

Early diagnosis and management of prostate cancer is crucial to providing safe, high-quality care to patients. Understanding the complexities of the signs and symptoms of prostate cancer can help nurse practitioners (NPs) make timely decisions to assess a patient's complaints and consider differential diagnoses. Acting on diagnostics, NPs can guide patients through treatment strategies to ensure positive health outcomes.

#### AT A GLANCE

- Adequate knowledge and skills are required on the part of NPs to diagnose and care for patients with prostate cancer.
- NPs must consider all potential differential diagnoses that have signs or symptoms in common with prostate cancer.
- A plan of care for the patient with prostate cancer should be created through a shared decision-making process.

#### KEYWORDS

nurse practitioner; prostate cancer management; prostate cancer diagnosis

#### DIGITAL OBJECT

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# Prostate Cancer

## How nurse practitioners can aid in disease diagnosis and management

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**P**rostate cancer is a significant health problem in the United States, with an estimated 174,650 new cases and 31,620 deaths in 2019 (American Cancer Society [ACS], 2019). Black men are more likely to be diagnosed with prostate cancer and have the highest incidence of the disease worldwide (DeSantis et al., 2016). Prostate cancer is diagnosed primarily in men aged 65 years or older, and it is rare for prostate cancer to be diagnosed before age 40 years (ACS, 2019).

Early diagnosis improves health outcomes and prevents life-altering symptoms that occur from treatments used for late-stage diagnoses. Many symptoms of prostate cancer (e.g., dysuria, urgency and frequency of urination) can be confused with those of other urologic disorders and contribute to missed opportunities to diagnose early-stage prostate cancer. This article illustrates best practices for diagnosis and treatment in a case study (see Figure 1).

### Assessment

Assessing the patients' health history (including modifiable and nonmodifiable risk factors for developing prostate cancer, such as family history, genetic history, age, and abnormal prostate-specific antigen [PSA] test results) is necessary to formulate an appropriate diagnosis (Al Olama et al., 2014; Discacciati & Wolk, 2014; Smith et al., 2015). Because prostate cancer symptoms can mimic those of other diseases, assessing the clinical presentation ensures

that appropriate patient care is provided. Assessment also includes the patient's perception of symptom severity, treatment readiness, and self-efficacy, as well as prostate cancer screening. Screening recommendations are listed in Figure 2.

### Differential Diagnoses

To perform a thorough workup, nurse practitioners (NPs) must consider all potential differential diagnoses that share similar presenting signs or symptoms. Two specific differential diagnoses should be considered for a prostate cancer diagnosis: benign prostate hyperplasia (BPH) and pyelonephritis.

BPH causes smooth muscle hyperplasia, bladder dysfunction, and prostatic enlargement. Presenting symptoms include voiding issues (weak stream, straining, dysuria, dribbling) and storage issues (urgency, nocturia, frequency). Most patients with BPH report having poor urinary flow. A BPH diagnosis is made from presence of pyuria per urinalysis and elevated PSA levels (Nickel et al., 2018). Prostate examination may yield an enlarged smooth prostate.

Pyelonephritis is kidney and renal pelvis inflammation. Symptoms are dysuria, fever, flank pain or costovertebral angle tenderness, and urinary frequency or urgency. Nitrites and leukocytes are positive on urinalysis, and a urine culture confirms diagnosis (Johnson & Russo, 2018).

Prostate cancer is a malignant tumor of glandular origin. Although men may not notice symptoms early in the disease process, presentation includes dysuria,