

# B2 Prescription statistics

## Key Points

### Overview of methadone prescription statistics

Methadone Hydrochloride (methadone mixture) is the most commonly used pharmacological treatment for opioid dependence in Scotland. It is used primarily for the treatment of drug addiction.

- In 2003/04, there was an average of 76 prescriptions of methadone mixture per 1 000 population in Scotland. (Table B2.1)
- The cost of dispensing methadone mixture (dispensing fees and ingredients) was £2 309 per 1 000 population. (Table B2.4)
- Across Scotland, pharmacist fees make up nearly 60 per cent of the cost of providing and dispensing methadone (NB. the cost of medical consultations/assessments are not included in these estimates). (Table B2.4)
- Eighty-six per cent of methadone prescriptions were dispensed in instalments in 2003/04 (see background notes for definition of instalments). (Table B2.5)

### 5 year trends – 1999/00 to 2003/04

- The methadone prescribing rate has risen by nearly 60 percent over the last five years, from 48 prescriptions per 1 000 population in 1999/00 to 76 prescriptions per 1 000 population in 2003/04. Note that more prescriptions do not necessarily mean more people: each individual could be getting more prescriptions. (Table B2.2)

### Geographical profile

- Prescription rates vary widely across Scotland, from 155 and 124 prescriptions per 1 000 population for Greater Glasgow and Ayrshire and Arran respectively, to 11 per 1 000 population for the Borders. (Table B2.1)
- Prescription rates have increased in most areas. There is spatial variation in the increase in rate of prescribing too, most significantly in Forth Valley (by 167 per cent from 1999/00 to 2003/04) and Ayrshire and Arran (by 82 per cent from 1999/00 to 2003/04). (Table B2.3)
- Dispensing fees as a percentage of total prescribing cost varies by area: In Forth Valley, 74 per cent of total costs were fees, compared with 52 per cent in Lothian and 21 per cent in Argyll and Clyde. (Table B2.4) Fees for methadone dispensing and supervision are negotiated locally, at health board level.
- Ninety-one per cent of dispensing was by instalment in both Greater Glasgow and Argyll and Clyde. This contrasts with 67 per cent in Lanarkshire. (Table B2.5)
- In 2003/04, the average quantity per dispensing across Scotland was 72 mg. This changes with local policy and practice: in Lothian, the quantity per dispensing was 116 mg compared with 48 mg in Forth Valley. (Table B2.5)

### Other prescription statistics

Table B2.1 and Table B2.2 list other drugs that are sometimes used for the treatment of opioid dependence. In 2003/04, diazepam, temazepam and dihydrocodeine were prescribed at, respectively, rates of 154, 82 and 86 per 1 000 population. (Table B2.1)

- The rate of prescribing diazepam has increased steadily over the five year period (133 to 154 per 1 000 people); conversely, temazepam prescribing rates have decreased (101 to 82 prescriptions per 1 000 people). Dihydrocodeine prescription rates remain static. (Table B2.2)

## Background information

Prescribing medication is an important element of many drug treatment programmes. Methadone mixture for the treatment of opioid dependence comprises the majority of methadone prescribing. Other formulations of methadone are used in the treatment of severe pain and palliative care. For example, methadone may also be prescribed as linctus to control distressful cough in terminal illness, and as tablets and injections to control severe pain in terminal illness.

Temazepam and Diazepam are prescribed to sedate, induce sleep, and relieve severe anxiety as well as a substitute medication for problem drug users. Dihydrocodeine and Buprenorphine are used for the relief of moderate to severe pain and also for the management of opiate dependence. Some of these drugs are commonly prescribed for non-drug using patients and so is not possible to assess precisely what proportion of these prescriptions is for the treatment of drug dependence.

### Defined Daily Doses

Defined Daily Doses (DDD) cited in the following data are considered to be a more accurate index of prescribing volume than the number of items prescribed alone. A DDD is defined by the World Health Organisation (WHO) as the typical adult daily maintenance dose of a drug<sup>1</sup>.

Although DDDs are considered to be superior to number of items as a unit of comparative analysis, difficulties may arise when they are used in estimating disease prevalence, because they correspond to a drug's principal indication<sup>2</sup>.

Defined Daily Doses used in the production of the following data are based on the WHO Definitions:

Methadone mixture 25mg; insofar as methadone mixture is concerned, it is useful to bear in mind that Department of Health Guidelines (1999)<sup>3</sup> suggest that while 25-40 mg of methadone mixture is an appropriate *initial* daily dosage (during assessment), the stabilization dosage offered on a longer term basis should be 60-100 mg/day.

Dihydrocodeine 120mg;

Buprenorphine 1.2mg;

Diazepam 10mg;

Temazepam 20mg.

### Instalment dispensings

Single dispensing occurs where the whole of an item is dispensed on one occasion (e.g. multiple doses are dispensed and taken home by patient). Instalment dispensing occurs where a proportion of the prescription item is dispensed on multiple occasions (e.g. a single daily dose is dispensed each day for seven days).

Where items are dispensed in instalments, the number of dispensings exceeds the number of items, but where items are dispensed singly, the number of dispensings will equal the number of items. For many instalment prescriptions the quantity per dispensing is equivalent to the daily dose of methadone requested. However, it should be noted that for a significant proportion of prescription items, there will be a discrepancy between the prescribed daily dose and the amount dispensed by instalment. This is because pharmacies often dispense a double dose of methadone mixture on Saturdays, to cover Sunday's instalment; additional doses will also be added to an instalment to cover public holidays.

#### Note

Figures for Orkney, Shetland and Western Isles NHS boards should be viewed with caution, due to the very small numbers involved.

### References

- 1 World Health Organisation (WHO) (1991). Guidelines for defined daily doses. WHO Collaborating for Drug Statistics Methodology. Oslo.
- 2 Frischer M, Chapman S (1998). Issues and directions in prescribing analysis. In: Medicines Management. Eds. Panton R, Chapman S. 82-84 BMJ and Ph.Press. London.
- 3 Department of Health (1999). Drug misuse and dependence – guidelines on clinical management. The Scottish Office Department of Health, the Welsh Office and the Department of Health and Social Services, Northern Ireland. London: Stationery Office.

**Table B2.1 : Prescriptions & Defined Daily Doses per 1 000 population : 2003/04**

NHS board, drug type

	Methadone Mixture	Methadone Other <sup>1</sup>	Dihydrocodeine	Buprenorphine	Diazepam	Temazepam
<i>Prescriptions per 1 000 population<sup>2</sup></i>						
<b>Scotland</b>	<b>76</b>	<b>0</b>	<b>86</b>	<b>1</b>	<b>154</b>	<b>82</b>
Argyll & Clyde	84	0	69	2	150	79
Ayrshire & Arran	124	0	104	1	143	73
Borders	11	0	89	0	133	110
Dumfries & Galloway	77	0	83	2	172	98
Fife	39	0	70	2	127	67
Forth Valley	24	0	84	1	122	91
Grampian	57	0	76	2	116	70
Greater Glasgow	155	1	95	1	210	89
Highland	18	1	90	1	159	77
Lanarkshire	70	0	66	2	162	76
Lothian	53	0	96	1	130	81
Orkney	0	-	54	2	87	58
Shetland	41	0	46	7	143	42
Tayside	59	1	110	0	178	93
Western Isles	0	0	102	3	174	146
<i>Defined Daily Doses per 1 000 population<sup>2</sup></i>						
<b>Scotland</b>	<b>2 538</b>	<b>14</b>	<b>2 617</b>	<b>61</b>	<b>3 830</b>	<b>2 054</b>
Argyll & Clyde	2 442	6	1 877	85	2 991	1 925
Ayrshire & Arran	2 605	11	2 766	18	3 657	1 804
Borders	355	13	2 060	8	2 648	2 121
Dumfries & Galloway	1 350	3	2 041	44	3 468	2 148
Fife	1 157	6	2 152	46	3 217	1 669
Forth Valley	875	1	2 428	14	2 465	2 263
Grampian	1 427	22	2 230	42	2 931	1 748
Greater Glasgow	6 323	22	2 725	142	5 150	2 188
Highland	398	21	1 967	31	2 631	1 609
Lanarkshire	1 531	6	1 945	63	3 549	2 018
Lothian	2 608	14	3 841	57	4 822	2 188
Orkney	21	-	1 420	22	1 154	1 498
Shetland	438	1	1 023	245	2 006	792
Tayside	2 004	24	3 484	12	4 502	2 734
Western Isles	8	3	2 573	31	3 193	3 169

1 These figures include linctus, tablets and injections

2 Data is expressed as per 1 000 population, based on GRO mid year estimates.

- (zero); 0 (>0.0 & <0.5)

Source : ISD Scotland - Prescribing Information System (PIS).

**Table B2.2 : Prescriptions & Defined Daily Doses per 1 000 population : 1995/96, 1999/00 - 2003/04**

drug type

	1995/96	1999/00	2000/01	2001/02	2002/03	2003/04
<i>Prescriptions per 1 000 population<sup>2</sup></i>						
<b>Total</b>	<b>347</b>	<b>368</b>	<b>372</b>	<b>383</b>	<b>394</b>	<b>400</b>
Methadone Mixture	26	48	53	62	71	76
Methadone Other <sup>1</sup>	1	0	0	0	0	0
Dihydrocodeine	69	85	86	86	87	86
Buprenorphine	3	1	1	1	1	1
Diazepam	109	133	138	144	150	154
Temazepam	139	101	94	89	86	82
<i>Defined Daily Doses per 1 000 population<sup>2</sup></i>						
<b>Total</b>	<b>8 905</b>	<b>9 560</b>	<b>9 813</b>	<b>10 152</b>	<b>10 718</b>	<b>11 114</b>
Methadone Mixture	596	1 193	1 415	1 728	2 135	2 538
Methadone Other <sup>1</sup>	26	12	12	11	12	14
Dihydrocodeine	1 759	2 312	2 395	2 472	2 570	2 617
Buprenorphine	40	24	24	23	26	61
Diazepam	2 596	3 353	3 513	3 620	3 795	3 830
Temazepam	3 888	2 666	2 453	2 298	2 180	2 054

1 These figures include linctus, tablets and injections

2 Data is expressed as per 1 000 population, based on GRO mid year estimates.

- (zero); 0 (>0.0 & <0.5)

Source : ISD Scotland - Prescribing Information System (PIS).

**Table B2.3 : Prescriptions for Methadone Mixture : 1999/00 - 2003/04**

NHS board of prescription, number and rate per 1 000 population<sup>1</sup>

	1999/00		2000/01		2001/02		2002/03		2003/04	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate
<i>Methadone Mixture</i>										
<b>Scotland</b>	<b>243 481</b>	<b>48</b>	<b>274 450</b>	<b>53</b>	<b>319 361</b>	<b>62</b>	<b>358 389</b>	<b>71</b>	<b>385 757</b>	<b>76</b>
Argyll & Clyde	21 805	51	24 319	57	27 967	66	31 782	76	35 068	84
Ayrshire & Arran	25 415	68	26 576	71	34 381	92	40 655	111	45 694	124
Borders	424	4	521	5	691	6	1 161	11	1 153	11
Dumfries & Galloway	6 567	45	7 238	50	7 880	54	8 027	54	11 396	77
Fife	9 537	27	11 398	33	12 159	35	13 432	38	13 867	39
Forth Valley	2 569	9	3 094	11	3 954	14	4 587	16	6 772	24
Grampian	23 017	44	26 931	51	29 917	57	29 388	56	29 813	57
Greater Glasgow	87 369	96	98 897	109	115 049	127	131 186	151	134 691	155
Highland	2 477	12	2 388	11	2 201	11	2 811	14	3 857	18
Lanarkshire	24 956	44	28 940	51	34 560	62	37 982	69	38 555	70
Lothian	23 178	30	26 312	34	30 818	39	34 877	45	41 290	53
Orkney	16	1	9	-	24	1	17	1	9	0
Shetland	365	16	652	29	723	33	745	34	898	41
Tayside	15 775	41	17 172	45	19 035	50	21 734	56	22 691	59
Western Isles	11	0	3	-	2	-	5	0	3	0

<sup>1</sup> Data is expressed as per 1 000 population, based on GRO mid year estimates.

- (zero); 0 (>0.0 & <0.5)

Source : ISD Scotland - Prescribing Information System (PIS).

**Table B2.4 : Costs and fees<sup>1</sup> for Methadone mixture : 2003/04**

NHS board of dispensing

	Cost of ingredients (£)	Cost of fees <sup>1</sup> (£)	Cost of fees <sup>1</sup> & ingredients (£)	Cost of fees <sup>1</sup> as a percentage of total cost	Cost of fees <sup>1</sup> & ingredients per 1 000 population <sup>2</sup> (£)
<b>Scotland</b>	<b>4 808 917</b>	<b>6 866 850</b>	<b>11 675 768</b>	<b>59%</b>	<b>2 309</b>
Argyll & Clyde	372 055	101 302	473 357	21%	1 135
Ayrshire & Arran	360 350	634 544	994 894	64%	2 710
Borders	14 372	17 717	32 089	55%	296
Dumfries & Galloway	75 144	75 170	150 314	50%	1 021
Fife	153 967	248 547	402 514	62%	1 144
Forth Valley	91 984	255 514	347 498	74%	1 242
Grampian	286 283	139 368	425 652	33%	813
Greater Glasgow	2 049 690	3 620 137	5 669 827	64%	6 544
Highland	30 912	54 719	85 631	64%	410
Lanarkshire	313 639	503 836	817 474	62%	1 477
Lothian	764 132	821 343	1 585 475	52%	2 033
Orkney	151	19	170	11%	9
Shetland	3 668	7 380	11 047	67%	505
Tayside	292 495	387 152	679 647	57%	1 758
Western Isles	75	103	179	58%	7

1 Dispensing fees only i.e. excludes supervision and controlled drug fees.

2 Data is expressed as per 1 000 population, based on GRO mid year estimates.

Source : ISD Scotland - Prescribing Information System (PIS).

**Table B2.5 : Instalment dispensing of methadone mixture : 2003/04<sup>1</sup>**

NHS board of dispensing

	Qty Disp <sup>2</sup> (a)	No. Disps <sup>3</sup> (b)	No. of Items <sup>4</sup> (c)	Disps/Item <sup>5</sup>	Qty Per Item <sup>6</sup>	Qty Per Disp <sup>7</sup>	% of total dispensed in instalments <sup>8</sup>
<b>Scotland</b>	<b>294 904 358</b>	<b>4 083 589</b>	<b>330 018</b>	<b>12</b>	<b>894</b>	<b>72</b>	<b>86%</b>
Argyll & Clyde	24 059 695	407 915	31 760	13	758	59	91%
Ayrshire & Arran	21 674 259	297 371	40 890	7	530	73	89%
Borders	797 019	9 798	845	12	943	81	73%
Dumfries & Galloway	4 434 693	89 838	9 337	10	475	49	82%
Fife	8 875 784	138 687	10 584	13	839	64	76%
Forth Valley	5 157 393	107 271	5 525	19	933	48	82%
Grampian	17 032 307	291 671	25 659	11	664	58	86%
Greater Glasgow	129 035 340	1 776 402	122 856	14	1 050	73	91%
Highland	1 631 182	26 496	2 915	9	560	62	76%
Lanarkshire	17 957 867	282 267	25 807	11	696	64	67%
Lothian	46 379 572	401 329	33 677	12	1 377	116	82%
Orkney	-	-	-	-	-	-	0%
Shetland	191 156	4 138	716	6	267	46	80%
Tayside	17 673 128	250 347	19 444	13	909	71	86%
Western Isles	4 965	59	3	20	1 655	84	100%

1 Due to a change in data collection methods, it is not appropriate to compare these figures with those presented in previous years.

2 Quantity dispensed in milligrams.

3 Number of occasions an item is dispensed.

4 Number of prescriptions.

5 Number of dispensings per item = (b)/(c).

6 Quantity per item = (a)/(c).

7 Quantity per dispensing = (a)/(b).

8 Percentage of total dispensed (singly and in instalments).

Source : ISD Scotland - Prescribing Information System (PIS).