AAVBC

American Academy
of Value Based Care

Prostate Cancer

Quick Reference Guide

2025

AAVBC Quick Reference Guide - Prostate Cancer

1. CLINICAL SNAPSHOT

Definition: Prostate cancer (PCa) is a malignant neoplasm of the prostate gland (usually an adenocarcinoma), often slow-growing, arising primarily from glandular epithelium.[1,2]

ICD-10 codes: **C61** – Prostate cancer (primary malignant neoplasm of prostate)[3]

Use additional codes to capture disease status and complexity: **Z19.1** – Hormone-sensitive malignancy status (indicates androgen-dependent disease, typically before advanced therapy); **Z19.2** – Castration-resistant malignancy status (indicates progression despite androgen deprivation, i.e. castration-resistant prostate cancer, CRPC); **R97.21** – Elevated PSA following treatment for prostate cancer (biochemical recurrence indicator).

Coding note: If the patient's prostate cancer is in remission after treatment, use **Z85.46** (personal history of malignant neoplasm of prostate) instead of **C61** until recurrence is confirmed. **R97.21** is ICD-10 for rising PSA after treatment and indicates active cancer not in remission.

HCC/RAF V28 Mapping: C61 is ICD-10 code for prostate cancer maps to **HCC 23** with a RAF (**0.186); C79.51** is ICD-10 for secondary malignant neoplasm of bone maps to **HCC18** with RAF **(2.341).**[4,5]

Prevalence:

- Most commonly diagnosed non-cutaneous cancer in men; over 60% of cases are diagnosed after age 65
- Estimated 313,780 new cases of prostate cancer in the United States in 2025 or about ~30% of new cancer cases in men[1]
- Second leading cause of male cancer death, over 35,000 deaths in 2025
- Incidence fell nearly 40% from 2007 to 2014, but has since risen ~3% annually. Reduced PSA screening after the 2012 USPSTF recommendation was followed by an increase in regional and metastatic presentations
- Significant inequities exist in the incidence and mortality of prostate cancer across racial and ethnic groups. The incidence rate in Black individuals is 67% higher than in White individuals, and the mortality rate in this population is 2 to 4 times higher than that of all other racial and ethnic groups

Cost Burden

- National spending on prostate cancer care exceeds $10 billion annually, including diagnostics, treatment, and long-term management[6]
- **Localized Disease** – Cost Efficiency of Active Surveillance (AS):[1,6,7]
  - Low-risk patients (Grade Group 1) managed with **Active Surveillance** reduce expenditures by **50–70% in the first 2 years** versus immediate prostatectomy or radiation (typical procedure episode cost **$20,000–$30,000**)
  - Correctly identifying Grade Group 1 patients and assigning them to AS can reduce **PMPY costs by $10,000–$15,000** over 10 years

- **Intermediate/High-Risk Localized Disease**[1,6,7]
  - Definitive therapy (radical prostatectomy, external beam radiation, brachytherapy) often exceeds $25,000–$40,000, including hospital, anesthesia, pathology, and follow-up
  - Salvage radiation or ADT after recurrence adds substantial long-term expenditures that must be risk-stratified and managed proactively
- **Metastatic & Advanced Disease (Highest Cost Segment)**[1,6,7]
  - Transition to metastatic hormone-sensitive (mHSPC) or castration-resistant prostate cancer (CRPC) drives the **steepest cost escalation**
  - Advanced therapy regimens: AR-targeted agents (abiraterone, enzalutamide, apalutamide), docetaxel, PSMA-PET imaging, and bone-targeted therapies — commonly exceed **$100,000 PMPY**

2. RECOGNITION & DIAGNOSIS

Medicare Screenings:[1-5,8]

Test	Clinical need (who/when)	Coverage	CPT Code	Notes
PSA (Prostate-Specific Antigen)	**Men 55–69:** Individual decision (USPSTF Grade C) after shared decision-making **Men ≥70:** Not recommended for routine screening (Grade D) Consider earlier if **high-risk** (family history, BRCA2)	Medicare covers PSA **annually** for men **≥50** when ordered by a clinician.	**84153** (total PSA)	Screening frequency usually every 2 years if chosen. Elevated PSA requires repeat testing + shared decision-making before biopsy
Digital Rectal Exam (DRE)	Assess prostate nodules/asymmetry in symptomatic men or those with abnormal PSA	Covered when part of an evaluation for urinary symptoms or abnormal PSA	**G0102** (screening DRE—Medicare)	AUA/NCCN: DRE is **optional** in screening but recommended during diagnostic workup
Free PSA (% free PSA)	Men with **borderline PSA (4–10ng/mL)** to assess risk of clinically significant cancer	Covered when ordered to investigate an abnormal CBC or specific clinical signs	**84154**	Lower % free PSA → higher likelihood of prostate cancer; helps determine need for biopsy
4Kscore® (Kallikrein panel)	Adjunct test for men with elevated PSA considering an initial or repeat biopsy	Coverage varies by MAC; often covered with appropriate ICD-10 (e.g., R97.2)	**Unlisted Lab (varies)**	Improves prediction of high-grade cancer; reduces unnecessary biopsies.
Prostate MRI (Multiparametric MRI)	Pre-biopsy evaluation in men with elevated PSA; staging for known cancer	Covered when medically necessary for diagnosing prostate cancer	**55700, 55706 (fusion), 76942**	Higher yield of high-grade cancers compared with systematic biopsy

Test	Clinical need (who/when)	Coverage	CPT Code	Notes
PSMA-PET/CT	Staging for **high-risk**, recurrent, or metastatic prostate cancer	Medicare covers staging or recurrence	**78815–78816**	NCCN: PSMA-PET may replace CT + bone scan; highest sensitivity for metastasis detection
Bone Scan	Evaluate bone metastases in high-risk or symptomatic patients (e.g., bone pain)	Covered when cancer staging is indicated	**78306**	Largely being replaced by PSMA-PET but still common in many settings
Genetic Testing (BRCA1/2, ATM, HOXB13)	Men with **metastatic, high-risk,** or **family history** of hereditary cancers	Medicare covers when criteria met (NCCN)	**81201–81307 (range depending on gene)**	Helps determine eligibility for PARP inhibitors; required in advanced disease

Subtle Early Signs in Older Adults >65 yrs

Although early prostate cancer is often asymptomatic, older adults may present with **subtle, easily misattributed findings**. In men **≥65**, these early clues are frequently mistaken for benign aging or lower urinary tract disease:

- **Mild lower urinary tract symptoms (LUTS)** such as hesitancy, weak stream, nocturia, or incomplete emptying; commonly misattributed to **benign prostatic hyperplasia (BPH)**[1,2,8]
- **Unexplained fatigue or reduced activity tolerance**, sometimes reflecting anemia or systemic effects in more advanced disease[1,2,8]
- **Unintentional weight loss (≈5%)** without clear metabolic or lifestyle cause — seen in systemic or higher-risk cancers[1,2,8]
- **New or intermittent musculoskeletal discomfort**, especially vague low-back or pelvic pain, which may precede more obvious metastatic bone pain[1,2,8]
- **Subtle changes in urinary frequency**, urgency, or new nocturia not explained by diuretics or heart failure[1,2,8]
- **Erectile dysfunction or decreased libido** emerging without vascular or medication-related cause[1,2,9]

Geriatric Risk Factors:

Factor	Risk Signal	Evidence Summary	Clinical Implication
Advanced Age (≥65–70)[1,2,8,9]	• Highest absolute incidence • 30-fold risk increase vs <50	• >60% of all prostate cancers diagnosed ≥65 • Risk rises sharply after age 70; median diagnosis age 68	Lower threshold for PSA evaluation; mild LUTS or weight loss warrant PSA review and risk assessment

Factor	Risk Signal	Evidence Summary	Clinical Implication
Black/African Ancestry[1,8,9]	• 60–70% ↑ incidence • >2× mortality	• RR ~1.6–1.7 for developing PCa • RR ~2.0 for prostate cancer–specific death • More likely to present with high-grade disease	Treat as **high-risk:** consider earlier PSA, shorter repeat intervals, and lower threshold for MRI/biopsy
First-Degree Family History[9]	• 2–3× higher lifetime risk	• FDR with prostate cancer RR 2.48 • FDR diagnosed <65 → RR 2.87 • Risk increases with number of affected relatives	Earlier PSA screening; evaluate PSA kinetics more aggressively; consider MRI even with borderline PSA
BRCA2/HRR Mutations[9,10]	• 3–8× ↑ risk • Increased lethal/aggressive disease.	• BRCA2: OR 3.18 for developing PCa. • Some cohorts show 5–8× increased aggressive cancer risk. • Strong association with Grade Group ≥4	Manage as **very-high-risk:** earlier PSA, MRI-first strategies, prompt urology referral with any PSA elevation
Obesity (BMI ≥30)[11]	• 14% ↑ aggressive cancer • 24% ↑ PCa mortality	• Meta-analyses: RR 1.14 for advanced/aggressive PCa; RR 1.24 for PCa mortality. • Linked to delayed detection and higher-stage presentation.	Counsel on weight management; monitor PSA trends more closely; consider MRI for borderline PSA
Agent Orange Exposure (Vietnam-era)[12]	• 1.5–2× ↑ odds • Higher-grade tumors	• AO-exposed men: OR 1.52–2.19 for prostate cancer. • VA data show disproportionately high-grade and metastatic presentations.	Treat as **elevated-risk,** similar to family history or Black race. Earlier PSA and more urgent referral with any abnormality
Smoking History (Heavy/Current)[1,9]	• Increased risk of High-Grade PCa • Increased risk of PCa Mortality	• Consistent association w/ fatal PCa • Heavy/long-term smokers have 24-42% ↑ risk of PCa-specific death vs. non-smokers • Associated with more aggressive disease at diagnosis.	Counsel on **immediate cessation** as a primary intervention to improve overall health and, specifically, to reduce the risk of fatal/aggressive disease and improve treatment outcomes
High Red/Processed Meat & High-Fat Dairy Diet[13]	• Increased risk of **Advanced/Aggressive** PCa • Not a strong risk factor for localized, low-grade PCa	• Consistent association with more aggressive forms of the disease • Some evidence suggests high **calcium intake** (often via dairy) may weakly increase overall risk, but this is less conclusive than the red/processed meat link	Counsel on adopting a **plant-based, Mediterranean-style diet** (rich in fruits, vegetables, whole grains, and fish/lean poultry). Recommended to manage overall health, **reduce inflammation**, and potentially lower risk of aggressive disease

Red flags:[1,2,8]

- **New severe focal bone pain ± inability to bear weight;** Suspect pathologic fracture or new bone mets. **Action:** Same-day imaging and consult; ED if unable to ambulate or pain uncontrolled

- **Gross hematuria with clots or inability to void;** risk of bladder outlet obstruction or significant bleeding. **Action:** Same-day ED or urgent urology evaluation for catheterization, irrigation, and stabilization
- **Acute urinary obstruction (no urine output for hours + pain/distention);** Painful pelvic fullness, inability to void, restlessness, sometimes with nausea/vomiting → acute obstructive uropathy; **Action**: ED for catheter placement, labs (creatinine, electrolytes), and imaging
- **Rapid, unexplained decline in functional status with weight loss and uncontrolled pain;** weeks to months of worsening fatigue, anorexia, ≥5% weight loss, escalating bone pain, or new dyspnea/cough in a man with known metastatic prostate cancer → may indicate disease flare, new visceral mets, or uncontrolled symptoms. **Action**: Urgent (≤24–72h) oncology or palliative care review; ED if severe pain, dyspnea, or dehydration
- **New lower-extremity edema, chest pain, or unexplained dyspnea in a patient with advanced disease or on systemic therapy;** May signal **v**enous thromboembolism (DVT/PE), which is more common in men with metastatic cancer and androgen-deprivation or systemic therapy. **Action:** ED evaluation
- **Sudden change in continence or cognition (frail ≥75 or metastatic PCa);** reflects sepsis, metabolic derangements, medication toxicity, or CNS involvement; **Action:** ED or same-day urgent evaluation depending on severity

Diagnostic Thresholds:

Because the prostate naturally grows and produces more PSA as a man ages (even without cancer, or with BPH or Benign Prostatic Hyperplasia), the acceptable upper limit rises with age.

First - rule out reversible PSA fluctuations[14,15]

Before repeating or acting on PSA, rule out reversible causes of PSA elevation and decrease

- **UTI** (urinalysis ± urine culture)
- **Acute prostatitis**
- **Medication review (finasteride and dutasteride)**
- **Recent ejaculation (48h)**
- **Vigorous cycling**
- **Digital rectal exam done before PSA draw**
- **Recent instrumentation** (catheterization, cystoscopy, biopsies)

AUA & NCCN both recommend **repeat PSA after treating reversible causes**.

PSA Screening by Age:[14]

Age Group	General "Normal" Range (ng/mL)	Upper Limit for Evaluation (ng/mL)
40–49	0.0–2.5	>2.5
50–59	0.0–3.5	>3.5
60–69	0.0–4.5	>4.5
70+	0.0–6.5	>6.5

PSA Screening:[1,2,8,14,15]

Threshold / Finding	Clinical Meaning	Recommended Action	Notes
PSA ≥4.0ng/mL	Above traditional threshold for evaluation	**Repeat PSA in 6–8 weeks; DRE;** consider urology referral	Age, race, and risk factors modify threshold
PSA 2.5–4.0ng/mL (age <60)	Elevated for younger men	Repeat PSA; assess risk factors; consider MRI if persistent	NCCN: Lower threshold for younger/high-risk men
PSA 10–20ng/mL	High likelihood of clinically significant PCa	**Refer within 2 weeks;** consider MRI + biopsy; Check PSA velocity & density	Strong predictor of high-grade disease
PSA >20ng/mL	High-risk disease; possible metastasis	Urgent referral	Often correlates with later stage PCa
PSA Velocity (PSAV) >0.75ng/mL/year	Rapid PSA rise → increased risk of aggressive cancer	MRI and urology referral	Best used when PSA is 4–10
PSA Density (PSAD) ≥0.15ng/mL/cc	Suggests a higher likelihood of clinically significant PCa	MRI-first approach; consider biopsy even with lower PSA	Requires prostate volume (TRUS or MRI)
Abnormal DRE (nodule, asymmetry, induration)	Suspicion of localized or high-grade cancer	Refer immediately for MRI ± biopsy	DRE abnormalities override PSA levels
Persistent PSA elevation after negative biopsy	Possible missed or anterior tumor	MRI ± targeted fusion biopsy	NCCN recommends MRI-first in re-biopsy setting
Rising PSA post-treatment (PSA recurrence)	Biochemical recurrence (BCR)	Urology/oncology referral; consider PSMA-PET	PSA criteria vary by treatment modality
PSA ≥100ng/mL	Very high likelihood of metastatic disease	Same-day oncology referral; PSMA-PET; labs	Common in bone metastasis presentations

When to Use Digital Rectal Exam (DRE)[1,2,8]

DRE is not recommended as a routine screening tool on its own, but it remains an important diagnostic exam when evaluating abnormal PSA or prostate-related symptoms.

	Criteria	Clinical Notes / Action
Use DRE When:	Elevated or rising PSA	Helps identify nodules, induration, asymmetry; increases suspicion for clinically significant PCa
	Concerning urinary symptoms	Weak stream, hesitancy, nocturia, incomplete emptying → differentiate BPH vs malignant process
	Red-flag symptoms present	Gross hematuria, acute retention, new focal bone pain → assess prostate size/consistency during triage

	Criteria	Clinical Notes / Action
	Before urology referral	Provides staging clues; essential information for specialist evaluation
	After prostatitis/UTI treatment (persistently high PSA)	Helps reassess for possible underlying prostate abnormality
DRE *Not* Required When:	**As stand-alone screening**	Not recommended for asymptomatic men; does not replace PSA-based risk assessment.
	Before PSA draw	May cause transient PSA elevation; PSA should be obtained *before* DRE when possible, min 2-3 days post PSA.
Clinical Interpretation:	Abnormal DRE findings	Nodule, asymmetry, or induration → **immediate urology referral,** regardless of PSA
	Normal DRE	**Does *not* rule out PCa;** use alongside PSA, MRI, and risk factors for final decision-making

NCCN Very-High-Risk Criteria 2025[1]

Patients meet **Very-High-Risk classification if ≥2** of the following are present:

Very-High-Risk Feature	
Clinical stage cT3b–cT4	Seminal vesicle invasion or invasion of adjacent structures
PSA >40ng/mL	Strong predictor of metastatic spread
Primary Gleason pattern 5	Indicates highly aggressive tumor biology
>4 cores with GG4 or GG5	High-volume, high-grade cancer

Clues to Dig Deeper:

Use these findings to lower the threshold for MRI, repeat PSA, or urology referral — especially in men ≥65 or with risk factors.[1,2,8,10]

- **PSA pattern that doesn't fit the story** → Order repeat PSA ± mpMRI; refer urology
  - PSA rising faster than expected for BPH (PSA velocity >0.75 ng/mL/year)
  - PSA remains elevated after treating UTI/prostatitis or after repeat testing
  - PSA higher than expected for prostate size (PSA density ≥0.15)
- **Disproportionate symptoms for typical BPH:** Urinary symptoms out of proportion to prostate size on prior imaging or exam → Reassess PSA trend; consider early imaging
- **Family or genetic red flags:** First-degree relative with prostate cancer (especially <65) → Lower PSA threshold for MRI/biopsy
- **Abnormal examination findings:** Mild asymmetry, firmness, or less obviously suspicious changes on DRE → Repeat PSA or MRI even if prior PSA was borderline
- **Systemic or subtle constitutional changes:** 5% unintentional weight loss, declining energy, appetite loss, new musculoskeletal aches → Evaluate PSA trend; escalate if persistent
- **Prior negative biopsy + persistent concern:** PSA continues to rise or symptoms progress despite a prior negative biopsy → MRI ± targeted fusion biopsy (NCCN-recommended)

Common Oversights:

- **Acting on a single elevated PSA:** Always repeat in 6–8 weeks under standardized conditions (no DRE, cycling, ejaculation, infection)
- **Failure to track PSA trends:** Document PSA velocity and PSA density (PSAD ≥0.15) to avoid missing aggressive disease
- **Normal PSA despite abnormal DRE:** Any nodule/asymmetry → Immediate urology referral, regardless of PSA value
- **Over-attributing symptoms to "just BPH" in older men:** Rapidly worsening LUTS or pelvic discomfort should prompt deeper evaluation, especially ≥65
- **Missing high-risk background:** Black ancestry, FDR history, BRCA2/HRR mutation, Agent Orange exposure → Lower thresholds for MRI/biopsy
- **Treating vague systemic symptoms as aging:** Fatigue, 5% weight loss, or musculoskeletal aching in high-risk men should prompt PSA review and symptom reassessment
- **Ordering PSA after DRE:** DRE can transiently elevate PSA; draw PSA **before** DRE when possible

Key Differentials in Elderly:[1,2,8]

Condition / Mimic	Key Clinical Clues	Recommended Evaluation	Notes
Benign Prostatic Hyperplasia (BPH)	LUTS: weak stream, hesitancy, nocturia; smooth, enlarged prostate on DRE	PSA + repeat PSA; UA; consider renal ultrasound if high post-void residual	Symptoms often overlap with PCa; rapid worsening or abnormal DRE → escalate
Prostatitis (Acute or Chronic)	Pelvic/perineal pain, dysuria, fever (acute); pelvic discomfort + fluctuating PSA (chronic)	UA + culture; treat empirically; repeat PSA **6–8 weeks** post-treatment	A common cause of **false PSA elevation;** always rule out before biopsy.
Urinary Tract Infection (UTI)	Dysuria, frequency, urgency; malodorous urine; occasional fever	UA + culture; treat and repeat PSA after resolution	PSA can spike during UTI; avoid unnecessary imaging/biopsy
Urolithiasis (Kidney/ureter stones)	Colicky flank pain radiating to groin; hematuria; nausea	UA, renal/bladder ultrasound ± CT KUB	Gross or microscopic hematuria may mimic tumor-related bleeding
Bladder Cancer	Gross hematuria, irritative voiding, weight loss	UA (look for hematuria), urine cytology, cystoscopy (urology)	Bladder cancer often coexists with PCa risk factors (age, smoking)

Comorbidity Screening in Men ≥65 with Suspected or Confirmed Prostate Cancer

Condition	Approximate Prevalence	Recommended Screening	Pathophysiology
Benign Prostatic Hyperplasia (BPH)	~50-60% symptomatic; >70% by age 70	LUTS screening (IPSS), DRE, urinalysis	Prostate enlargement elevates PSA, mimics PCa symptoms; contributes to obstruction

Condition	Approximate Prevalence	Recommended Screening	Pathophysiology
Cardiovascular Disease (CVD) (HTN, CAD, HF)	~70% of men ≥65; HTN ~75%	BP, lipid panel, EKG if indicated	ADT increases CV risk (insulin resistance, QT prolongation); CVD worsens PCa outcomes
Chronic Kidney Disease (CKD)	~38–40% of men ≥65	BMP/CMP (creatinine), eGFR; renal ultrasound if obstruction suspected	Obstruction from prostate enlargement or tumor invasion can cause post-renal injury
Diabetes/Metabolic Syndrome	Diabetes ~25%; metabolic syndrome ~40%	Fasting glucose or A1c; weight/BMI; BP	ADT worsens insulin resistance; metabolic syndrome increases aggressive PCa risk
Anemia (Chronic disease or metastatic)	~15–25% in older adults	CBC	Bone marrow involvement or systemic inflammation from advanced PCa; predicts poor tolerance of therapy
Depression/Cognitive Decline	Depression ~15–20%; cognitive impairment ~20–25%	PHQ-2/9; cognitive screening (MoCA/MMSE if concerns)	Fatigue and mood symptoms confound PCa symptom assessment; impacts treatment compliance
Urinary Tract Infection / Chronic Prostatitis	UTI in men >65: ~10–15% annually	UA + culture	Major cause of false PSA elevation; prostatitis mimics PCa pain/symptoms
Obesity	~35% of older men	BMI, waist circumference	Increases aggressive PCa risk; raises systemic inflammation; complicates imaging and procedures
Venous Thromboembolism (VTE) Risk	Baseline in older men ~1–2%; increased 2–5× with metastatic cancer	VTE risk assessment: mobility, prior VTE, signs of DVT/PE	ADT and systemic therapy increase clot risk; dyspnea/LE edema may mimic PCa progression

Staging & Severity

Gleason Score and Grade Groups

Prostate cancer severity is classified using the **Gleason scoring system**, which evaluates tumor architecture under the microscope. Two patterns are scored (primary + secondary), each from 1–5, and then combined (e.g., 3+4=7). However, because Gleason scores can be confusing — especially since multiple scores fall within "7" — the **International Grade Group (GG)** System was created to simplify risk stratification.

The Grade Groups (GG1–GG5) translate Gleason patterns into clinically meaningful categories of aggressiveness:

- GG1 = Gleason 6 (least aggressive)
- GG2–3 = Gleason 7 subtypes (favorable vs unfavorable intermediate risk)
- GG4 = Gleason 8
- GG5 = Gleason 9–10 (most aggressive)

Grade Groups are now the preferred reporting standard in NCCN and AUA guidelines because they provide clearer guidance on prognosis, risk classification, and treatment planning across all stages of prostate cancer.

Grade Group (GG)	Corresponding Gleason Score	Severity Category	Key Clinical Meaning	Notes
GG 1	Gleason ≤6 (3+3)	Low-grade	Indolent disease; very low metastatic potential; often eligible for Active Surveillance (AS); PSA <10 (ng/ml)	Most patients avoid immediate treatment
GG 2	Gleason 3+4=7	Intermediate — Favorable	Predominantly pattern 3 with limited pattern 4; moderate risk; good outcomes with treatment; PSA >10 (ng/ml)	Favorable Intermediate Risk when PSA <10 and ≤50% cores positive
GG 3	Gleason 4+3=7	Intermediate — Unfavorable	Higher proportion of pattern 4 → greater likelihood of progression and spread; PSA >10 (ng/ml)	Often requires definitive therapy ± short-term ADT
GG 4	Gleason 8 (4+4, 3+5, 5+3)	High-grade	Significant metastatic potential; aggressive disease biology PSA >20 (ng/ml)	Typically requires multimodal therapy
GG 5	Gleason 9–10 (4+5, 5+4, 5+5)	Very high-grade	Highest risk of local extension & distant metastasis; most aggressive clinical behavior; PSA >40 (ng/ml)	Often treated as high-risk

Clinical and Pathologic T-Stage (TNM System)

The T-Stage (Tumor stage) describes the extent of the primary tumor, which heavily influences prognosis and treatment choice (surgery vs. radiation).

T-Stage Category	Definition	Key Clinical Meaning
Clinical T1 (cT1c)	Tumor not palpable; found only on biopsy (e.g., elevated PSA)	**Localized.** Eligible for Active Surveillance or local therapy
Clinical T2 (cT2a, cT2b, cT2c)	Tumor confined to the prostate but detectable by DRE	**Localized.** T2c involves both lobes; requires definitive local therapy
Clinical T3 (cT3a, cT3b)	Tumor extends through the capsule; potentially into seminal vesicles	**Locally Advanced.** T3 seminal vesicle invasion) is a very high-risk feature
Clinical T4 (cT4)	**Tumor fixed or invades adjacent structures (e.g., bladder neck, rectum)**	**Locally Advanced. Very high risk; requires multimodal therapy**
Pathologic T-Stage (pT)	Staging determined after surgery (prostatectomy)	**Pathologic staging** is the true gold standard for prognosis; confirms surgical margins and extracapsular extension

3. MEAT DOCUMENTATION ESSENTIALS

To capture prostate cancer as an active chronic condition for risk adjustment, the patient's record must show ongoing management using the **MEAT framework**.

Typical case: 72-year-old male with rising PSA and LUTS, no confirmed cancer yet).

Monitor: Monitoring in primary care focuses on PSA trends, symptom evolution, and reversible causes of PSA elevation. Example: "PSA 6.2ng/mL today, up from 5.4 (6 months ago) and 4.9 (12 months ago); monitoring for increasing velocity. Patient reports new nocturia and slower stream but denies bone pain, weight loss, or hematuria. UA negative; no recent cycling, ejaculation, UTI, or prostatitis symptoms. Medication review completed — no testosterone therapy, NSAID overuse, or supplements known to affect PSA." This confirms active surveillance of PSA patterns, symptoms, and confounding factors in a primary care setting.

Evaluate: Evaluation includes LUTS severity, DRE findings, and functional impact. Example: "Evaluated urinary symptoms — IPSS 14 (moderate), intermittent hesitancy, and incomplete emptying. DRE reveals a smooth, symmetrically enlarged prostate without nodules or induration. No red-flag symptoms: patient ambulates independently, maintains full ADLs, and denies focal bone pain or neurologic changes. Reviewed prior labs — creatinine stable, UA negative, no evidence of infection." This shows structured evaluation of urinary symptoms, prostate exam findings, and safety red flags.

Assess: Assessment clarifies risk level, likelihood of malignancy, and next steps based on guidelines. Example: "Elevated PSA with rising trend and moderate LUTS in a 72-year-old male — concern for possible clinically significant prostate cancer. No abnormal DRE findings; no evidence of acute prostatitis or UTI. Patient has one first-degree relative with prostate cancer, placing him at higher risk. Will obtain repeat PSA in 6–8 weeks under standardized conditions and proceed with mpMRI/urology referral if PSA remains elevated." This frames risk and documents guideline-appropriate reasoning.

Treat: Treatment in primary care focuses on referrals, repeat diagnostics, counseling, and symptom support. Example: "Plan: repeat PSA in 8 weeks (no ejaculation, cycling, or DRE before draw). Ordered CMP, fasting glucose, and lipid panel given age and LUTS. Initiated tamsulosin 0.4mg nightly for symptom relief. Counseled on red-flag symptoms requiring same-day evaluation (retention, hematuria, severe bone pain). Will refer to urology for MRI and possible biopsy if PSA remains elevated or velocity increases. Follow-up scheduled in 2 months." This documents clear clinical actions and linkage to the suspected diagnosis.

Clinical Documentation Elements

Reflecting disease activity, risk, and management intent.

- **Must clearly document the primary cancer (active malignancy):** "Prostate adenocarcinoma (C61)" → *Required every calendar year*
- **Specify current Disease status:**"Active," "stable," "progressing," "biochemical recurrence," "castration-sensitive," or "castration-resistant." Avoid vague terms "history of prostate cancer," "treated cancer"
- **Document the grade group (GG1–GG5):** Required to support risk category; include biopsy date or pathology source when available

- **Specify management intent:** Active Surveillance (AS), Watchful Waiting (WW), curative treatment, systemic therapy
- **Monitoring and follow-up plan:** Link the diagnosis to an explicit monitoring plan, including PSA trends, testosterone levels when relevant, imaging cadence, and management of treatment-related effects

Reframing Common Documentation Shortcuts

Instead of...	Prefer documenting...
"Stable prostate cancer"	"PSA 6.8 → 7.1ng/mL over 12 months; no new metastases on PSMA-PET; disease remains *active* and castration-sensitive."
"History of prostate cancer"	"Current prostate adenocarcinoma (C61) under ongoing management; on ADT with suppressed testosterone."
"Bone mets stable"	"L5 osseous metastasis (C79.51) unchanged on PSMA-PET (date performed); no new skeletal pain or fractures."
"Cancer controlled"	"Active prostate cancer with stable PSA trend and no radiographic progression; continuing current therapy."
"Labs normal"	"PSA 7.1ng/mL, testosterone <20ng/dL, alk phos 88 U/L — consistent with stable castration-sensitive disease."
"Follow-up PRN"	"Follow-up q3 months for repeat PSA/testosterone; imaging per NCCN; ongoing monitoring for ADT metabolic effects."
"Benign exam"	"DRE: smooth symmetric prostate; no nodules or induration; urinary symptoms consistent with BPH rather than progression."

4. TREATMENT AND REFERRAL

Treatment & Referral Criteria[1,8]

Disease Category	Key Clinical Features	Recommended Management	Referral Guidance
Low-Risk Localized (GG1, PSA <10, T1–T2a)	Slow-growing, low-volume disease	**Active Surveillance** (PSA q3–6mo, DRE, MRI/biopsy per protocol). Consider **Watchful Waiting** if LE <5-10yrs	Urology for AS protocols; PCP monitors PSA & symptoms
Intermediate-Risk Localized (GG2–3, PSA 10–20, T2b–T2c)	Favorable vs unfavorable intermediate risk	**Favorable:** AS or definitive therapy based on shared decision-making **Unfavorable:** Radical prostatectomy or radiation ± short-term ADT	**Urology + Radiation Oncology** for multidisciplinary planning
High-Risk Localized (GG4–5, PSA >20, ≥T3)	High recurrence risk	**Definitive therapy:** Surgery (± PLND) or combined radiation + long-term ADT Adjuvant/salvage therapy if post-op adverse features	Early referral to **urologic oncology + radiation oncology**

Disease Category	Key Clinical Features	Recommended Management	Referral Guidance
Metastatic Hormone-Sensitive (mHSPC)	Metastases present; testosterone-sensitive	**Start ADT immediately + treatment intensification** (abiraterone, enzalutamide, apalutamide, or docetaxel) Add bone-protective agents if bone mets	**Medical Oncology** for systemic therapy selection; radiation for metastasis-directed therapy
Castration-Resistant (CRPC)	Rising PSA or progression despite castrate T	**Oncology-directed therapy:** AR inhibitors, chemotherapy, PARP inhibitors (BRCA/HRR+), immunotherapy,[177] Lu-PSMA	**Medical Oncology** required; biomarker testing essential
Palliative/Supportive Ca	Symptomatic metastatic disease	**Palliative RT** for painful bone mets; analgesics; ADT continuation as appropriate. Palliative care or hospice when disease-directed therapy no longer aligns with goals	**Radiation Oncology, Palliative Care, Hospice** as indicated

Evidence-Based Prevention Actions[16-19]

- **Adopt an overall "healthy lifestyle bundle:"** Don't smoke, keep BMI <30, do vigorous exercise, eat more tomatoes/fatty fish, and limit processed meat → up to **~68% lower risk of lethal PCa** in cohort models[16]
- **Maintain healthy weight and avoid central obesity:** Higher body fatness is consistently linked to advanced/lethal PCa, while weight control lowers systemic inflammation and insulin resistance[16]
- **Engage in regular vigorous physical activity:** ≥3 hours/week of vigorous activity is associated with substantially lower risk of **advanced/metastatic-lethal PCa** and improved survival[16,17]
- **Follow a Mediterranean / plant-forward dietary pattern:** Diet rich in vegetables, fruits, whole grains, nuts, olive oil, and fish is linked to lower PCa risk and mortality, and better outcomes after diagnosis[16]
- **Limit red/processed meat, high-fat dairy, and excess eggs:** Umbrella/meta-analyses link processed meat, high-fat dairy, and higher egg intake to higher risk of aggressive/lethal PCa; replacing these with plant fats/fish is favored[16]
- **Limit alcohol and ultra-processed calories:** WCRF/AICR and ACS recommend minimal alcohol and low ultra-processed intake to reduce overall cancer risk and weight gain, which indirectly lowers aggressive PCa risk[16]
- **Leverage aspirin/statins *when already indicated* for CVD:** Regular aspirin use and statin therapy (for standard cardiovascular indications) are each associated with lower risk of lethal PCa or PCa-specific mortality; they should not be started solely for PCa prevention but may offer added benefit[18]
- **Ejaculatory Frequency (Emerging Evidence):** Higher ejaculation frequency (≥21×/month) associated with ~30–33% lower risk of prostate cancer in long-term cohort studies. Supports the "prostate stagnation hypothesis" — regular ejaculation may reduce buildup of carcinogenic secretions[19]

Non-Rx Treatment Documentation:

- **Dietary counseling:** "Discussed Mediterranean-style diet; advised avoidance of processed meats and increased intake of cooked tomatoes, cruciferous vegetables, and fish"

- **Exercise counseling:** "Encouraged >150 min/week moderate physical activity; patient enrolled in walking program
- **Weight & metabolic risk management:** "Reviewed weight goals; counseling on reducing saturated fat; monitoring A1c/lipids"

Follow-up Timing:[1,8]

Clinical Scenario	Follow-Up Interval	What to Monitor	Notes
Elevated PSA (No Diagnosis)	• Repeat PSA: **6–8 weeks** • Urology referral: **4–6 weeks** if still elevated • Velocity >0.75 → **≤2-week referral**	PSA trend, reversible causes (UTI, prostatitis), medications	Standardize PSA conditions: no DRE, ejaculation, cycling, infection
Active Surveillance (GG1–Favorable GG2)	• PSA: **q3–6 months** • DRE: **q12 months** • MRI: **q1–2 years** • Biopsy: **q2–5 years**	PSA velocity, pattern progression; MRI changes; DRE	Escalate if PSA density ≥0.15 or MRI PIRADS ≥4
Post-Treatment (Surgery or Radiation)	• PSA: **q6–12 months for 5 years,** then annually	PSA recurrence (BCR), urinary/bowel symptoms	Imaging only if rising PSA or symptoms
Metastatic Hormone-Sensitive (mHSPC)	• PSA + Testosterone: **q3 months** • CBC/CMP: **q3–6 months** • Imaging: **q6–12 months**	ADT effects (bone loss, metabolic labs), treatment response	PCP monitors falls, frailty, ADL/IADL changes
Castration-Resistant (CRPC)	• Oncology visits: **q1–3 months** • PSA + Testosterone: **q1–3 months** • Imaging: **q6 months**	Disease progression, medication toxicity	More frequent visits depending on systemic therapy
Watchful Waiting (<5-10-year LE)	• Follow-up: **q6–12 months**	LUTS, pain, hematuria, bone symptoms	Symptom-driven PSA only

Patient education & adherence:

Effective prostate cancer care in value-based settings relies heavily on **patient understanding, engagement, and adherence**. Clear documentation of education, counseling, and shared decision-making not only improves outcomes but also supports **RADV compliance**, demonstrating that the condition is actively managed.

The following phrases help ensure that patient instructions, adherence reinforcement, and safety counseling are captured accurately and consistently in the medical record:

- "Reviewed PSA follow-up schedule; patient understands need for repeat PSA in 6–8 weeks and agrees to avoid ejaculation, cycling, and DRE before draw."
- "Educated patient on red-flag symptoms (urinary retention, hematuria, new bone pain) and instructed to seek same-day care if they develop."
- "Discussed importance of adherence to ADT injection schedule; patient expresses understanding of timing and potential side effects (hot flashes, fatigue, bone loss)."
- "Provided counseling on bone health: encouraged calcium/vitamin D intake, fall-prevention strategies, and weight-bearing exercise."

- "Reviewed lifestyle prevention strategies — Mediterranean-style diet, reduced saturated fat, increased cruciferous vegetables and fish; patient plans to incorporate dietary changes."

Comorbidity Management:[1,2,8,9]

Comorbidity	Why It Matters in PCa	Recommended Management	PCP Notes
Benign Prostatic Hyperplasia (BPH)	Overlaps with LUTS; can obscure cancer symptoms; may elevate PSA	IPSS scoring; trial of α-blocker; repeat PSA after stabilizing LUTS	Escalate if symptoms worsen quickly or DRE abnormal
Cardiovascular Disease (CVD) (HTN, CAD, HF)	ADT increases CV risk, dyslipidemia, insulin resistance	Optimize BP/lipids; EKG if indicated; lifestyle counseling	ADT increases CV risk (insulin resistance, QT prolongation); CVD worsens PCa outcomes
Chronic Kidney Disease (CKD)	Obstruction from prostate enlargement/tumor can impair renal function	Trend creatinine/eGFR; renal ultrasound if obstruction suspected	Avoid nephrotoxic medications; manage volume status
Diabetes/Metabolic Syndrome	ADT worsens glucose control and metabolic risk	A1c or fasting glucose; weight/BMI tracking; diet/exercise	Monitor for ADT-associated hyperglycemia and weight gain
Anemia (Chronic disease or metastatic)	May reflect marrow involvement, chronic disease, or poor nutrition	CBC; iron/B12 as indicated; assess weight/appetite	Evaluate for fatigue, frailty, and occult bleeding
Depression/Cognitive Decline	ADT may worsen mood, cognition, and energy	PHQ-2/9 screening; cognitive assessment if concern	Impacts adherence and functional status; consider caregiver support
Urinary Tract Infection/Chronic Prostatitis	Major cause of false PSA elevation; mimics PCa symptoms	UA + culture; treat infection; repeat PSA 6–8 weeks post-treatment	Ensure symptoms resolved before repeating PSA
Obesity	Strongly linked to aggressive/lethal PCa; worsens treatment tolerance	Weight-loss counseling; Mediterranean diet; activity goals	Track BMI and waist circumference regularly
Venous Thromboembolism (VTE) Risk	ADT and metastatic disease increase risk of DVT/PE	Assess mobility, leg swelling, dyspnea; consider Doppler if suspicious	Educate patient on warning signs; coordinate with oncology

Cost-Smart Strategies:

- **Active Surveillance (AS) for Low-Risk Disease: Best value option** for GG1 and select favorable GG2. Avoids immediate costs of surgery/radiation while maintaining excellent long-term outcomes
- **Avoid Over-Imaging in Low-Risk Patients:** No routine CT/Bone Scan/PSMA-PET for GG1, PSA <10 unless symptoms warrant
- **Limit Overtreatment of Favorable Intermediate Risk:** Many GG2 patients can follow AS or delayed intervention—reduces surgical/radiation costs and toxicity burden

Quality Metrics Tie-In:

Quality Metric	What It Measures	Clinical Expectation	PCP Documentation Tips
Non-Recommended PSA Screening in ≥70 (HEDIS/Stars)[20]	% of men ≥70 receiving PSA without clear indication	Avoid routine PSA in ≥70 unless symptomatic/high risk	"No PSA ordered — patient ≥70 without indication."
Shared Decision-Making (Ages 55–69)	Documentation of PSA counseling before ordering	Discuss benefits/harms & false positives	"PSA ordered after shared decision-making per USPSTF."
Timely Follow-Up for Elevated PSA	Repeat PSA within 6–8 weeks; evaluate reversible causes	Standardized PSA conditions; avoid immediate biopsy	"Repeat PSA in 6–8 weeks; no ejaculation/cycling/infection."
Avoid Overtreatment of Low-Risk PCa	% GG1 patients appropriately managed with AS	AS preferred unless contraindicated	"GG1 → Active Surveillance per NCCN."
Appropriate Use of Imaging	Avoid imaging in low-risk; use advanced imaging in high-risk	No CT/Bone Scan/PSMA-PET for GG1 unless symptomatic	"No imaging — GG1, PSA <10, asymptomatic."
Timely Treatment of High-Risk PCa	Appropriate escalation for GG3–5 or Very-High-Risk	Urology/Oncology referral without delay	"GG4 — referred to oncology same week."

5. CODING REMINDERS & CASE EXAMPLES BOX

Specificity Requirements:

- **Always specify Grade Group (GG1–GG5)**: "Biopsy (2025): GG2 (3+4)."
- **Include PSA value and trend:** "PSA 7.1 → 7.3ng/mL over 12 months; no rapid doubling."
- **Document management intent:** (AS, WW, post-op surveillance, systemic therapy) "Management: Active Surveillance with PSA q6mo and MRI per protocol."
- **Document disease status clearly:** (active, stable, progressing, recurrent) "Active prostate adenocarcinoma with stable PSA trend."
- **State hormone sensitivity (required for Z-codes):** Z19.1 = Hormone-sensitive "Castration-sensitive disease; testosterone suppressed; Z19.1.", Z19.2 = Castration-resistant "Progression despite castrate T-levels; Z19.2."

Annual Clinical Review and Confirmation:

Confirm prostate cancer remains active, staged, and appropriately managed.

- **Annual review:** Prostate adenocarcinoma should be reassessed once per calendar year via face-to-face or synchronous audio-video encounter, with disease status, risk features, and management intent documented
- **Disease status:** Document current activity and risk (e.g., Grade Group, clinical stage, PSA trend, imaging findings) to confirm absence or presence of progression

- **Management plan:** Clearly state ongoing intent (e.g., active surveillance, curative therapy, systemic treatment) and surveillance schedule

C61 (Localized / Non-Metastatic):

"Active prostate adenocarcinoma (C61), Grade Group 2 (Gleason 3+4), clinical stage cT2a. PSA today is 5.9ng/mL, stable compared with 6.2 six months ago. No new urinary obstruction, bone pain, weight loss, or systemic symptoms reported.

Reviewed most recent MRI (03/2025): no extracapsular extension or nodal involvement. Disease remains localized with no evidence of progression.

Management intent: Active Surveillance. Continuing PSA every 6 months, annual DRE, and repeat MRI if PSA velocity increases**.** Next surveillance biopsy due in 2026."

C61 (Post-Treatment Surveillance): "Active prostate cancer (C61) status post–radical prostatectomy in 2021. PSA today is 0.12 ng/mL, slightly increased from 0.08 six months ago but remains below biochemical recurrence threshold. Patient denies bone pain, urinary retention, hematuria, or constitutional symptoms.

Reviewed prior pathology: Grade Group 3 (Gleason 4+3) with organ-confined disease (pT2), negative margins. Most recent imaging (MRI pelvis, 02/2025) shows no local recurrence. Disease remains in the surveillance phase with no evidence of metastasis or biochemical recurrence.

Plan: Continue PSA monitoring every 6 months per NCCN guidelines. Will repeat imaging only if PSA rise is confirmed or symptoms develop."

Good Documentation is Comprehensive Coding

Denial	Fix
"Prostate cancer" nonspecific	→ "Active prostate adenocarcinoma (C61), Grade Group 2 (Gleason 3+4), clinical stage cT2a."
No current evidence of active disease (sounds historical)	→ "Active prostate cancer under ongoing surveillance — PSA 0.12 today (0.08 six months ago); post-prostatectomy (2021), still requires annual monitoring."
Metastasis not linked to primary	→ "Prostate cancer (C61) with L5 osseous metastasis (C79.51) — metastasis linked to primary for current visit."
Hormone sensitivity not specified	→ "Castration-sensitive metastatic prostate cancer — testosterone <20ng/dL on ADT (Z19.1)."
Missing PSA trend/insufficient evidence of monitoring	→ "PSA 7.1 today; prior values 6.8 (6 months ago) and 7.0 (12 months ago) — stable trend; monitoring ongoing."
Using 'history of prostate cancer' incorrectly	→ Only use **Z85.46** if patient is NED after curative therapy. Otherwise: "Active prostate cancer (C61), ongoing follow-up required."
No supporting evaluation (imaging/labs/symptoms)	→ Add: "Reviewed PSMA-PET/CT (Date): no new lesions; L5 metastasis unchanged. Denies bone pain, urinary obstruction."

EHR tips:

- **Use problem-list precision:** Replace generic entries ("Prostate cancer") with "Prostate adenocarcinoma (C61), GG2, cT2a, active."
- **Include PSA trend automatically:** Insert PSA flowsheet or smart-link → supports MEAT + active disease status. *Example:* "PSA: {PSA_TREND:smartlink}."
- **Add hormone-sensitivity smart phrases:**
  - ***".CS_PCa"*** → *"Castration-sensitive; testosterone <20 ng/dL (Z19.1)."*
  - ***".CRPC_PCa"***→ *"Castration-resistant; PSA rising despite castrate T (Z19.2)."*
- **Create shortcut for Active Surveillance plans:**
  - ".AS_PCa" → "AS: PSA q6mo, DRE annually, MRI if velocity ↑, biopsy q2–5 yrs."

Brief case examples:

Case Example 1: 74-year-old male, post-radiation therapy, routine PCP visit

Success: C61 Captured: "Active prostate adenocarcinoma (C61), Grade Group 3 (Gleason 4+3), treated with radiation (2021). PSA today 0.32ng/mL, previously 0.28 (6 months ago). No bone pain, hematuria, or urinary obstruction. Reviewed MRI pelvis (2024) — no local recurrence. Disease remains under active surveillance; continuing PSA q6 months per NCCN."C61 documented with stage + Grade GroupPSA trend provided (supports active monitoring)

Clear statement of ongoing active disease (prevents recode to Z85.46)

Case Example 2: 82-year-old male, previously treated for prostate cancer (radiation 2017)

Pitfall: Incorrect Documentation ("History of prostate cancer. Doing well."

- No PSA
- No disease status
- No MEAT
- Sounds historical → review may remove C61
- → RAF reduced, $2,000–$5,000 recoupment typical

Fix: "Active prostate cancer (C61), s/p radiation therapy (2017). PSA today 1.9ng/mL, previously 1.4 (last year) — mild upward trend, monitoring for biochemical recurrence. No bone pain, urinary retention, or weight loss. Reviewed prior pathology (GG2). Plan: repeat PSA in 3 months; urology referral placed for rising trend."

REFERENCES:

1. Spratt DE, Srinivas S, Adra N, et al. Prostate Cancer, Version 3.2026, NCCN Clinical Practice Guidelines In Oncology. J Natl Compr Canc Netw. 2025;23(11):469-493. doi:10.6004/jnccn.2025.0052
2. Mayo Clinic. Prostate cancer: symptoms and causes. Mayo Clinic website. Updated August 24, 2024. Accessed 2025. https://www.mayoclinic.org/diseases-conditions/prostate-cancer/symptoms-causes/syc-20353087.

3. Centers for Medicare & Medicaid Services (CMS). ICD-10-CM Official Guidelines for Coding and Reporting FY 2024. Baltimore, MD: CMS; 2024. https://icd10cmtool.cdc.gov/?fy=FY2025.
4. Centers for Medicare & Medicaid Services (CMS). Risk Adjustment Model Version 28 Technical Specifications. 2024. https://www.cms.gov/files/document/v28-technical-specifications.pdf.
5. Centers for Medicare & Medicaid Services (CMS). Medicare Advantage Capitation Rates and RAF Coefficients 2024. Baltimore, MD: CMS; 2024. https://www.cms.gov.
6. Sharma V, Wymer KM, Borah BJ, et al. Cost-Effectiveness of Active Surveillance, Radical Prostatectomy and External Beam Radiotherapy for Localized Prostate Cancer: An Analysis of the ProtecT Trial. J Urol. 2019;202(5):964–972. doi:10.1097/JU.0000000000000345
7. Harat A, Harat M, Martinson M. A cost-effectiveness and quality of life analysis of different approaches to the management and treatment of localized prostate cancer. Front Oncol. 2020;10:103. doi:10.3389/fonc.2020.00103.
8. Eastham JA, Auffenberg GB, Barocas DA, et al. Clinically localized prostate cancer: AUA/ASTRO guideline, Parts I–III. J Urol. 2022;208(1):10-33. https://www.auanet.org/guidelines-and-quality/guidelines/clinically-localized-prostate-cancer-aua/astro-guideline-2022
9. PDQ Cancer Genetics Editorial Board. Genetics of Prostate Cancer (PDQ®): Health Professional Version. In: PDQ Cancer Information Summaries. Bethesda (MD): National Cancer Institute (US); May 9, 2025. PMID: 26389227 Available at: https://www.cancer.gov/types/prostate/hp/prostate-genetics-pdq.
10. Marino, F., Totaro, A., Gandi, C. et al. Germline mutations in prostate cancer: a systematic review of the evidence for personalized medicine. Prostate Cancer Prostatic Dis 26, 655–664 (2023). https://doi.org/10.1038/s41391-022-00609-3
11. Discacciati A, Orsini N, Wolk A. Body mass index and incidence of localized and advanced prostate cancer—a dose–response meta-analysis of prospective studies. Ann Oncol. 2012;23(7):1665–1671. doi:10.1093/annonc/mdr603.
12. Chamie K, DeVere White RW, Lee D, Ok JH, Ellison LM. Agent Orange exposure, Vietnam War veterans, and the risk of prostate cancer. Cancer. 2008;113(9):2464-2470. doi:10.1002/cncr.23695
13. Papadimitriou, N., Markozannes, G., Kanellopoulou, A. et al. An umbrella review of the evidence associating diet and cancer risk at 11 anatomical sites. Nat Commun 12, 4579 (2021). https://doi.org/10.1038/s41467-021-24861-8
14. National Cancer Institute. Prostate-Specific Antigen (PSA) Test Fact Sheet. National Cancer Institute website. 2025.Accessed 2025. https://www.cancer.gov/types/prostate/psa-fact-sheet.
15. Cancer Treatment Centers of America. PSA Test: What Do the PSA Levels Mean? Cancer Treatment Centers of America. Accessed 2025. https://www.cancercenter.com/cancer-types/prostate-cancer/diagnosis-and-detection/prostate-specific-antigen-test
16. Clinton SK, Giovannucci EL, Hursting SD. The World Cancer Research Fund/American Institute for Cancer Research Third Expert Report on Diet, Nutrition, Physical Activity, and Cancer: Impact and Future Directions. J Nutr. 2020;150(4):663-671. doi:10.1093/jn/nxz268
17. Giovannucci EL, Liu Y, Leitzmann MF, Stampfer MJ, Willett WC. A prospective study of physical activity and incident and fatal prostate cancer. Arch Intern Med. 2005;165(9):1005-1010. doi:10.1001/archinte.165.9.1005
18. Downer MK, Allard CB, Preston MA, et al. Regular Aspirin Use and the Risk of Lethal Prostate Cancer in the Physicians' Health Study. Eur Urol. 2017;72(5):821-827. doi:10.1016/j.eururo.2017.01.044
19. Harvard Health Publishing. Ejaculation frequency and prostate cancer. Harvard Health Publishing website. Updated June 18, 2021. Accessed 2025. https://www.health.harvard.edu/mens-health/ejaculation_frequency_and_prostate_cancer
20. National Committee for Quality Assurance (NCQA). HEDIS MY 2024 Measure Description: Non-Recommended PSA-Based Screening in Older Men (PSA). Accessed 2025. https://wpcdn.ncqa.org/www-prod/wp-content/uploads/HEDIS-MY-2024-Measure-Description.pdf

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