INTRODUCTION

- Prostate cancer is the most commonly diagnosed cancer in men in Europe with almost half a million new cases each year.
- Metastatic prostate cancer is associated with a substantial burden on both patients and healthcare systems.
- Temporal trends will not have a substantial influence on outcomes.

METHODS

- A model was developed to predict, in each country:
  - The number of patients with prostate cancer and bone metastases.
  - Annual SRE rates to estimate the total number of predicted SREs by treatment option.
  - The largest reduction was seen in Germany (5,024 hospitalisations avoided) and the smallest difference in cost saving was in the Czech Republic.

RESULTS

- Prevalence of patients with bone metastases and SREs:
  - Estimated prevalence by country of the 66,579 patients with advanced prostate cancer and bone metastases is presented in Table 2.

- Resource use and direct medical costs of managing SREs:
  - Data from an European observational study conducted in Germany, Italy, Spain, and Switzerland were used.

- For patients requiring an implantation stay, using denosumab versus zoledronic acid was associated with a reduction in the number of days spent in hospital per SRE in all countries. This equated to an overall total saving of 270,037 hospital days saved, or a 21% reduction (Figure 2).

- Total reduction in hospitalisations per SRE were observed for all countries with a total of 13,366 hospitalisations avoided.

LIMITATIONS

- Only cost savings directly associated with hospital care were considered in this analysis. Costs such as those associated with treatment administration, hospital transportation and home care can also be expected.

CONCLUSIONS

- The demonstrated clinical superiority of denosumab versus zoledronic acid in the prevention of SREs can translate into significant reductions in the number and duration of hospitalisations, therefore alleviating the patient burden as well as saving direct medical costs associated with the management of SREs.

Table 1. Country-specific data inputs

<table>
<thead>
<tr>
<th>Country</th>
<th>Austria</th>
<th>Czech Republic</th>
<th>Greece</th>
<th>Italy</th>
<th>Spain</th>
<th>Switzerland</th>
</tr>
</thead>
<tbody>
<tr>
<td>SREs (per 1000)</td>
<td>15.3</td>
<td>15.3</td>
<td>15.3</td>
<td>15.3</td>
<td>15.3</td>
<td>15.3</td>
</tr>
<tr>
<td>Hospitalisations avoided</td>
<td>13,366</td>
<td>13,366</td>
<td>13,366</td>
<td>13,366</td>
<td>13,366</td>
<td>13,366</td>
</tr>
<tr>
<td>Total direct cost saving, €</td>
<td>38,690</td>
<td>38,690</td>
<td>38,690</td>
<td>38,690</td>
<td>38,690</td>
<td>38,690</td>
</tr>
</tbody>
</table>

Figure 2. Hospitalisation days avoided when denosumab was used instead of zoledronic acid

The Clinical and Economic Burden of Skeletal-Related Events in Austria, the Czech Republic, Germany, Greece, Italy, Spain and Switzerland: A Comparison Between The Use of Denosumab and Zoledronic Acid in Patients With Prostate Cancer and Bone Metastases

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