INTRODUCTION:

Prostate cancer is a major public health hazard worldwide. Despite the relatively small size of the prostate gland and few important functions it is a great cause of morbidity and mortality. Prostate cancer starts biologically as a prostatic intraepithelial neoplasia (PIN) with progression to the common prostate cancer phenotype. Histologic subtypes include the common adenocarcinoma as well as less common histologies such as small cell carcinoma, neuroendocrine carcinoma and sarcomas. Screening using the PSA measurement as well as digital rectal exam can successfully diagnose early stage prostate cancer. However, there is concern as to over diagnosis as many early stage low risk prostate cancers may never cause clinical morbidity and are occasionally overtreated with potential toxicities of treatment. The American Cancer Society recommends that men discuss the pros and cons of prostate cancer screening with their physicians in order to make an informed decision. In patients with a 10-year life expectancy or less and not recommended to undergo screening.

EPIDEMIOLOGY:

Prostate cancer is the second most common cancer in American man second to skin cancer. The American Cancer Society estimates that in 2019 in the United States there will be about 174,650 new cases of prostate cancer with about 31,620 deaths from prostate cancer. Prostate cancer is the second leading cause of cancer death in American men second to lung cancer. However, the fact remains that most men diagnosed with prostate cancer do not die from it. Risk factors for prostate cancer include family history, increased age, smoking, African American ancestry, diet high in red meat or fat, obesity, and chemical exposures such as Agent Orange. In addition, chronic inflammation of the prostate (prostatitis) may suggest a link to prostate cancer. Lastly, there are high risk genetic alterations such as BRCA1 and BRCA2 genes. Initial work-up for prostate cancer includes a digital rectal exam, PSA measurements, as well as the use of imaging such as CT scans to assess for more distant disease.
**TREATMENT:**

The National Comprehensive Cancer Network (NCCN) categorize prostate cancer broadly into low risk, intermediate risk and high risk groups. Treatment would depend upon clinical factors including risk category, age, comorbidities and patient wishes. For very low risk disease watchful waiting is often reasonable. In higher risk localized disease either surgery (radical prostatectomy) or radiation therapy are appropriate with radiation along with hormone therapy (androgen deprivation therapy) and locally advanced disease. For patient with metastatic disease hormone therapy and chemotherapy are offered. In addition supportive care such as calcium, vitamin D and bone strengthening agents such as Xgeva are also indicated. In patients with painful bony disease palliative radiation is also recommended.

**NORWOOD HOSPITAL PATIENT DATA REVIEW:**

Norwood Hospital’s prostate cancer cases from 2018 were reviewed. In total there were 55 cases. Stage I prostate cancer comprised 20% of cases, stage II comprised 42%, stage III 26.8% and stage IV 11.2%. All 10 of the stage I cases they were all followed with surveillance and all had a Gleason score of 6. For all 24 stage II patients 5 chose surveillance with Gleason scores of 6 or 7 and the remainder were treated with prostatectomy, radiation or hormone therapy or some combination thereof and one was lost to follow-up. All of the stage III patients were treated with prostatectomy, radiation, or androgen deprivation or some combination thereof. One patient was eventually lost to follow-up who was initially treated with androgen deprivation therapy followed by radiation therapy. All of the stage IV patients were treated with androgen deprivation therapy or chemotherapy or some combination thereof. All cases were staged and treated in accordance with national guidelines including the American Joint Committee on Cancer (AJCC) and the National Comprehensive Cancer Network (NCCN).

As a result of our study and excellent compliance with NCCN recommendations as well as the long-term disease control especially for early-stage patients, it is important to make sure our patients have survivorship care plans when their treatment is complete. This will continue to be monitored as a part of our Survivorship Program to be phased-in starting in 2020. In addition, we will continue to appropriately screen high risk cancer patients with a personal or family history with well-established genetic susceptibility genes with interventions based on these results.
NORWOOD HOSPITAL CANCER CARE SERVICES

Norwood Hospital offers community-based care for most cancers. Services are conveniently located at the hospital and it’s Cancer Center in Foxboro. Our goal is to provide local access to current treatment to achieve the best possible outcomes. We offer:

- Leading-edge radiology
- Medical oncology
- Surgical services
- Outpatient chemotherapy clinic
- Intensity-Modulated Radiation Therapy
- Seed implants
- National cancer research trials
- Community health screenings and education, including American Cancer Society programs
- Pain management
- Rehabilitation