Gout is characterised by the inflammation of the synovial membrane around the joints due to the formation of uric acid crystals, causing intense pain. Its primary risk factor is hyperuricaemia. Gout’s growing prevalence, which highlights the importance of fully understanding the disease burden, only limited published data are available.

A systematic literature review (SLR) of the published evidence on the economic burden of gout was conducted. The aim of the SLR was to summarise key published studies estimating the direct and/or indirect costs of gout to be considered when undertaking economic evaluations in this disease area.

Methods

A literature search was performed in the MEDLINE database and the Cochrane Library to identify articles published in English, between January 2000 and July 2014, reporting direct and/or indirect costs of gout, at both patient and overall population levels.

The final set of studies to include in the SLR was selected by applying explicit eligibility criteria: studies focusing on patients with a formal diagnosis of gout and quantifying economic data. Studies focusing on particular interventions, rather than the disease burden, were excluded. Level 1 screening consisted of checking titles and abstracts; full text articles were checked in Level 2 screening. Data extraction focused on quantitative values for direct and indirect costs. Direct costs have been converted and presented as 2013/2014 Euro values for better comparability between studies, by applying the 2013/2014 consumer price index for each country and the 2010 purchasing power parity conversion factor.4,5

Results

Figure 1: Literature search results – PRISMA diagram

Table 1: Characteristics of primary studies

<table>
<thead>
<tr>
<th>Study ref.</th>
<th>Country</th>
<th>Study type</th>
<th>Gout cases (non-gout controls)</th>
<th>Perspective</th>
</tr>
</thead>
<tbody>
<tr>
<td>10</td>
<td>USA</td>
<td>Retrospective case-control study of claims data</td>
<td>18,283</td>
<td>Employer and societal</td>
</tr>
<tr>
<td>11</td>
<td>USA</td>
<td>Retrospective case-control study of claims data</td>
<td>2,237</td>
<td>Third party payer and out of pocket</td>
</tr>
<tr>
<td>12</td>
<td>USA</td>
<td>Retrospective case-control study of claims data</td>
<td>11,390</td>
<td>Employer and societal</td>
</tr>
<tr>
<td>13</td>
<td>USA</td>
<td>Retrospective case-control study of claims data</td>
<td>3,391</td>
<td>Employer and societal</td>
</tr>
<tr>
<td>14</td>
<td>USA</td>
<td>Retrospective case-control study of claims data</td>
<td>1,171</td>
<td>Employer</td>
</tr>
<tr>
<td>15</td>
<td>USA</td>
<td>Retrospective case-control study of claims data</td>
<td>679</td>
<td>Employer</td>
</tr>
<tr>
<td>16</td>
<td>USA</td>
<td>Retrospective case-control study of claims data</td>
<td>574</td>
<td>Public payer</td>
</tr>
<tr>
<td>17</td>
<td>USA</td>
<td>Retrospective case-control study of claims data</td>
<td>832</td>
<td>Hospital payers and societal</td>
</tr>
</tbody>
</table>

Note: Studies 14 and 15 used the same data but focused on different aspects of the results.

Table 2: Summary of reported costs

<table>
<thead>
<tr>
<th>Study ref.</th>
<th>Patient group</th>
<th>Direct costs</th>
<th>Indirect costs</th>
</tr>
</thead>
</table>
| 9          | Infrequent | Gout patients with comorbidities | $8,930
| 10         | Gout patients without comorbidities | $8,522
| 11         | Gout patients without comorbidities | $8,344
| 12         | Gout patients without comorbidities | $8,692
| 13         | Gout patients without comorbidities | $8,930
| 14         | Gout patients without comorbidities | $8,522
| 15         | Gout patients without comorbidities | $8,344
| 16         | Gout patients without comorbidities | $8,692
| 17         | Gout patients without comorbidities | $8,522
| 18         | Gout patients without comorbidities | $8,344
| 19         | Gout patients without comorbidities | $8,692
| 20         | Gout patients without comorbidities | $8,522
| 21         | Gout patients without comorbidities | $8,344
| 22         | Gout patients without comorbidities | $8,692

References