



Prescriptions dispensed in the community in Wales, 2017

23 May 2018
SFR43/2018

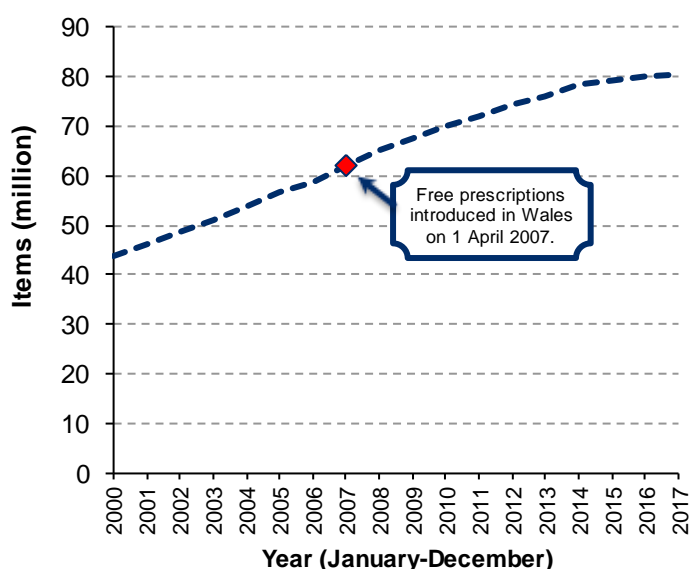
The statistics in this release cover all prescriptions dispensed by community pharmacists (including supermarket pharmacies) during 2017. This includes appliance contractors and dispensing doctors in Wales, including items personally administered.

The vast majority are written by General Medical Practitioners in Wales; however prescriptions written by nurses, dentists and hospital doctors are also included provided they were dispensed in the community. Also included are prescriptions written in England, Scotland, Northern Ireland and the Isle of Man but dispensed in Wales. The analyses do not include prescriptions written in Wales but dispensed outside Wales.

Additional summary tables, covering all years from 2000 to 2017, including BNF chapter, section and sub-paragraph summaries, are available on the [website](#).

The statistical release on '[Prescriptions prescribed by GPs in Wales](#)' publishes monthly PCA data, and updates to GP prescriptions data are also published on the [Prescribing Services](#) website.

Chart 1: Prescription items dispensed (million)



Source: NHS Wales Shared Services Partnership

The number of prescription items dispensed in the community continued to rise - up 0.2% to 80.4 million in 2017 – equivalent to 25.8 items per head of population.

The rate of increase has slowed in the last 3 years.

80.4 million

prescription items
dispensed in 2017

↑0.2%

from the number of items
dispensed in 2016

↑83.8%

from the number of items
dispensed in 2000

About this release

This release presents a summary of prescriptions dispensed in the community, and provides the annual Prescription Cost Analysis (PCA) data, highlighting the main trends.

Prescription statistics published here are based on information obtained from prescriptions sent to [Prescribing Services, NHS Wales Shared Services Partnership](#) for payment. Please ensure that you read the explanatory notes accompanying the PCA data and also see the [Quality Report](#).

In this release

Key facts	2
Trends since 2000	3
UK comparisons	4
Leading BNF chapters	5
Cardiovascular chapter in more detail	6
Tables	8
Key Quality Information	12

Key facts

- The net ingredient cost (NIC) of all prescriptions dispensed in the community during 2017 was £578.1 million, very similar to the cost in 2016.
- Wales dispensed the highest number of prescription items per head of population¹ – 25.8 compared to 22.3 in Northern Ireland, 20.0 in England and 19.2 in Scotland².
- Medicines for the treatment of the cardiovascular system make up the largest group in terms of prescription items (23.4 million).
- Drugs for the treatment of the central nervous system make up the largest group in terms of cost (£123.9 million).
- Across all BNF chapters, Omeprazole was the most commonly prescribed chemical with 2.6 million items dispensed in 2017.

¹ Rates per head of population for 2017 are based on 2016 mid year estimates.

² Latest published data for Scotland refers to 2016-17.

£578.1 million
net ingredient cost

25.8 items
dispensed per head of
population* -
highest of the UK countries

23.4 million
cardiovascular items

£123.9 million
central nervous system
net ingredient cost

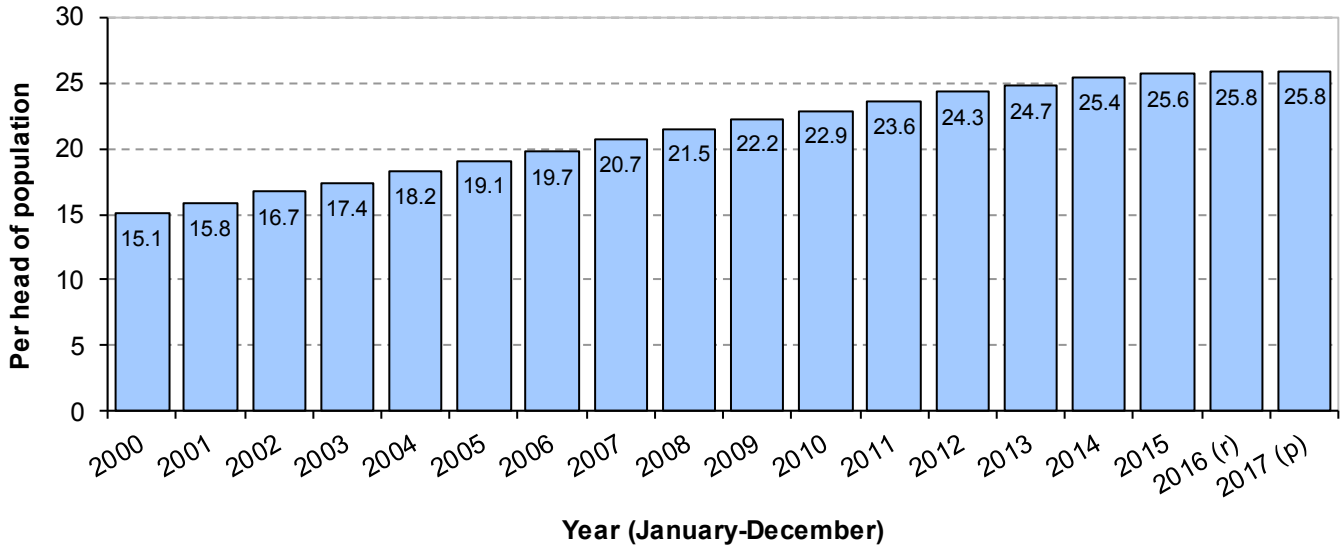
Omeprazole
was the most commonly
prescribed chemical

Contents:

Chart 1: Prescription items dispensed (million).....	1
Chart 2: Prescription items dispensed per head of population	4
Chart 3: Net ingredient cost (£ million).....	4
Chart 4: Net ingredient cost per prescription item (£).....	5
Chart 5: Prescription items dispensed per head of population, UK countries	6
Chart 6: Net ingredient cost per head of population, UK countries	6
Chart 7: Net ingredient cost per prescription item, UK countries	6
Chart 8: Items dispensed (million) by BNF chapter, 2017	7
Chart 9: Net ingredient cost (£ million) by BNF chapter, 2017.....	7
Picture 1: Number of prescription items dispensed by BNF chapter, 2000 to 2017	8
Picture 2: Net ingredient cost of prescription items dispensed by BNF chapter, 2000 to 2017	8
Chart 10: Central nervous system, items dispensed and net ingredient cost, 2000-2017	9
Table 1: Central nervous system, items dispensed by BNF section in 2017, with short, medium and long term comparisons.....	9
Table 2: Central nervous system, net ingredient cost (NIC) of items dispensed by BNF section in 2017, with short, medium and long term comparisons.....	10
Chart 11: Opioid and non-opioid analgesics, items from 2000 to 2017	10
Table 3: Selected opioid analgesic items, and all others, by BNF chemical name, dispensed in 2017, with short, medium and long term comparisons	11
Chart 12: Selected opioid analgesics, items from 2000 to 2017.....	11
Table 4: Prescribing trends.....	12
Table 5: Prescription items dispensed by BNF Chapter in 2017, with short, medium and long term comparisons.....	13
Table 6: Net ingredient cost (NIC) of prescriptions dispensed by BNF Chapter in 2017, with short, medium and long term comparisons.....	14
Table 7: Cost per item and items per head of prescriptions dispensed by BNF Chapter with short, medium and long term comparisons.....	15
Table 8: Top 25 prescription items by BNF chemical name - items, 2017.....	16
Table 9: Top 25 prescription items by net ingredient cost and BNF chemical name, 2017	17
Key Quality information	18
Notes:.....	18
Definitions:	19
Detailed data for other UK countries:.....	22

Chart 2: Prescription items dispensed per head of population

A prescription item refers to a single item prescribed by a doctor, dentist or nurse on a prescription form. If a prescription form includes three items it is counted as three prescription items. The number of tablets for a prescription item **may vary in quantity** e.g. 14, 28 or 56 tablets. This means that the cost per item **does not** equate to the cost per tablet or per pack of tablets, but to the average number of tablets or packs prescribed per item.



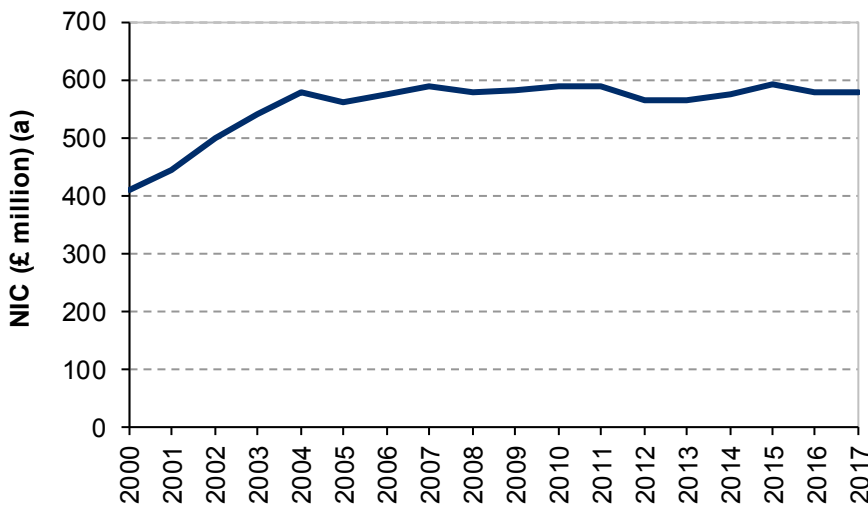
Source: NHS Wales Shared Services Partnership

[r] Revised using the 2016 mid year estimate of population.

[p] The 2017 figure is provisional as it is based on 2016 mid year estimate of population - see [notes](#).

- In 2017 the number of prescription items dispensed per head of population was 25.8, the same as the previous year.
- The number of prescription items dispensed per head of population has increased by 5.2 (25.1%) over the previous 10 years, and by 10.8 (71.6%) since 2000.

Chart 3: Net ingredient cost (£ million)

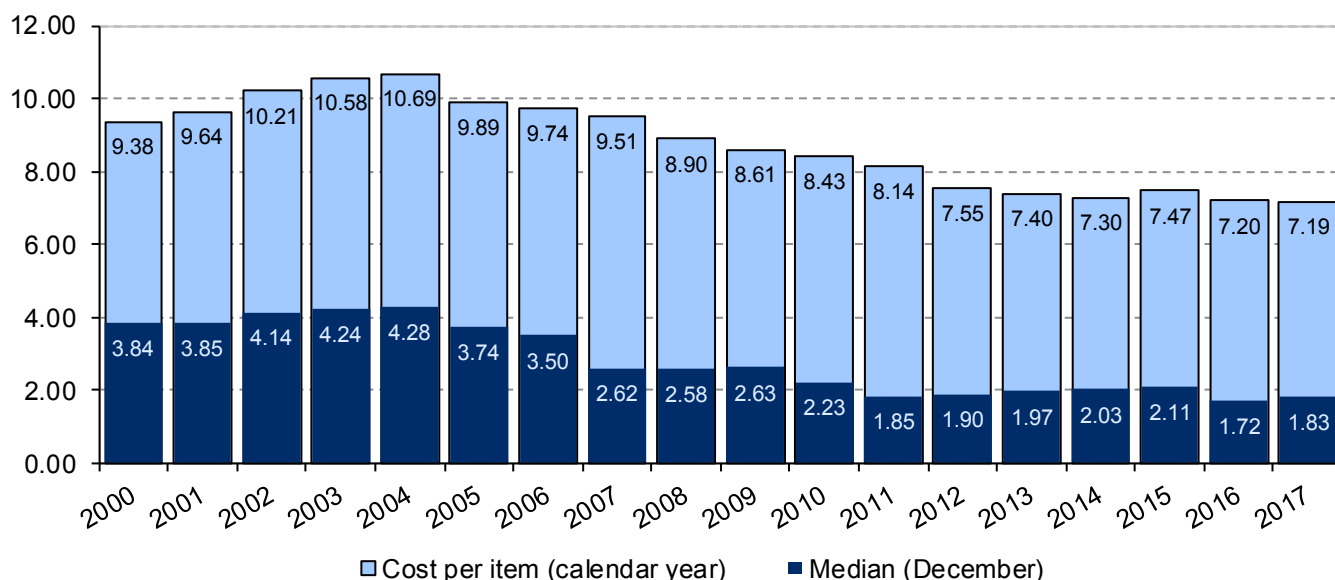


Source: NHS Wales Shared Services Partnership

(a) see notes for definition of [NIC](#)

- In 2017 the net ingredient cost (NIC) of prescription items dispensed was just over £578.1 million, very similar to the cost in 2016.
- Between 2000 and 2017 the net ingredient cost increased by £167.7 million (40.9%). This does not account for general price inflation.

Chart 4: Net ingredient cost per prescription item (£)



Source: NHS Wales Shared Services Partnership

- In 2017 the net ingredient cost per item (mean) was £7.19, 1p less than in 2016 and £2.19 less than in 2000.
- Apart from 2015, the net ingredient cost per item has fallen every year since 2004.
- The median cost per item in December 2017 was £1.83, slightly up from the previous December; it has been around £2 for the last 7 years.

Median: The median cost per item is the middle amount when all costs per item are ranked in order from cheapest to most expensive; half of all costs are less than or equal to this amount, and the other half are more than or equal to this amount. The median is commonly used in preference to the mean as it is less susceptible to extreme values than the mean.

Note: Due to the volume of prescriptions dispensed, the median is calculated on a single month of data in each year only (December) for the purposes of data processing.

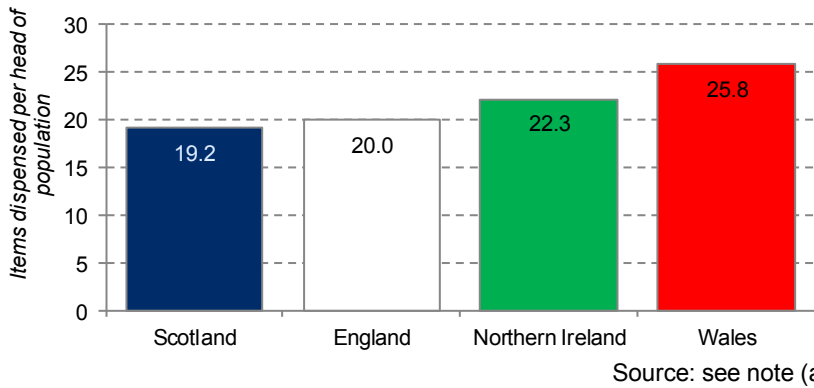
UK comparisons - 2017 (a)

Charts 5-7 show the number of prescription items dispensed and the costs¹ per head of population, and the cost per prescription item, in Wales compared with the other countries of the UK.

Until 2015, this data was published in the [Prescriptions by GPs](#) release.

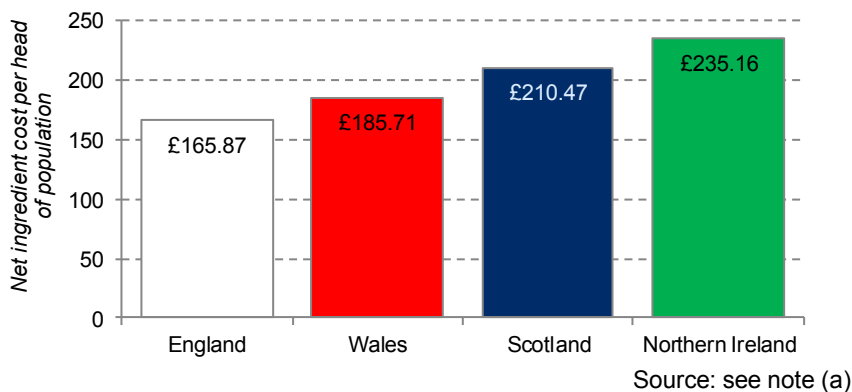
¹ Net ingredient cost – see [notes](#) section at the end of the release.

Chart 5: Prescription items dispensed per head of population, UK countries



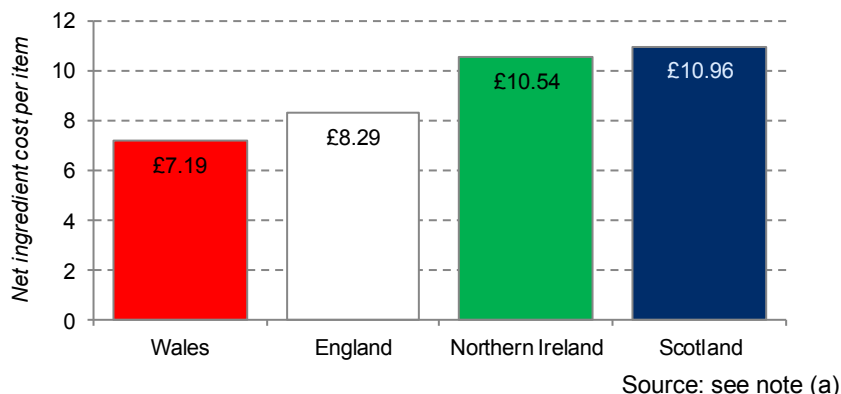
More prescription items per head of population were dispensed in Wales than any of the other UK countries: 25.8 in Wales, compared with 19.2 in Scotland, 20.0 in England and 22.3 in Northern Ireland.

Chart 6: Net ingredient cost per head of population, UK countries



The net ingredient cost (NIC) per head of population in Wales was higher than in England, but lower than in Scotland and Northern Ireland.

Chart 7: Net ingredient cost per prescription item, UK countries

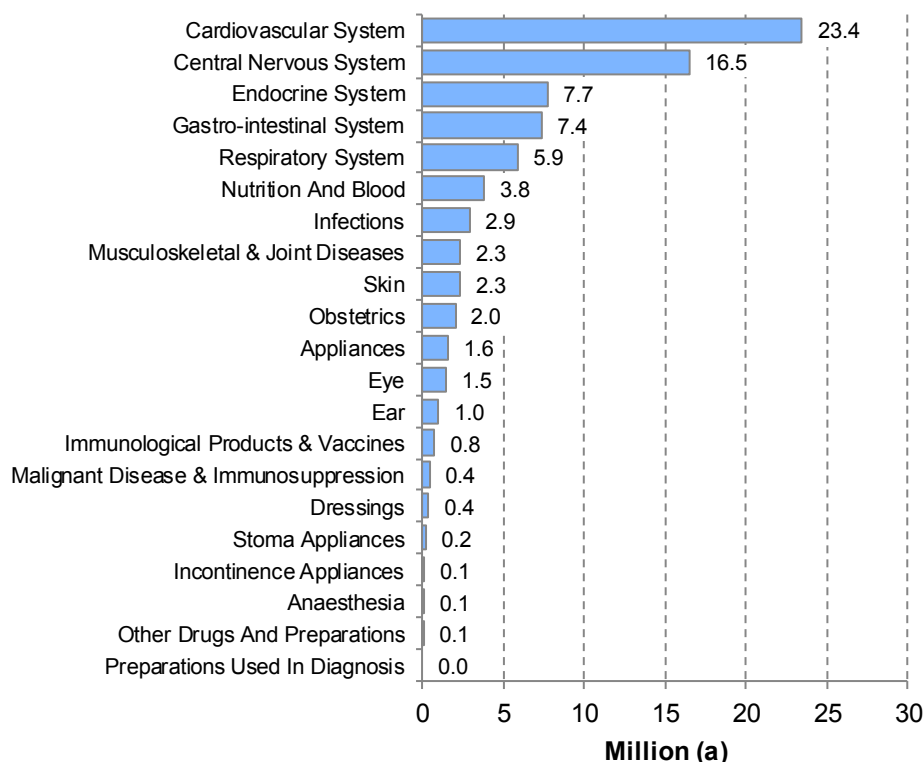


Wales has the lowest NIC per prescription item, at £7.19 compared with £8.29 in England, £10.54 in Northern Ireland and £10.96 in Scotland.

(a) The PCA data covers all prescriptions dispensed by community pharmacies, appliance contractors and dispensing doctors in Wales including items personally administered by GPs. The data refers to the financial year 2016-17 for Scotland, and the calendar year 2017 for England, Wales and Northern Ireland. These are the latest and most comparable data available. Please see notes on the use of PCA data in the Notes at the end of the release.

The population data used is the mid-year population estimates for 2016 rather than the population registered with a GP.

Chart 8: Items dispensed (million) by BNF chapter, 2017

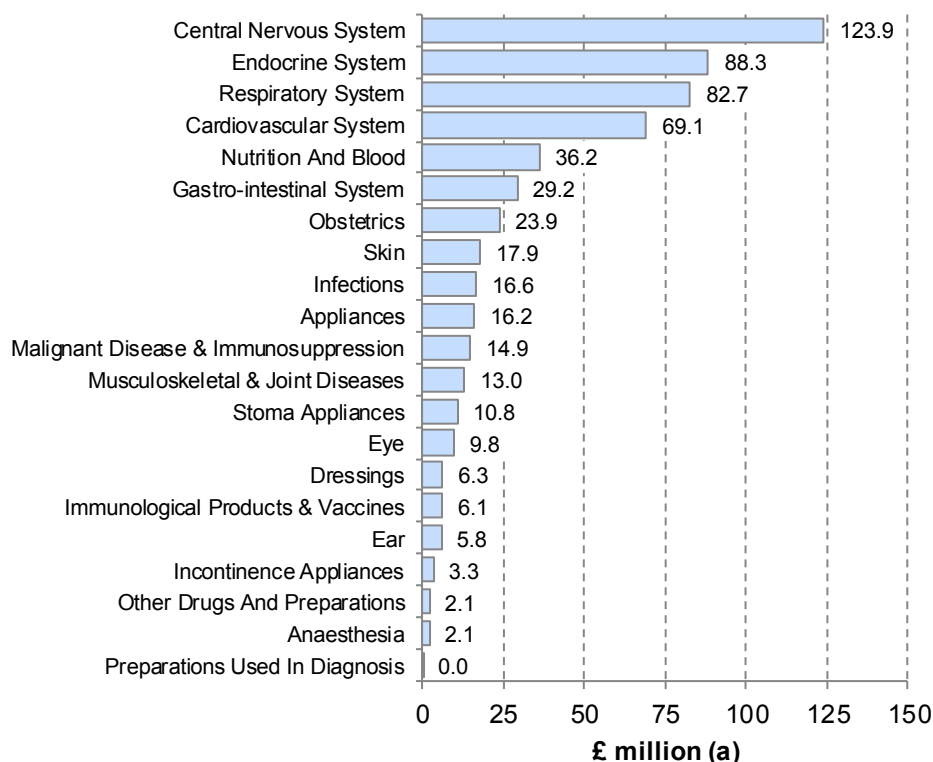


Source: NHS Wales Shared Services Partnership

In 2017, as has been the case since the data collection started in 2000, the leading chapter by item was 'cardiovascular system' – but as shown in Chart 9, it was only 4th by net ingredient cost.

The five leading BNF chapters accounted for more than three quarters (76%) of the total items dispensed in 2017.

Chart 9: Net ingredient cost (£ million) by BNF chapter, 2017



Source: NHS Wales Shared Services Partnership

In 2017, the chapter with the largest net ingredient cost was the 'central nervous system'. This chapter had the second largest number of items dispensed.

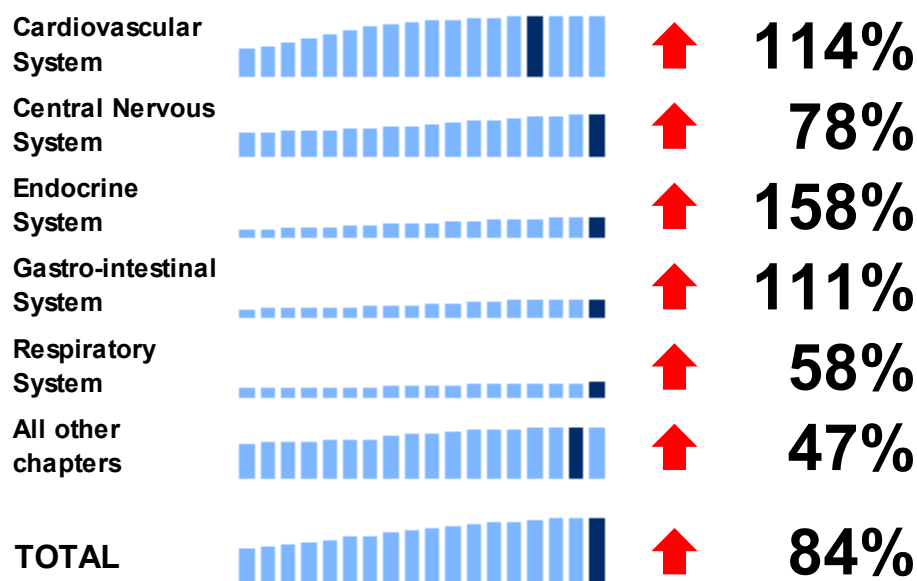
It has been the chapter with the largest cost since 2007, taking over from the 'cardiovascular system'

The five highest cost BNF chapters accounted for 69% of the total net ingredient cost in 2017.

(a) See notes for definition of [BNF](#) and [Net ingredient cost](#).

These infographics give a pictorial view of the prescription items dispensed and net ingredient cost thereof, from 2000 to 2017, in the 5 largest BNF chapters, the remaining chapters grouped together, and the total. The arrows and percentage figures show the change from 2000 to 2017.

Picture 1: Number of prescription items dispensed by BNF chapter, 2000 to 2017

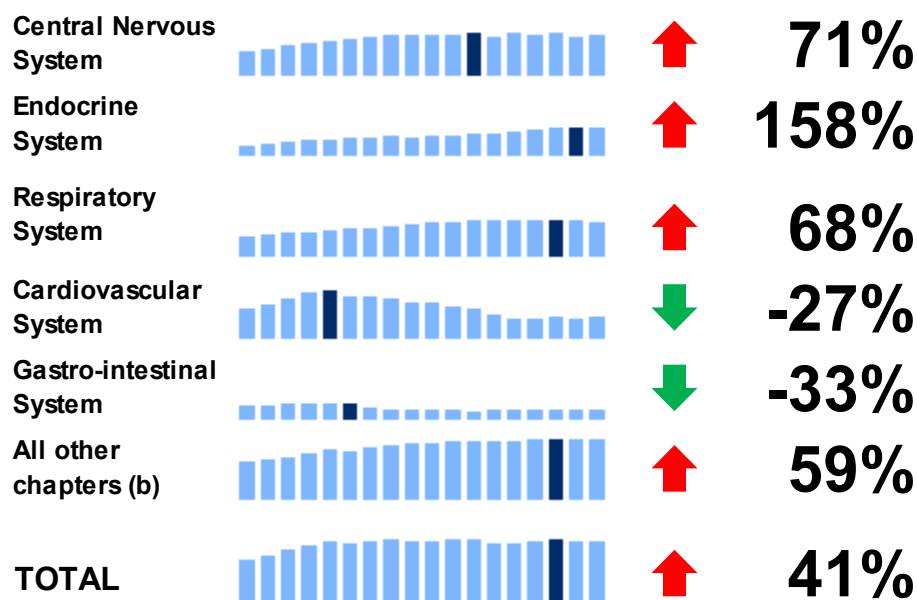


The five leading BNF chapters accounted for more than three quarters (76%) of the total items dispensed in 2017.

Prescription items dispensed in the endocrine system chapter have increased more than 150% since 2000 while those in the gastro-intestinal system and cardiovascular system (the largest chapter) have more than doubled.

Dark blue column shows highest year
Chapter (but not TOTAL) charts shown on the same scale

Picture 2: Net ingredient cost of prescription items dispensed by BNF chapter, 2000 to 2017



Items and net ingredient cost for both the central nervous and endocrine system chapters have increased by similar amounts since 2000.

In contrast, items in the cardiovascular and gastro-intestinal system chapters have doubled but the net ingredient cost has come down by 27% (cardio) and 33% (gastro).

The cost of items dispensed in the cardiovascular system chapter has decreased by 55% since its peak in 2004.

Dark blue column shows highest year
Chapter (but not TOTAL) charts shown on the same scale

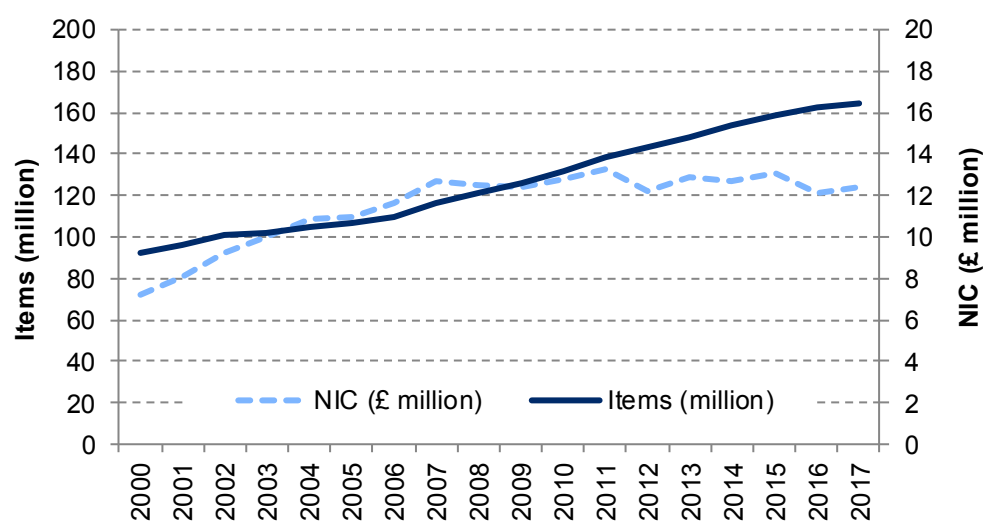
Details by chapter are available in spreadsheets on the [website](#).

As seen in [Chart 9](#), the central nervous system chapter had the highest net ingredient cost (NIC) of items dispensed in 2017, accounting for 21% of all NIC. The chapter also accounted for 20% of items dispensed, but more items are dispensed in the cardiovascular chapter (29% of the total – see [Chart 8](#)).

Items in this chapter include preparations for the management of anxiety, sleeplessness, depression, pain, epilepsy, substance misuse, Parkinson’s disease and Alzheimer’s disease.

The following tables and charts look at this chapter in more detail, including data on opioid and non-opioid analgesics.

Chart 10: Central nervous system, items dispensed and net ingredient cost, 2000-2017



The total number of items dispensed in the central nervous system chapter has risen steadily since 2000; in contrast, the net ingredient cost rose more sharply until 2007, but has levelled off and has been between £121 million and £134 million since then.

Table 1: Central nervous system, items dispensed by BNF section in 2017, with short, medium and long term comparisons

BNF section name	2002	2007	2012	2017	Change since 2002
Analgesics	3,990,862	4,454,692	5,489,849	5,631,805	41%
Antidepressant Drugs	2,104,637	2,725,876	4,089,673	5,646,645	168%
Antiepileptics	581,070	748,067	1,036,216	1,523,183	162%
Central Nervous System Stimulants	26,641	49,926	72,079	94,574	255%
Drugs for Dementia	11,372	39,996	65,715	178,839	1473%
Drugs Used In Nausea And Vertigo	461,082	523,263	613,436	523,050	13%
Drugs Used In Park'ism/Related Disorders	218,767	224,608	260,543	313,404	43%
Drugs Used In Psychoses & Rel.Disorders	480,958	603,950	722,265	903,036	88%
Drugs Used In Substance Dependence	220,294	383,925	354,832	270,056	23%
Drugs used in the Treatment of Obesity	73,471	107,197	27,658	24,163	-67%
Hypnotics And Anxiolytics	1,922,048	1,755,675	1,582,426	1,351,038	-30%
TOTAL	10,091,202	11,617,175	14,314,692	16,459,793	63%

Source: NHS Wales Shared Services Partnership

- The total number of items in the central nervous system (CNS) chapter has increased by almost two thirds (63%) in the last 15 years, from just over 10 million, to almost 16.5 million in 2017.
- In 2017, more than 5.65 million items were dispensed in the antidepressant section, taking over from analgesics (5.63 million) as the largest section by items in the CNS chapter.
- The biggest increase since 2002 was in the ‘drugs for dementia’ section, up 1,473% from just over 11,000 in 2002 to almost 179,000 in 2017.

- The NIC for drugs used in the treatment of obesity has fallen by 67% since 2002, from almost 73,500 to just over 24,000.

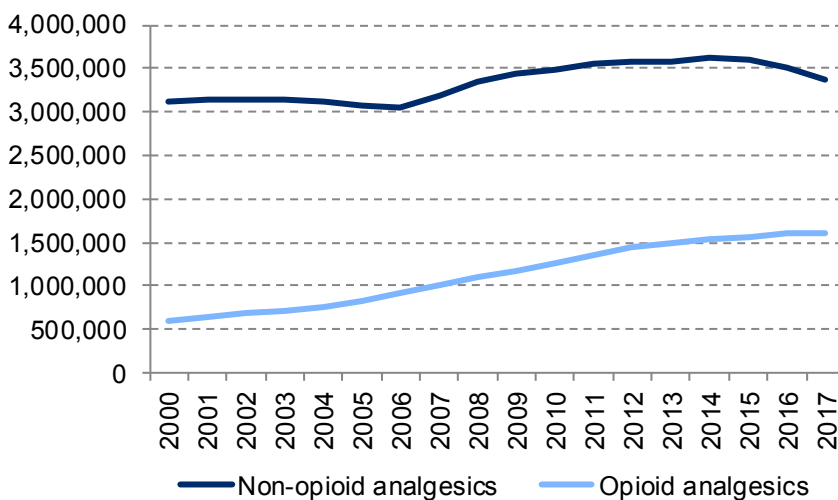
Table 2: Central nervous system, net ingredient cost (NIC) of items dispensed by BNF section in 2017, with short, medium and long term comparisons

BNF section name	NIC (£)				Change since 2002
	2002	2007	2012	2017	
Analgesics	20,469,286	39,491,272	49,202,110	48,619,364	138%
Antidepressant Drugs	29,946,870	21,489,354	15,171,488	16,549,503	-45%
Antiepileptics	9,829,741	13,335,908	13,439,876	21,356,270	117%
Central Nervous System Stimulants	521,647	2,103,779	3,599,182	4,050,114	676%
Drugs for Dementia	995,837	3,319,008	4,132,864	1,496,871	50%
Drugs Used In Nausea And Vertigo	3,020,442	2,481,276	3,765,924	3,151,420	4%
Drugs Used In Park'ism/Related Disorders	4,186,625	6,492,670	6,386,850	7,165,882	71%
Drugs Used In Psychoses & Rel.Disorders	12,439,610	19,863,278	13,365,055	13,039,857	5%
Drugs Used In Substance Dependence	3,961,013	8,246,004	7,114,368	4,504,077	14%
Drugs used in the Treatment of Obesity	3,047,565	4,287,428	896,395	391,686	-87%
Hypnotics And Anxiolytics	3,976,282	6,315,149	4,680,966	3,564,474	-10%
TOTAL	92,394,918	127,425,124	121,755,077	123,889,516	34%

Source: NHS Wales Shared Services Partnership

- The total NIC in the central nervous system (CNS) chapter has increased by just over a third (34%) in the last 15 years, from £92.4 million, to almost £124.9 million in 2017.
- Although the number of items dispensed in the antidepressant drugs section increased by 168% from 2002 to 2017 (Table 1), the net ingredient cost (NIC) has gone down by 45% over the same period, from almost £30 million in 2002, to just over £16.5 million in 2017.
- The NIC for items dispensed in the analgesics section (£48.6 million) accounted for almost 40% of the chapter total, while the largest increase was in the CNS stimulants section, up 676% since 2002.

Chart 11: Opioid and non-opioid analgesics, items from 2000 to 2017



The number of opioid analgesic prescription items has increased from just fewer than 600,000 in 2000 to 1.6 million in 2017 (172%).

The number of non-opioid analgesic prescription items reached 3.6 million in 2014 but has dropped in each of the last 3 years and is now 8% higher than in 2000.

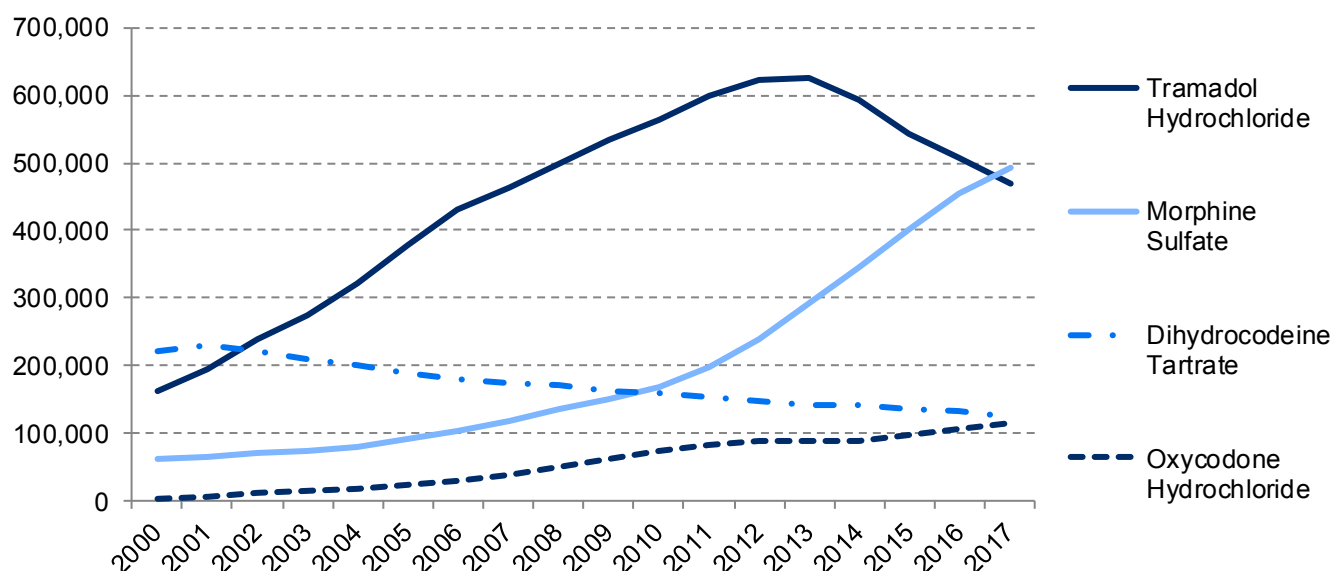
Table 3: Selected opioid analgesic items, and all others, by BNF chemical name, dispensed in 2017, with short, medium and long term comparisons

BNF chemical name	2002	2007	2012	2017	% change since 2002
Buprenorphine	14,866	44,816	114,606	118,058	694%
Codeine Phosphate	63,146	75,478	105,853	178,182	182%
Dihydrocodeine Tartrate	221,892	174,939	147,535	124,788	-44%
Fentanyl	19,070	54,911	78,906	67,555	254%
Morphine Sulfate	69,119	119,038	239,235	492,179	612%
Oxycodone Hydrochloride	10,240	38,402	89,197	115,292	1026%
Tramadol Hydrochloride	238,212	464,586	623,262	470,591	98%
All others	43,010	29,915	36,297	41,385	-4%
TOTAL	679,555	1,002,085	1,434,891	1,608,030	137%

Table 3 shows the top 7 items dispensed in 2017 by BNF chemical name, and how the numbers compare with 5, 10 and 15 years ago.

Apart from dihydrocodeine tartrate, all the individual chemicals show large increases since 2002.

Chart 12: Selected opioid analgesics, items from 2000 to 2017



- Between 2002 and 2016, tramadol hydrochloride was the most dispensed opioid analgesic, but in 2017 morphine sulphate was the most dispensed analgesic.
- The number of tramadol hydrochloride items dispensed increased sharply from 2000 until 2013 (up from 161,265 to 625,056, or 288%), but has dropped sharply since then to 470,591
- Morphine sulfate increased slowly from 2000 until 2011, but has since increased more sharply (by 148% between 2011 and 2017) to more than 492,000 items.

Table 4: Prescribing trends

Year	Items	Cost(£)	Cost per item (£)	Items per head	Cost per head (£)
2000	43,763,069	410,418,611	9.38	15.1	141.19
2001	46,036,830	443,794,450	9.64	15.8	152.49
2002	48,778,791	498,107,268	10.21	16.7	170.42
2003	51,005,526	539,500,265	10.58	17.4	183.65
2004	53,970,025	577,042,560	10.69	18.2	195.12
2005	56,642,066	559,961,329	9.89	19.1	188.58
2006	58,901,002	573,958,599	9.74	19.7	192.24
2007	62,095,617	590,334,117	9.51	20.7	196.37
2008	65,067,109	578,836,783	8.90	21.5	191.30
2009	67,607,034	582,181,874	8.61	22.2	191.58
2010	69,825,718	588,814,365	8.43	22.9	193.06
2011	72,202,467	587,752,165	8.14	23.6	191.84
2012	74,639,489	563,795,366	7.55	24.3	183.40
2013	76,227,899	563,963,340	7.40	24.7	182.96
2014	78,538,624	573,442,125	7.30	25.4	185.46
2015	79,481,197	593,690,158	7.47	25.6	191.57
2016	80,273,845	577,955,734	7.20	25.8 [r]	185.65 [r]
2017	80,433,098	578,121,759	7.19	25.8 [p]	185.70 [p]

Source: NHS Wales Shared Services Partnership

[r] Revised using the 2016 mid year estimate of population.

[p] The 2017 figure is provisional as it is based on 2016 mid year estimate of population - see notes.

Table 5: Prescription items dispensed by BNF Chapter in 2017, with short, medium and long term comparisons.

BNF chapter name	Calendar year				% change		
	2002	2007	2012	2017	2002 - 2017	2007 - 2017	2012 - 2017
Gastro-intestinal system	3,791,633	4,754,170	6,428,372	7,359,923	94%	55%	14%
Cardiovascular system	13,407,875	20,187,612	22,905,595	23,434,294	75%	16%	2%
Respiratory system	3,923,115	4,315,303	5,305,700	5,878,420	50%	36%	11%
Central nervous system	10,091,202	11,617,175	14,314,692	16,459,793	63%	42%	15%
Infections	2,836,704	3,103,597	3,467,380	2,909,104	3%	-6%	-16%
Endocrine system	3,579,298	5,098,740	6,750,546	7,721,781	116%	51%	14%
Obstetrics, gynae & urinary tract disorders	952,862	1,235,723	1,646,596	2,010,899	111%	63%	22%
Malignant disease & immunosuppression	278,170	347,041	393,732	442,077	59%	27%	12%
Nutrition and blood	1,432,500	2,309,867	3,076,909	3,827,464	167%	66%	24%
Musculoskeletal & joint diseases	2,280,702	2,200,016	2,416,891	2,348,299	3%	7%	-3%
Eye	1,043,795	1,284,181	1,506,594	1,456,255	40%	13%	-3%
Ear, nose and oropharynx	678,381	775,871	948,934	1,010,953	49%	30%	7%
Skin	2,428,559	2,364,439	2,674,707	2,339,163	-4%	-1%	-13%
Immunological products & vaccines	654,389	779,575	789,036	754,077	15%	-3%	-4%
Anaesthesia	52,682	60,994	75,837	102,048	94%	67%	35%
Preparations used in diagnosis	2	0	0	1	n/a	n/a	n/a
Other drugs and preparations	63,766	109,613	52,689	72,801	14%	-34%	38%
Dressings	765,310	704,007	607,796	383,598	-50%	-46%	-37%
Appliances	351,543	628,437	970,221	1,585,032	351%	152%	63%
Incontinence appliances	73,365	83,063	102,200	129,673	77%	56%	27%
Stoma appliances	92,938	136,193	205,062	207,443	123%	52%	1%
TOTAL	48,778,791	62,095,617	74,639,489	80,433,098	65%	30%	8%

Source: NHS Wales Shared Services Partnership

Table 6: Net ingredient cost (NIC) of prescriptions dispensed by BNF Chapter in 2017, with short, medium and long term comparisons.

BNF chapter name	Calendar year				% change		
	2002	2007	2012	2017	2002-2017	2007-2017	2012-2017
Gastro-intestinal system	47,866,399	34,067,878	28,462,329	29,227,256	94%	55%	14%
Cardiovascular system	124,421,293	127,381,521	75,112,968	69,123,655	75%	16%	2%
Respiratory system	55,907,900	72,579,823	86,520,436	82,707,732	50%	36%	11%
Central nervous system	92,394,918	127,425,125	121,755,077	123,889,516	63%	42%	15%
Infections	15,453,236	14,608,656	16,472,790	16,644,497	3%	-6%	-16%
Endocrine system	43,660,137	59,909,070	69,562,673	88,339,988	116%	51%	14%
Obstetrics, gynae & urinary tract disorders	12,181,295	17,535,203	24,893,955	23,853,185	111%	63%	22%
Malignant disease & immunosuppression	16,384,019	23,101,121	19,215,532	14,850,685	59%	27%	12%
Nutrition and blood	16,984,026	27,712,486	31,285,792	36,151,235	167%	66%	24%
Musculoskeletal & joint diseases	20,985,277	14,880,012	12,905,744	13,031,425	3%	7%	-3%
Eye	6,882,531	9,692,681	10,305,031	9,764,245	40%	13%	-3%
Ear, nose and oropharynx	3,779,133	5,121,056	5,793,237	5,756,032	49%	30%	7%
Skin	13,715,505	15,942,351	17,968,820	17,926,641	-4%	-1%	-13%
Immunological products & vaccines	5,330,126	6,996,247	6,274,984	6,131,280	15%	-3%	-4%
Anaesthesia	251,827	519,125	487,259	2,088,355	94%	67%	35%
Preparations used in diagnosis	142	0	0	175	n/a	n/a	n/a
Other drugs and preparations	793,168	3,391,199	1,395,420	2,095,959	14%	-34%	38%
Dressings	8,844,743	11,554,148	9,659,962	6,279,345	-50%	-46%	-37%
Appliances	4,397,749	7,313,015	11,150,020	16,170,531	351%	152%	63%
Incontinence appliances	2,275,414	2,600,609	2,907,210	3,285,423	77%	56%	27%
Stoma appliances	5,598,428	8,002,790	11,666,128	10,804,602	123%	52%	1%
TOTAL	498,107,268	590,334,117	563,795,366	578,121,759	16%	-2%	3%

Source: NHS Wales Shared Services Partnership

Table 7: Cost per item and items per head of prescriptions dispensed by BNF Chapter with short, medium and long term comparisons.

BNF chapter name	Cost per item (£)				Items per head			
	2002	2007	2012	2017	2002	2007	2012	2017
Gastro-intestinal system	12.62	7.17	4.43	3.97	1.30	1.58	2.09	2.36
Cardiovascular system	9.28	6.31	3.28	2.95	4.59	6.91	7.84	8.02
Respiratory system	14.25	16.82	16.31	14.07	1.34	1.48	1.82	2.01
Central nervous system	9.16	10.97	8.51	7.53	3.45	3.97	4.90	5.63
Infections	5.45	4.71	4.75	5.72	0.97	1.06	1.19	1.00
Endocrine system	12.20	11.75	10.30	11.44	1.22	1.74	2.31	2.64
Obstetrics, gynae & urinary tract disorders	12.78	14.19	15.12	11.86	0.33	0.42	0.56	0.69
Malignant disease & immunosuppression	58.90	66.57	48.80	33.59	0.10	0.12	0.13	0.15
Nutrition and blood	11.86	12.00	10.17	9.45	0.49	0.79	1.05	1.31
Musculoskeletal & joint diseases	9.20	6.76	5.34	5.55	0.78	0.75	0.83	0.80
Eye	6.59	7.55	6.84	6.71	0.36	0.44	0.52	0.50
Ear, nose and oropharynx	5.57	6.60	6.10	5.69	0.23	0.27	0.32	0.35
Skin	5.65	6.74	6.72	7.66	0.83	0.81	0.92	0.80
Immunological products & vaccines	8.15	8.97	7.95	8.13	0.22	0.27	0.27	0.26
Anaesthesia	4.78	8.51	6.43	20.46	0.02	0.02	0.03	0.03
Preparations used in diagnosis	70.80	n/a	n/a	175.00	0.00	0.00	0.00	0.00
Other drugs and preparations	12.44	30.94	26.48	28.79	0.02	0.04	0.02	0.02
Dressings	11.56	16.41	15.89	16.37	0.26	0.24	0.21	0.13
Appliances	12.51	11.64	11.49	10.20	0.12	0.22	0.33	0.54
Incontinence appliances	31.01	31.31	28.45	25.34	0.03	0.03	0.03	0.04
Stoma appliances	60.24	58.76	56.89	52.08	0.03	0.05	0.07	0.07
TOTAL	10.21	9.51	7.55	7.19	16.7	20.7	24.3	25.8

Source: NHS Wales Shared Services Partnership

Table 8: Top 25 prescription items by BNF chemical name - items, 2017

BNF chemical name	Items	NIC(£)
Omeprazole	2,617,801	3,453,979
Levothyroxine Sodium	2,427,303	5,778,669
Atorvastatin	2,351,087	2,761,587
Ramipril	2,228,282	3,103,192
Simvastatin	2,195,090	2,030,113
Amlodipine	1,995,310	3,307,964
Co-Codamol (Codeine Phos/Paracetamol)	1,819,975	7,416,901
Aspirin	1,814,859	1,342,844
Salbutamol	1,767,468	4,120,366
Bisoprolol Fumarate	1,695,522	1,469,455
Lansoprazole	1,668,834	1,848,605
Metformin Hydrochloride	1,397,814	5,610,893
Citalopram Hydrobromide	1,314,661	1,728,266
Paracetamol	1,302,422	3,645,690
Sertraline Hydrochloride	1,058,583	1,243,609
Amitriptyline Hydrochloride	1,016,190	1,907,758
Beclometasone Dipropionate	1,009,074	14,736,697
Furosemide	965,601	816,258
Bendroflumethiazide	932,976	645,126
Ergocalciferol	903,850	2,869,866
Warfarin Sodium	876,329	1,200,781
Lisinopril	726,140	721,935
Mirtazapine	716,293	1,673,016
Losartan Potassium	696,418	1,111,851
Amoxicillin	659,402	837,119

Source: NHS Wales Shared Services Partnership

NOTE: 'Other preparations' excluded

Details about the BNF classifications and classes are in the [notes](#).

While many of these preparations will only be in one BNF chapter, it should be noted that some will appear in more than one BNF chapter.

Table 9: Top 25 prescription items by net ingredient cost and BNF chemical name, 2017

BNF chemical name	NIC (£)	Items
Fluticasone Propionate (Inh)	21,507,082.04	548,026
Budesonide	14,790,787.73	416,605
Beclometasone Dipropionate	14,736,697.22	1,009,074
Pregabalin	14,666,970.30	450,022
Tiotropium	11,104,495.94	350,758
Glucose Blood Testing Reagents	11,004,642.90	452,727
Co-Codamol (Codeine Phos/Paracetamol)	7,416,901.21	1,819,975
Apixaban	7,395,400.40	153,119
Rivaroxaban	7,251,627.60	161,137
Insulin Glargine	6,391,727.78	126,063
Quetiapine	6,096,514.16	283,274
Levothyroxine Sodium	5,778,669.14	2,427,303
Metformin Hydrochloride	5,610,892.97	1,397,814
Solifenacin Succinate	5,549,621.97	196,904
Insulin Aspart	5,358,067.16	126,468
Sitagliptin	4,895,420.56	148,888
Wound Management & other Dressings	4,789,841.70	257,909
Hydrocortisone	4,554,037.35	389,221
Influenza	4,475,080.49	632,162
Mesalazine (Systemic)	4,414,960.06	93,493
Liraglutide	4,304,745.72	44,419
Salbutamol	4,120,366.29	1,767,468
Levetiracetam	3,922,645.50	140,769
Tadalafil	3,897,152.93	83,238
Leuprorelin Acetate	3,832,338.11	19,737

Source: NHS Wales Shared Services Partnership

NOTES: Details about the BNF classifications and classes are in the [notes](#).

While many of these preparations will only be in one BNF chapter, it should be noted that some will appear in more than one BNF chapter.

Key quality information

Prescription Cost Analysis (PCA) data are complex. The explanatory notes accompanying the data and the Quality Report are written to aid understanding and to avoid any misinterpretation of the figures.

Source

Prescription statistics published here are based on information obtained from prescriptions sent to Prescribing Services, NHS Wales Shared Services Partnership for payment. Data captured by Prescribing Services in the prescription pricing and remuneration process are also available on their [website](#).

Coverage

The statistics cover all prescriptions dispensed by community pharmacists (including supermarket pharmacies), appliance contractors and dispensing doctors in Wales including items personally administered. The vast majority are written by General Medical Practitioners in Wales; however prescriptions written by nurses, dentists and hospital doctors are also included provided they were dispensed in the community. Also included are prescriptions written in England, Scotland, Northern Ireland and the Isle of Man but dispensed in Wales. The analyses do not include prescriptions written in Wales but dispensed outside Wales.

Prescribing Services, NHS Wales Shared Services Partnership 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 at around 99% accuracy (i.e. at least 99% of prescriptions are processed accurately).

Revisions

As the PCA data is published in May for the previous calendar year, the appropriate mid year estimates of population are not available. Consequently the previous year's population figures are used and revised in the following year's release.

Notes

BNF

The [British National Formulary \(BNF\)](#) is a joint publication of the British Medical Association and the Royal Pharmaceutical Society. It is published biannually under the authority of a Joint Formulary Committee which comprises representatives of the two professional bodies and of the UK Health Departments.

Pharmaceutical Price Regulation Scheme

The [Pharmaceutical Price Regulation Scheme](#) is a voluntary agreement between the Department of Health and the Association of the British Pharmaceutical Industry. The scheme places some control on the costs of medicines to the NHS and applies to branded licensed medicines.

Category M

The [Category M scheme](#) is an arrangement where the net ingredient cost for selected generic formulations is controlled, with the aim of reducing costs overall. Medicines subject to these arrangements are classified as category M in Part VIII of the Drug Tariff. The majority of these formulations have fallen in price, although some formulations have increased in price. These price adjustments have contributed to shifts in the relative positions of drug and affect overall cost per item.

Falling costs

Several factors have contributed to the fall in costs, notably changes to the price of many medicines under the category M scheme. Adjustments to prices under this scheme have seen dramatic changes to costs across therapeutic areas over recent years.

Other factors which have lowered costs include:

- lower use of some medicines;
- generic versions of some medicines becoming available;
- the fall in the price of some medicines outside of the category M scheme; and
- lower use of more costly formulations of some medicines.

PCA in electronic format

The data are provided on the internet, accompanying this release, in a series of OpenDocument Spreadsheet (ODS) files. Users are advised to read the explanatory notes. The prescription items dispensed are listed alphabetically within British National Formulary (BNF) therapeutic class, chapters, sections, sub-paragraphs, chemicals, products and individual preparations.

No exclusions on the basis of numbers of prescription items dispensed have been made. The ODS summary level files therefore include these totals for the following 6 levels of aggregation:

- a) Overall total
- b) BNF chapter
- c) BNF section
- d) BNF sub paragraph
- e) BNF product
- f) Chemical entity
- g) Individual preparation

Exact costs and numbers of items are provided but we would recommend that any data extracted for use are presented in a rounded form.

Definitions

Therapeutic classification

PCA data are based currently on the therapeutic grouping used in the British National Formulary. The classification in this report is based on the September 2016 BNF.

NHS Prescription Services have created pseudo-BNF chapters, for items that cannot be found in BNF chapters 1 to 15. The majority of these items are dressings and appliances, which NHS Prescription Services have classified into four pseudo-BNF chapters (20 to 23). However some gel and colloid dressings that are classified as drugs are included in a pseudo section within BNF 13 (13.13). NHS Prescription Services have produced a booklet on [BNF classifications and the pseudo classifications](#).

Examples of the conditions covered by each group (unless group is self-explanatory) are given below:

- **Gastro-intestinal system:** including preparations for the management of indigestion, diarrhoea, constipation, haemorrhoids, ulcerative colitis and Crohn's disease
- **Cardiovascular system:** including preparations for the management of arrhythmia (irregular heart rhythm), hypertension (high blood pressure), heart failure and high cholesterol
- **Respiratory system:** including preparations for the management of asthma, chronic obstructive pulmonary disease (COPD), cystic fibrosis, allergies, cough and congestion
- **Central nervous system:** including preparations for the management of anxiety, sleeplessness, depression, pain, epilepsy, substance misuse, Parkinson's disease and Alzheimer's disease
- **Infections:** including preparations for the treatment of infection
- **Endocrine system:** including preparations for the management of diabetes, an under or over active thyroid gland and other hormonal conditions
- **Obstetrics, gynaecology and urinary tract disorders:** including contraceptives and preparations used in obstetrics
- **Malignant disease and immunosuppression:** including preparations for the treatment and management of cancer and conditions affecting the immune system
- **Nutrition and blood:** vitamins, minerals and prescribed foods
- **Musculoskeletal and joint disorders:** including preparations for the management of rheumatoid arthritis and gout, myasthenia gravis, spasticity and topical treatments for pain
- **Eye:** including preparations for the treatment and management of eye infections and glaucoma
- **Ear, nose and oropharynx:** including preparations for the treatment and management of conditions affecting the ear, nose and throat
- **Skin:** including preparations for the treatment and management of eczema, psoriasis, acne, warts and verrucae
- **Immunological products and vaccines:** including preparations for the treatment of anaemia, vitamin preparations and supplements
- Anaesthesia
- Preparations used in diagnosis
- Other drugs and preparations
- Dressings
- Appliances
- Incontinence supplies
- Stoma appliances

A full list of the therapeutic classes (BNF chapters) and their sub groups are shown in the following table.

Gastro-intestinal System

- Antacids
- Antispasmodic and other drugs altering gut motility
- Ulcer healing drugs
- Antidiarrhoeal drugs
- Treatment of chronic diarrhoeas
- Laxatives
- Preparations for haemorrhoids
- Stoma care
- Drugs affecting intestinal secretions

Cardiovascular System

- Positive inotropic drugs
- Diuretics
- Anti-arrhythmic drugs
- Beta-adrenoceptor blocking drugs
- Antihypertensive therapy
- Nitrates and other vasodilators, and calcium channel blockers
- Sympathomimetics
- Anticoagulants and protamine
- Antiplatelet drugs
- Antifibrinolytic drugs and haemostatics
- Lipid-lowering drugs
- Local sclerosants

Respiratory System

- Bronchodilators
- Corticosteroids
- Cromoglycate and related therapy
- Allergic disorders
- Oxygen
- Mucolytics
- Aromatic inhalations
- Cough preparations
- Systemic nasal decongestants

Central Nervous System

- Hypnotics and anxiolytics
- drugs used in psychoses and related disorders
- Antidepressant drugs
- Central nervous system stimulants
- Appetite suppressants
- Drugs used in nausea and vertigo
- Analgesics
- Antiepiletics
- Drugs used in parkinsonism and related disorders
- Drugs used in substance dependence
- Drugs used in Alzheimer's disease

Infections

- Antibacterial drugs
- Antifungal drugs
- Antiviral drugs
- Antiprotozoal drugs
- Anthelmintics

Endocrine System

- Drugs used in diabetes
- Thyroid and antithyroid drugs
- Corticosteroids
- Sex hormones
- Hypothalamic and pituitary hormones and antioestrogens
- Other endocrine drugs

Obstetrics, Gynaecology and Urinary Tract Disorders

- Drugs used in obstetrics
- Treatment of vaginal and vulval conditions
- Contraceptives
- Drugs used for genito-urinary disorders

Malignant Disease and Immunosuppression

- Cytotoxic drugs
- Drugs affecting the immune response
- Sex hormones and hormone antagonists in malignant disease

Nutrition and Blood

- Anaemias and other blood disorders
- Fluids and electrolytes
- Oral nutrition
- Minerals
- Vitamins
- Bitters and tonics
- Metabolic disorders
- Foods
- Compound vitamin / mineral formulations
- Health supplements
- Other health supplements

Musculoskeletal and Joint Disorders

- Drugs used in rheumatic diseases and gout
- Drugs used in neuromuscular disorders
- Drugs used for relief of soft tissue inflammation

Eye

- Anti-infective eye preparations
- Corticosteroids and other anti-inflammatory preparations
- Mydriatics and cycloplegics
- Treatment of glaucoma
- Local anaesthetics
- Miscellaneous ophthalmic preparations
- Contact lenses

Ear, Nose and Oropharynx

- Drugs acting on the ear
- Drugs acting on the nose
- Drugs acting on the oropharynx

Skin

- Vehicles and emulsifying agents
- Emollient and barrier preparations
- Local anaesthetics and antipruritics
- Topical corticosteroids
- Preparations for eczema and psoriasis
- Preparations for acne
- Preparations for warts and calluses
- Sunscreens and camouflagers
- Shampoos and some other scalp preparations
- Anti-infective skin preparations
- Disinfectants and cleansers
- Antiperspirants
- Wound management products
- Topical circulatory preparations
- Miscellaneous topical preparations

Immunological Products and Vaccines

- Vaccines and antisera
- Immunoglobulins

Anaesthesia

- General anaesthesia
- Local anaesthesia

Preparations used in Diagnosis

- X-ray contrast media

Other Drugs and Preparations

Dressings

Appliances

Incontinence Supplies

Stoma Appliances

Drug name

The drug is shown by individual preparation name, which may be proprietary (trade name) or generic (chemical name), followed by form and strength. The names used are often presented in an abbreviated form.

Items dispensed

A prescription item refers to a single item prescribed by a doctor (or dentist) on a prescription form. If a prescription form includes three items it is counted as three prescription items. A prescription item may be for a variable quantity e.g. 14, 28 or 56 tablets. A prescription item consists of a quantity of tablets or other preparation. This means that the cost per item does not equate to the cost, for example, per tablet or per pack of tablets but to the average number of tablets or packs prescribed per item.

Cost: Net Ingredient Cost (NIC)

NIC refers to the cost of the drug before discounts and does not include any dispensing costs or fees. It does not include any adjustment where the patient has purchased a pre-payment certificate.

Figures quoted for net ingredient cost for all years are unadjusted for inflation. Standard adjustments for inflation are not considered appropriate as drug prices are subject to controls under the Pharmaceutical Price Regulation Scheme and to other central controls.

No adjustment to NIC has been made to reflect payments to Welsh Government under the Pharmaceutical Price Regulation Scheme.

“PropGenLink” code

This code is used in the PCA data and is a way of linking the brand to the generic for a given chemical ingredient and is derived from the first 9 and last 2 characters of the BNF code.

Quantity (QTY) (individual preparations only)

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) (individual preparations only)

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)
- Chart 8 Others:

'Others' includes Infections, Obstetrics, Gynaecology & urinary tract disorders, Malignant disease & immunosuppression, Musculoskeletal & Joint Diseases, Eye, Ear, nose & oropharynx, Skin, Immunological products & vaccines, Anaesthesia, Preparations used in diagnosis, Other drugs & preparations, Dressings, Appliances, Incontinence appliances, and Stoma appliances.

Detailed data for other UK countries

Data for other UK countries can be accessed via the following web pages:

England: [Prescriptions Dispensed in the Community](#)

Scotland: [Prescribing and Medicines/Publications](#)

Northern Ireland: [Pharmaceutical statistics](#)

Note that varying prescribing practice may affect the interpretation of UK country comparisons. An example of this relates to the prescribing interval and how it appears to be shorter in Wales than other UK countries resulting in lower dose units prescribed per prescription item in Wales and correspondingly higher items per head statistics for Wales. The issue is described in a [report](#) from the All Wales Medicines Strategy Group and is illustrated for a basket of cardiovascular medicines (administered once daily).

Below are summary details for England, Northern Ireland and Scotland PCA publications, taken from the details on their websites which existed at the time of this publication. These details represent our interpretation of what is available and should be taken as a guide only. Queries should be addressed to the responsible organisation - links to their websites are included above.

PCA in England published by NHS Digital

[PCA in England](#) is published by calendar year. NHS Digital publishes the data together with a statistical bulletin which provides analysis and comment on patterns and trends; both are available from the NHS Digital website. Coverage is similar to PCA in Wales in terms of type of dispensers and prescribers included and that all prescriptions included are those dispensed in England only.

The data fields published are:

- cost in NIC (equivalent to NIC in Wales)
- items
- quantity together with standard quantity unit and preparation class

All individual preparations are listed in the Excel version of the PCA data – no suppression of preparations which are rarely dispensed.

Figures are published at the following levels of aggregation:

- Overall total
- BNF Chapter
- BNF Section
- BNF Paragraph
- BNF Sub – paragraph
- Chemical
- Individual preparations

PCA in Northern Ireland (NI) published by the Business Services Organisation

[PCA in Northern Ireland](#) is published by calendar year. Coverage is assumed to be similar to PCA in England and Wales in terms of type of dispensers and prescribers included and that all prescriptions included are those dispensed in NI only.

Fields are:

- Ingredient cost before discount
- items
- quantity

All individual preparations are listed – no suppression of preparations which are rarely dispensed.

Figures are published at the following levels of aggregation:

- BNF Chapter
- BNF Section
- Individual preparations

PCA in Scotland published by ISD Scotland

[PCA in Scotland](#) is published by financial year. Coverage is similar to PCA in England and Wales in terms of type of dispensers and prescribers included and that all prescriptions included are those dispensed in Scotland only.

Fields are

- Paid gross ingredient cost (equivalent to NIC, in Wales)
- Items
- Quantity

Only individual preparations where more than 10 items were dispensed are listed.

Figures are published at the following levels of aggregation.

- BNF Chapter
- BNF Section
- BNF Sub – section
- Chemical
- Individual preparations

More detail about comparing PCA data from other UK countries is given in the [quality report](#).

Users and uses of these statistics

We believe the key users of prescription statistics are:

- Ministers and the Members Research Service in the National Assembly for Wales;
- Policy makers of the Welsh Government;
- Other government departments;
- National Health Service and Public Health Wales;
- Students, academics and universities;
- General Medical Council and other professional organisations;
- Individual citizens and private companies.

The statistics are used in a variety of ways. Some examples of the uses include:

- Advice to Ministers;
- To inform debate in the National Assembly for Wales and beyond.

National Statistics status

The [United Kingdom Statistics Authority](#) has designated these statistics as National Statistics, in accordance with the Statistics and Registration Service Act 2007 and signifying compliance with the [Code of Practice for Statistics](#).

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 Statistics. They are awarded National Statistics status following an assessment by the UK Statistics 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 Welsh Government'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.

Well-being of Future Generations Act (WFG)

The Well-being of Future Generations Act 2015 is about improving the social, economic, environmental and cultural well-being of Wales. The Act puts in place seven well-being goals for Wales. These are for a more equal, prosperous, resilient, healthier and globally responsible Wales, with cohesive communities and a vibrant culture and thriving Welsh language. Under section (10)(1) of the Act, the Welsh Ministers must (a) publish indicators ("national indicators") that must be applied for the purpose of measuring progress towards the achievement of the Well-being goals, and (b) lay a copy of the national indicators before the National Assembly. The 46 national indicators were laid in March 2016.

Information on the indicators, along with narratives for each of the well-being goals and associated technical information is available in the [Well-being of Wales report](#).

Further information on the [Well-being of Future Generations \(Wales\) Act 2015](#).

The statistics included in this release could also provide supporting narrative to the national indicators and be used by public services boards in relation to their local well-being assessments and local well-being plans.

Further details

The document is available at:

<http://gov.wales/statistics-and-research/prescriptions-dispensed-community/?lang=en>

Next update

May 2019 (provisional)

We want your feedback

We welcome any feedback on any aspect of these statistics which can be provided by email to stats.healthinfo@gov.wales.

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