# Prostate Case Scenario 1

**H&P**

5/12/16: A 57-year-old Hispanic male presents with frequency of micturition, urinary urgency, and hesitancy associated with a weak stream. Over the past several weeks, he has reported a few episodes of hematuria and incontinence and low-grade, constant back pain and bouts of constipation. A DRE revealed enlarged prostate gland with several palpable nodules in the left and right lobes. Patient’s past medical history was unremarkable.

**Labs:**

5/16/16:

* PSA: 95 ng/mL (range: 0.0–4.0 ng/mL)
* Hemoglobin: 15 g/dL (range: 13.2–17.1 g/dL)
* Hematocrit: 43% (range: 38.5–50%)
* White blood cell: 7,500/mm3, normal differential
* Platelets: 250,000/mm3
* Blood urea nitrogen: 15 mg/dL (normal range: 7–30 mg/dL)
* Creatinine level: 1.0 mg/dL (range: 0.5–1.4 mg/dL)
* Alkaline phosphatase: within normal range
* Liver function: within normal range

**Procedures:**

5/18/16 TRUS Biopsy of prostate

**Surgical Pathology Report:**

5/18/16 Prostate biopsy:

A) PROSTATE GLAND, RIGHT, "EIGHT CORES," BIOPSY:

* Prostatic adenocarcinoma, Gleason score 4 + 4 = 8, involving three of multiple core fragments and approximately 5% of the examined tissue
* Perineural invasion identified

B) PROSTATE GLAND, LEFT, "SEVEN CORES," BIOPSY:

* Prostatic adenocarcinoma, Gleason score 4 + 5 = 9, involving six of multiple core fragments and approximately 10 -15% of the examined tissue
* Perineural invasion identified

SPECIMEN TYPE:

A: RT 8 CORES

B: LT 7 CORES

**IMAGING:**

5/20/16 MRI of the spine: Revealed metastatic infiltration of entire T10 vertebral body marrow space. No evidence of cord compression; signal activity in proximity to the corresponding nerve root. Radionuclide scintigraphy demonstrated several areas along the spine suggestive of metastatic bone disease, consistent with findings from MRI studies.

5/21/16 CT Abdomen/Pelvis: No evidence of nodal or visceral metastasis. Prostate was enlarged and irregular with extensive deformity of the bladder neck.

5/21/16: Ultrasound: revealed tumor had extended bilaterally through the prostatic capsule

5/22/16 Radionuclide bone scan: Revealed metastatic bone disease secondary to prostatic adenocarcinoma. Osseous sites of increased uptake can be identified in the spine (T1 to T12) and rib.

**Diagnosis:**

Based upon prostate biopsy evaluation and ultrasound images, radionuclide scintigraphy, and MRI studies, a diagnosis was made of advanced prostatic adenocarcinoma with metastases to the bone.

**Treatment:**

Patient was treated with external beam radiation, and a 3-month treatment with abarelix. Patient experienced a significant improvement of his urological symptoms. A total of 40 treatments over an 8-week period consisted of 3-dimensional conformal radiation therapy, which delivered a total 6570 cGy dose of radiation to the prostate. To further improve the management of bone metastasis, the patient was initiated on bisphosphonate treatments with intravenous infusions of zoledronic acid.

**Follow up:**

11/29/16: PSA level < 0.1 ng/mL. Long-term gonadal suppression with abarelix was planned and the patient was continued with serial physical exams, routine blood evaluations, including serum PSA determinations at regular intervals (every 2 to 3 months), and radiological assessments every 6 to 12 months or as clinically indicated.

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| --- | --- | --- | --- | --- | --- | --- |
| * **What is the primary site?**   **C619**   * **What is the histology?**   **8140/3** | | | | * **What is the grade/differentiation?**   **3** | | |
| **Stage/ Prognostic Factors** | | | | | | |
| Summary Stage | 7 - Distant | | Tumor Size Summary | | 999 | |
| TNM Clin T | c3a | | TNM Path T | |  | |
| TNM Clin N | c0 | | TNM Path N | |  | |
| TNM Clin M | c1b | | TNM Path M | |  | |
| TNM Clin Stage | IV | | TNM Path Stage | | 99 | |
| TNM Clin Descriptor | 0 | | TNM Path Descriptor | | 0 | |
| TNM Clin Staged By | 20 | | TNM Path Staged By | | 20 | |
| CS SSF 1 | 950 | |  | |  | |
| CS SSF 2 | 010 | | Regional Nodes Positive | | 98 | |
| CS SSF 3 | 970 | | Regional Nodes Examined | | 00 | |
| CS SSF 7 | 045 | | Mets at Dx - Bone | | 1 | |
| CS SSF 8 | 009 | | Mets at Dx - Brain | | 0 | |
| CS SSF 9 | 998 | | Mets at Dx - Liver | | 0 | |
| CS SSF 10 | 998 | | Mets at Dx - Lung | | 0 | |
| CS SSF 11 | 998 | | Mets at Dx - Other | | 0 | |
| CS SSF 12 | 991 | | Mets at Dx – Distant LN | | 0 | |
| CS SSF 13 | 015 | |  | |  | |
| **Treatment** | | | | | | |
| Diagnostic Staging Procedure | | 02 |  | | |  |
| **Surgery Codes** | |  | **Radiation Codes** | | |  |
| Surgical Procedure of Primary Site | | 00 | Radiation Treatment Volume | | | 41 |
| Scope of Regional Lymph Node Surgery | | 0 | Regional Treatment Modality | | | 32 |
| Surgical Procedure/ Other Site | | 0 | Regional Dose | | | 06570 |
| **Systemic Therapy Codes** | |  | Boost Treatment Modality | | | 00 |
| Chemotherapy | | 00 | Boost Dose | | | 00000 |
| Hormone Therapy | | 01 | Number of Treatments to Volume | | | 40 |
| Immunotherapy | | 00 | Reason No Radiation | | | 0 |
| Hematologic Transplant/Endocrine Procedure | | 00 | Radiation/Surgery Sequence | | | 0 |
| Systemic/Surgery Sequence | | 0 |  | | |  |

# Prostate Case Scenario 2

A 67 year old white male presents with and elevated PSA. A digital rectal exam revealed small benign prostate without nodules.

1/4/16 PSA: 5.497 ng/ml (range 0-4.900)

**Pathology Reports:**

3/21/16 Prostate biopsy:

1. Prostate, right, needle biopsy:
   * Focal high-grade prostatic intraepithelial neoplasia
   * No invasive carcinoma is identified in 6 core biopsies
2. Prostate, left, needle biopsy:
   * Adenocarcinoma, Gleason grades 3+4=score of 7
   * Carcinoma is present in four of six core biopsy fragments
   * Carcinoma involves approximately 25% of specimen

4/4/16 Robotic prostatectomy, bilateral pelvic lymph node resection, robotic laparoscopic assist.

1. Lymph nodes, right pelvic, dissection:
   * Four lymph nodes identified, all negative for metastatic carcinoma (0/4)
2. Lymph nodes, left pelvic, dissection:
   * Five lymph nodes identified, all negative for metastatic carcinoma (0/5)
3. Prostate, radical prostatectomy:
   * Adenocarcinoma of the prostate, Gleason score 3+4=7, approximately 7% of the gland, involving the right and left lobes. Approximately 3% of the specimen displayed a Gleason tertiary grade 5 pattern.

From synoptic report:

* Tertiary Pattern: Gleason 5
* Extraprostatic extension: not identified
* Seminal vesicle invasion: not identified

**Medical Oncologist:**

Patient will be monitored for signs of recurrence. No further treatment is recommended at this time.

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| --- | --- | --- | --- | --- | --- | --- |
| * **What is the primary site?**   **C61.9**   * **What is the histology?**   **8140/3** | | | | * **What is the grade/differentiation?**   **2** | | |
| **Stage/ Prognostic Factors** | | | | | | |
| Summary Stage | Localized | | Tumor Size Summary | | 999 | |
| TNM Clin T | c1c | | TNM Path T | | p2c | |
| TNM Clin N | c0 | | TNM Path N | | p0 | |
| TNM Clin M | c0 | | TNM Path M | | c0 | |
| TNM Clin Stage | IIA | | TNM Path Stage | | IIB | |
| TNM Clin Descriptor | 0 | | TNM Path Descriptor | | 0 | |
| TNM Clin Staged By | 20 | | TNM Path Staged By | | 20 | |
| CS SSF 1 | 055 | |  | |  | |
| CS SSF 2 | 010 | | Regional Nodes Positive | | 00 | |
| CS SSF 3 | 230 | | Regional Nodes Examined | | 09 | |
| CS SSF 7 | 034 | | Mets at Dx - Bone | | 0 | |
| CS SSF 8 | 007 | | Mets at Dx - Brain | | 0 | |
| CS SSF 9 | 034 | | Mets at Dx - Liver | | 0 | |
| CS SSF 10 | 007 | | Mets at Dx - Lung | | 0 | |
| CS SSF 11 | 050 | | Mets at Dx - Other | | 0 | |
| CS SSF 12 | 004 | | Mets at Dx – Distant LN | | 0 | |
| CS SSF 13 | 012 | |  | |  | |
| **Treatment** | | | | | | |
| Diagnostic Staging Procedure | | 02 |  | | |  |
| **Surgery Codes** | |  | **Radiation Codes** | | |  |
| Surgical Procedure of Primary Site | | 50 | Radiation Treatment Volume | | | 00 |
| Scope of Regional Lymph Node Surgery | | 5 | Regional Treatment Modality | | | 00 |
| Surgical Procedure/ Other Site | | 0 | Regional Dose | | | 00000 |
| **Systemic Therapy Codes** | |  | Boost Treatment Modality | | | 00 |
| Chemotherapy | | 00 | Boost Dose | | | 00 |
| Hormone Therapy | | 00 | Number of Treatments to Volume | | | 00 |
| Immunotherapy | | 00 | Reason No Radiation | | | 1 |
| Hematologic Transplant/Endocrine Procedure | | 0 | Radiation/Surgery Sequence | | | 0 |
| Systemic/Surgery Sequence | | 0 |  | | |  |