Focal Treatments for Prostate Cancer

Policy # 00484
Original Effective Date: 12/16/2015
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Applies to all products administered or underwritten by Blue Cross and Blue Shield of Louisiana and its subsidiary, HMO Louisiana, Inc. (collectively referred to as the “Company”), unless otherwise provided in the applicable contract. Medical technology is constantly evolving, and we reserve the right to review and update Medical Policy periodically.

Note: Whole Gland Cryoablation of Prostate Cancer is addressed separately in medical policy 00022.

When Services Are Considered Investigational

Coverage is not available for investigational medical treatments or procedures, drugs, devices or biological products.

Based on review of available data, the Company considers use of any focal therapy modality to treat patients with localized prostate cancer to be investigational.*

Background/Overview

Prostate cancer is the second most common cancer diagnosed among men in the United States. Given the frequent uncertainty in predicting behavior of individual localized prostate cancers, and the substantial adverse effects associated with whole-gland treatments, investigators have sought to minimize morbidity associated with radical treatment while reducing tumor burden to an extent that reduces the chances for rapid progression to incurability. This approach is termed focal treatment. Focal treatment seeks to ablate either an "index" lesion (defined as the largest cancerous lesion with the highest grade tumor thought to be the lesion that will drive the natural history of this typically multifocal disease), or, alternatively, to ablate additional non-index lesions or all other areas of known cancer. Several ablative methods that have been used to remove cancerous lesions in localized prostate cancer are addressed in this policy. All except focal laser ablation currently use ultrasound guidance to the tumor focus of interest; focal laser ablation uses magnetic resonance imaging to guide the probe.

Localized Prostate Cancer and Current Management

According to the National Cancer Institute (NCI), nearly 240,000 new cases of prostate cancer were expected to be diagnosed in the United States in 2013 and would be associated with around 30,000 deaths. Autopsy studies in the pre prostate-specific antigen (PSA) screening era have identified incidental cancerous foci in 30% of men 50 years of age, with incidence reaching 75% at age 80 years. However, NCI Surveillance Epidemiology and End Results data show age-adjusted cancer-specific mortality rates for men with prostate cancer have declined from 40 per 100,000 in 1992 to 22 per 100,000 in 2010. This decline has been attributed to a combination of earlier detection via PSA screening and improved therapies.

Localized prostate cancers may appear very similar clinically at diagnosis. However, they often exhibit diverse risk of progression that may not be captured by accepted clinical risk categories (eg, D'Amico criteria) or prognostic tools based on clinical findings (eg, PSA titers, Gleason grade, or tumor stage). In studies of conservative management, the risk of localized disease progression based on prostate cancer-specific survival rates at 10 years may range from 15% to 20% to perhaps 27% at 20-year follow-up. Among elderly men (≥70 years) with this type of low-risk disease, comorbidities typically supervene as a cause of death; these men will die with prostate cancer present rather than from the cancer. Other very
similar-appearing low-risk tumors may progress unexpectedly rapidly, quickly disseminating and becoming incurable.

The divergent behavior of localized prostate cancers creates uncertainty whether to treat immediately. A patient may choose definitive treatment upfront. Surgery (radical prostatectomy) or external beam radiotherapy (EBRT) are most commonly used to treat patients with localized prostate cancer. Complications most commonly reported with radical prostatectomy or EBRT and with the greatest variability are incontinence (0%-73%) and other genitourinary toxicities (irritative and obstructive symptoms); hematuria (typically ≤5%); gastrointestinal and bowel toxicity, including nausea and loose stools (25%-50%); proctopathy, including rectal pain and bleeding (10%-39%); and erectile dysfunction, including impotence (50%-90%).

American Urological Association guidelines suggest patients with low- and intermediate-risk disease have the option of entering an “active surveillance” protocol, which takes into account patient age, patient preferences, and health conditions related to urinary, sexual, and bowel function. With this approach, the patient will forgo immediate therapy, but continue regular monitoring until signs or symptoms of disease progression are evident, at which point curative treatment is instituted.

Focal Treatment of Localized Prostate Cancer
Given significant uncertainty in predicting behavior of individual localized prostate cancers, and the substantial adverse effects associated with definitive treatments, investigators have sought a therapeutic “middle ground.” The latter seeks to minimize morbidity associated with radical treatment in those who may not actually require it while reducing tumor burden to an extent that reduces the chances for rapid progression to incurability. This approach is termed focal treatment, in that it seeks to remove using any of several ablative methods described next cancerous lesions at high risk of progression, leaving behind uninvolved glandular parenchyma. The overall goal of focal treatment is to minimize the risk of early tumor progression and preserve erectile, urinary and rectal functions by reducing damage to the neurovascular bundles, external sphincter, bladder neck, and rectum. Although focal treatment is offered as an alternative middle approach to management of localized prostate cancer, several key issues must be considered in choosing it. They include patient selection, lesion selection, therapy monitoring, and the modality used to ablate lesions.

Patient Selection
A proportion of men with localized prostate cancer have been reported to have, or develop, serious misgivings and psychosocial problems in accepting active surveillance, sometimes leading to inappropriately discontinuing it. Thus, appropriate patient selection is imperative for physicians who must decide whether to recommend active surveillance or focal treatment for patients who refuse radical therapy or for whom it is not recommended due to the a risk-benefit balance.

Lesion Selection
Proper lesion selection is a second key consideration in choosing focal treatment of localized prostate cancer. Although prostate cancer has always been regarded as a multifocal disease, clinical evidence shows that between 10% and 40% of men who undergo radical prostatectomy for presumed multifocal
disease actually have a unilaterally confined discrete lesion, which, when removed, would “cure” the patient. This view presumably has driven the use of region-targeted focal treatment variants, such as hemiablation of the half of the gland containing tumor, or subtotal prostate ablation via the “hockey stick” method. While these approaches can be curative, the more extensive the treatment, the more likely the functional adverse outcomes would approach those of radical treatments.

The concept that clinically indolent lesions comprise most of the tumor burden in a patient with organ-confined prostate cancer led to development of a lesion-targeted strategy, which is referred to as “focal therapy” in this evidence review. This involves treating only the largest and highest grade cancerous focus (referred to as the “index lesion”), which has been shown in pathologic studies to determine clinical progression of disease. This concept is supported by molecular genetics evidence that suggests a single index tumor focus is usually responsible for disease progression and metastasis. The index lesion approach leaves in place small foci less than 0.5 cm$^3$ in volume, with Gleason score less than 7, that are considered unlikely to progress over a 10- to 20-year period. This also leaves available subsequent definitive therapies as needed should disease progress.

Identification of prostate cancer lesions-disease localization-particularly the index lesion, is critical to oncologic success of focal therapy. The ability to guide focal ablation energy to the tumor and assess treatment effectiveness are additionally important to treatment success. At present, no single modality meets the requirements for all 3 activities (disease localization, focal ablation energy to the tumor, assessment of treatment effectiveness). Systematic transrectal ultrasound (TRUS)–guided biopsy alone has been investigated, but is considered insufficient for patient selection or disease localization for focal therapy. A 5 mm transperineal prostate mapping (TPM) biopsy using a brachytherapy template is the current recommended standard by the European Association of Urology in its 2012 guidelines. TPM can provide 3-dimensional coordinates of cancerous lesions, and has about 87% to 95% accuracy rates in detecting and ruling out clinically significant cancer of all sizes. However, TPM is resource intensive, requires general anesthesia, and has been associated with adverse events including urinary retention (6%), prostatitis (4%), and local events such as perineal hematoma, bruising, and pain (5%). The risk of complications of general anesthesia and the cost of processing multiple biopsy specimens have been considered to limit the practicality and widespread applicability of this approach.

Multiparametric magnetic resonance imaging (mp-MRI), typically including T1-, T2-, diffusion-weighted imaging, and dynamic contrast-enhanced imaging, has been recognized as a promising modality to risk-stratify prostate cancer and select patients and lesions for focal therapy. Evidence shows mp-MRI can detect high-grade, large prostate cancer foci with performance similar to TPM. For example, for the primary end point definition (lesion, ≥4 mm; Gleason score, ≥3+4), with TPM as the reference standard, sensitivity, negative predictive value, and negative likelihood ratios with mp-MRI were 58% to 73%, 84% to 89%, and 0.3 to 0.5, respectively. Specificity, positive predictive value, and positive likelihood ratios were 71% to 84%, 49% to 63%, and 2.0 to 3.44, respectively. The negative predictive value of mp-MRI appears sufficient to rule out clinically significant prostate cancer and may have clinical use in this setting. However, although mp-MRI technology has capability to detect and risk-stratify prostate cancer, several issues constrain its widespread use for these purposes (eg, mp-MRI requires highly specialized MRI-compatible equipment;
Therapy Monitoring
Some controversy exists as to the proper end points for focal therapy of prostate cancer. The primary end point of focal ablation of clinically significant disease with negative biopsies evaluated at 12 months posttreatment is generally accepted according to a European consensus report. The clinical validity of MRI to analyze the presence of residual or recurrent cancer compared with histologic findings is offered as a secondary end point. However, MRI findings alone are not considered sufficient in follow-up. Finally, although investigators indicate PSA levels should be monitored, they are not considered valid end points because the utility of PSA kinetics in tissue preservation treatments has not been established.

Modalities Used to Ablate Lesions
Five ablative methods for which clinical evidence is available are considered herein: focal laser ablation (FLA); high-intensity focused ultrasound (HIFU); cryoablation; radiofrequency ablation (RFA); and photodynamic therapy (PDT). Each method requires placement of a needle probe within a tumor volume followed by delivery of some type of energy that destroys the tissue in a controlled manner. All methods except FLA currently rely on ultrasound guidance to the tumor focus of interest; FLA uses MRI to guide the probe.

Focal Laser Ablation
Focal laser ablation refers to the destruction of tissue using a focused beam of electromagnetic radiation emitted from a laser. It is accomplished through transperineal or transrectal introduction of a laser fiber into the cancer focus, with emission of energy. 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 works by focusing high-energy ultrasound waves on a single location, which increases 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, carry out, 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. It is performed by transperineal insertion under TRUS guidance of a varying number of cryoprobe needles into the tumor, using a TPM template.

Radiofrequency Ablation
Radiofrequency ablation uses energy produced by a 50-watt generator with a frequency of 460 kHz. The energy is transmitted to the tumor focus through 15 needle electrodes inserted transperineally under
ultrasound guidance into the tissue. It produces an increase in tissue temperature causing coagulative necrosis.

**Photodynamic Therapy**

Photodynamic therapy uses an intravenous photosensitizing agent that distributes to prostate tissue, followed by delivery of light via transperineally inserted needles. The light induces a photochemical reaction that causes production of reactive oxygen species that are highly toxic and reactive with tissue causing functional and structural 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.

**FDA or Other Governmental Regulatory Approval**

U.S. Food and Drug Administration (FDA)

**Focal Laser Ablation**

In 2010, the Visualase®️ Thermal Therapy System (Medtronic) and, in 2015, the TRANBERG CLS Laser fiber (Clinical Laserthermia Systems) were cleared for marketing by the U.S. 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. FDA product code: LLZ, GEX, FRN.

**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®️ (EDAP TMS), was cleared for marketing by FDA through the 510(k) process shortly thereafter.

**Cryotherapy**

Some cryotherapy 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), and IceSphere (Galil Medical) and Cryocare®️ Systems (Endocare®️). FDA product code: GEH.

**Radiofrequency Ablation**

Radiofrequency ablation 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. FDA product code: GEI.

**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 in the treatment of cancer, were cleared from marketing by FDA through the 510(k) process. FDA product code: FTC.
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Policy # 00484
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Centers for Medicare and Medicaid Services (CMS)
There is no national coverage determination (NCD). In the absence of an NCD, coverage decisions are left to the discretion of local Medicare carriers.

Rationale/Source
This policy was created in 2015, based on a literature review of the MEDLINE database. The current policy includes a literature search through July 26, 2016. No prospective, comparative studies were identified for any of the ablative technologies. Evidence comprises systematic reviews of noncomparative studies, case series, and other observational studies. This policy only includes evidence on primary focal therapy for prostate cancer; it does not consider the recurrent or salvage setting.

Focal Treatment Overview
A high-quality systematic review published by Valerio et al in 2014 compiles the bulk of the evidence available in the literature on the technologies included herein through 2012. This systematic review was performed according to the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) guidelines. Only studies that reported actual focal therapy outcomes were included. Specific categories of data to be collected were prespecified. Study selection criteria were prespecified, with dual review and data extraction, and senior author arbitration as needed. The quality of included studies was assessed using the Oxford Centre for Evidence-based Medicine level of evidence for therapy. This review and its summarized statistics serve as the initial evidence source for this evidence review. Additional prospective studies of a comparative nature are reviewed in subsequent sections below.

Twenty-five series were included that evaluated a number of methods used for focal therapy in the primary setting. The quality of evidence was low to medium, with no study yielding a level of evidence greater than 2b (individual cohort study). Twelve series used HIFU (n=226); 6 series (n=1400) used cryoablation (1 study included 1160/1400); 3 used FLA (n=16); 1 used RFA (n=14); and 1 used photodynamic therapy (n=6). In 2 series focal treatments were mixed or included brachytherapy.

Patients in 12 series included in this systematic review had disease defined as low risk (n=1109 [56%]), intermediate risk (n=704 [36%]), and high risk (n=164 [8%]); risk categories were not available in 13 series. Median age of patients ranged from 56 years to 73 years. The PSA level of patients ranged from 3.8 to 24ng/mL. An individual Gleason score was available in 20 series, with 1503 men having a Gleason score of less than 6; 521 with a Gleason score of 7; and 82 with Gleason scores higher than 8. Median follow-up periods for the reported focal therapy series were 0 to 10.6 years. Disease was localized as follows: TRUS biopsy in 2 series; TRUS biopsy with Doppler ultrasound in 2 series; TRUS biopsy plus magnetic resonance imaging in 6 series; transperineal template-guided mapping biopsy and multiparametric magnetic resonance imaging in 4 series; preoperative assessment was not reported in 11 studies.

In all studies where such data were reported in the Valerio systematic review, all known areas of cancer were treated; in no study was it explicitly stated that the index lesion was ablated and that other lesions were left untreated. Biochemical control based on PSA levels was reported in 5 series using the RTOG-ASTRO Phoenix Consensus Conference criteria. Other definitions used to define biochemical control were American Society for Radiation Oncology (ASTRO; 5 series), Stuttgart (1 series), and Phoenix plus PSA.
velocity greater than 0.75 ng/mL annually (1 series). Biochemical control rates ranged from 86% at 8-year follow-up (n=318) to 60% at 5-year (n=56). Because follow-up was too short, progression to metastatic disease was not reported for most studies in the Valerio review; in those with information available, metastatic progression rates were very low (0%-0.3%). Although a cancer-specific survival rate of 100% was reported in all series, this must be considered in the context of the small numbers of patients in individual studies and the short follow-up (only 3 studies had follow-up >5 years).

Across all studies, median hospital length of stay was 1 day; other perioperative outcomes were poorly reported. Across studies, the most frequent complications associated with treatment of prostate cancer—urinary retention, urinary stricture, and urinary tract infection—occurred in 0% to 17%, 0% to 5%, and 0% to 17%, respectively, of patients. Only 5 studies reported all 3 complications. Validated questionnaires were used in 9 series to report urinary functional outcomes; physician-reported rates were used in 5 studies. According to questionnaires, the pad-free continence rate varied between 95% and 100%, whereas the range of leak-free rates was 80% to 100%. Validated questionnaire data showed erectile functional rates in 54% to 100%, while physician-reported data showed erectile functional rates of 58% to 85%. Other adverse outcomes were poorly reported, particularly quality-of-life data, with only 3 studies reporting the latter.

In 2015, Wolff et al reported results of a systematic review of randomized controlled trials (RCTs) of radiotherapy (RT) versus other nonpharmacologic treatments, including HIFU and cryoablation for treatment of localized prostate cancer. The review followed Centre for Reviews and Dissemination and Cochrane guidelines for conduct and reporting. The selection criteria and outcomes of interest were prespecified. The search included publications up to February 2014. The reviewers found 2 RCTs of cryotherapy versus RT, but both evaluated whole-gland instead of focal cryotherapy, and found no RCTs of HIFU versus RT.

Section Summary: Focal Treatment Overview
Systematic reviews have reported no published prospective, comparative evidence for focal ablation techniques versus current standard treatment of localized prostate cancer. Evidence consists of case series and noncomparative observational studies. Studies were generally small with short follow-up. Data on clinical outcomes such as progression to metastatic disease were not reported for most studies included in the Valerio review. Perioperative outcomes and other adverse events were also poorly reported.

Laser Ablation
Additional case series and nonrandomized studies have assessed of focal laser ablation since the Valerio review. Studies were small (range, 8-25 men), single arm, lacked long-term follow-up (range, 3-6 months) and did not report clinical outcomes (eg, progression-free survival, overall survival).

Cryoablation
The Cryo Online Data (COLD) registry is a database established and supported by a cryotherapy manufacturer. The data are maintained independently. Physicians submit standardized forms to the database and participation is voluntary. The registry contains case report forms of pretreatment and posttreatment information for patients undergoing whole-gland or partial-gland (focal) prostate cryoablation. Patients are stratified into low-, intermediate-, and high-risk groups. Ward and Jones have described
characteristics of the focal cryotherapy registry patients in 2012. Biochemical success was defined using the ASTRO definitions. The analysis included 1160 patients treated with focal cryoablation and 5853 treated with whole-gland cryoablation between 1997 and 2007. Report of use of focal cryoablation increased dramatically between 1999 (46 reports) and 2005 (567 reports, p<0.01). The biochemical success at 36 months for focal cryotherapy was 75.7% and was similar to that of whole gland cryoablation (75.5%); no significant differences between biochemical success for whole-gland versus focal cryoablation were observed for low-, intermediate-, or high-risk groups (p not given). Urinary continence was 98.4% in focal versus 96.9% in whole-gland cryoablation.

A matched cohort study published in 2015 included 317 men who underwent focal cryoablation with 317 men who underwent whole-gland cryoablation. Patients were entered in the COLD registry between 2007 and 2013. Median (SD) age at the time of the procedure was 66 (7) years, and median follow-up was 58 months. All patients were preoperatively potent men who had low-risk disease according to the D'Amico risk criteria and were matched by age at surgery. Outcomes included biochemical recurrence-free survival (BRFS), defined using ASTRO and Phoenix criteria and assessed by Kaplan-Meier curves. Only patients with PSA nadir data were included in oncologic outcome analysis. Functional outcomes were assessed at 6, 12, and 24 months after the procedure for erectile function (defined as ability to have intercourse with or without erectile aids), urinary continence, urinary retention, and rates of fistula formation. After surgery, 30% (n=95) and 17% (n=55) of the men who underwent whole-gland cryoablation and focal cryoablation, respectively, underwent biopsy, with positive biopsy rates of 12% and 14%, respectively. BRFS rates at 60 months using the Phoenix definition were 80% and 71% in the whole-gland and focal therapy cohorts, respectively, with a hazard ratio of 0.827 (p=0.1). Using the ASTRO definition, BRFS was 82% and 73%, respectively (p=0.1). Erectile function data at 24 months were available for 172 whole-gland and 160 focal therapy-treated men. Recovery of erectile function was achieved in 47% and 69% of patients in the whole-gland and focal therapy cohorts, respectively (p=0.001). Urinary function data at 24 months were available for 307 whole-gland and 313 focal therapy patients. Urinary continence rates were 99% and 100% for the whole-gland and focal therapy groups, respectively (p=0.02). Urinary retention rates at 6, 12, and 24 months were reported as 7%, 2%, and 0.6%, respectively, in the whole-gland treated patients versus 5%, 1%, and 0.9%, respectively, in the focal therapy cohort. One fistula was reported in each group.

In 2016, Lian et al reported long-term results of a case series of 40 low- to intermediate-risk patients treated with primary focal cryoablation between 2006 and 2013 by a single urologist in China. Biochemical recurrence was defined using the Phoenix definition and treatment failure was defined as at least 1 positive biopsy or BCR. Mean follow-up was 63 months (range, 12-92 months). Two (5%) of 40 patients met the criteria for biochemical failure and 4 (10%) patients experienced treatment failure. Of the men who were potent before cryotherapy, 20 (77%) remained potent after treatment. Ninety-eight percent of the men were completely continent during follow-up.

**Section Summary: Cryoablation**

Data from the COLD registry comparing focal to whole-gland cryoablation have suggested that BRFS is similar although perhaps slightly lower in focal cryoablation compared to whole-gland cryoablation while erectile function preservation was higher. Evidence for other focal therapies continues to consist of small, noncomparative studies. Results from a phase 3 trial of PDT should be available soon.
Focal Treatments for Prostate Cancer

Policy # 00484
Original Effective Date: 12/16/2015
Current Effective Date: 12/21/2016

**Photodynamic Therapy**

Preliminary results from a trial of TOOKAD®†, a soluble vascular-targeted photodynamic therapy (VTP), were presented in 2016 at the 31st Annual European Association of Urology Congress but have not yet been published. A total of 413 men with low-risk prostate cancer were randomized and followed for 2 years (206 in VTP plus active surveillance; 207 in active surveillance without VTP). It was reported that 28% of the patients in the VTP group versus 58% of the control group experienced disease progression (hazard ratio, 0.34; 95% confidence interval, 0.24 to 0.46; p<0.001) and more patients in the VTP group (49%) versus surveillance group (14%) had negative biopsies at 2 years. These results cannot be reviewed in full until publication.

Additional nonrandomized studies have assessed of photodynamic therapy since the Valerio review. A prospective, multicenter phase 2/3 trial by Taneja et al treated 30 men using photodynamic therapy. Follow-up was limited to 6 months and trialists did not report important clinical outcomes (eg, progression-free survival, overall survival).

**Ongoing and Unpublished Clinical Trials**

Some currently unpublished trials that might influence this policy are listed in Table 1.

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<td>in Men with Localized Prostate Cancer (FUSAblate Trial)</td>
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NCT: national clinical trial.

**Summary of Evidence**

For individuals who have primary localized prostate cancer who receive focal therapy using laser ablation, HIFU, cryoablation, RFA, or PDT, the evidence includes 1 high-quality systematic review, studies from 1 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, EBRT, or active surveillance.
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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.

References

20. Nguyen CT, Jones JS. Focal therapy in the management of localized prostate cancer. BJU Int. May 2011;107(9):1362-1368. PMID 21223478

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44. Crawford ED, Rove KO, Barqawi AB, et al. Clinical-pathologic correlation between transperineal mapping biopsies of the prostate and three-dimensional reconstruction of prostatectomy specimens. Prostate. May 2013;73(7):778-787. PMID 23169245

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12/03/2015 Medical Policy Committee review
12/16/2015 Medical Policy Implementation Committee approval. New Policy.

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12/01/2016 Medical Policy Committee review
01/01/2017 Coding update: Removing ICD-9 Diagnosis Codes
07/01/2017 Coding update
Next Scheduled Review Date: 12/2016

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*Investigational – A medical treatment, procedure, drug, device, or biological product is Investigational if the effectiveness has not been clearly tested and it has not been incorporated into standard medical practice. Any determination we make that a medical treatment, procedure, drug, device, or biological product is Investigational will be based on a consideration of the following:

A. Whether the medical treatment, procedure, drug, device, or biological product can be lawfully marketed without approval of the U.S. FDA and whether such approval has been granted at the time the medical treatment, procedure, drug, device, or biological product is sought to be furnished; or

B. Whether the medical treatment, procedure, drug, device, or biological product requires further studies or clinical trials to determine its maximum tolerated dose, toxicity, safety, effectiveness, or effectiveness as compared with the standard means of treatment or diagnosis, must improve health outcomes, according to the consensus of opinion among experts as shown by reliable evidence, including:

1. Consultation with the Blue Cross and Blue Shield Association technology assessment program (TEC) or other nonaffiliated technology evaluation center(s);

2. Credible scientific evidence published in peer-reviewed medical literature generally recognized by the relevant medical community; or

3. Reference to federal regulations.
Focal Treatments for Prostate Cancer

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