

Corporate Medical Policy

Focal Treatments for Prostate Cancer

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Description of Procedure or Service

Prostate cancer is the second most common cancer diagnosis men receive in the United States, and the behavior of localized prostate cancer can prove difficult to predict on a case-by-case basis. Most men with prostate cancer undergo whole-gland treatments, which can often lead to substantial adverse events. To reduce tumor burden and minimize morbidity associated with radical treatment, investigators have developed a therapy known as focal treatment. Focal treatment seeks to ablate either an “index” lesion (defined as the largest cancerous lesion with the highest grade tumor), or, alternatively, to ablate nonindex lesions and other areas where cancer has been known to occur. Addressed in this policy are several ablative methods used to remove cancerous lesions in localized prostate cancer (e.g., focal laser ablation, high-intensity focused ultrasound, cryoablation, radiofrequency ablation, photodynamic therapy). All methods, except focal laser ablation, use ultrasound guidance to focus on the tumor; focal laser ablation uses magnetic resonance imaging to guide the probe.

Modalities Used to Ablate Lesions

Five ablative methods for which clinical evidence is available are considered in this policy. Each method requires placement of a needle probe into a tumor volume followed by delivery of some type of energy that destroys the tissue in a controlled manner. All methods except focal laser ablation currently rely on ultrasound guidance to the tumor focus of interest; focal laser ablation uses MRI to guide the probe.

Focal Laser Ablation (FLA)

FLA refers to the destruction of tissue using a focused beam of electromagnetic radiation emitted from a laser fiber introduced transperineally or transrectally into the cancer focus. Tissue is destroyed through thermal conversion of the focused electromagnetic energy into heat, causing coagulative necrosis. Other terms for FLA include photothermal therapy, laser interstitial therapy, and laser interstitial photocoagulation.

High-Intensity Focused Ultrasound

High-intensity focused ultrasound focuses high-energy ultrasound waves on a single location, which increase the local tissue temperature to over 80°C. This causes a discrete locus of coagulative necrosis of approximately 3×3×10 mm. The surgeon uses a transrectal probe to plan, perform, and monitor treatment in a real-time sequence to ablate the entire gland or small discrete lesions.

Cryoablation

Cryoablation induces cell death through direct cellular toxicity from disruption of the cell membrane caused by ice-ball crystals and vascular compromise from thrombosis and ischemia secondary to freezing below -30°C. Cryoablation is performed by transperineal insertion under transrectal ultrasound (TRUS) guidance of a varying number of cryoprobe needles into the tumor,

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using a transperineal prostate mapping (TPM) template.

Radiofrequency Ablation (RFA)

RFA uses energy produced by a 50-watt generator at a frequency of 460 kHz. Energy is transmitted to the tumor focus through 15 needle electrodes inserted transperineally under ultrasound guidance. RFA produces an increase in tissue temperature causing coagulative necrosis.

Photodynamic Therapy (PDT)

PDT uses an intravenous photosensitizing agent, which distributes through prostate tissue, followed by light delivered transperineally by inserted needles. The light induces a photochemical reaction that produces reactive oxygen species that are highly toxic and causes functional and structural tissue damage (ie, cell death). A major concern with PDT is that real-time monitoring of tissue effects is not possible, and the variable optical properties of prostate tissue complicate assessment of necrosis and treatment progress.

REGULATORY STATUS

Focal Laser Ablation

In 2010, the Visualase® Thermal Therapy System (Medtronic) and, in 2015, the TRANBERG^{CL^S}Laser fiber (Clinical Laserthermia Systems) were cleared for marketing by the U.S. Food and Drug Administration (FDA) through the 510(k) process to necrotize or coagulate soft tissue through interstitial irradiation or thermal therapy under magnetic resonance imaging guidance for multiple indications including urology, at wavelengths from 800 to 1064 nm.

High-Intensity Focused Ultrasound

In 2015, the Sonablate® 450 (SonaCare Medical) was approved by FDA through a de novo request and classified the device as class II under the generic name “high intensity ultrasound system for prostate tissue ablation”. This device was the first of its kind to be approved in the United States. A similar device, Ablatherm®-HIFU (EDAP TMS), was cleared for marketing by FDA through the 510(k) process shortly thereafter.

Cryoablation

Some cryoablation devices cleared for marketing by FDA through the 510(k) process for cryoablation of the prostate are: Visual-ICE® (Galil Medical), Ice Rod CX, CryoCare® (Galil Medical), IceSphere (Galil Medical), and Cryocare® Systems (Endocare®).

Radiofrequency Ablation

Radiofrequency ablation (RFA) devices have been cleared for marketing by FDA through the 510(k) process for general use for soft tissue cutting and coagulation and ablation by thermal coagulation. Under this general indication, RFA may be used to ablate tumors.

Photodynamic Therapy

FDA has granted approval to several photosensitizing drugs and light applicators. Photofrin® (porfimer sodium) (Axcan Pharma) and psoralen are photosensitizer ultraviolet lamps used to treat cancer, that were cleared for marketing by FDA through the 510(k) process.

******Note: This Medical Policy is complex and technical. For questions concerning the technical language and/or specific clinical indications for its use, please consult your physician.***

Policy

Use of any focal therapy modality to treat patients with localized prostate cancer is investigational. BCBSNC does not provide coverage for investigational services or procedures.

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Benefits Application

This medical policy relates only to the services or supplies described herein. Please refer to the Member's Benefit Booklet for availability of benefits. Member's benefits may vary according to benefit design; therefore member benefit language should be reviewed before applying the terms of this medical policy.

When Focal Treatments for Prostate Cancer are covered

Not applicable.

When Focal Treatments for Prostate Cancer are not covered

Use of any focal therapy modality to treat patients with localized prostate cancer is investigational.

Policy Guidelines

For individuals who have primary localized prostate cancer who receive focal therapy using laser ablation, high-intensity focused ultrasound, cryoablation, radiofrequency ablation, or photodynamic therapy, the evidence includes one high-quality systematic review, studies from one registry cohort, and numerous observational studies. Relevant outcomes are overall survival, disease-specific survival, symptoms, change in disease status, functional outcomes, quality of life, and treatment-related morbidity. The evidence is highly heterogeneous and inconsistently reports clinical outcomes. No prospective, comparative evidence was found for focal ablation techniques versus current standard treatment of localized prostate cancer, including radical prostatectomy, external-beam radiotherapy (EBRT), or active surveillance. Methods have not been standardized to determine which and how many identified cancerous lesions should be treated for best outcomes. No evidence supports which, if any, of the focal techniques leads to better functional outcomes. Although high disease-specific survival rates have been reported, the short follow-up periods and small sample sizes preclude conclusions on the effect of any of these techniques on overall survival rates. The adverse effect rates associated with focal therapies appear to be superior to those associated with radical treatments (eg, radical prostatectomy, EBRT), however, evidence is limited in its quality, reporting, and scope. The evidence is insufficient to determine the effects of the technology on health outcomes.

Billing/Coding/Physician Documentation Information

This policy may apply to the following codes. Inclusion of a code in this section does not guarantee that it will be reimbursed. For further information on reimbursement guidelines, please see Administrative Policies on the Blue Cross Blue Shield of North Carolina web site at www.bcbsnc.com. They are listed in the Category Search on the Medical Policy search page.

Applicable service codes: 0582T, 55899

BCBSNC may request medical records for determination of medical necessity. When medical records are requested, letters of support and/or explanation are often useful, but are not sufficient documentation unless all specific information needed to make a medical necessity determination is included.

Scientific Background and Reference Sources

BCBSA Medical Policy Reference Manual [Electronic Version]. 8.01.61, 9/8/2016

BCBSA Medical Policy Reference Manual [Electronic Version]. 8.01.61, 9/14/2017

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Specialty Matched Consultant Advisory Panel 11/2017

BCBSA Medical Policy Reference Manual [Electronic Version]. 8.01.61, 9/13/2018

Specialty Matched Consultant Advisory Panel 11/2018

BCBSA Medical Policy Reference Manual [Electronic Version]. 8.01.61, 9/12/2019

Specialty Matched Consultant Advisory Panel 11/2019

BCBSA Medical Policy Reference Manual [Electronic Version]. 8.01.61, 9/10/2020

Specialty Matched Consultant Advisory Panel 11/2020

Policy Implementation/Update Information

6/30/17 New policy developed. Focal treatments for prostate cancer are considered investigational. **Notification given 6/30/2017 for effective date 9/29/2017.** (sk)

10/27/17 Reference added. Minor revisions to Description of Procedure. (sk)

12/15/17 Specialty Matched Consultant Advisory Panel review 11/29/2017. (sk)

12/29/17 Code C9748 added to Billing/Coding section for effective date 1/1/2018. (sk)

12/14/18 Reference added. Specialty Matched Consultant Advisory Panel review 11/28/2018. (sk)

12/10/19 Reference added. Specialty Matched Consultant Advisory Panel review 11/20/2019. (sk)

1/14/20 CPT code 0582T added to Billing/Coding section. (sk)

12/31/20 Reference added. Deleted codes C9747 and C9748 removed from Billing/Coding section. Specialty Matched Consultant Advisory Panel review 11/18/2020. (sk)

Medical policy is not an authorization, certification, explanation of benefits or a contract. Benefits and eligibility are determined before medical guidelines and payment guidelines are applied. Benefits are determined by the group contract and subscriber certificate that is in effect at the time services are rendered. This document is solely provided for informational purposes only and is based on research of current medical literature and review of common medical practices in the treatment and diagnosis of disease. Medical practices and knowledge are constantly changing and BCBSNC reserves the right to review and revise its medical policies periodically.