Supplementary Online Content


eMethods. Study Cohort and Risk Criteria

eFigure. CONSORT Flow Diagram of Exclusionary Criteria

eTable. Treatment Categorization Within 1 Year of Diagnosis

This supplementary material has been provided by the authors to give readers additional information about their work.
eMethods. Study Cohort and Risk Criteria

Study Cohort

Patients were excluded from the study if they did not have continuous fee-for-service Medicare coverage for one year before and after diagnosis in order to capture baseline comorbidity and post-diagnosis treatment data. Since patients with metastatic disease are generally ineligible for curative-intent local therapy, patients with locally advanced or metastatic prostate cancer (T4, N1+, M1+) were excluded. Patients with PSA greater than 50ng/dl may harbor micrometastatic disease and were likewise excluded. We additionally excluded men who were diagnosed by autopsy, who underwent a cystoprostatectomy within 3 months of diagnosis, and who did not have a Medicare claim for prostate biopsy.

D’Amico risk criteria

Low-risk disease was defined as a clinical stage T2a or less, Gleason 6 or less, and a PSA less than 10 ng/dL. High-risk disease was defined as T2c or higher, Gleason 8 or greater, or a PSA greater than 20 ng/dL. Disease not defined as low or high-risk was defined as intermediate-risk. Because PSA values in SEER were recently found to be inaccurate in up to 17% of patients, we used clinically relevant ranges such as 0-9.9, 10-19.9, and 20+ as recommended by SEER. This results in an error rate of less than 5%. Furthermore, we performed a sensitivity analysis whereby only Gleason score and clinical stage were used for risk classification.

eReference

Men aged 66 years or older with prostate cancer between 2004-2009 (n=170,869)

Entitled in Medicare A + B but not enrolled HMO (n=96,477)

- Excludes 74,392 men with noncontiguous Medicare Coverage
- Exclude 25,456 men with advanced prostate cancer (T4, N1+, M1+)
- Exclude 370 men diagnosed by cystectomy or autopsy
- Exclude 1817 men with PSA >50
- Exclude 2335 men without a prior biopsy claim

Cohort of men with clinically localized disease (n=66499)

- Exclude 8,830 men who were not diagnosed by a urologist who had at least one low-, one intermediate- and one high-risk patient during the study period

Analytic cohort (n=57,669)
### eTable. Treatment Categorization Within 1 Year of Diagnosis

<table>
<thead>
<tr>
<th>Treatment Categorization</th>
<th>Codes</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>RP (perineal, retropubic)</strong></td>
<td>55840, 55842, 55845, 55866, 55810, 55812, 55815 and 60.62, 17.42, 60.5, 60.4, and 60.3 (40.3, 40.53, and 40.59 for lymph node dissection)</td>
</tr>
<tr>
<td><strong>Brachytherapy</strong></td>
<td>76873, 55859, 76965, 55860, 55875, 55876, 76873, 76965, 77326, 77327, 77328, 77761, 77762, 77763, 77799, 77776, 77777, 77778, and 60.99, 92.27, 92.28, and 92.29, 77781, 77782, 77783, 77784, 77785, 77786, 77787, 77789, 77790, Q3001, A9527, C1715, C1716, C1717, C1719, C1728, C2616, C2634, C2635, C2636, C2637, C2638, C2639, C2640, C2641, C2642, C2643, C2698, C2699, C9725</td>
</tr>
<tr>
<td><strong>External Beam Radiotherapy</strong></td>
<td>77305, 77310, 77315, 77321, 77371, 77372, 77373, 77402, 77403, 77404, 77406, 77407, 77408, 77409, 77411, 77412, 77413, 77414, 77416, 77422, 77423, 92.24, 92.26, 77301, 77418, 0073T, 77380, 77381, 77520, 77522, 77523, and 77525, 77301, 77338, 77761, 77762, 77763, 77789, 77427</td>
</tr>
<tr>
<td><strong>Cryotherapy</strong></td>
<td>50250, 50593, 55873, 55873, 60.62, C2618, G0160, G0161</td>
</tr>
<tr>
<td><strong>Androgen Deprivation Therapy</strong></td>
<td>J1050, J1051 (Progesterone inj), J1950 J9217 J9218 J9219, C9430 (Lupron inj), J9165 (DES Inj), J9202 (Zolade), J3315 (Trelstar), J9225 CPT 11981 (Vantas), all injections ICD-99.24, S0175 (Flutamide), J8999 (Bicalutamide/Flutamide/Nilutamide) S0165, J0128, C9216, (Abarelix inj), J9155 (Degarelix inj), S9560 (any hormone/adt inj tx), G0356 (any ADT IM inj)</td>
</tr>
<tr>
<td><strong>Observation</strong></td>
<td>None of the above treatments within one year of prostate cancer diagnosis</td>
</tr>
</tbody>
</table>