Prevalence of Nonmetastatic Prostate Cancer Patients on Continuous Androgen Deprivation Therapy in the United States

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ABSTRACT

This is the first comprehensive assessment of the prevalence of primary ADT exposure (defined here as continuous ADT for ≥ 6 months) in the nonmetastatic PC setting at the national level.

Background

Two point-prevalent cohorts on 12/31/2008 with continuous coverage in 2008 were assembled:

- Gonadotropin-releasing hormone (GnRH) agonists: leuprolide acetate (J1950, J9217, J9218, J9219);
- Bilateral orchiectomy: ICD-9-CM procedure codes 62.41 and 62.42

METHODS

Participants, and military forces).

REFERENCES


RESULTS

Table 1. Measured Estimates: Age-Specific Patient Counts for Men With Nonmetastatic PC Actively Receiving Continuous (≥ 6 Months) ADT in the Study Cohorts

<table>
<thead>
<tr>
<th>Age Group</th>
<th>US Census Prevalence</th>
<th>US Commercially Insured Prevalence</th>
<th>FFS Medicare Prevalence</th>
<th>N</th>
<th>%</th>
<th>95% CI</th>
</tr>
</thead>
<tbody>
<tr>
<td>18–44 yrs</td>
<td>96,586 (0.030%)</td>
<td>8,308 (0.088%)</td>
<td>2,069 (0.030%)</td>
<td>0.030%</td>
<td>0.028–0.032</td>
<td></td>
</tr>
<tr>
<td>45–64 yrs</td>
<td>117,421 (0.077%)</td>
<td>37,843 (0.220%)</td>
<td>26,272 (0.091%)</td>
<td>0.077%</td>
<td>0.072–0.083</td>
<td></td>
</tr>
<tr>
<td>65–74 yrs</td>
<td>56,452 (0.076%)</td>
<td>31,087 (0.047%)</td>
<td>1,702 (0.002%)</td>
<td>0.076%</td>
<td>0.072–0.081</td>
<td></td>
</tr>
<tr>
<td>75+ yrs</td>
<td>18,207 (0.026%)</td>
<td>4,717 (0.007%)</td>
<td>375 (0.000%)</td>
<td>0.026%</td>
<td>0.024–0.028</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>218,666 (0.041%)</td>
<td>82,055 (0.157%)</td>
<td>26,272 (0.091%)</td>
<td>0.041%</td>
<td>0.040–0.042</td>
<td></td>
</tr>
</tbody>
</table>

Table 2. Extrapolated Estimates: Prevalence of Men With Nonmetastatic PC Actively Receiving Continuous (≥ 6 Months) ADT in the Study Cohorts

<table>
<thead>
<tr>
<th>US Male Population</th>
<th>Prevalence of ADT use</th>
</tr>
</thead>
<tbody>
<tr>
<td>45–64 yrs</td>
<td>89,422 (0.242%)</td>
</tr>
<tr>
<td>65–74 yrs</td>
<td>44,857 (0.066%)</td>
</tr>
<tr>
<td>75+ yrs</td>
<td>13,846 (0.021%)</td>
</tr>
<tr>
<td>Total</td>
<td>148,125 (0.041%)</td>
</tr>
</tbody>
</table>

Prevalence of ADT use in the US male population aged ≥ 45 years is summarized in Table 3

- Among the 10.3 million FFS Medicare male enrollees in the US, an estimated 115,290 (95% CI: 113,311–117,269) represented nonmetastatic PC patients actively receiving continuous ADT for ≥ 6 months in 2012.

CONCLUSIONS

- At all end of 2008, nearly 150,000 US males aged 45–64 years (~0.34% of the entire male population in this age group) were identified as nonmetastatic PC patients actively receiving continuous ADT for ≥ 6 months in the national setting, and the real prevalence (97%) of these men were aged ≥ 65 years.

- It is difficult to directly compare our work with previously published analyses on trends in ADT use in the US, primarily because of the rapidity of our measures of interest (point prevalence, cohort), and the specific type of ADT measured (continuous exposure for ≥ 6 months).

- Nonetheless, given that the extreme of prevalence of ADT during the study period is likely to have been overestimated during continuous ADT use, continuing ADT use in the course of their disease.

- A major strength of this study is our use of large population-based databases that are representatives of important segments of the US adult population – the commercially insured male population aged 18–44 years and the FFS Medicare population aged 65+ years.

- A major limitation of this study is the prevalence of ADT use in the measured in the commercially insured and FFS Medicare populations is generalizable to the remaining adult male population (men with private insurance, uninsured men, Medicare beneficiaries without Medicare coverage, Medicare Advantage participants, and military forces).

- Despite this possible limitation, we provide a recent snapshot of the number of US men with metastatic prostate cancer who are being actively exposed to continuous ADT for a duration of at least 6 months.

ACKNOWLEDGMENTS

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- K.C. and S.L. are employees of Amgen Inc. and have stock ownership in Amgen Inc.
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Download Table 1 and Table 2.