

Policy Number	SUR717.004
Policy Effective Date	01/01/2026

Focal Treatments for Prostate Cancer

Table of Contents
Coverage
Policy Guidelines
Description
Rationale
Coding
References
Policy History

Related Policies (if applicable)
SUR701.022: Magnetic Resonance-Guided Focused Ultrasound (MRgFUS)
SUR701.048: Irreversible Electroporation (IRE)
SUR701.021: Radiofrequency Ablation (RFA) of Solid tumors, Excluding Liver
THE801.029: Oncologic Applications of Photodynamic Therapy, Including Barrett Esophagus
SUR701.031: Laser Interstitial Tumor Therapy (LITT)

Disclaimer

Carefully check state regulations and/or the member contract.

Each benefit plan, summary plan description or contract defines which services are covered, which services are excluded, and which services are subject to dollar caps or other limitations, conditions or exclusions. Members and their providers have the responsibility for consulting the member's benefit plan, summary plan description or contract to determine if there are any exclusions or other benefit limitations applicable to this service or supply. **If there is a discrepancy between a Medical Policy and a member's benefit plan, summary plan description or contract, the benefit plan, summary plan description or contract will govern.**

Coverage

Use of any focal therapy modality to treat individuals with localized prostate cancer is **considered experimental, investigational and/or unproven.**

Policy Guidelines

The two procedures that have codes are high intensity-focused ultrasound (HIFU) and focal laser ablation of malignant prostate tissue. There are no specific CPT codes for focal therapy using cryoablation, focal therapy using radiofrequency ablation, or focal therapy using photodynamic therapy. It is likely they are reported with nonspecific CPT code 55899.

Description

Prostate Cancer

Prostate cancer is the second most common cancer diagnosed among men in the U.S. According to the American Cancer Society, nearly 313,780 new cases are estimated to be diagnosed in the U.S. in 2025, associated with around 35,770 deaths. (1) Prostate cancer is more likely to develop in older men and in non-Hispanic Black men. About 6 in 10 cases are diagnosed in men who are ≥ 65 years of age, and it is rare in men < 40 years of age. Autopsy studies in the pre-prostate-specific antigen (PSA) screening era identified incidental cancerous foci in 30% of men 50 years of age, with incidence reaching 75% at age 80 years. (2) The prostate cancer death rate declined by about half from 1993 to 2022, likely due to earlier detection and improved treatment. (1)

Focal Treatments for Localized Prostate Cancer

Given significant uncertainty in predicting the behavior of individual localized prostate cancers, and the substantial adverse events 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 surgery 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 any 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. (3-7)

Modalities Used to Ablate Lesions

The following ablative methods for which clinical evidence is available are considered herein: focal laser ablation; high-intensity focused ultrasound (HIFU); cryoablation; radiofrequency ablation (RFA); photodynamic therapy, and irreversible electroporation. (3-14) 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.

Regulatory Status

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. Food and Drug Administration (FDA) through the 510(k) process to necrotize or coagulate soft tissue through interstitial irradiation or thermal therapy under MRI guidance for multiple indications including urology, at wavelengths from 800 to 1064 nm. In 2020, the FDA cleared the Avenda Health focal laser ablation system and in 2021, the FDA granted a breakthrough device designation for the Avenda artificial intelligence (AI)-enabled focal therapy system for the treatment of localized prostate cancer. In 2023, the FDA cleared the Elesta Laser Thermal Therapy Kit to direct laser energy to soft tissue, to necrotize or coagulate soft tissue through interstitial irradiation in medicine and surgery including urology, at a wavelength of 1064 nm. FDA product codes: LLZ, GEX, FRN.

High-Intensity Focused Ultrasound

In October 2015, the Sonablate® 450 (SonaCare Medical) was cleared for marketing through the 510(k) process after approval of a de novo request and classification 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 U.S. In November 2015, Ablatherm®-HIFU (EDAP TMS) was cleared for marketing by the FDA through the 510(k) process. In June 2018, EDAP received 510(k) clearance for its Focal-One® HIFU device designed for prostate tissue ablation procedures. This device fuses magnetic resonance and 3D biopsy data with real-time ultrasound imaging, allowing urologists to view detailed images of the prostate on a large monitor and direct high-intensity ultrasound waves to ablate the targeted area.

Cryoablation

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

Radiofrequency Ablation

Radiofrequency ablation devices have been cleared for marketing by the 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

The FDA has granted approval to several photosensitizing drugs and light applicators. Porfimer sodium (Photofrin®; Axcan Pharma) and psoralen are photosensitizer ultraviolet lamps used to treat cancer; they were cleared for marketing by the FDA through the 510(k) process. FDA product code: FTC.

In 2020, an FDA advisory committee voted against recommending approval of padeliporfin dipotassium (Tookad®; Steba Biotech), a minimally invasive photodynamic therapy for localized prostate cancer, citing concerns that men with very low-risk disease would potentially choose this therapy instead of active surveillance, despite the unproven long-term benefits and harms of treatment.

Magnetic Nanoparticles

MagForce® USA, Inc. is conducting a clinical study evaluating NanoTherm® under an FDA Investigational Device Exemption (IDE) (NCT05010759). NanoTherm uses magnetic nanoparticles and an alternating magnetic field to create heat and local ablation in the ablation of prostate cancer.

Irreversible Electroporation

The NanoKnife System was cleared through the 510(k) process (K102329) in 2011 for the surgical ablation of soft tissue. NanoKnife has not received clearance for the treatment of any specific disease.

Rationale

Medical policies assess the clinical evidence to determine whether the use of technology improves the net health outcome. Broadly defined, health outcomes are the length of life, quality of life (QoL), and ability to function including benefits and harms. Every clinical condition has specific outcomes that are important to patients and managing the course of that condition. Validated outcome measures are necessary to ascertain whether a condition improves or worsens; and whether the magnitude of that change is clinically significant. The net health outcome is a balance of benefits and harms.

To assess whether the evidence is sufficient to draw conclusions about the net health outcome of technology, 2 domains are examined: the relevance, and quality and credibility. To be relevant, studies must represent 1 or more intended clinical use of the technology in the intended population and compare an effective and appropriate alternative at a comparable intensity. For some conditions, the alternative will be supportive care or surveillance. The quality and credibility of the evidence depend on study design and conduct, minimizing bias and confounding that can generate incorrect findings. The randomized controlled trial (RCT) is preferred to assess efficacy; however, in some circumstances, nonrandomized studies may be adequate. Randomized controlled trials are rarely large enough or long enough to capture less common adverse events and long-term effects. Other types of studies can be used for these purposes and to assess generalizability to broader clinical populations and settings of clinical practice.

This policy only assesses evidence on focal therapy for primary localized prostate cancer; it does not consider the recurrent or salvage setting.

Focal Therapy Overview

Clinical Context and Therapy Purpose

The purpose of focal therapy using either laser ablation, high-intensity focused ultrasound (HIFU), cryoablation, radiofrequency ablation (RFA), or photodynamic therapy in men who have primary localized prostate cancer is to provide a treatment option that is an alternative to or an improvement on existing therapies.

The following PICO was used to select literature to inform this policy.

Populations

The relevant population of interest is men with primary localized prostate cancer.

Diagnosis

From a clinical standpoint, different types of localized prostate cancers may appear similar during initial diagnosis. (15) However, prostate cancer often exhibits varying degrees of risk progression that may not be captured by accepted clinical risk categories (e.g., D'Amico criteria) or prognostic tools based on clinical findings (e.g., PSA titers, Gleason grade, or tumor stage). (16-20) 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% (21, 22) to 20% (23) to perhaps 27% at 20-year follow-up. (24) Among elderly men (≥ 70 years) with this type of low-risk disease, comorbidities typically supervene as a cause of death; these men will die from the comorbidities of prostate cancer rather than from cancer itself. Other very similar-appearing low-risk tumors may progress unexpectedly and rapidly, quickly disseminating and becoming incurable.

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. (25) Thus, the 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 risk/benefit balance. (26)

Lesion Selection

Proper lesion selection is a second key consideration in choosing a focal treatment for localized prostate cancer. Although prostate cancer is a multifocal disease, clinical evidence has shown 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. (27-29) This view presumably has driven the use of regionally targeted focal treatment variants, such as hemiablation of half the gland containing the tumor, or subtotal prostate ablation via the “hockey stick” method. (8) 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 organ-confined prostate cancer led to the development of a lesion-targeted strategy, which is referred to as “focal therapy” in this medical policy. (9) 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 the clinical progression of the disease. (30, 31) This concept is supported by molecular genetics evidence that suggests that a single index tumor focus is usually responsible for disease progression and metastasis. (10, 32) The index lesion approach leaves in place small foci less than 0.5 cm³ in volume, with a Gleason score less than 7, that are considered unlikely to progress over a 10- to 20-year period. (11, 33, 34) 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 the oncologic success of focal therapy; equally important to success is the ability to

guide focal ablation energy to the tumor and assess treatment effectiveness. At present, no single modality reliably meets the requirements for all 3 activities (disease localization, focal ablation energy to the tumor, assessment of treatment effectiveness). (26, 9) Systematic transrectal ultrasound-guided biopsy alone has been investigated; however, it has been considered insufficient for patient selection or disease localization for focal therapy. (12, 35-38)

Multiparametric magnetic resonance imaging (mpMRI), 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. (9, 12, 25) Evidence has shown mpMRI can detect high-grade, large prostate cancer foci with performance similar to transperineal prostate mapping using a brachytherapy template. (39) For example, for the primary endpoint definition (lesion, ≥ 4 mm; Gleason score, $\geq 3+4$), with transperineal prostate mapping as the reference standard, sensitivity, negative predictive value, and negative likelihood ratios with mpMRI 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 mpMRI appears sufficient to rule out clinically significant prostate cancer and may have clinical use in this setting. However, although mpMRI technology has the capability to detect and risk-stratify prostate cancer, several issues constrain its widespread use for these purposes (e.g., mpMRI requires highly specialized MRI-compatible equipment; biopsy within the magnetic resonance imaging (MRI) scanner is challenging; interpretation of prostate MRI images requires experienced urologists) and it is still necessary to histologically confirm suspicious lesions using transperineal prostate mapping. (40)

Interventions

The therapy being considered is focal therapy using either laser ablation, HIFU, cryoablation, RFA, photodynamic therapy, or irreversible electroporation.

Focal Laser Ablation

Focal laser ablation 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. The tissue is destroyed through the thermal conversion of the focused electromagnetic energy into heat, causing coagulative necrosis. Other terms for focal laser ablation include photothermal therapy, laser interstitial therapy, and laser interstitial photocoagulation. (41)

High-Intensity Focused Ultrasound

High-intensity focused ultrasound (HIFU) focuses 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 3x3x10 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. Using a transperineal prostate mapping template, cryoablation is performed by transperineal insertion under transrectal ultrasound guidance of a varying number of cryoprobe needles into the tumor.

Radiofrequency Ablation

Radiofrequency ablation (RFA) uses the 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. Radiofrequency ablation produces an increase in tissue temperature causing coagulative necrosis.

Photodynamic Therapy

Photodynamic therapy 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 (i.e., cell death). A major concern with photodynamic therapy is that real-time monitoring of tissue effects is not possible, and the variable optical properties of prostate tissue complicate the assessment of necrosis and treatment progress

Irreversible electroporation

Electroporation generates high-frequent electric pulses between two or more electrodes which produces an electric current that damages the cell membrane and allows molecules to pass into the cell passively. Electroporation can be temporary (reversible electroporation) or permanent (irreversible electroporation or IRE). In IRE the cell membrane is permanently damaged causing cell death due to the inability to maintain homeostasis. IRE achieves its action with no thermal effect. IRE appears to preserve vessels, nerves and the extracellular matrix. (42)

Comparators

The following therapies and practices are currently being used to make decisions about managing men with primary localized prostate cancer: surgery (radical prostatectomy), external-beam radiotherapy, and active surveillance.

Treatments

The divergent behavior of localized prostate cancers creates uncertainty about whether to treat immediately. (43, 44) A patient may choose definitive treatment up front. (45) Surgery (radical prostatectomy) or external-beam radiotherapy are frequently used to treat patients with localized prostate cancer. (44, 46) Complications most commonly reported with radical prostatectomy or external-beam radiotherapy and with the greatest variability are incontinence (0% to 73%) and other genitourinary toxicities (irritative and obstructive symptoms); hematuria (typically ≤5%); gastrointestinal and bowel toxicity, including nausea and loose stools (25% to 50%); proctopathy, including rectal pain and bleeding (10% to 39%); and erectile dysfunction, including impotence (50% to 90%). (46)

American Urological Association guidelines state that for patients with low-risk prostate cancer, clinicians should recommend active surveillance. (47) With this approach, patients forego immediate therapy but continue regular monitoring until signs or symptoms of disease progression are evident, at which point curative treatment is instituted. (48, 49)

Outcomes

The general outcomes of interest are overall survival (OS), tumor progression and recurrence, incontinence, and sexual dysfunction.

As a therapy situated between active surveillance and definitive therapy, focal therapy is a tissue-sparing procedure intended to maximize QoL (e.g., incontinence, sexual dysfunction) by treating the index lesion. An international multidisciplinary panel of urologists, radiologists, and biomedical engineers recommended that follow-up after focal therapy should be a minimum of 5 years and should include multiparametric MRI, biopsies, assessment of erectile function, QoL, urinary symptoms and incontinence. (50)

Study Selection Criteria

Methodologically credible studies were selected using the following principles:

- To assess efficacy outcomes, comparative controlled prospective trials were sought, with a preference for RCTs;
- In the absence of such trials, comparative observational studies were sought, with a preference for prospective studies;
- To assess long-term outcomes and adverse events, single-arm studies that capture longer periods of follow-up and/or larger populations were sought;
- Studies with duplicative or overlapping populations were excluded.

Few prospective, comparative studies were identified for the majority of the ablative technologies; however, RCTs comparing focal therapy to radical therapy are underway for focal prostate ablation (NCT06223295), irreversible electroporation (NCT01835977), and HIFU (NCT03531099); see Table 1. One RCT (NCT03668652) comparing focal ablation to prostatectomy has been published in abstract form; however, the study has not been fully published as of the 2025 update. (51) The current evidence primarily comprises systematic reviews of noncomparative studies, case series, and other observational studies. The pivotal trial for the irreversible electroporation system (NanoKnife) in the U.S. is a single arm study and has only preliminary results available. (52) Prospective, comparative studies compared to standard therapy are needed; therefore, noncomparative studies and case series will not be discussed further.

Of note, an RCT of padeliporfin (a photodynamic therapy) versus active surveillance in men with low-risk prostate cancer was published by Azzouzi et al. (2017) (53); however, an FDA Advisory Committee voted against the approval of this agent in 2020 (see the Regulatory Status section).

Systematic Reviews

Bates et al. (2021) undertook a PRISMA-adhering systematic review that evaluated the evidence base (from January 2000 to June 2020) for focal therapy as a treatment strategy for men with histologically proven, clinically localized prostate cancer as compared to standard management options. (54) Focal therapy interventions included HIFU, vascular targeted photodynamic therapy, laser ablation, thermal ablation, focal brachytherapy, radiofrequency waves, microwave ablation, focal external-beam radiotherapy, and irreversible electroporation. The comparator intervention included any standard management option such as radical prostatectomy, external beam radiotherapy, whole gland brachytherapy, and active surveillance/monitoring. Overall, 5 articles reporting on 4 primary comparative studies (1 RCT and 3 retrospective nonrandomized comparative studies; N=3961) and 10 eligible systematic reviews were identified. The RCT compared a vascular targeted photodynamic therapy (padeliporfin) versus active surveillance among patients with low-risk prostate cancer and concluded that patients who underwent photodynamic therapy had less progression (28% vs. 58%; adjusted hazard ratio [HR], 0.34; 95% confidence interval [CI], 0.24 to 0.46; $p<.0001$) and needed less radical therapy (6% vs. 29%; $p<.0001$) at 24 months. (53) Despite these "positive" results, an FDA staff analysis cited issues with the trial design, endpoints, missing data, and adverse events of padeliporfin therapy, resulting in the decline to recommend for approval by the FDA advisory committee. One retrospective study comparing focal HIFU with robotic radical prostatectomy found no significant difference in treatment failure at 3 years, with better continence and erectile function recovery with HIFU. The other 2 retrospective cohort studies compared focal laser ablation with radical prostatectomy and external beam radiotherapy and reported significantly worse oncologic outcomes with the focal treatment. Regarding the included systematic reviews, virtually all concluded that there was insufficient high certainty evidence to make definitive conclusions regarding the clinical effectiveness of focal therapy. Additionally, the certainty of the evidence regarding the comparative effectiveness of focal therapy as a primary treatment for localized prostate cancer was low, with significant uncertainties and until higher certainty evidence emerges..."focal therapy should ideally be performed within clinical trials or well-designed prospective cohort studies."

Hopstaken et al. (2022) reported on an updated systematic review on focal therapy in localized prostate cancer in terms of functional and oncological outcomes that included 72 studies published between October 2015 and December 31, 2020. (55) Of the included studies, 27 reported on HIFU, 9 on irreversible electroporation, 11 on cryoablation, 8 each on focal laser ablation and focal brachytherapy, 7 on photodynamic therapy, 2 on RFA, and 1 on prostatic artery embolization. Results revealed photodynamic therapy and HIFU to have potentially promising results. HIFU studies reported a median of 95% pad-free (regarding continence) patients and a median of 85% of patients with no clinically significant cancer in the treated area. No changes in continence were noted and a median of 90% of patients were without clinically significant cancer in the treated area among those receiving photodynamic therapy. Both treatments were well-tolerated. Despite these positive results, the authors noted that the majority of studies concerning focal therapy are still in an early research stage and that definitive proof of oncological effectiveness of focal therapy against standard of care is still pending.

Polverino et al. (2025) reported a systematic review of focal laser ablation in patients with localized prostate cancer. (56) A total of 10 studies conducted between 2009 and 2024 were included. All studies were single-arm, single-center studies. Nine studies were prospective with one retrospective study. The studies generally had small sample sizes (N=7 to 55), and were determined to have a high risk of bias. After focal treatment, cancer remained present in 4% to 57% of follow-up biopsies. Secondary treatments including radical prostatectomy and focal re-ablations were performed in 7% to 30% of patients. Functional outcomes were inconsistently reported in the individual studies; however, the rate of complications ranged from 0% to 40%. The authors concluded that focal laser ablation is safe and feasible, but the efficacy evidence is of low quality.

Tay et al. (2024) conducted a systematic review and meta-analysis of 3 focal therapies for prostate cancer - HIFU, IRE, and cryotherapy. (57) The search was conducted through May 29, 2024, and 49 unique cohorts were identified. There were a total of 21 studies with cryotherapy, 20 with HIFU, and 8 with IRE. Median follow-up ranged from 6 to 63 months. Overall survival was 98%, cancer-specific survival was 99.3%, and metastasis-free survival was 98.5%. There was a 14.1% composite failure rate with 5% of patients undergoing a second focal therapy and 10.5% requiring radical therapy. Of the 34 articles reporting urinary function, 97.1% of reported a low impact. There were no differences noted amongst the 3 types of focal therapy. Similar to earlier systematic reviews, the authors concluded that reporting of outcomes with focal therapy is heterogeneous and incomplete. Long-term studies and standard reporting are necessary.

In a meta-analysis of 3 retrospective-matched analysis studies (N=1503) comparing HIFU with radical prostatectomy, Wang et al. (2024) found HIFU to have shorter hospital stays than prostatectomy (weighted mean difference [WMD], -2.78; 95% CI, -5.14 to -0.43; p=.02). (58) However, complication rates (odds ratio [OR], 1.48; 95% CI, 0.92 to 2.40; p=0.11) and requirement for salvage therapy (OR, 2.92; 95% CI, 0.60 to 14.33; p=.186) were similar between groups. At 12 months functional recovery including urinary incontinence (OR, 4.07; 95% CI, 2.68 to 6.17; p<.001) and sexual function (OR, 6.43; 95% CI, 4.63 to 8.94; p<.001) were improved with HIFU.

Nonrandomized Trials

Two recent nonrandomized trials have compared focal therapy with radical prostatectomy in patients with prostate cancer.

Zhu et al. (2024) retrospectively compared cryoablation (n=75) to radical prostatectomy (n=298) in patients who were treated at a single-center between 2017 and 2022. (59) All patients were receiving primary treatment for intermediate-risk prostate cancer. Median follow-up duration was 52 months for the cryoablation group and 45 months for prostatectomy group. The cryoablation group had higher treatment failure rates at both 24 (33% vs 11%; p<.001) and 48 months (43% vs 14%; p<.001). A total of 35% of patients receiving cryoablation had complications compared with 15% in radical prostatectomy (p<.001). The authors

concluded that this study identified increased treatment failure with cryoablation compared with prostatectomy, but prospective studies are needed.

A multicenter, nonrandomized trial conducted in France by Ploussard et al. (2025) compared HIFU to radical prostatectomy in 3328 patients with low- to intermediate-risk prostate cancer. (17) Salvage therapy-free survival was similar between groups at 30 months (HR, 0.71; 95% CI, 0.52 to 0.97; $p=.008$). Overall survival was not significantly different between groups (HR, 2.53; 95% CI, 0.95 to 6.73; $p=.064$). Serious procedure-related complications were higher with prostatectomy (4% vs 0.2%; relative risk [RR], 0.04, 95% CI, 0.01 to 0.13; $p<.001$); however, serious urinary retention or stenosis was higher with HIFU (10% vs 1%; RR, 6.71, 95% CI, 4.26 to 10.58; $p<.001$). The authors concluded that HIFU is noninferior to radical prostatectomy, but the study is limited by lack of randomization and the older age of HIFU patients (74.7 vs 65.1 years).

Summary of Evidence

For individuals who have primary localized prostate cancer who receive focal therapy using laser ablation, high-intensity focused ultrasound (HIFU), cryoablation, radiofrequency ablation (RFA), photodynamic therapy, or irreversible electroporation, the evidence includes systematic reviews, studies from a registry cohort, and numerous observational studies. Relevant outcomes are overall survival (OS), disease-specific survival, symptoms, change in disease status, functional outcomes, quality of life (QoL), and treatment-related morbidity. The evidence is highly heterogeneous and inconsistently reports clinical outcomes. No prospective, comparative evidence was found for the majority of focal ablation techniques versus current standard treatment of localized prostate cancer, including radical prostatectomy, external-beam radiotherapy, 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 OS rates. The adverse event rates associated with focal therapies appear to be superior to those associated with radical treatments (e.g., radical prostatectomy, external-beam radiotherapy); however, the evidence is limited in its quality, reporting, and scope. The evidence is insufficient to determine that the technology results in an improvement in the net health outcome.

Practice Guidelines and Position Statements

American Urological Association et al.

The American Urological Association, in collaboration with the American Society for Radiation Oncology (ASTRO) with additional representation from the American Society of Clinical Oncology (ASCO), and Society of Urologic Oncology (SUO) published updated guidelines on the management of clinically localized prostate cancer in 2022. (47) The guidelines included the following recommendation on focal treatments:

- "Clinicians should inform patients with intermediate-risk prostate cancer considering whole gland or focal ablation that there are a lack of high-quality data comparing ablation outcomes to radiation therapy, surgery, and active surveillance. (Expert Opinion)"

- "Clinicians should not recommend whole gland or focal ablation for patients with high-risk prostate cancer outside of a clinical trial. (Expert Opinion)"

National Comprehensive Cancer Network

The National Comprehensive Cancer Network (NCCN) guidelines for prostate cancer (v3.2026) recommend only cryosurgery and high-intensity focused ultrasound (HIFU) as local therapy options for radiotherapy *recurrence* in the absence of metastatic disease (category 2B). Cryotherapy or other local therapies are not recommended as routine *primary* therapy for localized prostate cancer due to lack of long-term data comparing these treatments to radiation or radical prostatectomy. (60)

National Cancer Institute

The National Cancer Institute (NCI; 2024) updated its information on prostate cancer treatments. (61) The NCI indicated that cryosurgery , photodynamic therapy, and HIFU were new treatment options currently being studied in national trials. The NCI offered no recommendation for or against these treatments.

National Institute for Health and Care Excellence

The National Institute for Health and Care Excellence (NICE) published guidelines in 2023 recommending, "Evidence on the safety of focal therapy using high-intensity focused ultrasound for localised prostate cancer is adequate, but evidence on its efficacy is limited. Therefore, this procedure should only be used with special arrangements for clinical governance, consent, and audit or research." (14)

NICE also issued guidance (2019; updated in 2021) on management for localized prostate cancer. (13) Cryoablation and high-intensity ultrasound are not recommended for the treatment of localized prostate cancer because there is a lack of evidence on quality of life benefits and long-term survival.

U.S. Preventive Services Task Force Recommendations

The U.S. Preventive Services Task Force published recommendations for prostate cancer screening. (62)

Ongoing and Unpublished Clinical Trials

Some currently ongoing and/or unpublished trials that might influence this policy are listed in Table 1.

Table 1. Summary of Key Trials

NCT Number	Trial Name	Planned Enrollment	Completion Date
NCT05454488	An Evidence-Based Focal Cryotherapy Protocol for Focal Ablation of Intermediate Risk Prostate Cancer	30	Jan 2026

NCT03568188	Phase 2, Multicenter, Prospective Cohort Study, Estimating the Efficacy of Focused HIFU Therapy in Patients with Localized Intermediate Risk Prostate Cancer	170	Sep 2025
NCT03531099	Phase 3, Multicenter, Randomized Study, Evaluating the Efficacy and Tolerability of Focused HIFU Therapy Compared to Active Surveillance in Patients With Significant Low Risk Prostate Cancer (HIFUSA)	108	Oct 2026
NCT05610852	Prospective Single-Center Randomized Study Of Single-Port Transvesical Partial Prostatectomy Versus High Intensity Focused Ultrasound (HIFU)	276	Jul 2028
NCT04549688	Active Surveillance Plus (AS+): Local Tumor Control with High-intensity Focused Ultrasound (HIFU) in Patients with Localized Prostate Cancer	250	Sep 2030
NCT06223295	Effectiveness of Focal Therapy in Men With Prostate Cancer (ENFORCE)	356	Feb 2031
NCT06451445	A Pan-Canadian, Investigator Initiated Clinical Trial With Focal IRE Directed to Intermediate-Risk Prostate Cancer (WIRED)	100	May 2033
NCT05027477	Customized Ablation of the Prostate With the TULSA Procedure Against Radical Prostatectomy Treatment: a Randomized Controlled Trial for Localized Prostate Cancer (CAPTAIN)	201	Mar 2035
NCT04049747	Comparative Health Research Outcomes of NOvel Surgery in Prostate Cancer (IP4-CHRONOS)	2450	May 2027

NCT: national clinical trial.

Coding

Procedure codes on Medical Policy documents are included **only** as a general reference tool for each policy. **They may not be all-inclusive.**

The presence or absence of procedure, service, supply, or device codes in a Medical Policy document has no relevance for determination of benefit coverage for members or reimbursement for providers. **Only the written coverage position in a Medical Policy should be used for such determinations.**

Benefit coverage determinations based on written Medical Policy coverage positions must include review of the member's benefit contract or Summary Plan Description (SPD) for defined coverage vs. non-coverage, benefit exclusions, and benefit limitations such as dollar or duration caps.

CPT Codes	55880, 55899, 0600T, 0601T, 0655T, 0739T
HCCPS Codes	None

*Current Procedural Terminology (CPT®) ©2024 American Medical Association: Chicago, IL.

References

1. American Cancer Society. Key statistics for prostate cancer. May 30, 2025. Available at <<https://www.cancer.org>> (accessed July 22, 2025).
2. Dall'Era MA, Cooperberg MR, Chan JM, et al. Active surveillance for early-stage prostate cancer: review of the current literature. *Cancer*. Apr 15 2008; 112(8):1650-1659. PMID 18306379
3. Jácome-Pita F, Sanchez-Salas R, Barret E, et al. Focal therapy in prostate cancer: the current situation. *Ecancermedicalscience*. 2014; 8:435. PMID 24944577
4. Nguyen CT, Jones JS. Focal therapy in the management of localized prostate cancer. *BJU Int*. May 2011; 107(9):1362-1368. PMID 21223478
5. Lindner U, Lawrentschuk N, Schatloff O, et al. Evolution from active surveillance to focal therapy in the management of prostate cancer. *Future Oncol*. Jun 2011; 7(6):775-787. PMID 21675840
6. Iberti CT, Mohamed N, Palese MA. A review of focal therapy techniques in prostate cancer: clinical results for high-intensity focused ultrasound and focal cryoablation. *Rev Urol*. 2011; 13(4):e196-202. PMID 22232569
7. Lecornet E, Ahmed HU, Moore CM, et al. Conceptual basis for focal therapy in prostate cancer. *J Endourol*. May 2010; 24(5):811-818. PMID 20443699
8. Muto S, Yoshii T, Saito K, et al. Focal therapy with high-intensity-focused ultrasound in the treatment of localized prostate cancer. *Jpn J Clin Oncol*. Mar 2008; 38(3):192-199. PMID 18281309
9. Kasivisvanathan V, Emberton M, Ahmed HU. Focal therapy for prostate cancer: rationale and treatment opportunities. *Clin Oncol (R Coll Radiol)*. Aug 2013; 25(8):461-473. PMID 23759249
10. Liu W, Laitinen S, Khan S, et al. Copy number analysis indicates monoclonal origin of lethal metastatic prostate cancer. *Nat Med*. May 2009; 15(5):559-565. PMID 19363497
11. Ahmed HU, Emberton M. Active surveillance and radical therapy in prostate cancer: can focal therapy offer the middle way? *World J Urol*. Oct 2008; 26(5):457-467. PMID 18704441
12. van den Bos W, Muller BG, Ahmed H, et al. Focal therapy in prostate cancer: international multidisciplinary consensus on trial design. *Eur Urol*. Jun 2014; 65(6):1078-1083. PMID 24444476
13. National Institute for Health and Care Excellence (NICE). Prostate cancer: diagnosis and management. [NG131]. 2019 (updated 2021); Available at <<https://www.nice.org.uk>> (accessed July 21, 2025).
14. National Institute for Health and Care Excellence (NICE). Focal Therapy Using High-Intensity Focused Ultrasound for Localized Prostate Cancer [IPG756]. 2023; Available at <<https://www.nice.org.uk>> (accessed July 22, 2025).

15. Bangma CH, Roemeling S, Schröder FH. Overdiagnosis and overtreatment of early detected prostate cancer. *World J Urol.* Mar 2007; 25(1):3-9. PMID 17364211
16. Johansson JE, Andrén O, Andersson SO, et al. Natural history of early, localized prostate cancer. *JAMA.* Jun 09 2004; 291(22):2713-2719. PMID 15187052
17. Ploussard G, Epstein JI, Montironi R, et al. The contemporary concept of significant versus insignificant prostate cancer. *Eur Urol.* Aug 2011; 60(2):291-303. PMID 21601982
18. Harnden P, Naylor B, Shelley MD, et al. The clinical management of patients with a small volume of prostatic cancer on biopsy: what are the risks of progression? A systematic review and meta-analysis. *Cancer.* Mar 01 2008; 112(5):971-981. PMID 18186496
19. Brimo F, Montironi R, Egevad L, et al. Contemporary grading for prostate cancer: implications for patient care. *Eur Urol.* May 2013; 63(5):892-901. PMID 23092544
20. Eylert MF, Persad R. Management of prostate cancer. *Br J Hosp Med (Lond).* Feb 2012; 73(2):95-99. PMID 22504752
21. Eastham JA, Kattan MW, Fearn P, et al. Local progression among men with conservatively treated localized prostate cancer: results from the Transatlantic Prostate Group. *Eur Urol.* Feb 2008; 53(2):347-354. PMID 17544572
22. Bill-Axelson A, Holmberg L, Ruutu M, et al. Radical prostatectomy versus watchful waiting in early prostate cancer. *N Engl J Med.* May 12 2005; 352(19):1977-1984. PMID 15888698
23. Thompson IM, Goodman PJ, Tangen CM, et al. Long-term survival of participants in the prostate cancer prevention trial. *N Engl J Med.* Aug 15 2013; 369(7):603-610. PMID 23944298
24. Albertsen PC, Hanley JA, Fine J. 20-year outcomes following conservative management of clinically localized prostate cancer. *JAMA.* May 04 2005; 293(17):2095-2101. PMID 15870412
25. Tay KJ, Mendez M, Moul JW, et al. Active surveillance for prostate cancer: can we modernize contemporary protocols to improve patient selection and outcomes in the focal therapy era? *Curr Opin Urol.* May 2015; 25(3):185-190. PMID 25768694
26. Passoni NM, Polascik TJ. How to select the right patients for focal therapy of prostate cancer? *Curr Opin Urol.* May 2014; 24(3):203-208. PMID 24625428
27. Scales CD, Presti JC, Kane CJ, et al. Predicting unilateral prostate cancer based on biopsy features: implications for focal ablative therapy--results from the SEARCH database. *J Urol.* Oct 2007; 178(4 Pt 1):1249-1252. PMID 17698131
28. Mouraviev V, Mayes JM, Sun L, et al. Prostate cancer laterality as a rationale of focal ablative therapy for the treatment of clinically localized prostate cancer. *Cancer.* Aug 15 2007; 110(4):906-910. PMID 17587207
29. Mouraviev V, Mayes JM, Madden JF, et al. Analysis of laterality and percentage of tumor involvement in 1386 prostatectomized specimens for selection of unilateral focal cryotherapy. *Technol Cancer Res Treat.* Apr 2007; 6(2):91-95. PMID 17375971
30. Mouraviev V, Villers A, Bostwick DG, et al. Understanding the pathological features of focality, grade and tumour volume of early-stage prostate cancer as a foundation for parenchyma-sparing prostate cancer therapies: active surveillance and focal targeted therapy. *BJU Int.* Oct 2011; 108(7):1074-1085. PMID 21489116
31. Mouraviev V, Mayes JM, Polascik TJ. Pathologic basis of focal therapy for early-stage prostate cancer. *Nat Rev Urol.* Apr 2009; 6(4):205-215. PMID 19352395

32. Guo CC, Wang Y, Xiao L, et al. The relationship of TMPRSS2-ERG gene fusion between primary and metastatic prostate cancers. *Hum Pathol*. May 2012; 43(5):644-649. PMID 21937078
33. Stamey TA, Freiha FS, McNeal JE, et al. Localized prostate cancer. Relationship of tumor volume to clinical significance for treatment of prostate cancer. *Cancer*. Feb 01 1993; 71(3 Suppl):933-938. PMID 7679045
34. Nelson BA, Shappell SB, Chang SS, et al. Tumour volume is an independent predictor of prostate-specific antigen recurrence in patients undergoing radical prostatectomy for clinically localized prostate cancer. *BJU Int*. Jun 2006; 97(6):1169-1172. PMID 16686706
35. Mayes JM, Mouraviev V, Sun L, et al. Can the conventional sextant prostate biopsy accurately predict unilateral prostate cancer in low-risk, localized, prostate cancer? *Urol Oncol*. 2011; 29(2):166-170. PMID 19451000
36. Sinnott M, Falzarano SM, Hernandez AV, et al. Discrepancy in prostate cancer localization between biopsy and prostatectomy specimens in patients with unilateral positive biopsy: implications for focal therapy. *Prostate*. Aug 01 2012; 72(11):1179-1186. PMID 22161896
37. Gallina A, Maccagnano C, Suardi N, et al. Unilateral positive biopsies in low risk prostate cancer patients diagnosed with extended transrectal ultrasound-guided biopsy schemes do not predict unilateral prostate cancer at radical prostatectomy. *BJU Int*. Jul 2012; 110(2 Pt 2):E64-E68. PMID 22093108
38. Briganti A, Tutolo M, Suardi N, et al. There is no way to identify patients who will harbor small volume, unilateral prostate cancer at final pathology. implications for focal therapies. *Prostate*. Jun 01 2012; 72(8):925-930. PMID 21965006
39. Arumainayagam N, Ahmed HU, Moore CM, et al. Multiparametric MR imaging for detection of clinically significant prostate cancer: a validation cohort study with transperineal template prostate mapping as the reference standard. *Radiology*. Sep 2013; 268(3):761-769. PMID 23564713
40. Dickinson L, Ahmed HU, Allen C, et al. Magnetic resonance imaging for the detection, localisation, and characterisation of prostate cancer: recommendations from a European consensus meeting. *Eur Urol*. Apr 2011; 59(4):477-494. PMID 21195536
41. Lee T, Mendhiratta N, Sperling D, et al. Focal laser ablation for localized prostate cancer: principles, clinical trials, and our initial experience. *Rev Urol*. 2014; 16(2):55-66. PMID 25009445
42. Scheltema MJ, van den Bos W, de Bruin DM, et al. Focal vs extended ablation in localized prostate cancer with irreversible electroporation; a multi-center randomized controlled trial. *BMC Cancer*. May 05 2016; 16:299. PMID 27150293
43. Borley N, Feneley MR. Prostate cancer: diagnosis and staging. *Asian J Androl*. Jan 2009; 11(1):74-80. PMID 19050692
44. Freedland SJ. Screening, risk assessment, and the approach to therapy in patients with prostate cancer. *Cancer*. Mar 15 2011; 117(6):1123-1135. PMID 20960523
45. Ip S, Dahabreh IJ, Chung M, et al. An evidence review of active surveillance in men with localized prostate cancer. Evidence Report/Technology Assessment no. 204 (AHRQ Publication No. 12-E003-EF). Rockville, MD: Agency for Research and Quality; 2011.

46. American Urological Association. Guideline for management of clinically localized prostate cancer: 2007 update. Linthicum, MD: American Urological Association Education and Research; 2007.
47. Eastham JA, Aufferberg GB, Barocas DA, et al. Clinically Localized Prostate Cancer: AUA/ASTRO Guideline. 2022; Available at <<https://www.auanet.org>> (accessed July 22, 2025).
48. Whitson JM, Carroll PR. Active surveillance for early-stage prostate cancer: defining the triggers for intervention. *J Clin Oncol*. Jun 10 2010; 28(17):2807-2809. PMID 20439633
49. Albertsen PC. Treatment of localized prostate cancer: when is active surveillance appropriate? *Nat Rev Clin Oncol*. Jul 2010; 7(7):394-400. PMID 20440282
50. Muller BG, van den Bos W, Brausi M, et al. Follow-up modalities in focal therapy for prostate cancer: results from a Delphi consensus project. *World J Urol*. Oct 2015; 33(10):1503-1509. PMID 25559111
51. American Urological Association (AUA). A Randomized Clinical Trial Comparing Focal Ablation And Radical Prostatectomy In Patients With Unilateral Clinically Significant Prostate Cancer. Intention To Treat Analysis At Two-Year Follow-Up (Pd39-06). Published May 2024. Available at <<https://www.auajournals.org>> (accessed July 24, 2025).
52. George AK, Miocinovic R, Patel AR, et al. A Description and Safety Overview of Irreversible Electroporation for Prostate Tissue Ablation in Intermediate-Risk Prostate Cancer Patients: Preliminary Results from the PRESERVE Trial. *Cancers (Basel)*. Jun 08 2024; 16(12):2178. PMID 38927884
53. Azzouzi AR, Vincendeau S, Barret E, et al. Padeliporfin vascular-targeted photodynamic therapy versus active surveillance in men with low-risk prostate cancer (CLIN1001 PCM301): an open-label, phase 3, randomised controlled trial. *Lancet Oncol*. Feb 2017; 18(2):181-191. PMID 28007457
54. Bates AS, Ayers J, Kostakopoulos N, et al. A Systematic Review of Focal Ablative Therapy for Clinically Localised Prostate Cancer in Comparison with Standard Management Options: Limitations of the Available Evidence and Recommendations for Clinical Practice and Further Research. *Eur Urol Oncol*. Jun 2021; 4(3):405-423. PMID 33423943
55. Hopstaken JS, Bomers JGR, Sedelaar MJP, et al. An Updated Systematic Review on Focal Therapy in Localized Prostate Cancer: What Has Changed over the Past 5 Years? *Eur Urol*. Jan 2022; 81(1):5-33. PMID 34489140
56. Polverino P, Lo Re M, Moscardi L, et al. Transperineal Focal Laser Ablation of the Prostate for Prostate Cancer: A Systematic Review of the Literature. *Cancers (Basel)*. Mar 13 2025; 17(6):968. PMID 40149303
57. Tay KJ, Fong KY, Stabile A, et al. Established focal therapy-HIFU, IRE, or cryotherapy-where are we now?-a systematic review and meta-analysis. *Prostate Cancer Prostatic Dis*. Sep 2025; 28(3):693-706. PMID 39468217
58. Wang CJ, Pang CC, Qin J, et al. Comparative study of HIFU partial gland ablation and robot-assisted radical prostatectomy for localized prostate cancer: an evidence-based approach. *J Robot Surg*. Oct 14 2024; 18(1):367. PMID 39402287
59. Zhu A, Strasser MO, McClure TD, et al. Comparative Effectiveness of Partial Gland Cryoablation Versus Robotic Radical Prostatectomy for Cancer Control. *Eur Urol Focus*. Sep 2024; 10(5):843-850. PMID 38677913

60. National Comprehensive Cancer Network (NCCN). NCCN Clinical Practice Guidelines in Oncology: Prostate Cancer. Version 3.2026. Available at: <<https://www.nccn.org>> (accessed November 17, 2025).
61. National Cancer Institute. Prostate Cancer Treatment (PDQ) Patient Version: Treatment Option Overview. 2024. Available at <<https://www.cancer.gov>> (accessed July 22, 2025).
62. U.S. Preventive Services Task Force. Final Recommendation Statement: Prostate Cancer: Screening. 2018; Available at <<https://www.uspreventiveservicestaskforce.org>> (accessed July 22, 2025).

Centers for Medicare and Medicaid Services (CMS)

The information contained in this section is for informational purposes only. HCSC makes no representation as to the accuracy of this information. It is not to be used for claims adjudication for HCSC Plans.

The Centers for Medicare and Medicaid Services (CMS) does not have a national Medicare coverage position. Coverage may be subject to local carrier discretion.

A national coverage position for Medicare may have been developed since this medical policy document was written. See Medicare's National Coverage at <<https://www.cms.hhs.gov>>.

Policy History/Revision	
Date	Description of Change
01/01/2026	Document updated. The following changes were made to Coverage: 1) Removed statement on whole gland cryosurgical ablation of the prostate; and 2) Revised experimental, investigational and/or unproven statement to address any focal therapy modality to treat individuals with localized prostate cancer. Added references 8-49, 51-59, and 62; others updated and some removed. Title changed from "Cryosurgical Ablation of the Prostate".
02/01/2025	Document updated with literature review. Coverage unchanged. Added references 1, 16, 38, 45-47, and 53; others updated.
11/15/2023	Reviewed. No changes.
04/15/2022	Document updated with literature review. Coverage unchanged. References 1, 2, 3, 4, 5, 6, 10, 18 and 42 added, others updated or deleted.
02/15/2021	Reviewed. No changes.
04/15/2020	Document updated with literature review. Coverage unchanged. The following references were added/updated: 1, 18-26, 44-49, and 51.
12/15/2018	Reviewed. No changes.
12/15/2017	Document updated with literature review. Medically necessary coverage statement modified to add the wording "whole gland".
07/15/2016	Reviewed. Coverage unchanged.
04/01/2015	Document updated with literature review. Coverage unchanged.
01/01/2012	Document updated with literature review. Coverage unchanged.

09/01/2009	Coverage revised to allow for cryoablation of prostate as treatment of clinically localized (organ-confined) prostate cancer when performed as initial treatment or as salvage treatment of disease that recurs following radiation therapy. Subtotal prostate cryoablation is considered experimental, investigational and unproven.
06/15/2007	Revised/updated entire document
10/24/2003	Revised/updated entire document
11/01/2000	Revised/updated entire document
09/01/1996	Revised/updated entire document
05/01/1996	Revised/updated entire document
10/01/1994	New medical document