Prescription Cost Analysis

England 2018

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Prescription Cost Analysis (PCA) provides details of the number of items and the Net Ingredient Cost (NIC) of all prescriptions dispensed in the community in England.

PCA data is now being sourced from a new data warehouse. This move has enabled the NHS BSA to provide data of a higher level of accuracy than was previously possible through the legacy system. Although improved, this does mean that data will differ in some respects to that previously reported. See page 4 for more details.

Key findings

- In 2018, £8.8 billion was the cost of prescriptions dispensed in the community. A decrease of 3.7% (£336.6 million) from £9.2 billion in 2017
- In 2018, 1.1 billion prescription items were dispensed in the community. A slight increase of 0.3% (2.9 million) from 1.1 billion in 2017

![2018 vs 2017 comparison of Net Ingredient Cost](chart.png)
## Contents

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Key findings</td>
<td>1</td>
</tr>
<tr>
<td>This is a National Statistics publication</td>
<td>3</td>
</tr>
<tr>
<td>Prescription Cost Analysis for England 2018</td>
<td>4</td>
</tr>
<tr>
<td>Methodology Changes to PCA data</td>
<td>4</td>
</tr>
<tr>
<td>Definitions</td>
<td>6</td>
</tr>
</tbody>
</table>
This is a National Statistics publication

National Statistics status means that official statistics meet the highest standards of trustworthiness, quality and public value.

All official statistics should comply with all aspects of the Code of Practice for Official Statistics. They are awarded National Statistics status following an assessment by the Authority’s regulatory arm. The Authority considers whether the statistics meet the highest standards of Code compliance, including the value they add to public decisions and debate.

It is NHS Digital’s responsibility to maintain compliance with the standards expected of National Statistics. If we become concerned about whether these statistics are still meeting the appropriate standards, we will discuss any concerns with the Authority promptly. National Statistics status can be removed at any point when the highest standards are not maintained, and reinstated when standards are restored.


This product is relevant to members of the public and other stakeholders to support the understanding of prescribing trends and costs over the last 12 months. It will allow them to see which medicines are being used, how much they are being used and how much they cost.
Prescription Cost Analysis for England 2018

The purpose of this publication is to provide a national level annual summary of prescriptions dispensed during 2018, highlighting the high level changes from the previous year and providing the detail for each individual item prescribed in 2018. In addition there are trend figures and data at individual item level prescribed from 2008 to 2018.

The drugs dispensed are listed by British National Formulary (BNF) therapeutic class chapters 1 to 15, using the classification system prior to BNF edition 70. Items such as dressings and appliances, have been classified into six pseudo BNF chapters 18 to 23.

Prescriptions written by General Medical Practitioners and Non-medical prescribers (nurses, pharmacists etc.) in England represent the vast majority of prescriptions included. Prescriptions written by dentists and hospital doctors are also included provided that they were dispensed in the community. Also included are prescriptions written in Wales, Scotland, Northern Ireland and the Isle of Man but dispensed in England. Prescriptions written in England but dispensed outside England are not included. The data do not cover items dispensed in hospital or on private prescriptions.

PCA publications (including bulletins) from 2005 onwards are available at: https://digital.nhs.uk/data-and-information/publications/statistical/prescription-cost-analysis

Publications (including bulletins) from 1998 to 2004 are available at: [ARCHIVED CONTENT] Pharmacies and prescriptions: statistics : Department of Health - Publications

Methodology Changes to PCA data

The NHSBSA are now storing and reporting prescription data via a new data warehouse, which has replaced a legacy database.

From December 2018 prescription reimbursement data, PCA data will be sourced from the new data warehouse rather than the legacy database. This move has enabled the NHS BSA to provide data of a higher level of accuracy than was previously possible through the legacy system. Although improved, this does mean that data will differ in some respects to that previously reported.

These notes are to highlight the impact that this transition will have on the PCA data. The following applies to monthly PCA data concerning the reimbursement month of December 2018 and all subsequent months as published by the NHS BSA. It also applies to the data for the year January to December 2018 as published by NHS Digital.
Differences in how class of preparation (Prep Class) are allocated.

i) Chemical reagents were previously reported as Prep Class 3 (drugs prescribed and dispensed by brand name) and are now reported as Prep Class 4 (dressings and appliances). This acknowledges that reagents are listed in Part I XR of the Drug Tariff.

For example, Aviva (Reagent) Strips previously reported with Prep Class ID of 3 will now be reported as Prep Class ID of 4.

ii) Certain generic presentations which were previously categorised as Prep Class 1 will now be categorised as Prep Class 2. This will occur where a presentation is only available as a brand or brands on dm+d, but the legacy system also had at least one generic presentation available. Previously, even though the actual generic presentation(s) i.e. by a specific manufacturer may now be obsolete, prescribing of the virtual generic was attributed to Class 1. Using the dm+d database, as there are no generics by a specific manufacturer available on the database, prescribing of the virtual generic will be attributed to Class 2. As this better represents actual products which are available, it more accurately reflects the class of preparation.

Items and Net Ingredient Cost (NIC)

Number of items is now shown to one decimal place in order to more accurately reflect ‘of which Class 2’ apportionment. This also ensures totals are consistent with the sum of the parts. Any slight differences are due to rounding.

Similarly, NIC is now shown to three decimal places.

Quantity (QTY)

Quantities for some presentations will differ due to the higher level of precision in the warehouse data. Within the legacy system, quantities could be rounded down before being aggregated. Within the data warehouse, any rounding is carried out once the aggregation of data for a presentation is completed.

Standard Quantity Unit (SQU)

This is no longer included in PCA data, however NHS Digital have been able to make this available for 2018 data.
Definitions

Therapeutic classification

PCA data uses the therapeutic classifications defined in the British National Formulary (BNF) using the classification system prior to edition 70. Information on why a drug is prescribed is not available in this dataset. Since drugs can be prescribed to treat more than one condition, it may not be possible to separate the different conditions for which a drug may have been prescribed.

NHS Prescription Services have created pseudo BNF chapters for items not included in BNF chapters 1 to 15. The majority of such items are dressings and appliances, which have been classified into six pseudo BNF chapters (18 to 23). NHS Prescription Services have produced a booklet on BNF classifications and the pseudo classifications used. This BNF Classification booklet is available on the internet at:

http://www.nhsbsa.nhs.uk/PrescriptionServices/3197.aspx

Drug name

Medicines are shown by individual preparation name, which may be proprietary or generic, followed by form and strength. The names used are often presented in an abbreviated form.

All medicines are shown by their latest BNF classification and proprietary or generic class. Historic data included in the latest publication may not match data previously published. Users should always use the data in the latest publication.

Items dispensed

Prescriptions are written on a prescription form known as an FP10. Each single item written on the form is counted as a prescription item. If a prescription form includes three medicines it is counted as three prescription items.

Net Ingredient Cost (NIC)

This is the basic cost of a drug as used in primary care. This is the cost at list price excluding VAT, i.e. the price listed in the national Drug Tariff or in standard price lists and is not necessarily the price the NHS paid. It does not take into account any contract prices or discounts, dispensing costs, fees or prescription charge income, so the amount the NHS paid will be different. NIC is used in Prescription Services reports and other analyses, as it standardises cost throughout prescribing nationally, and allows comparisons of data from different sources.

Quantity (QTY)

The quantity of a drug dispensed is measured in units depending on the formulation of the product, see standard quantity unit below. Quantities are not added together across preparations because of different strengths and formulations.
**Standard quantity unit (SQU)**

This code indicates the form of the drug and the units in which quantity is measured:

- Code 1 - a unit (e.g. one tablet, capsule, pack, aerosol etc)
- Code 3 - millilitres
- Code 6 - grammes
- Code 0 - individually formulated (unit varies)

**NIC per Item, NIC per QTY and QTY per Item**

These are calculated averages using items, NIC and QTY

**Class of preparation (Prep Class)**

Generic prescribing is encouraged and many drugs are now prescribed generically even when they are not available in generic form (principally because the branded product is still in patent). Within the PCA system prescriptions for drugs are classified in four ways:

- Class 1 - Drugs prescribed and available generically
- Class 2 - Drugs prescribed generically but only available as a proprietary product
- Class 3 - Drugs prescribed and dispensed by proprietary brand name
- Class 4 - Dressings and appliances

**Treatment of prescription items written generically**

The information in this volume and particularly the allocation of classes 1-3 to drugs by NHS Prescription Services reflect the rules for reimbursement.

Where a prescriber has specified the generic form of the drug and the pharmacist has been reimbursed at the generic price, the data for the drug dispensed will be recorded against the class 1 (generic) form of the drug in PCA. Where a generic is not available and hence a pharmacist has been reimbursed at proprietary prices for dispensing the proprietary form, the data will be defined as class 2 and recorded in PCA against the class 3 (proprietary) form of the drug.

Where a drug is defined as class 2, the prescription items, NIC, etc for it are allocated across the items for all equivalent proprietaries. This is done pro rata on the basis of the number of proprietary prescription items dispensed. The column headed "Of which Class 2" (Owc2) in the tables gives the number of prescription items resulting from this apportionment. There are a small number of preparations that are not linked to equivalent proprietaries that appear separately with a class of 2.

There are a small number of preparations which have a figure for net ingredient cost and for quantity but no figure for the number of items dispensed. These preparations (class 2 definition) will have been processed in small batches so it is unlikely that an equivalent proprietary drug will have been processed at the same time. A pro rata allocation, described in the above paragraph, would not have been
possible in these cases so the item will have been allocated to the first equivalent proprietary listed but the net ingredient cost and quantity will have been allocated equally to all the equivalent proprietaries listed. As a result of this, the remaining equivalent proprietaries on the list will have a zero figure for items dispensed but a figure (allocated) for net ingredient cost and for quantity.


In some cases, although a generic is available and the pharmacist has been reimbursed at the Drug Tariff price, the pharmacist may have chosen to dispense the equivalent proprietary product. This will, none the less, be recorded against the class 1 form of the drug.

**How to find the drug you are looking for in the PCA data**

The drugs listed in the PCA data are grouped by chemical entity within the BNF category or categories they belong to.

**Example: see Table below (example data)**

<table>
<thead>
<tr>
<th>Drug name</th>
<th>Prep. class</th>
<th>SQU</th>
<th>Items (1000s)</th>
<th>OwC2</th>
<th>Nic (£1000s)</th>
<th>Qty (1000s)</th>
<th>Nic/Item (£)</th>
<th>Nic/Qty (£)</th>
<th>Qty/Item</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ranzolont_Tab 40mg</td>
<td>3</td>
<td>1</td>
<td>30</td>
<td>0</td>
<td>481</td>
<td>1,008</td>
<td>16.04</td>
<td>0.48</td>
<td>33.60</td>
</tr>
<tr>
<td>Simvador_Tab 10mg</td>
<td>3</td>
<td>1</td>
<td>21,083</td>
<td>0</td>
<td>16,427</td>
<td>707,671</td>
<td>0.78</td>
<td>0.02</td>
<td>33.57</td>
</tr>
<tr>
<td>Simvador_Tab 20mg</td>
<td>3</td>
<td>1</td>
<td>127,457</td>
<td>0</td>
<td>114,867</td>
<td>4,318,834</td>
<td>0.90</td>
<td>0.03</td>
<td>33.88</td>
</tr>
<tr>
<td>Simvador_Tab 40mg</td>
<td>3</td>
<td>1</td>
<td>219,131</td>
<td>0</td>
<td>223,568</td>
<td>7,514,093</td>
<td>1.02</td>
<td>0.03</td>
<td>34.29</td>
</tr>
<tr>
<td>Simvador_Tab 80mg</td>
<td>3</td>
<td>1</td>
<td>754</td>
<td>0</td>
<td>1,313</td>
<td>23,219</td>
<td>1.74</td>
<td>0.06</td>
<td>30.79</td>
</tr>
<tr>
<td>Simvastatin_Liq Spec 40mg/5ml</td>
<td>1</td>
<td>3</td>
<td>3</td>
<td>0</td>
<td>912</td>
<td>750</td>
<td>304.00</td>
<td>1.22</td>
<td>250.00</td>
</tr>
<tr>
<td>Simvastatin_Oral Susp 20mg/5ml S/F</td>
<td>1</td>
<td>3</td>
<td>5,231</td>
<td>0</td>
<td>712,085</td>
<td>898,567</td>
<td>136.13</td>
<td>0.79</td>
<td>171.78</td>
</tr>
<tr>
<td>Simvastatin_Oral Susp 40mg/5ml S/F</td>
<td>1</td>
<td>3</td>
<td>7,990</td>
<td>0</td>
<td>1,487,902</td>
<td>1,231,098</td>
<td>186.22</td>
<td>1.21</td>
<td>154.08</td>
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<tr>
<td>Simvastatin_Tab 10mg</td>
<td>1</td>
<td>1</td>
<td>1,729,166</td>
<td>0</td>
<td>1,441,925</td>
<td>57,562,400</td>
<td>0.83</td>
<td>0.03</td>
<td>33.29</td>
</tr>
<tr>
<td>Simvastatin_Tab 20mg</td>
<td>1</td>
<td>1</td>
<td>11,124,649</td>
<td>0</td>
<td>10,460,391</td>
<td>366,859,745</td>
<td>0.94</td>
<td>0.03</td>
<td>32.98</td>
</tr>
<tr>
<td>Simvastatin_Tab 40mg</td>
<td>1</td>
<td>1</td>
<td>17,086,133</td>
<td>0</td>
<td>17,798,440</td>
<td>561,409,898</td>
<td>1.04</td>
<td>0.03</td>
<td>32.86</td>
</tr>
<tr>
<td>Simvastatin_Tab 80mg</td>
<td>1</td>
<td>1</td>
<td>293,947</td>
<td>0</td>
<td>574,841</td>
<td>9,262,777</td>
<td>1.96</td>
<td>0.06</td>
<td>31.51</td>
</tr>
<tr>
<td>Zocor Heart-Pro_Tab 10mg</td>
<td>3</td>
<td>1</td>
<td>3</td>
<td>0</td>
<td>15</td>
<td>84</td>
<td>4.85</td>
<td>0.17</td>
<td>28.00</td>
</tr>
<tr>
<td>Zocor_Tab 10mg</td>
<td>3</td>
<td>1</td>
<td>2,278</td>
<td>0</td>
<td>56,771</td>
<td>88,163</td>
<td>24.92</td>
<td>0.64</td>
<td>38.70</td>
</tr>
<tr>
<td>Zocor_Tab 20mg</td>
<td>3</td>
<td>1</td>
<td>4,072</td>
<td>0</td>
<td>164,904</td>
<td>155,518</td>
<td>40.50</td>
<td>1.06</td>
<td>38.19</td>
</tr>
<tr>
<td>Zocor_Tab 40mg</td>
<td>3</td>
<td>1</td>
<td>3,286</td>
<td>0</td>
<td>130,123</td>
<td>122,717</td>
<td>39.60</td>
<td>1.06</td>
<td>37.35</td>
</tr>
<tr>
<td>Zocor_Tab 80mg</td>
<td>3</td>
<td>1</td>
<td>257</td>
<td>0</td>
<td>10,488</td>
<td>9,891</td>
<td>40.81</td>
<td>1.06</td>
<td>38.49</td>
</tr>
</tbody>
</table>
You may require data on all Simvastatin preparations:

**Spreadsheet version**

- Go to the ‘Individual Preparations’ worksheet at the end of the workbook.
- Sort the worksheet by Column B (BNF Chemical Name) and find Simvastatin in that column.
- There were 17 different preparations dispensed for Simvastatin in this BNF category.
- 7 of these preparations were generic (Prep Class 1) and 10 were proprietary (Prep Class 3).
- Simvastatin came out of patent in May 2003, so from this date the generic form became available.
- 4,072 items of Zocor Tab 20mg (Prep Class 3) were dispensed, of which 0 items were prescribed generically (Owc2). This provided 155,518 tablets of the drug (Qty) at an average cost of £1.06 per tablet (Nic per Qty). The average cost per item was £40.50 (Nic per item) and the average number of tablets per item was 38.19 (Qty per item).
- 11,124,649 items of Simvastatin_Tab 20mg (the Prep Class 1 equivalent) were dispensed, providing 366,859,745 tablets at an average cost of 3 pence per tablet. The average cost per item was £0.94 and the average number of tablets per item was 32.98.

**Notes**

NHS Prescription Services have stated that due to the complex and manual processes involved there may be inaccuracies in capturing prescription information which are then reflected in the data. Internal quality assurance processes exist and currently the prescription processing activity is internally audited to 99 per cent accuracy (i.e. at least 99 per cent of prescriptions are recorded accurately).

Preparations where the number of items dispensed is small are more likely to be significantly affected by any processing errors.