Coding for Prostate Cancer

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What is the Prostate and What Does it do?

• Walnut sized organ found only in men.

• Secretes thin milky fluid during ejaculation.

• This fluid neutralizes the acidity of other fluids (male and female) enhancing the motility of sperm.

• May help prevent urinary tract infections in men
Where is the Prostate Located?
Prostate Cancer Basics

Not easily diagnosed by physical exam
What is Cancer

• Cancer = Malignant neoplasm

• Neoplasm:
  - abnormal, unregulated tissue growth
  - lack of structural organization
  - forms a mass either benign or malignant

• Malignant:
  - destructive growth
Prostate Cancer Diagnosis?

- “Elevated” prostate specific antigen (PSA) (ICD-9 790.93)
- Abnormal digital rectal examination (DRE) (ICD-9 600.1, 600.10, 600.11)
- Transrectal Prostate Ultrasound and Biopsy (TRUS) (CPT-55700/55706 & 76942)
Prostate Specific Antigen (PSA)

- PSA is a blood marker indicative of prostate growth
- Increases gradually with age
- Increases more rapidly with:
  - benign prostate growth (ICD-9 600.0)
  - prostate cancer (ICD-9 185)
  - prostate infection (prostatitis) (ICD-9 600.1)
- Screening begins at 50 unless there is a family history or African-American then it should start at 40
Diagnosis of Prostate Cancer

- Transrectal Prostate Ultrasound and Biopsy (TRUS) (CPT-55700/55706 & 76942)
Diagnosis of Prostate Cancer

The final diagnosis of all forms of cancer is via biopsy.

Gleason Grade

Gleason Score:

- A combination of the two most common patterns observed.
- Max value of 10.
- Score of 7 or more is indicative of poor prognosis.
Prostate Cancer Basics

Prostate Cancer Stage

Stage T1
Tumor confined to prostate but is undetectable by a digital rectal exam (DRE). Usually discovered by PSA tests or biopsies.

Stage T2
Tumor is confined to prostate and can be detected by DRE or ultrasound.

Stage T3
In stage T3, the cancer has spread to tissue adjacent to the prostate or to the seminal vesicles.

Stage T4
Stage T4 tumors have spread to organs near the prostate, such as the bladder.
Disease Evaluation

• If prostate cancer is diagnosed, the severity of the disease is measured in three different ways
  • PSA
  • Stage: TNM classifications
  • Gleason score

• Factors involved in making the decision for therapy
  • Age (> 10-15 year life expectancy)
  • Comorbidities
  • Extent of disease
Prostate Cancer Management Options

- Active Surveillance
- Surgery
  - Retropubic/Perineal
  - Robotic/Laparoscopic
- Radiation therapy
  - External beam (EBRT)
  - Radioactive seed implant (Brachytherapy)
  - Intensity modulated radiation therapy (IMRT)
  - CyberKinfe
  - Proton beam
- Ablation
  - Cryosurgery
  - High Intensity Focus Ultrasound (HIFU)
- Hormone Therapy
General Categories of Treatment

1. **Surgical excision**
   - Retropubic (55845)
   - Transperineal (55810)
   - Laparoscopic/Robot assisted (55866)

2. **Radiation Therapy**
   - External beam (ERBT)
   - 3-D Conformal RT
   - Intensity Modulated RT
   - Brachytherapy (Seeds)
   - Proton beam
   - Combination
   - CyberKinfe Therapy (SBRT)

3. **Ablation**
   - HIFU
   - Cryoablation
Radical Prostatectomy Retropubic (55845) or Perineal (558910)
Prostate Cancer Treatment Options

Radical Retropubic Prostatectomy (RRP) (55845)
Radical Perineal Prostatectomy (RPP) (55810)
Prostate Cancer Treatment Surgery

Laparoscopic/Robotic Prostatectomy (55866)
Laparoscopic/Robotic Prostatectomy (55866)
External Beam Radiation Therapy (XRT or EBRT)

- Radiation is passed through the prostate from several angles over a period of 5-6 weeks.
- X-rays are taken and the prostate is outlined.
- The beam that comes out of the treatment unit is rectangular.
- Lead blocks are put in front of the beam letting through only that radiation that will make it to the prostate.
- Fractions given over a 5-6 week period
- Morbidities develop with time
3-D Conformal Radiation Therapy (3D-CRT)

• Radiation is passed through the prostate from several angles over a period of 5-6 weeks.

• Three dimensional images of the anatomy are taken with CT imaging.

• A treatment plan is made in a computer that is linked to the treatment unit.

• The machine modifies its beam to more closely match the individual patient anatomy.

• Fractions given over a 5-6 week period

• Morbidities develop with time
Brachytherapy/SEEDS (77328/55875)

- Radioactive seeds are placed directly into the prostate.
- Outpatient procedure.
- They emit radiation over a period of weeks to months.
- Iodine-125 is used for less aggressive cancers.
- Palladium-103 is used for more aggressive cancers.
- 1-2 hour procedure.
- Morbidities develop with time.
CyberKnife/Stereotactic Body Radiation Therapy (SBRT) (55876)

- High dose radiation is passed through the prostate from several angles

- Three dimensional images of the anatomy are taken with CT imaging and a treatment plan is made on a computer that is linked to the treatment unit

- The machine continually tracks and automatically corrects for the movement of the prostate in real time which enables the system to correct the beam direction so that it is focused on the prostate throughout the entire treatment

- Fractions given over a 4-5 day period

- Morbidities develop with time
High Intensity Focused Ultrasound (HIFU)

- In-situ heating of the prostate
- 1-2 hour procedure outpatient or overnight hospital stay
- Focused (focal point) the sudden and intense absorption of the ultrasound beam creates a sudden elevation of the temperature (to greater than 85°C), which destroys the cells located in the targeted zone
- Procedure may be repeated for radiation failure patients
- Not yet approved in the United States
Prostate Cancer Treatment Cryoablation

Cryoablation (55873)

- In-situ freezing of the prostate
- Placement of 6-8 cryoprobes
- 1-2 hour procedure
- Outpatient or overnight hospital stay
- Nerve sparing or focal is possible but not standard
- Procedure may be repeated for radiation failure or previous cryosurgical ablation patients
Review

- Men >50 (>40 if history) should undergo an annual PSA screening

- If an elevated PSA is observed (> 4ng/ml) biopsy usually follows

- If cancer is detected the disease extent and aggressiveness is quantified by:
  1) PSA
  2) Stage/Gleason score
  3) Patient age/Health status
Prostate Cancer Basics

HELLO... I'M DR. GROSSFINGER. I'LL BE YOUR UROLOGIST.