication, clinical trials.*

A technology assessment published by the Agency for Healthcare Research and Quality (AHRQ) in August 2010 states that due to the long clinical course of prostate cancer, commonly measured in decades, most studies focused on short term effects and biochemical control rather than long term outcomes like metastases and disease-specific mortality.<sup>1</sup> One such study, published by Zelefsky et al<sup>2</sup>, compared 132-nonrandomized patients treated to 81 Gy with either 3D or IMRT and found fewer GI

and GU toxicities for the IMRT patients. Other studies have supported the findings of fewer toxicities leading to the acceptance of IMRT, which cost more per course of therapy than 3D, as a standard of care for prostate treatments. More current preliminary findings of a study published by Dr. Jay P. Ciezki<sup>3</sup> found that both low and high dose brachytherapy offer better rectal sparing than 3D and less GU toxicity than IMRT with the added benefit of being the least expensive of the three modalities.

While SBRT and proton beam therapy are becoming more readily available there are no studies that clearly show that either of these modalities will have a better outcome than other existing treatment options, which will continue to prevent these modalities from being reimbursed as readily as IMRT. With so many treatment options and the variances in reimbursement for the different modalities, it is imperative that the specialty conducts studies on comparative effectiveness to assist physicians, patients and payers with making educated well-informed decisions regarding treatment for prostate cancer. In addition, the program administrator and medical team must stay current on technology, research findings and how these issues affect reimbursement.

<sup>1</sup> Agency for Healthcare Research and Quality. (2010, August 13). General Information. Retrieved April 4, 2012, from Centers for Medicare & Medicaid Services: <https://www.cms.gov/coveragegeninfo/downloads/id69ta.pdf>

<sup>2</sup> Zelefsky MF, F.Z. (2000). Clinical experience with intensity modulated radiation therapy (IMRT) in prostate cancer. *Radiotherapy & Oncology*, 241-249.

<sup>3</sup> Ciezki J, R.C. (2012). Long-term toxicity and associated cost of initial treatment and subsequent toxicity-related intervention for patients treated with prostatectomy, external beam radiotherapy or brachytherapy. *Genitourinary Cancers Symposium*. San Francisco.