bias (younger patients with severe pain potentially more likely to respond than those with milder pain). The majority of support was provided informally, and this could be for a number of reasons. For example, lack of awareness/not making the burden/failure/unable to afford formal social care, or preference to be cared for by familiar persons. This should be explored in future research. These results demonstrate the burden of social care may be significantly greater than government and social care organisations are aware, with important implications for policy and planning.

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A HEALTH ECONOMIC ANALYSIS OF THE USE OF COLOUR DOPPLER ULTRASONOGRAPHY AS THE PRIMARY DIAGNOSTIC MODALITY IN PATIENTS WITH SUSPECTED GIANT CELL ARTERITIS

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Background: EULAR has recommended ultrasonography (US) as first imaging modality for diagnosis of Giant Cell Arteritis (GCA). For patients with a high pre-test probability who have a negative scan, the recommendation is to use another diagnostic modality like temporal artery biopsy (TAB) to make a diagnosis. We know that a fast-track pathway incorporating US, results in better clinical outcomes but there are little data on the health-economics of this approach. Since 2017, we have used ultrasonography as the primary diagnostic modality for suspected GCA. In patients with a high pre-test probability with a negative ultrasonography, we perform a temporal artery biopsy.

Objectives: To compare the cost of investigating GCA using first-line US and second-line TAB the use of TAB only. To compare the cost per definite diagnosis of GCA.

Methods: Number of cases from 2007-2009 and 2017-2019 were calculated by the number of TAB performed and number of referrals to hospital GCA clinic, respectively. Costs of the procedure were calculated as per the nationally agreed tariff by the United Kingdom National Health Service. For ease of comparison, we used the 2018/19 tariff (£1284/TAB; £51 for US).

Results: In 2007-2009, 162 cases were referred to clinic and had a TAB, of which 86 were positive. No cases had US. The 2018/19 corrected cost was £208,008; the cost per positive diagnosis was £2418.70 (Table 1).

Table 1. Numbers of cases investigated for suspected GCA by TAB or US and the costs corrected to 2018/19 UK NHS tariff.

<table>
<thead>
<tr>
<th>Years</th>
<th>No of referrals</th>
<th>No of TAB</th>
<th>No of US</th>
<th>No of patients with GCA</th>
<th>Total cost</th>
<th>Cost of making 1 positive diagnosis</th>
</tr>
</thead>
<tbody>
<tr>
<td>2007-09</td>
<td>162</td>
<td>162</td>
<td>0</td>
<td>86</td>
<td>£208,008</td>
<td>£2418.70</td>
</tr>
<tr>
<td>2017-19</td>
<td>199</td>
<td>199</td>
<td>69</td>
<td>416</td>
<td>£773,32</td>
<td>£1909,812</td>
</tr>
</tbody>
</table>

In 2017-2019, 419 patients were referred to the GCA clinic. 416 of whom had US for diagnosis. 3 individuals had a TAB as the first diagnostic modality and 66 others were referred for a TAB because of a high pre-test probability and negative US. The 2018/19 corrected cost of this pathway was £190,912 and the cost per positive diagnosis was £773.32 (Table 1). If all cases in 2017-2019 had a TAB for suspected GCA, the 2018/19 corrected cost would have been £537,996. The estimated 2018/19 corrected savings in our center was £14,227.80. The estimated 2019/20 corrected savings per definite diagnosis of GCA has dropped by £1645.37 (Table 1).

Conclusion: The EULAR recommendation of using first-line US for diagnosis of GCA followed by a TAB in cases with uncertain diagnosis after US, is highly cost-effective in the UK, resulting in cost savings of >£140K per year.

References:

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