The number of items dispensed in one year in England exceeded one billion for the first time in 2012 but the trend for slower growth in prescribing volume and cost seems to be holding, the latest analysis from the Health and Social Care Information Centre shows.\(^1\)

Prescribing volume is now 62 per cent higher than a decade ago. The average of 18.7 items per head of population annually amounts to 2.7 million per day, or 1900 every minute. But despite the small increase last year, the long-term pace of growth is declining slowly (see Figure 1) and the average net ingredient cost (NIC) has fallen from £11.19 in 2002 to £8.52 in 2012.

The analysis identifies several factors that influence prescribing cost and volume (see Table 1). The rate of generic prescribing is still edging upwards, with 84 per cent of items now prescribed generically (vs 76 per cent in 2002), of which 73 per cent were dispensed generically (53 per cent in 2002).

However, the cost of the 11 per cent of items that are prescribed generically but dispensed as branded products was almost as much as all the items dispensed generically, accounting for almost a third of total spending on medicines.

Table 2 shows that the extent of generic prescribing and dispensing varies widely between therapeutic groups, suggesting there is scope for further savings by reducing brand use as patent protection expires.

**2012 vs 2011**

The 10 BNF categories with highest spending for 2011 and 2012 are similar, with some changes in rank order and the displacement of antidepressants by drugs for genitourinary disorders (see Table 3), possibly due to the continued impact of NICE’s 2010 guidance on the treatment of lower urinary tract symptoms in men.

**Oral nutrition** Volume and spending growth generally mask a decrease in cost per item with the notable exception of oral nutrition. Ranking sixth by spending, this category saw costs increase despite a fall in an already low level of prescribing. Cost growth was due to increased prescribing of gluten bread and higher costs of enteral nutrition and special diet preparations.

**Antiepileptic drugs** The near-11 per cent increase in prescribing of antiepileptic drugs was due to greater use of pregabalin (Lyrica), gabapentin and levetiracetam. Spending on pregabalin increased by £28 million but changes to the category M...
Lipid-lowering agents Spending on lipid-lowering agents fell by a third, due largely to the patent expiry of atorvastatin (which saved £144 million) but also to less prescribing of ezetimibe (Ezetrol, saving £11 million).

Antihypertensive agents Patent expiries also led to reduced spending on antihypertensive agents, with valsartan, candesartan and irbesartan together accounting for a fall of £43 million. Volume growth in this category was due to a one-third increase in the use of losartan and a 6 per cent increased use of ramipril.

Antidepressants Category M changes also led to a large fall in spending on antidepressants, notably a £30 million fall in the cost of sertraline and citalopram. Prescribing of sertraline increased by 35 per cent and duloxetine by 25 per cent, whereas nortriptyline use was up by 70 per cent (possibly due to prescribing for neuropathic pain).

Other drugs In the other leading BNF categories, innovation and changes in prescribing practice have resulted in marked increases in volume and/or spending for several drugs, including newer – sitagliptin (Januvia) and liraglutide (Victoza); tiotropium (Spiriva) and indacaterol (Onbrez) – and long-established agents – buprenorphine, oxycodone and paracetamol; zonisamide (Zonegran); and solifenacin (Vesicare), fesoterodine (Toviaz), trospium and tamsulosin.

In the lower-cost categories, category M changes have led to a 150 per cent increase in the cost of nitrofurantoin to £17 million in 2012) and spending on lenalidomide has almost halved. Generic formulations of olanzapine and quetiapine saved £104 million and £23 million respectively, and spending on esomeprazole fell by £9 million.

Spending on naproxen and ibuprofen increased by 70 and 22 per cent due to category M changes, though prescribing of naproxen increased by 35 per cent as a result of the move away from the selective COX-2 inhibitors continues and diclofenac use fell by 26 per cent. Patent expiries led to a total of £67 million less spent on anastrozole, letrozole and exemestane.

Following NICE guidance, the use of dabigatran (Pradaax) and rivaroxaban (Xarelto) increased by 1400 and 985 per cent respectively but prescribing of warfarin remains almost 20 times greater.

Table 1. Factors influencing prescribing volume and cost

<table>
<thead>
<tr>
<th>BNF chapter</th>
<th>NIC (£millions)</th>
<th>% prescribed generically</th>
<th>% dispensed generically</th>
</tr>
</thead>
<tbody>
<tr>
<td>01: Gastrointestinal system</td>
<td>443</td>
<td>84.5</td>
<td>78.3</td>
</tr>
<tr>
<td>02: Cardiovascular system</td>
<td>1091</td>
<td>62.4</td>
<td>53.0</td>
</tr>
<tr>
<td>03: Respiratory system</td>
<td>1084</td>
<td>83.0</td>
<td>74.6</td>
</tr>
<tr>
<td>04: Central nervous system</td>
<td>531</td>
<td>53.0</td>
<td>40.1</td>
</tr>
<tr>
<td>05: Infections</td>
<td>436</td>
<td>84.5</td>
<td>78.3</td>
</tr>
<tr>
<td>06: Endocrine system</td>
<td>1144</td>
<td>96.3</td>
<td>90.1</td>
</tr>
<tr>
<td>07: Obstetrics, gynaecology &amp; urinary-tract disorders</td>
<td>367</td>
<td>62.4</td>
<td>26.9</td>
</tr>
<tr>
<td>08: Malignant disease &amp; immunosuppression</td>
<td>1091</td>
<td>62.4</td>
<td>53.0</td>
</tr>
<tr>
<td>09: Nutrition &amp; blood</td>
<td>1084</td>
<td>83.0</td>
<td>74.6</td>
</tr>
<tr>
<td>10: Musculoskeletal &amp; joint diseases</td>
<td>293</td>
<td>47.5</td>
<td>23.2</td>
</tr>
<tr>
<td>11: Eye</td>
<td>246</td>
<td>98.7</td>
<td>93.7</td>
</tr>
<tr>
<td>12: Ear, nose &amp; oropharynx</td>
<td>244</td>
<td>79.6</td>
<td>73.5</td>
</tr>
<tr>
<td>13: Skin</td>
<td>205</td>
<td>90.6</td>
<td>78.5</td>
</tr>
<tr>
<td>14: Immunological products &amp; vaccines</td>
<td>155</td>
<td>67.0</td>
<td>47.0</td>
</tr>
<tr>
<td>15: Anaesthesia</td>
<td>121</td>
<td>46.3</td>
<td>45.8</td>
</tr>
<tr>
<td>16: Other</td>
<td>74</td>
<td>53.3</td>
<td>23.1</td>
</tr>
<tr>
<td>17: Respiratory &amp; immunological disorders</td>
<td>38</td>
<td>49.4</td>
<td>48.3</td>
</tr>
<tr>
<td>18: Gastrointestinal &amp; hepatic disorders</td>
<td>16</td>
<td>60.9</td>
<td>46.0</td>
</tr>
</tbody>
</table>

Table 2. Generic prescribing and dispensing by total spending for each BNF chapter, 2012

Table 2. Factors influencing prescribing volume and cost
Summary
A small number of frequently prescribed drugs appear to be major drivers of change, both up and down.
This analysis suggests that the overall trend to moderating prescribing growth over 10 years is continuing. The erratic but nonetheless downward trend for spending is driven largely by patent expiries.

Reference

Declaration of interests
None to declare.

Steve Chaplin is a pharmacist who specialises in writing on therapeutics.

<table>
<thead>
<tr>
<th>BNF chapter</th>
<th>NIC (£millions)</th>
<th>% change vs 2011</th>
<th>Items (millions)</th>
<th>% change vs 2011</th>
<th>Average NIC (£ per item)</th>
<th>% change vs 2011</th>
</tr>
</thead>
<tbody>
<tr>
<td>6.1 Drugs used in diabetes</td>
<td>768</td>
<td>2.2</td>
<td>42</td>
<td>5.4</td>
<td>18.20</td>
<td>-3.1</td>
</tr>
<tr>
<td>3.2 Corticosteroids (respiratory)</td>
<td>661</td>
<td>3.6</td>
<td>18</td>
<td>5.1</td>
<td>35.86</td>
<td>-1.5</td>
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<tr>
<td>4.7 Analgesics</td>
<td>493</td>
<td>4.4</td>
<td>65</td>
<td>3.9</td>
<td>7.58</td>
<td>0.4</td>
</tr>
<tr>
<td>4.8 Antiepileptics</td>
<td>390</td>
<td>3.0</td>
<td>17</td>
<td>10.9</td>
<td>22.64</td>
<td>-7.1</td>
</tr>
<tr>
<td>2.12 Lipid-regulating drugs</td>
<td>383</td>
<td>-29.5</td>
<td>64</td>
<td>4.5</td>
<td>5.95</td>
<td>-32.6</td>
</tr>
<tr>
<td>9.4 Oral nutrition</td>
<td>322</td>
<td>5.7</td>
<td>9</td>
<td>-5.8</td>
<td>34.86</td>
<td>12.2</td>
</tr>
<tr>
<td>3.1 Bronchodilators</td>
<td>295</td>
<td>3.9</td>
<td>28</td>
<td>4.4</td>
<td>10.24</td>
<td>-0.5</td>
</tr>
<tr>
<td>2.5 Hypertension and heart failure</td>
<td>280</td>
<td>-15.1</td>
<td>67</td>
<td>2.7</td>
<td>4.17</td>
<td>-17.3</td>
</tr>
<tr>
<td>7.4 Drugs for genitourinary disorders</td>
<td>252</td>
<td>7.6</td>
<td>13</td>
<td>8.9</td>
<td>19.42</td>
<td>-1.2</td>
</tr>
<tr>
<td>4.3 Antidepressant drugs</td>
<td>211</td>
<td>-21.8</td>
<td>50</td>
<td>7.5</td>
<td>4.21</td>
<td>-27.3</td>
</tr>
</tbody>
</table>

Table 3. Change in prescribing cost (NIC), volume (items) and cost per item for the 10 BNF chapters with highest spending, 2012 vs 2011.