gastrointestinal tumours, non-colorectal

PREMATURE MORTALITY IN PANCREATIC CANCER: ANALYSIS OF LOST LIFE-YEARS AND QUALITY-ADJUSTED LIFE-YEARS (QALYS) IN EUROPE


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Aim: Pancreatic Cancer (PanC) is associated with a very poor prognosis and a high patient burden. The objective of this analysis was to quantify the aggregate number of life years (LYs) and QALYs lost due to PanC in Europe each year.

Methods: Estimates of incidence, life expectancy and quality of life were derived from a systematic review of PanC disease burden in Europe. Equivalent data for age-matched European population norms were obtained from the literature. Estimates of LYs lost were calculated by comparing predicted life-expectancy for PanC patients with age-matched population norms. QALYs lost were estimated by incorporating health-utility estimates for both cohorts. Aggregate LYs and QALYs lost were predicted by accounting for annual PanC incidence across EU-28 countries. We performed the analyses for both the general PanC population and metastatic (mets.) patients.

Results: The average age of PanC patients at diagnosis is 71 years. Life expectancy at diagnosis is 0.3 years (4.6 months), compared to 15.1 years for an age-matched population norm – a loss of 14.7 years per person. The annual number of incident PanC patients in Europe varied between 50,450 and 79,331 depending upon the source and methodology of incidence data. The total number of LYs lost to PanC annually in Europe was as high as 1.2 million life years. Nearly half of these are due to metastatic disease. The utility of PanC patients is 0.65 compared to a population norm utility of 0.78. On average 11.5 QALYs are lost per person with PanC. Extrapolated across Europe, up to 800,000 QALYS are lost annually to PanC.

Table: 705P

<table>
<thead>
<tr>
<th>Life-years and QALYs lost annually in Europe</th>
<th>Incident Cases per year</th>
<th>Aggregate Life-years Lost</th>
<th>Aggregate QALYs Lost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Annual Incidence Rate</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>All PanC</td>
<td>79,331</td>
<td>1,167,488</td>
<td>663,792</td>
</tr>
<tr>
<td>Mets. All PanC</td>
<td>52,872</td>
<td>29,925</td>
<td>442,397</td>
</tr>
<tr>
<td>All Mts. PanC</td>
<td>50,450</td>
<td>28,555</td>
<td>422,134</td>
</tr>
<tr>
<td>All Mts.</td>
<td>9.95</td>
<td>742,456</td>
<td>581,630</td>
</tr>
</tbody>
</table>

Conclusions: Up to 1 million life-years are lost to PanC in Europe yearly, demonstrating the magnitude of the disease’s impact. Measurements of the life years and QALYs lost may provide a method to compare the relative burden of cancers. Similar methodology for comparing the relative burden of diseases is currently under consultation with NICE in the UK in the context of Value Based Pricing.

Disclosure: A. Parnaby and K. Djazouli: I am an employee of Celgene Corporation and I declare ownership of company stocks. All other authors have declared no conflicts of interest.