Monitoring time & cost burden of disease-modifying therapies on MS services

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Objectives

• Illustrate the burden of disease-modifying therapy (DMT) monitoring in England
• Data gathering to inform how DMT administration can be more appropriately resourced

Aim of monitoring is to minimise risk

• 11 DMTs with different monitoring schedules
• Increasing choice for patients and clinicians
• Increased effectiveness vs. increased risk

But:

• Activity currently not commissioned or funded
• Burden borne by MS service and usually MS nurse specialists (MSNS)

Issues

• Finance: Activity currently not commissioned or funded
• Variation: Multiple service models: spreadsheets, EPR, pharma-funded, DAWN, CCG shared care
• Workforce: Impacts on MSNS and pharmacy role reducing patient-facing activity; time burden
• Systems: More than one pathology computer system; interpretation of results

Where did the numbers come from?

• 12 months anonymised Blueteq cost data: total spend on each DMT
• Costs divided by published cost of each DMT
• Estimate of number of patients treated (rounded down)
• 5 year DMT blood monitoring estimate
• Caveats: analysis does not take into account that drug may be stopped; different monitoring regime if blood results abnormal; assumes 10% growth in prescriptions of all DMTs except interferons

Size of the burden

<table>
<thead>
<tr>
<th>DMT</th>
<th>Year 1</th>
<th>Year 2</th>
<th>Year 3</th>
<th>Year 4</th>
<th>Year 5</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No. of patients on DMT</td>
<td>No. of blood tests</td>
<td>No. of patients on DMT</td>
<td>No. of blood tests</td>
<td>No. of patients on DMT</td>
</tr>
<tr>
<td>Alectuzumab</td>
<td>2,046</td>
<td>24,549</td>
<td>2,250</td>
<td>27,004</td>
<td>2,475</td>
</tr>
<tr>
<td>DMF</td>
<td>3,542</td>
<td>17,710</td>
<td>3,896</td>
<td>15,939</td>
<td>4,286</td>
</tr>
<tr>
<td>Fingolimod</td>
<td>2,271</td>
<td>13,628</td>
<td>2,498</td>
<td>6,360</td>
<td>2,748</td>
</tr>
<tr>
<td>Natalizumab</td>
<td>4,069</td>
<td>8,139</td>
<td>4,476</td>
<td>9,767</td>
<td>4,924</td>
</tr>
<tr>
<td>Teriflunomide</td>
<td>513</td>
<td>7,175</td>
<td>564</td>
<td>4,100</td>
<td>620</td>
</tr>
<tr>
<td>GA</td>
<td>2,761</td>
<td>2,761</td>
<td>3,037</td>
<td>3,313</td>
<td>3,341</td>
</tr>
<tr>
<td>Total</td>
<td>20,709</td>
<td>84,977</td>
<td>22,229</td>
<td>77,497</td>
<td>23,902</td>
</tr>
</tbody>
</table>

Phlebotomy & lab tariffs £350,954 £320,064 £344,697 £397,072 £432,230

Table uses 12-month Blueteq data showing spend on each of the drugs. This data is used to approximate how many patients were prescribed DMT and how many individual tests were required.

Cost burden

<table>
<thead>
<tr>
<th></th>
<th>Year 1</th>
<th>Year 2</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>MSNS only</td>
<td>MSNS + admin</td>
</tr>
<tr>
<td>Normal bloods</td>
<td>£1,161,717</td>
<td>£682,958</td>
</tr>
<tr>
<td>Abnormal bloods</td>
<td>£129,080</td>
<td>£75,843</td>
</tr>
<tr>
<td>Total bloods</td>
<td>£1,290,797</td>
<td>£758,843</td>
</tr>
</tbody>
</table>

• Based on one community MS service time study
• MSNS only – time spent on associated tasks: Band 7 (top) hourly rates applied
• MSNS + admin – time spent on associated tasks divided between admin resource (top Band 4) and MSNS (top band 7); hourly rates applied

Time burden

A time burden calculator resource will be available which estimates the total hours required based on the number of patients who need to have their bloods tested every month. A time study from one community MS service showed that the process of blood monitoring for 50 patients in a month required 26.67 hours in total.

Issues and risks

• Single MSNS – holidays, sickness, time away
• Uncertainty – have abnormal results been acted upon?
• Absent neurologist
• DMT choice based on monitoring burden
• Patient complaints if drug not prescribed
• Relying on goodwill of other staff
• Transport of bloods to lab in time
• Personnel changes
• Extra costs for urgent homecare deliveries
• Block contracts
• Generics/biosimilars

What does the future hold? How do we future-proof?

• National overview
• Commissioning toolkit
• Getting It Right First Time (GIRFT)
• Burden calculation tool – time, numbers, cost
• Service models
• Business case

MS Academy Commissioning Resources are available at: www.multiplesclerosisacademy.org/resources