# Synopsis of Prostate Cancer

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## Synopsis of Prostate Cancer

Prostate cancer is one of the major global health concerns, raking as the second most common cancer in men worldwide. Located in the pelvis below the bladder and in front of the rectum, the prostate surrounds the upper part of the urethra. It's primary purpose is to secrete an alkaline solution that protects the sperm in the acidic environment of the vagina, which is necessary for feralization of eggs. Due to the location of the prostate, treatments for prostate cancer can include common complications such as incontinence, erectile dysfunction, and infertility. The evolution of prostate cancer treatments, including targeted therapies and minimally invasive procedures, can offer hope to improve patient outcomes while considering potential side effects and long-term risks.

Prostate cancer is the second most common cancer in men but is a very diverse disease. It varies from fast-metastasizing to a very slow-growing progression. It is characterized by an early age onset, aggressive disease progress and locally advanced stage. When detected early, prostate cancer that is confined to the prostate gland has high success rates with treatment The reason prostate cancer is so relevant today is because there are roughly one million new cases per year and hundreds of thousands of deaths each year. The side effects that accompany this cancer are most often asymptomatic, leading to less diagnosis that there should be each year. One difficulty of diagnosing prostate cancer is it normally is asymptomatic in its early stages. According to dynamic health, the developed cancer can accompany painful urination/urination frequencies, decreased urine output, painful ejaculation, or rectal discomfort (DynaHealth, paragraph 7).

According to the *National Cancer Society*, in 2024, there were 299,010 new cases of prostate cancer, and 35,250 deaths related to prostate cancer. This is the second highest new cases in the United States secondary to breast cancer. The biggest risk factor identified is men

with a family history and non-Hispanic black men, with a median average age of diagnosis being 67 (*National Cancer Institute,* P 1). This disease would affect the nursing community severely if left untreated. The number of these cases would rise, overriding the system of hospitalizations. For example, one of the side effects of prostate cancer is urine retention. This would lead to an extensive number of catheterizations, which increases the risk for CAUTI's, not to mention the depletion of resources that could occur.

One of the most important parts of prevention of prostate cancer is active surveillance. According to *Prostate Cancer Review: genetics, Diagnostics, Treatment Options, and Alterative Approaches*, the main diagnostic tool is a digital rectal exam. There is also the prostate-specific antigen test, which is a keystone for prostate cancer screening. The prostate-specific antigen is a "glycoprotein secreted by the epithelial cells of the prostate gland. It is usually found in the semen," (Vietri, M., D'Elia G., Calideno G., Resse M., Casamassimi A., Passariello L., Albanese L., Cioffi, section 2.2). There is evidence that a change in diet can be a preventative measure of those with family histories of prostate cancer. The western-type diet is characterized by high consumption of processed foods, meats, and meat products with high fat content. This is considered a more high-risk diet. The most important diagnostic to perform on someone with cancer is a biopsy. You cannot diagnose any cancer without a biopsy.

There are a few different treatment options for prostate cancer, including active surveillance, chemotherapy, radiation therapy, hormonal therapy, surgery, and cryotherapy. According to *Novel Design and Synthesis of Anticancer Agents,* prostate cancer has two classifications, androgen sensitive or androgen insensitive. These classifications can determine the treatment plan individualized for patients. Not only is it the classification that determines treatment, but the nature of the tumor, PSA levels, grade and stage, and possible reoccurrence

also determine the treatment plan. Another treatment for early-onset prostate cancer is removal of the prostate. This will result in erectile dysfunction, so it is most of the time avoided, especially in younger patients.

The biggest teaching points for prostate cancer are early screening and coping mechanisms. Prostate cancer is asymptomatic in early stages, and even when it is symptomatic, lots of men do not wat to talk about it. In order to diagnose early there are screening measure implemented. For men of average risk, it is recommended to start screening with a digital rectal exam at the age of 50, while higher risk patients may start earlier, starting at age 40-45. After diagnosis with any kind of cancer, coping mechanisms are a big teaching tool used to help one come to terms with their diagnosis. Some that are used most often are support groups, support of family members and friends, and even practicing mindfulness with meditation and breathing exercises.

There are multiple teaching strategies that I will use to educate people about prostate cancer. One of these methods will be a trifold poster board with ample education in layman's terms. This will open the floor for people to read and ask questions about any information that is not clear. Another tactic I will be using is a model of the prostate. This model will show exactly where the prostate is on the body, which is not common knowledge to some, and even show abnormalities of the prostate. During this time, we will open the floor to anyone interested in asking questions and answer to the best of our abilities.

To summarize, prostate cancer is one of the highest cancers diagnosed in men. The best way to diagnose and treat early is to get regular digital rectal exams, and the PSA test, but that is not always the first line of testing. There are multiple different ways to treat prostate cancer, and treatment really depends on the patient. This information relates to evidence-based practice

because of the years, we have learned many different things from treating and diagnosis prostate cancer. For example, the PSA used to be the number one way to diagnose prostate cancer, but through evidence-based practice we have learned it is not the end-all-be-all of testing. We have learned to individualize treatments for each patient, like not removing the prostate in a young patient is considered best practice. The most important part of this paper is to educate, encourage screening and testing, and to know how the nursing community is affected by prostate cancer.

# Resources

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