

Prostate Cancer: AUA/ASTRO Guideline on Clinically Localized Prostate Cancer (2022)

About the Guideline

- This guideline was approved by the American Urological Association (AUA) Board of Directors in 2019. It was created by the American Society for Radiation Oncology (ASTRO) and the American Society of Clinical Oncology (ASCO), with patient representation as well.
- The target population includes those patients with clinically localized prostate cancer (up to clinical stage T3) without nodal or distant metastasis on conventional imaging. Low-, intermediate-, and high-risk clinically localized prostate cancer patients are also included.
- This guideline provides treatment options categorized by the aggressiveness of the cancer. Patients are categorized into four groups. Factors to determine the cancer's aggressiveness may include but are not limited to the following: the prostate-specific antigen (PSA) level, stage, grade, and biopsy results, as well as age, race, and family history. Four approved treatment types and two treatments with limited data are discussed.

Key Clinical Considerations

Become familiar with the recommendations and best-practice statements provided in this guideline, especially if you work in an acute care setting.

Shared Decision-Making

- The patient should be involved in making treatment decisions (shared decision-making) and the discussion should include the following: cancer severity (risk category), patient values and preferences, life expectancy, pretreatment functional status and genitourinary symptoms, expected posttreatment functional status, and potential for salvage treatment.
- Discussions should include healthy lifestyle habits that address obesity and weight-loss options and smoking cessation, as appropriate.
- The patient should meet with several physicians prior to beginning a treatment regimen to make an informed decision about surgery, radiation, and/or other options.
- Cancer treatment has short and long-term side effects; these side effects should be discussed with the patient prior to deciding on which treatment(s) is most appropriate.
- The patient should be informed about the availability and accessibility of clinical trials as a treatment option.
- The patient should be provided information on posttreatment recurrence of prostate cancer.

Care Options by Risk Group

Very Low-Risk/Low-Risk

- Routine imaging (such as computerized tomography [CT] and a bone scan) should not be done to stage the cancer.
- Active surveillance is the best available treatment option for patients with very low-risk disease.
- Active surveillance is the preferable option in patients with low-risk disease.
- Prostatectomy or radiation may be offered to low-risk patients with a high probability of disease progression.

- Androgen deprivation therapy (ADT) can be used in low-risk patients prior to brachytherapy in an effort to shrink the size of the prostate.
- In low-risk patients, whole-gland cryosurgery is a treatment option; however, patients should be informed of the high incidence of side effects after cryosurgery.
- High intensity focused ultrasound (HIFU) and focal therapy are not standard treatment options for low-risk patients.
- Watchful waiting is recommended for asymptomatic patients diagnosed with low-risk prostate cancer who have a life expectancy of less than 5 years.
- In low-risk patients, biomarkers such as genomic classifier, genomic prostate score, and cell cycle progression are not used to determine treatment options.

Intermediate-Risk

- An abdominal-pelvic CT and a bone scan should not be considered in asymptomatic intermediate-risk patients since the probability of metastasis is low.
- An abdominal-pelvic CT and a bone scan should be considered to evaluate for nodal and distant metastasis.
- Either a radical prostatectomy or radiation and ADT is a standard treatment for intermediate-risk patients.
- Favorable intermediate-risk cancer can be treated with radiation alone; however, research suggests that ADT and radiation in combination is a superior treatment.
- Cryosurgery may be an option depending on the patient's life expectancy, preference, and comorbidities.
- Active surveillance may be offered to patients with intermediate-risk cancer, but the patient should be informed that there is a higher chance of metastasis with this method compared to other treatment options.
- Watchful waiting is recommended for patients diagnosed with intermediate-risk prostate cancer who have a life expectancy of less than 5 years.
- HIFU and focal therapy are not standard treatment options for intermediate-risk patients.
- Ablation therapy may be used in select intermediate-risk patients.

High-Risk

- Patients should undergo a bone scan and either a pelvic multi-parametric magnetic resonance imaging (MRI) or a CT for staging purposes.
- If conventional imaging is negative, molecular imaging to evaluate for metastasis can be obtained.
- Either a prostatectomy or radiation and ADT are standard treatment options.
- Cryosurgery, HIFU, and focal therapy are not standard treatment options for high-risk patients.
- Watchful waiting is recommended for patients diagnosed with high-risk prostate cancer who have a life expectancy of less than 5 years.
- If the patient has low life expectancy and is experiencing symptoms, ADT may be offered as the primary treatment.
- The physician may recommend genetic testing for the patient and family if there is a prominent family history of cancer (including breast, ovarian, or pancreatic cancer), gastrointestinal tumors, and lymphoma.

Recommended Approaches/Specific Care Options

Active Surveillance

- Patients who choose this approach will need accurate disease staging and should have a biopsy conducted using imaging guidance.
- Routine prostate-specific antigen (PSA) levels should be performed every 3 to 6 months, and digital rectal exams should be performed annually.
- Follow-up biopsies should be completed within 2 years of the initial biopsy to confirm the diagnosis and every 3 to 5 years as surveillance, until surveillance frequency has been reduced from “active” to “watchful waiting.”
- Consider prostate MRI to monitor for disease progression.
- Biomarkers are not needed for follow-up.
- If the patient's PSA level rises, if the Gleason score rises, or if lesion growth is noted, the physician should discuss a more definitive treatment plan.

Prostatectomy

- Younger patients (less than 65 years old) are more likely than older patients to experience control of the cancer with a prostatectomy.
- With this surgery, older patients experience permanent erectile dysfunction and urinary dysfunction more often than younger patients.
- There are different options for how the surgery is performed; however, all have shown similar results in patient outcomes.
- Robotic and laparoscopic surgeries result in less blood loss during the procedure.
- Patients receiving nerve-sparing surgery experience better erectile function versus non-nerve-sparing surgery recipients.
- Patients who undergo pelvic lymphadenectomy will need education on common complications including lymphocele.
- Inform patients that pelvic lymphadenectomy can provide staging information for treatment guidance but may not impact survival.
- For patients with intermediate-risk and high-risk prostate cancer, adjuvant radiation therapy should be discussed if extensive cancer is found during surgery.

Radiation Therapy

- Adjuvant radiation therapy is not routinely recommended after a radical prostatectomy.
- Low-risk patients have the option of receiving external beam radiation or brachytherapy.
- Favorable intermediate-risk patients may have external beam radiation, brachytherapy, or a combination of both as a treatment option.
- High-risk patients receiving external beam radiation or external beam radiation and brachytherapy may also require 2 to 3 years of ADT.
- ADT with radiation increases the risk and severity of sexual dysfunction.
- Proton beam therapy has no advantage over other forms of radiation.
- Brachytherapy can worsen urinary obstructive symptoms.

Whole-Gland Cryotherapy

- Low-risk and intermediate-risk patients who are not candidates for a prostatectomy or radiation, but who still have more than 10 years of life expectancy, may benefit from this treatment.
- Using ADT simultaneously with whole-gland cryotherapy can reduce prostate size.
- Patients who have had prior transurethral resection of the prostate may not be candidates for cryotherapy.
- Erectile dysfunction is an expected outcome from cryotherapy.
- Urinary incontinence, obstruction, and/or irritation may be present after cryotherapy.

High Intensity Focused Ultrasound (HIFU) Therapy

- HIFU should be done only within a clinical trial setting.
- Further research is needed to determine the effectiveness in treating localized prostate cancer.

Focal Therapy

- Focal therapy involves the destruction of the prostate using ablation.
- It should be done only within a clinical trial setting.

Outcome Expectations and Quality of Life

- Sexual dysfunction is common after a prostatectomy and radiation, and it is worse in patients who undergo whole-gland cryosurgery.
- Urinary problems may arise after radiation is complete.
- Patients who have had a prostatectomy may experience relief of obstructive urinary issues; however, incontinence may develop, and in some patients, it can persist long term.
- Proctitis may develop after radiation and is long term in some patients.

Posttreatment Follow-Up

- Monitor lab work (PSA level) at predetermined time frames based on the treatment received.
- Symptom assessment should be part of all posttreatment follow-up to monitor for any recurrence.
- The physician should discuss with the patient his individualized risk-based estimate of recurrence. Many factors are evaluated to determine prognosis, including tumor grade, stage, age, race, and family history.
- Patients should be given information on community resources for cancer survivors, symptom management, and emotional/psychosocial support.

Reference

Eastham J., et al. (2022). Clinically localized prostate cancer: AUA/ASTRO guideline part I: introduction, risk assessment, staging and risk-based management. *Journal of Urology*, 208, 10–18. <https://www.auanet.org/guidelines-and-quality/guidelines/clinically-localized-prostate-cancer-uaa/astro-guideline-2022>