

Publication Report



Prescribing & Medicines: Medicines for Mental Health

Financial Years 2002/03 to 2011/12

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About ISD

Scotland has some of the best health service data in the world combining high quality, consistency, national coverage and the ability to link data to allow patient based analysis and follow up.

Information Services Division (ISD) is a business operating unit of NHS National Services Scotland and has been in existence for over 40 years. We are an essential support service to NHSScotland and the Scottish Government and others, responsive to the needs of NHSScotland as the delivery of health and social care evolves.

Purpose: To deliver effective national and specialist intelligence services to improve the health and wellbeing of people in Scotland.

Mission: Better Information, Better Decisions, Better Health

Vision: To be a valued partner in improving health and wellbeing in Scotland by providing a world class intelligence service.

Official Statistics

Information Services Division (ISD) is the principal and authoritative source of statistics on health and care services in Scotland. ISD is designated by legislation as a producer of 'Official Statistics'. Our official statistics publications are produced to a high professional standard and comply with the Code of Practice for Official Statistics. The Code of Practice is produced and monitored by the UK Statistics Authority which is independent of Government. Under the Code of Practice, the format, content and timing of statistics publications are the responsibility of professional staff working within ISD.

ISD's statistical publications are currently classified as one of the following:

- National Statistics (ie assessed by the UK Statistics Authority as complying with the Code of Practice)
- National Statistics (ie legacy, still to be assessed by the UK Statistics Authority)
- Official Statistics (ie still to be assessed by the UK Statistics Authority)
- other (not Official Statistics)

Further information on ISD's statistics, including compliance with the Code of Practice for Official Statistics, and on the UK Statistics Authority, is available on the [ISD website](#).

Introduction

The [Governments policy on Mental Health](#) is to maintain the mental well-being of the people in Scotland, and improve the situation of those with mental ill-health, by working with other to:

- promote attitudes and behaviour in the general public which lead to mental well-being
- to ensure that good quality mental health services are available for everyone that needs them at all levels of need
- The Government works will all stakeholders including users, carers and service providers in health, local Government and the voluntary sector.

There are five distinct areas within mental health; Insomnia & Anxiety, Psychoses & related disorders, Depression, Attention Deficit Hyperactivity Disorder (ADHD) and Dementia.

Insomnia and Anxiety

Background

Insomnia is difficulty getting to sleep or staying asleep for long enough to feel refreshed the next morning. This happens despite having enough opportunity to sleep. The most common problem with insomnia is difficulty falling asleep (sleep-onset insomnia). An insomniac may also experience:

- waking in the night
- not feeling refreshed after sleep and not being able to function normally during the day
- feeling irritable and tired and finding it difficult to concentrate
- waking when they have been disturbed from sleep by pain or noise
- waking early in the morning.

Further information about insomnia can be found at <http://www.nhsinform.co.uk/mentalhealth>

Anxiety is a feeling of unease, such as worry or fear, that can be mild or severe. Everyone experiences feelings of anxiety at some point in their life. Feeling anxious is sometimes perfectly normal. However, people with generalised anxiety disorder (GAD) find it hard to control their worries. Their feelings of anxiety are more constant and often affect their daily life. There are several conditions for which anxiety is the main symptom. Panic disorder, phobias and post-traumatic stress disorder can all cause severe anxiety.

Further information about anxiety can be found at <http://www.nhsinform.co.uk/mentalhealth>

Treatment

Hypnotics and Anxiolytics are indicated for the treatment of Anxiety and Insomnia as described by the [British National Formulary \(BNF\)](#) section 4.1.

- BNF 4.1.1 - Hypnotics are indicated for the relief of Insomnia but only after the underlying causes have been established and treated. Long-term use of these drugs, especially Benzodiazepines, should be avoided.
- BNF 4.1.2 - Anxiolytics are indicated for short-term relief (two to four weeks only) of Anxiety that is severe, disabling or causing unacceptable distress to the patient. Using these drugs to treat short-term mild Anxiety should be avoided. In those instances

where the patient has chronic Anxiety, that is lasting more than four weeks, it may be more appropriate to use an Antidepressant (BNF section 4.3).

- BNF 4.1.3 - The intermediate-acting Barbiturates have a place only in the treatment of severe intractable Insomnia in patients already taking Barbiturates. Their use should be avoided in the elderly.

Psychoses and related disorders

Background

Psychoses and related disorders are an abnormal condition of the mind. People experiencing psychoses may report hallucinations or delusional beliefs, and may exhibit personality changes and thought disorder. Depending on its severity, this may be accompanied by unusual or bizarre behaviour, as well as difficulty with social interaction and impairment in carrying out daily life activities. Information on psychoses and related disorders, including treatment and prevalence can be found on the following web sites:

- [Royal College of Psychiatry](#)
- [Mind, a mental health charity](#)
- [Scottish Association for Mental Health](#)
- [Office of National Statistics \(ONS\)](#)

Treatment

Section 4.2 of the [British National Formulary \(BNF\)](#) lists the drugs licensed for the treatment of psychoses and related disorders. This section contains three sub-sections:

- BNF 4.2.1 - Antipsychotic drugs, also known as Neuroleptics. Severe anxiety attacks can also be treated, in the short term with Antipsychotics.
- BNF 4.2.2 - Antipsychotic Depot Injections. Long-acting injections used for maintenance therapy, especially when compliance with oral treatment is unreliable.
- BNF 4.2.3 - Antimanic drugs - Used to control acute attacks and prevent their recurrence.

Antipsychotic drugs (BNF 4.2.1) can be divided into two classes:

- The older Typical (or conventional) Antipsychotics developed in the 1950s, principally to treat Schizophrenia. These can be further divided into the low and high potency drugs. For example, Fluphenazine and Haloperidol are examples of high-potency Antipsychotics, and Chlorpromazine is an example of a low-potency Antipsychotic. The high-potency drugs tend to be associated with Extrapyramidal (EPS) side effects (tremors, muscle spasms, irregular muscle movements etc.). EPS side effects are less evident in the low potency drugs.
- The Atypical Antipsychotics are used principally to treat Schizophrenia, but can be used to treat other conditions. The first Atypicals, (Clozapine and Risperidone) were introduced in 1994, followed by Olanzapine and Sertindole in 1996 (the latter withdrawn in 2001 after concern was expressed about cardiac effects), Amisulpride and Quetiapine in 1997, Zolopine in 1998, with the latest drug, Aripiprazole, coming on to the market in 2004.

Depression

Background

Depression is a serious illness. Health professionals use the words depression, depressive illness or clinical depression to refer to it. It is very different from the common experience of feeling unhappy, miserable or fed up for a short period of time. When you are depressed, you may have feelings of extreme sadness that can last for a long time. These feelings are severe enough to interfere with your daily life, and can last for weeks or months, rather than days. The main treatment for depression is antidepressants.

Information on depression, its treatment and prevalence, can be found at [Depression Alliance](#).

Treatment

There are four types of antidepressant drugs, as described in the [British National Formulary \(BNF\)](#) section 4.3, which are used in the treatment of depression:

- BNF 4.3.1 - Tricyclic antidepressants are used to treat depression as well as, but also having a role to play in the treatment of migraine, panic disorder, obsessive compulsive disorder, recurrent headaches and in the relief of neuropathic pain.
- BNF 4.3.2 - MAOIs - Monoamine-oxidase inhibitors are used less frequently than either the tricyclics or Selective Serotonin Re-uptake Inhibitors (SSRIs) and related antidepressants because of the dangers of dietary and drug interactions.
- BNF 4.3.3 - SSRIs - Selective serotonin re-uptake inhibitors are a group of drugs used to treat depression and other conditions such as bulimia, panic disorder and obsessive-compulsive disorder.
- BNF 4.3.4 - Others - Drugs that do not fit any of the above categories. For example, Duloxetine inhibits the re-uptake of both serotonin and noradrenaline and is therefore termed a Serotonin and Noradrenaline Re-uptake Inhibitor (SNRI). Other drugs in this group are Flupentixol (also used in the treatment of psychoses), Mirtazapine, Reboxetine, Tryptophan and Venlafaxine.

It should be noted that antidepressant drugs are used for indications other than depression (e.g., migraine, chronic pain, myalgic encephalomyelitis (ME) etc.) therefore no guarantee can be given that the statistics in relation to these drugs relate solely to depression.

Attention Deficit Hyperactivity Disorder (ADHD)

Background

Attention Deficit Hyperactivity Disorder (ADHD) and Attention Deficit Disorder (ADD) refer to a range of problem behaviours associated with poor attention span. These may include impulsiveness, restlessness and hyperactivity, as well as inattentiveness. These behaviours often prevent children from learning and socialising well. ADHD is sometimes referred to as Hyperkinetic Disorder (HD).

The prevalence of ADHD among males is thought to be four times that of females¹, which concurs with the published figures of patients by gender in this report. [NHS Quality Improvement Scotland](#) is to fund a national audit, based on the SIGN guideline, of the care and treatment provided throughout Scotland for children with ADHD.

Treatment

Treatment of ADHD or Attention Deficit Disorder (ADD) should involve social, pharmacological, psychological, educational and behavioural interventions, used alone or in combination. There are three drugs, as described in the [British National Formulary \(BNF\)](#) section 4.4, which are used in the treatment of ADHD or ADD:

- Atomoxetine (Strattera[®])
- Dexamfetamine Sulphate (Dexedrine[®])
- Methylphenidate Hydrochloride (Ritalin[®], Concerta XL[®], Equasym[®], Equasym XL[®], Medikinet[®], Medikinet XL[®], Tranquilyn[®]).

There was a drug which in use in the 1990's named Pemoline. This drug was with-drawn in September 1997 because of reports of serious hepatotoxicity.

Dementia

Background

Dementia is a disease that leads to a progressive loss of brain function typified by memory loss, confusion, speech difficulties and problems in understanding. There are over 100 different types of dementia. The most common forms are:

- Alzheimer's disease
- Vascular dementia
- Dementia with lewy bodies
- Pick's disease
- Huntington's disease
- Alcohol-related dementia
- HIV/AIDS related dementia

It has been estimated that 75% of people diagnosed with dementia will either have Alzheimer's or vascular dementia or a combination of the two ([Alzheimer Scotland - Dementia Factsheet](#)). Dementia mainly affects older people, but can also occur in people as young as thirty due to either alcohol abuse or HIV/AIDS. Roth et al² have estimated that 30% of people diagnosed with dementia have the mild form of the disease, 42% are at the moderate stage and 28% have severe dementia.

Detailed information on the various types of dementia can be found on the [Alzheimer's Society](#) web site and that of [Alzheimer Scotland](#).

Treatment

No cure for dementia currently exists. However, drugs are available that will inhibit, albeit temporarily, the progress of the disease. The [British National Formulary \(BNF\)](#) lists four drugs that are licensed for the treatment of dementia:

- Donepezil hydrochloride (Aricept[®] & Aricept Evess[®])
- Galantamine (Reminyl[®] & Reminyl XL[®])
- Memantine hydrochloride (Ebixa[®])
- Rivastigmine (Exelon[®])

Memantine is the only drug licensed to treat moderate to severe dementia; all others are for use in the mild to moderate form of the disease. However, the [Scottish Medicines Consortium](#) has recommended that Memantine should not be used within the NHS in Scotland due to its effect being small and its clinical effectiveness unclear. This recommendation does not, however, override the individual responsibility of health professionals to make appropriate decisions in the circumstances of the individual patient, in consultation with the patient and/or carer.

Patient Based Analysis & Defined Daily Doses

In this report patient based analysis has been published at NHS Scotland level for the first time. At NHS Board level, DDD trend data has been retained to allow comparisons between NHS Boards (also other countries) and to show trend information over time. The inclusion of patient information is intended to further inform health decision-making in NHS Scotland.

Patient Based Analysis

Patient based analysis has been made possible through the recent availability of comprehensive patient identifiable data. All NHS patients have a unique Community Health Index (CHI) number which makes it possible to identify which prescription items have been dispensed for individual patients. Prior to April 2009, the proportion of prescriptions with a valid CHI number recorded was not comprehensive enough to make patient based analysis possible. For medicines used in mental health, CHI capture rates have improved, becoming high enough to permit accurate patient analyses for financial years 2009/10 to 2011/12. The CHI capture rate for each topic contained within this report is as follows:

Hypnotics and Anxiolytics:

- 2009/10 = 90.8%
- 2010/11 = 92.7%
- 2011/12 = 93.2%

Psychoses and related disorders:

- 2009/10 = 91.1%
- 2010/11 = 93.8%
- 2011/12 = 94.3%

Antidepressants:

- 2009/10 = 93.4%
- 2010/11 = 95.4%
- 2011/12 = 95.9%

Attention Deficit Hyperactivity Disorder (ADHD):

- 2009/10 = 87.6%
- 2010/11 = 91.0%
- 2011/12 = 91.8%

Dementia:

- 2009/10 = 84.0%
- 2010/11 = 87.4%
- 2011/12 = 87.0%.

This completeness shows the percentage of dispensed items that have a valid CHI number attached and are therefore included in the patient analysis. This factor should be considered when interpreting any trends in patient data.

The patient count for any given year shows the total number of patients who have been dispensed at least one prescription item during the course of that year.

Defined Daily Doses

Defined Daily Doses are a statistical measure derived from the international use of the substance in question. They were developed by [the World Health Organisation \(WHO\)](#) and are defined as “the assumed average maintenance dose per day used on its main indication in adult”. The number of DDDs per 1,000 population per day provides the number of these daily maintenance doses dispensed for a specific group of drugs, and therefore can be used to derive an approximate estimate of the average daily number of people taking the drugs.

Advantages of Patient Analyses

In the past the number of daily maintenance doses dispensed has been used to provide an estimation of the proportion of population making daily use of these drugs. For example, 10 DDDs per 1,000 population per day correspond to a daily use of the drug by 1% of the population. This is an estimate based on the assumed daily maintenance dose and so does not show the actual proportion of the population being prescribed a particular medicine. Due to the development of CHI capture rates, it is now possible to carry out accurate patient based analyses, thereby making available information on the number of patients who have been dispensed a particular drug.

Interpretation of Results

It should be noted that patient analysis and DDDs are measuring different things.

The patient based figure counts anyone who has been prescribed the drug within the time period (in this case a whole year), whereas the DDD figure averages the total out over time – estimating the average number of people taking it on any one day during the year. Therefore the patient based figure could be expected to be higher, since some people might only be on the drugs for a short period.

For example, in the DDD analysis, one person on a maintenance dose for 12 months will count the same as six people taking this for 2 months each. In the patient based analysis this will count all six people.

It should also be noted that General Registry Office (GRO) population estimates are taken from a fixed point in time (as at 30th June), while patients counts are based on the total number of patients that were dispensed an item over the course of a full year. The GRO population estimates and the patient counts contained within this report are therefore not directly comparable. Based on this, it is not possible to accurately show what proportion of the population is receiving drug treatment for a particular condition.

ISD is not responsible for the contents of external Internet sites.

References

1. Gaub M, Carlson CL. Gender Differences in ADHD: a meta-analysis and critical review. *J Am Acad of Child Adolescent Psychiatry* 1997; 36: 1036-45
2. Roth et al. (1998) CAMDEX, the Cambridge Examination for Mental Disorders of the Elderly. Cambridge University Press

Key points

- The patient based analysis is a new feature of this publication. ISD will be developing this further in the future. The CHI capture rate in 2011/12 for each topic contained within this report is:
 - Hypnotics and Anxiolytics – 93.2%
 - Psychoses and Related Disorders – 94.3%
 - Antidepressants – 95.9%
 - ADHD – 91.8%
 - Dementia – 87.0%
- In 2011/12, 363,823 patients were dispensed a hypnotic, anxiolytic or barbiturate.
- The total cost of dispensing a hypnotic, anxiolytic or barbiturate was £7.1m, a decrease of 10.2% on the cost in 2010/11.
- A total of 817,937 items were dispensed for drugs used in psychoses and related disorders during 2011/12, an increase of 32,196 (4.10%) items over the previous financial year.
- In 2011/12 there were 78,471 patients who were dispensed drugs used in psychoses and related disorders.
- There were 718,330 patients in 2011/12 that were dispensed an antidepressant.
- The total cost of dispensing antidepressants was £31.4m, an increase of 2.6% on the cost in 2010/11.
- In 2011/12, 7,511 patients were dispensed a drug for ADHD, of which 82% were male and 18% female.
- For dementia, 17,546 patients were dispensed an item in 2011/12, representing a 10.4% increase on the number of patients dispensed an item in 2010/12.

Results and Commentary

Medicines used in mental health have been reviewed for the period 2011/12. Each condition (Insomnia & Anxiety, Psychoses and related disorders, Depression, ADHD and Dementia) has been reviewed independently and analysis has been completed at NHS Scotland, NHS Board and Drug level.

Hypnotics and Anxiolytics (Insomnia and Anxiety)

The CHI capture rate for Hypnotics and anxiolytics is:

- 2009/10 = 90.8%
- 2010/11 = 92.7%
- 2011/12 = 93.2%

NHS Scotland

Table 1 shows the number of patients who received treatment with a hypnotic or anxiolytic drug, by gender, for financial years 2009/10 to 2011/12.

Table 1: Patients by Gender – Hypnotics and Anxiolytics – 2009/10 to 2011/12

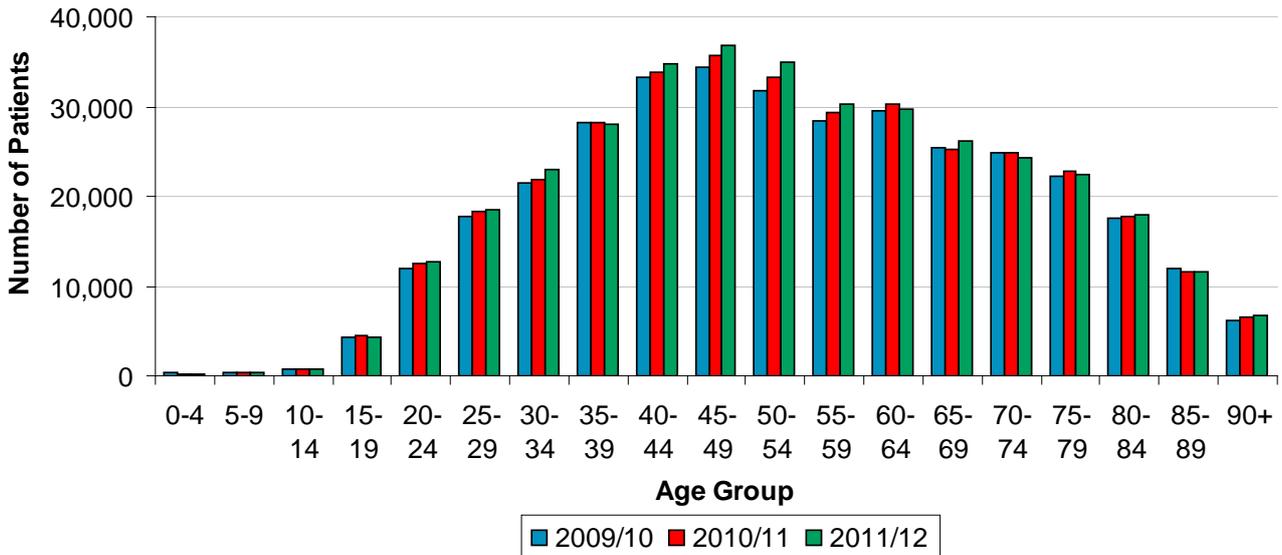
Financial Year	Total	Male	Female
2009/10	350,377	126,341	224,016
2010/11	358,588	129,294	229,294
2011/12	363,823	131,659	232,164

Source: Prescribing Information System, ISD Scotland

In Scotland a total of 363,823 patients received treatment with a hypnotic or anxiolytic in 2011/12. When split by gender this equates to 232,164 females and 131,659 males. It is apparent that the number of females who received drug treatment is consistently higher than the number of males. In 2011/12, 64% of patients who received treatment with a hypnotic and anxiolytic were female while 36% were male.

Figure 1 shows the age grouping of patients who received a hypnotic or anxiolytic between 2009/10 and 2011/12.

Figure 1: Patients by Age Group – Hypnotics and Anxiolytics – 2009/10 to 2011/12

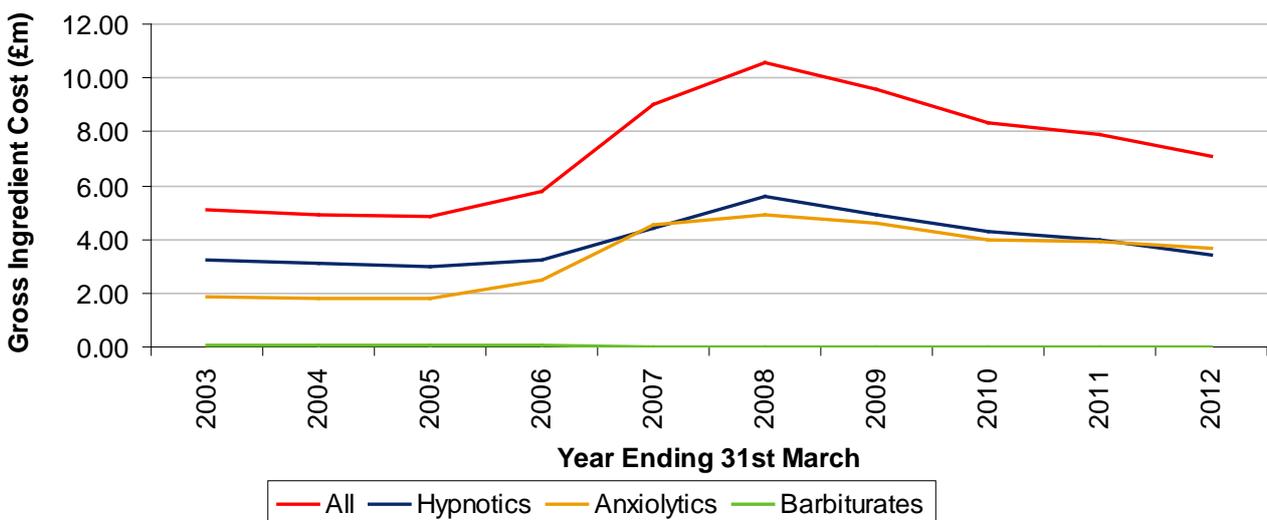


Source: Prescribing Information System, ISD Scotland

Figure 1 shows that from the age of license (15yrs +) there is an increasing trend in the number of patients who received a hypnotic or anxiolytic, peaking at ages '45-49' and then steadily decreasing as patients get older. The age grouping with the greatest number of patients who received drug treatment was '45-49', consisting of 36,891 patients in 2011/12. Hypnotics and anxiolytics are in general, licensed for patients aged 15 years and over however items can be prescribed 'off label' based on specialist recommendation.

Figure 2 show the gross ingredient cost, in total and by individual drug for the financial years 2002/03 to 2011/12.

Figure 2: Gross Ingredient Cost (£) – Hypnotics and Anxiolytics – 2002/03 to 2011/12



Source: Prescribing Information System, ISD Scotland

The total gross ingredient cost for hypnotics and anxiolytics decreased from £7.91 million to £7.11 million between 2010/11 and 2011/12. The sharp movement shown between 2005/06 and 2007/08 was due to the process of price re-alignment.

NHS Board

Information on the NHS Board of prescribing for hypnotics and anxiolytic drugs has also been analysed. Figures 3 and 4 show prescribing of drugs by NHS Board in terms of the number of DDDs per 1,000 population per day for drugs used in the treatment insomnia and anxiety, respectively.

NHS Board ciphers are displayed on the Figures 3 and 4 for reason of clarity. Table 2 provides a translation between the cipher and the NHS Board name. Please note that NHS Argyll and Clyde ceased to exist as a single entity from April 2006. Argyll and Bute was absorbed into NHS Highland and the remainder into NHS Greater Glasgow to become NHS Greater Glasgow and Clyde.

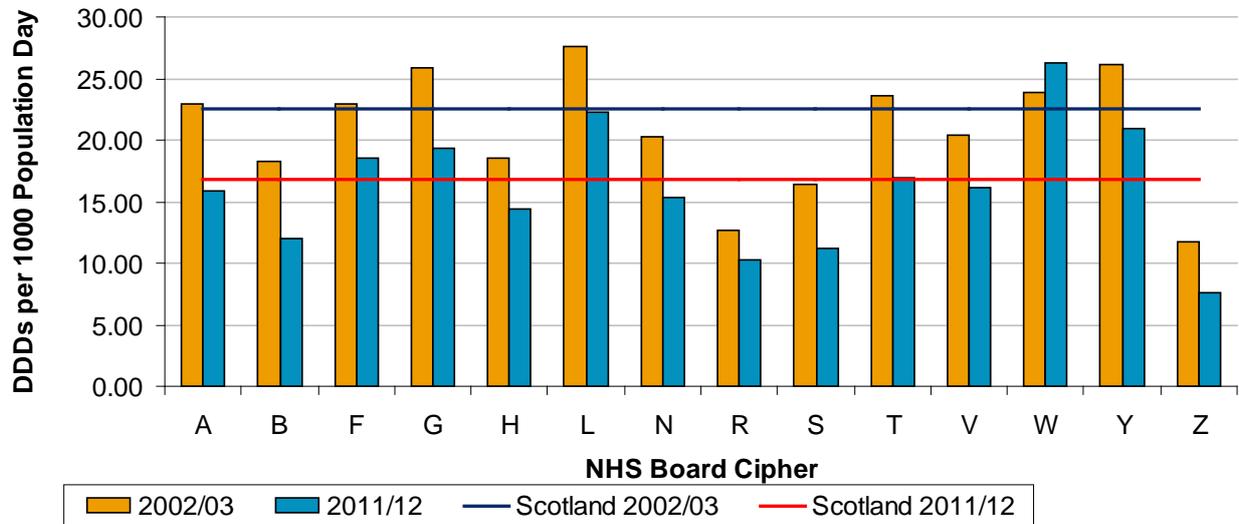
Table 2: NHS Board Cipher - Translation

NHS Board Cipher	Name
A	Ayrshire & Arran
B	Borders
F	Fife
G	Greater Glasgow and Clyde
H	Highland
L	Lanarkshire
N	Grampian
R	Orkney
S	Lothian
T	Tayside
V	Forth Valley
W	Western Isles
Y	Dumfries & Galloway
Z	Shetland

Source: Prescribing Information System, ISD Scotland

Figure 3 contains information on the number of DDDs per 1,000 population per day for financial years 2002/03 and 2011/12.

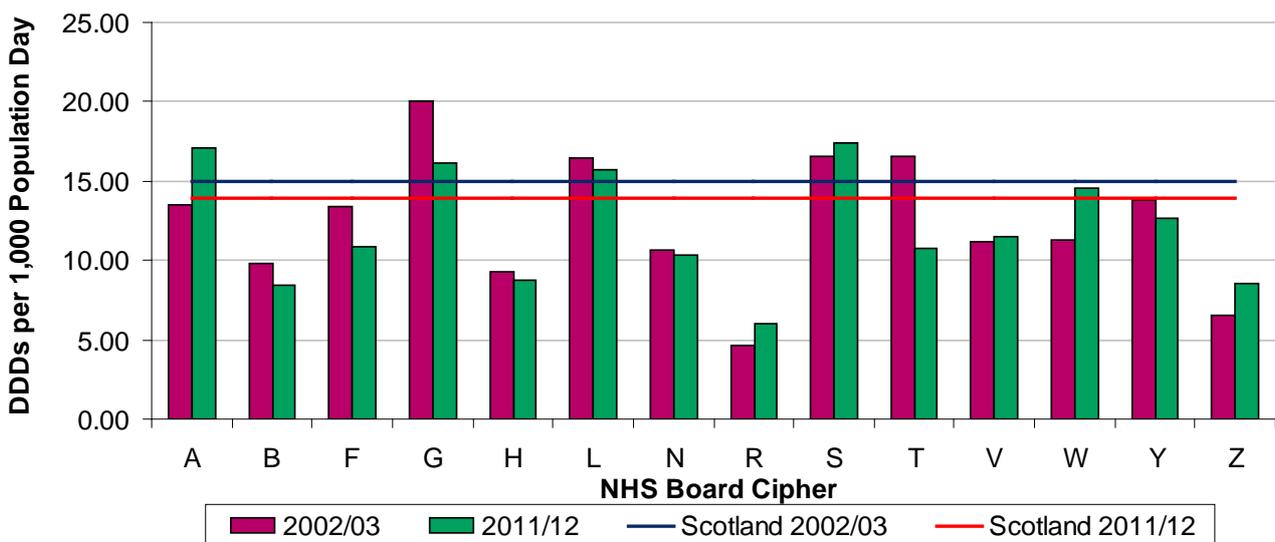
Figure 3: Hypnotics – Number of Defined Daily Doses per 1,000 Population (aged 15+) per Day– 2002/03 and 2011/12



Source: Prescribing Information System, ISD Scotland

Most NHS Boards show a reduction in the prescribing of Hypnotics when comparing the number of DDDs per 1,000 population per day for the period 2002/03 and 2011/12. The largest reduction was recorded by NHS Ayrshire & Arran who dispensed 22.9 DDDs per 1,000 population per day in 2002/03, down to 15.9 DDDs in 2011/12. NHS Shetland is consistently the lowest 'user' of Hypnotics, dispensing 7.6 DDDs per 1,000 population per day in 2011/12, down from 11.8 DDDs in 2002/03.

Figure 4: Anxiolytics – Number of Defined Daily Doses per 1,000 Population (aged 15+) per Day – 2002/03 and 2011/12



Source: Prescribing Information System, ISD Scotland

NHS Boards show a varying trend in the prescribing of Anxiolytics in the last ten years. The largest increase occurred in NHS Ayrshire & Arran, where the number of DDDs dispensed per 1,000 population per day increased from 13.5 daily doses to 17.1 daily

doses between 2002/03 and 2011/12. In contrast NHS Tayside’s usage fell from 16.6 to 10.8 DDDs per 1,000 population per day.

Psychoses and related disorders

The CHI capture rate for drugs used in the treatment of psychoses and related disorders is:

- 2009/10 = 91.1%
- 2010/11 = 93.8%
- 2011/12 = 94.3%

NHS Scotland

Table 3 shows the number of patients who received treatment with a drug for psychoses or related disorders, by gender, for financial years 2009/10 to 2011/12.

Table 3: Patients by Gender – Psychoses and Related Disorders – 2009/10 to 2011/12

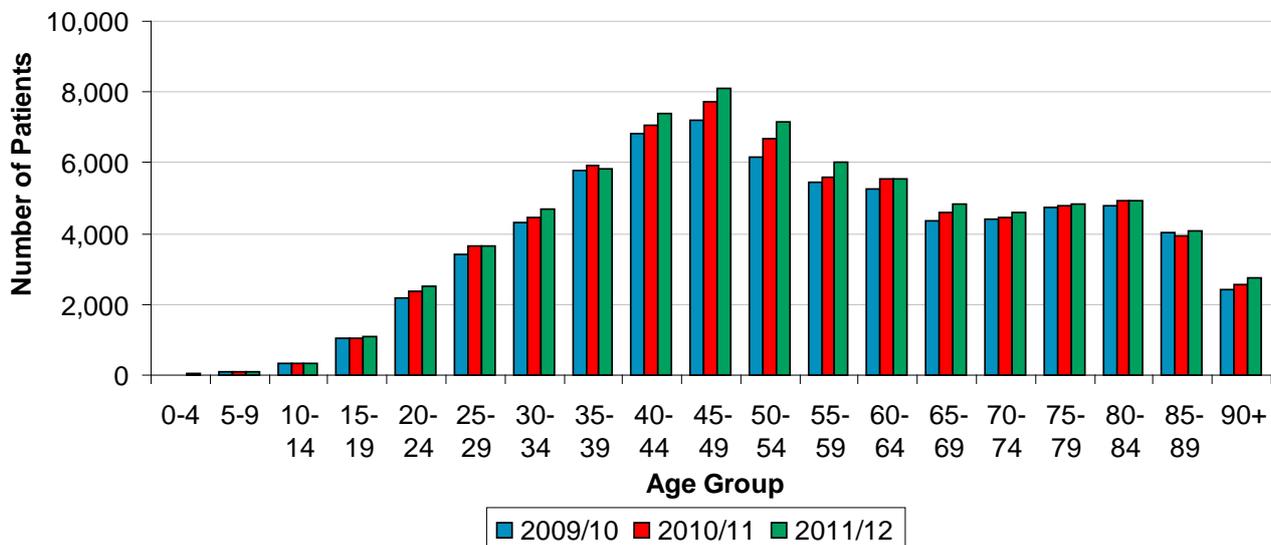
Financial Year	Total	Male	Female
2009/10	72,811	32,937	39,874
2010/11	75,770	34,513	41,257
2011/12	78,471	35,879	42,592

Source: Prescribing Information System, ISD Scotland

In Scotland a total of 78,471 patients received treatment for psychoses and related disorders in 2011/12. When split by gender this equates to 42,592 females and 35,879 males. It is apparent that the number of females who received drug treatment is consistently higher than the number of males. In 2011/12, 46% of patients who were dispensed an item under BNF 4.2 were male while 54% were female.

Figure 5 shows the age grouping of patients who were dispensed a drug for psychoses and related disorders between 2009/10 and 2011/12.

Figure 5: Patients by Age Group – Psychoses & Related Disorders – 2009/10 to 2011/12

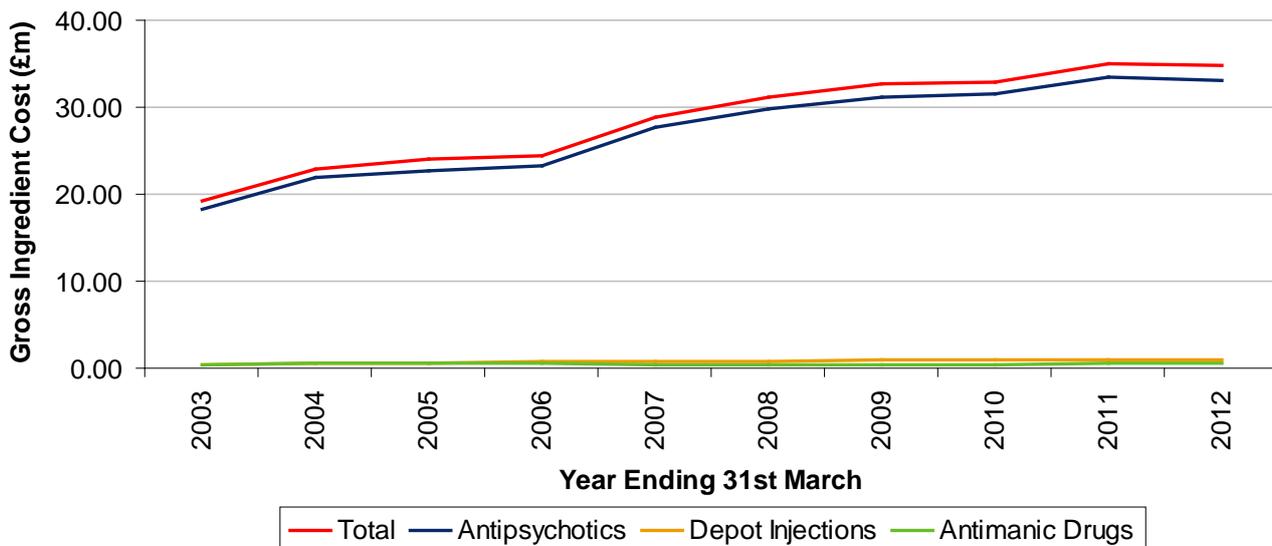


Source: Prescribing Information System, ISD Scotland

Figure 5 shows that from the age of license (15yrs +) there is an increasing trend in the number of patients who received a drug for psychoses and related disorders, peaking at ages '45-49' and then steadily decreasing as patients get older. The age grouping with the greatest number of patients who received drug treatment was '45-49', consisting of 8,088 patients in 2011/12.

Figure 6 show the gross ingredient cost, in total and by BNF sub-section for the financial years 2002/03 to 2011/12.

Figure 6: Gross Ingredient Cost (£) – Psychoses and related disorders – 2002/03 to 2011/12



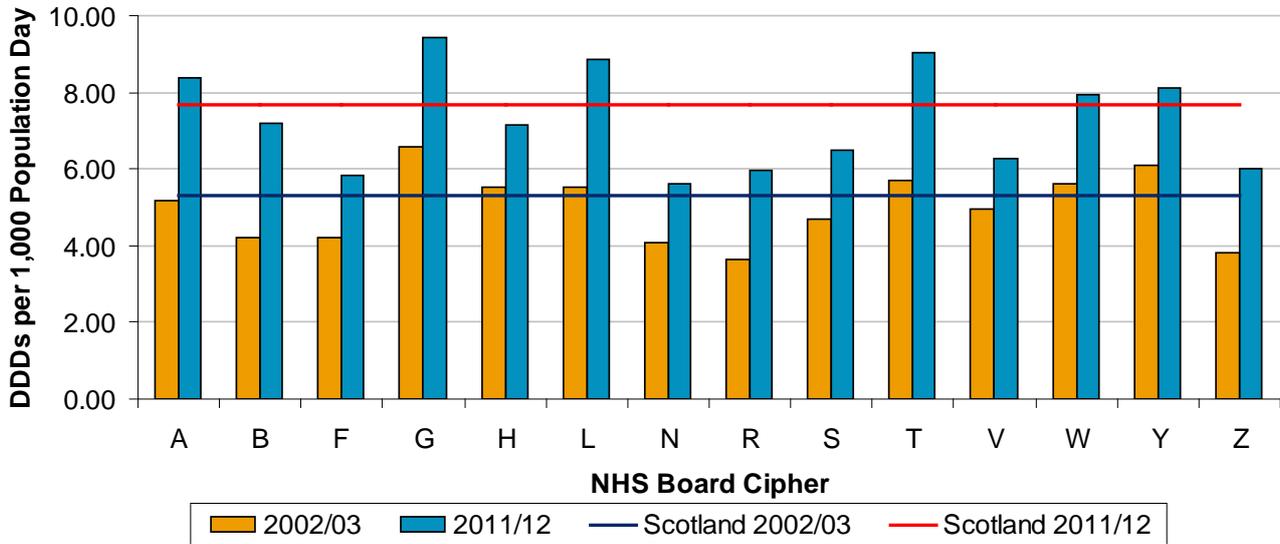
Source: Prescribing Information System, ISD Scotland

Figure 6 shows the Gross Ingredient Cost of drugs for Psychoses and related disorders (BNF 4.2) has decreased from £34.99 million in 2010/11 to £34.73 million in 2011/12. This decrease is attributable to the cost of antipsychotic drugs (BNF 4.2.1) reducing from £33.50 million in 2010/11 to £33.09 million in 2011/12. The gross ingredient cost for depot injections (BNF 4.2.2) increased from £0.96 million in 2010/11 to £1.04 million in 2011/12, while the antimanic drugs (BNF 4.2.3) increased from £0.53 million to £0.60 million during the same time period.

NHS Board

As the majority of the drugs used in the treatment of psychoses and related disorders are antipsychotic drugs, a comparison by NHS Board for 2002/03 to 2011/12 is given in Figure 7. Please refer to Table 2 which provides a translation between the NHS Board name and the cipher.

Figure 7: Antipsychotic Drugs (BNF 4.2.1) – Number of Defined Daily Doses per 1,000 Population (age 15+) per Day – 2002/03 and 2011/12



Source: Prescribing Information System, ISD Scotland

All NHS Boards show increased prescribing of Antipsychotic drugs since 2002/03. The use of Antipsychotic drugs (BNF 4.2.1) has increased from 5.32 to 7.70 DDDs per 1,000 population per day. Six of the fourteen NHS Boards prescribed above the 2011/12 national averages for Antipsychotic drugs (BNF 4.2.1), with NHS Greater Glasgow & Clyde being the highest prescriber at 9.42 DDDs per 1,000 population per day (where the population is that aged 15 and over).

Antidepressants (Depression)

The CHI capture rate for antidepressants is:

- 2009/10 = 93.4%
- 2010/11 = 95.4%
- 2011/12 = 95.9%

NHS Scotland

Table 4 shows the number of patients who received treatment with an antidepressant, by gender, for financial years 2009/10 to 2011/12.

Table 4: Patients by Gender – Antidepressants – 2009/10 to 2011/12

Financial Year	Total	Male	Female
2009/10	633,791	204,119	429,672
2010/11	675,948	219,071	456,877
2011/12	718,330	234,899	483,431

Source: Prescribing Information System, ISD Scotland

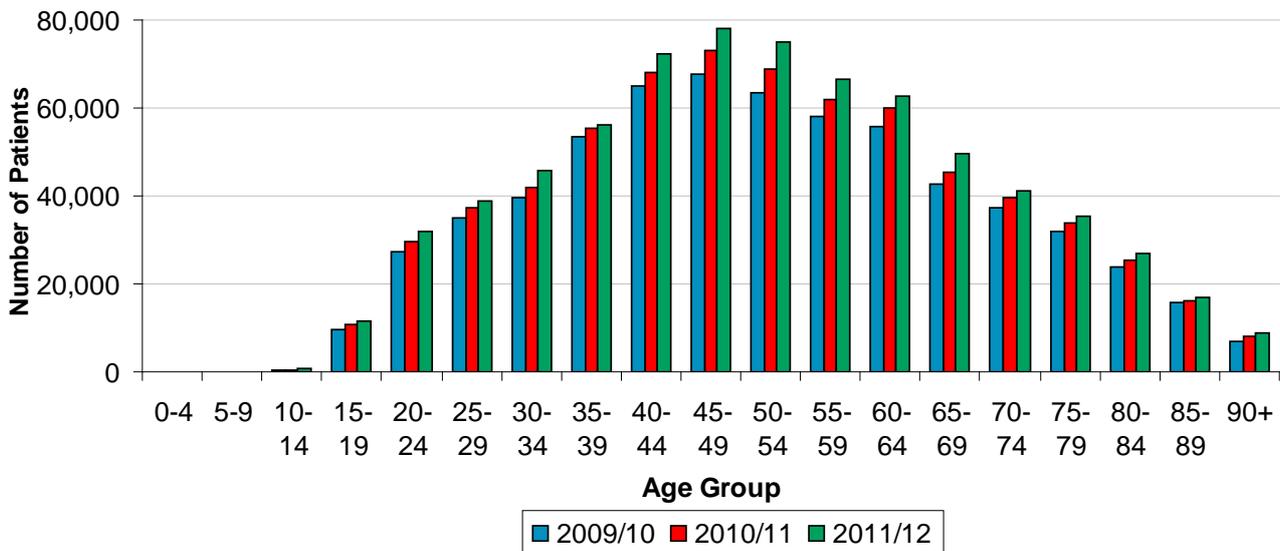
Data on the total number of patients to receive an antidepressant should be interpreted with great caution. It does not equate to people being treated for depression. This is because many drugs classified as antidepressants can also be used for conditions other than

depression. These include but are not restricted to neuropathic pain, post-traumatic stress disorder and anxiety disorders.

In Scotland a total of 718,330 patients received treatment with an antidepressant in 2011/12, of which 48% of patients were dispensed 1-5 items during that period. When split by gender it can be seen that the number of females who received treatment with an antidepressant is consistently higher than the number of males. In 2011/12, 67% of patients who were dispensed an antidepressant were female while only 33% were male.

Figure 8 shows the age grouping of patients who received an antidepressant between 2009/10 and 2011/12.

Figure 8: Patients by Age Group – Antidepressants – 2009/10 to 2011/12

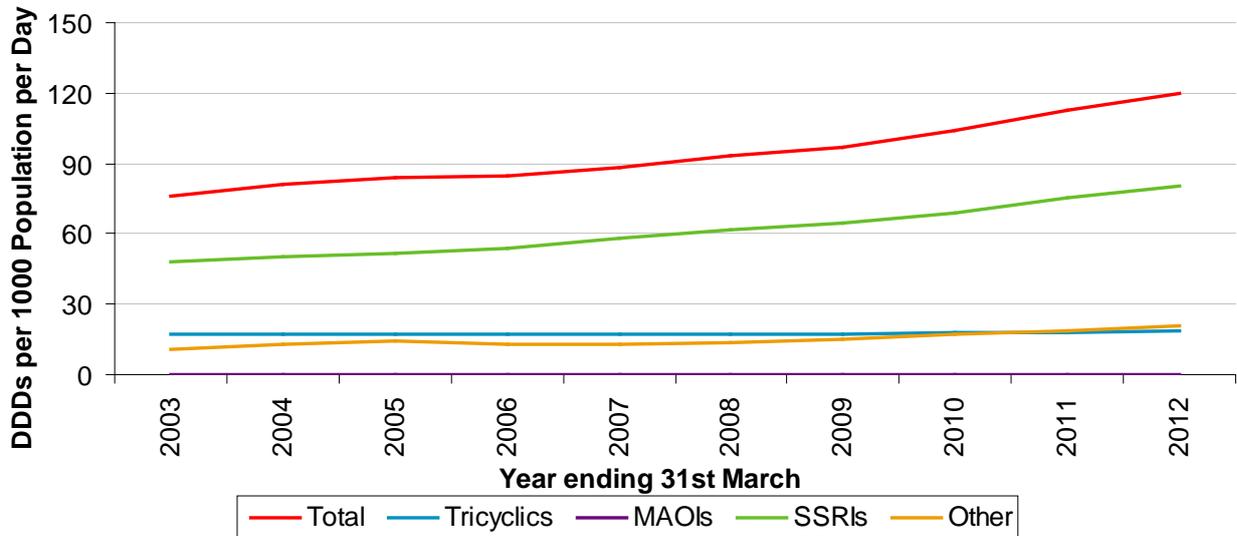


Source: Prescribing Information System, ISD Scotland

Figure 8 shows that from the age of license (15 yrs +) there is an increasing trend in the number of patients who received an antidepressant, peaking at ages '45-49' and then steadily decreasing as patients get older. The age grouping with the greatest number of patients who were dispensed an antidepressant was '45-49', consisting of 77,964 patients in 2011/12. This is closely followed by the age grouping '50-54' (75,087 patients) and '40-44' (72,123 patients) during the same year.

Figure 9 shows the number of Defined Daily Doses per 1,000 population per day for financial years 2002/03 to 2011/12.

Figure 9: Number of Defined Daily Doses per 1,000 Population (aged 15+) per Day – Antidepressants – 2002/03 to 2011/12

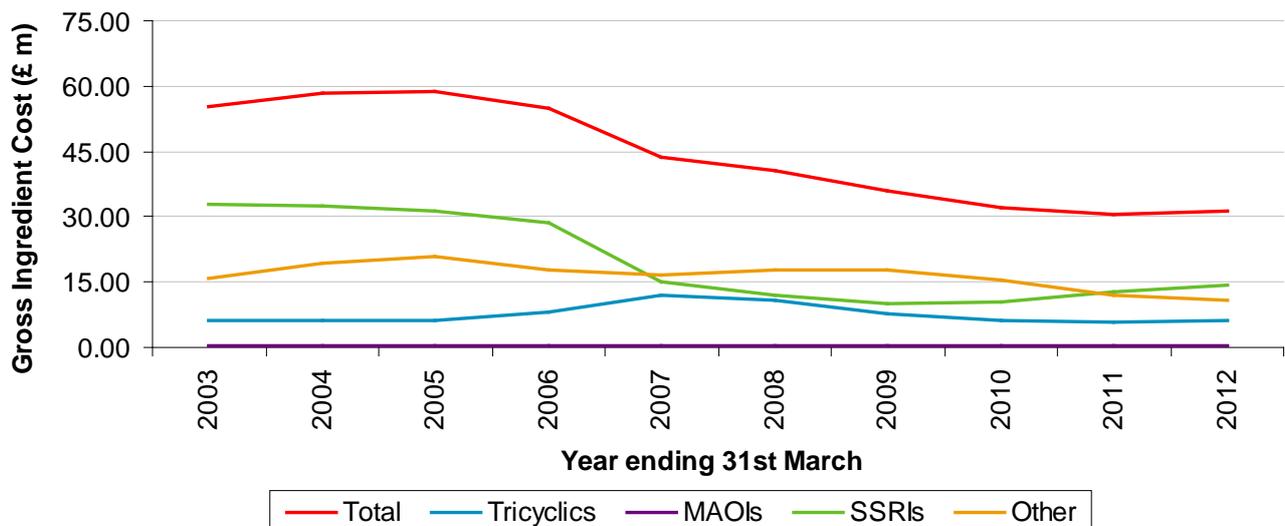


Source: Prescribing Information System, ISD Scotland

The prescribing pattern exhibited in Figure 9 shows a steady increase in the number of DDDs per 1,000 population per day, with SSRIs being the main choice of antidepressant by prescribers. In Scotland, the average number of antidepressants dispensed has increased from 76.2 DDDs in 2002/03 to 120.1 DDDs by 2011/12. Last year 112.7 DDDs were dispensed for antidepressants, meaning a 6.6% increase has occurred between 2010/11 and 2011/12.

Figure 10 show the gross ingredient cost, in total and by BNF sub-section for the financial years 2002/03 to 2011/12.

Figure 10: Gross Ingredient Cost (£) – Antidepressants – 2002/03 to 2011/12



Source: Prescribing Information System, ISD Scotland

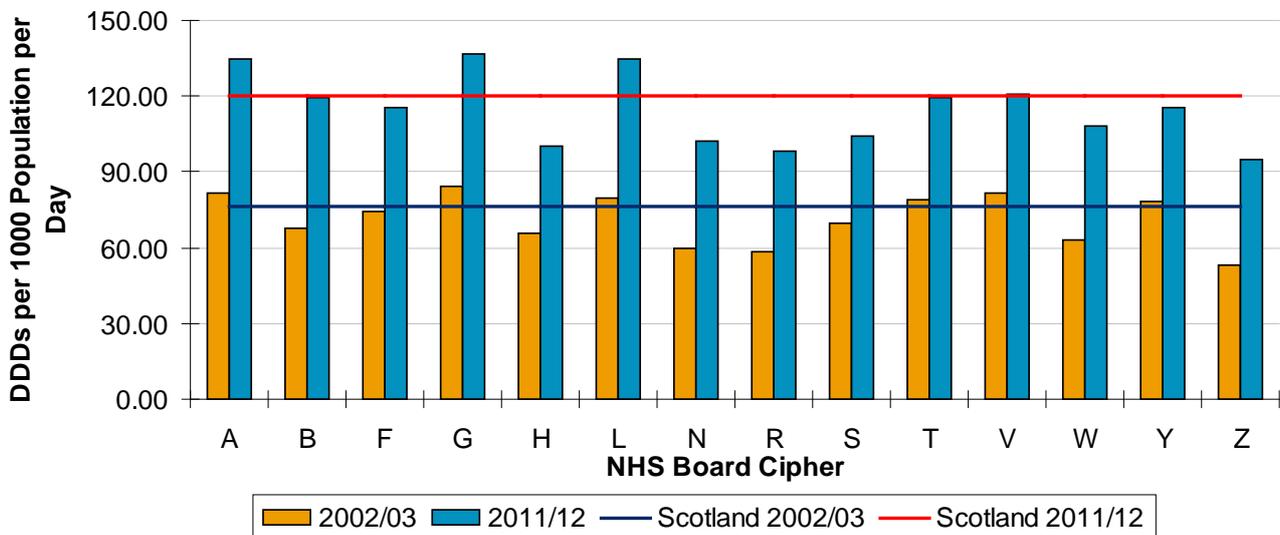
The total gross ingredient cost of antidepressant drugs during 2011/12 was £31.4 million, up £0.8 million from the previous year. The reason for this increase can be largely

attributed to two drugs; Citalopram and Sertaline. Both of these drugs were in short supply in 2010/11 and 2011/12, during which the cost of prescribing increased. As they were in short supply, pharmacists were required to pay a greater price for these drugs. The pharmacists were then reimbursed for the full amount paid so the additional cost is ultimately passed on to the NHS.

NHS Boards

The number of Defined Daily Doses per 1,000 population per day (aged 15 and over) has been used to permit comparison in dispensing of antidepressant drugs between NHS boards, as shown in Figure 11. Please refer to Table 2 which provides a translation between the NHS Board name and the cipher.

Figure 11: Number of Defined Daily Doses per 1,000 Population (aged 15+) per Day – Antidepressants – 2002/03 and 2011/12



Source: Prescribing Information System, ISD Scotland

In Scotland an average of 120.1 DDDs were dispensed per 1,000 population per day during 2011/12. Four NHS Boards prescribed above the national average for antidepressants in 2011/12, of which NHS Greater Glasgow & Clyde prescribed the highest with 136.6 DDDs per 1,000 population per day. NHS Ayrshire & Arran had the second highest antidepressant prescribing rate (134.9) whilst NHS Shetland once again had the lowest rate, with 95.0 DDDs per 1,000 population per day.

Drugs

Table 5 shows the top five antidepressant drugs prescribed in Scotland in 2011/12, with 2002/03 for comparison.

Table 5: Top Five Antidepressants – Number of Dispensed Items – 2002/03 to 2011/12

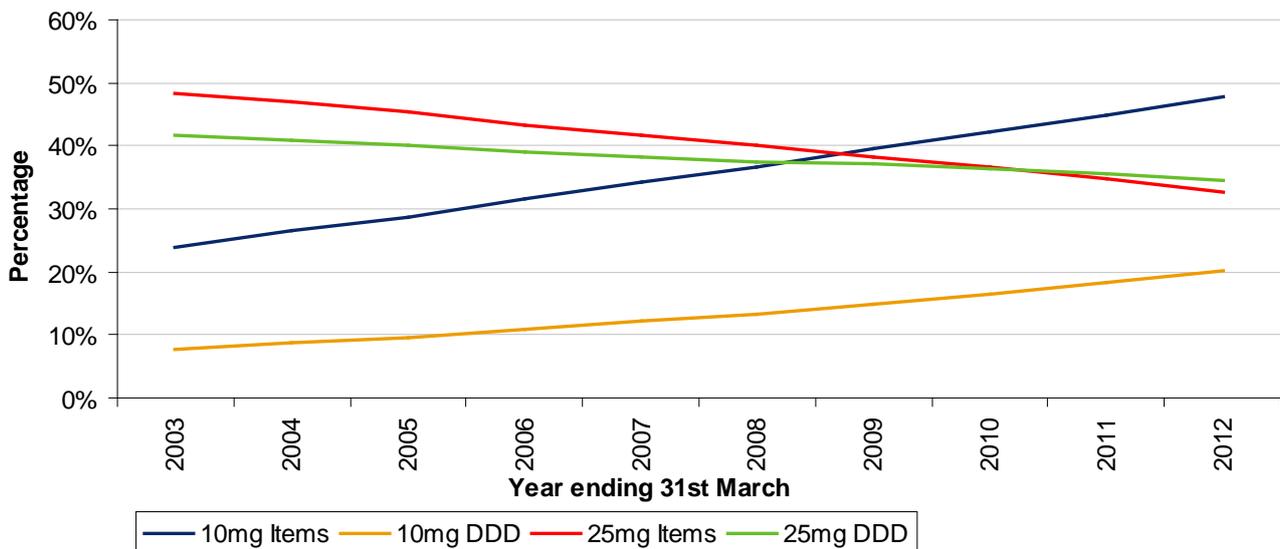
Approved Name	Type	Dispensed Items 2002/03	Dispensed Items 2011/12
Citalopram	SSRI	476,847	1,351,036
Amitriptyline	Tricyclic	553,051	1,016,392
Fluoxetine	SSRI	521,216	716,707
Mirtazipine	Other	99,569	486,727
Sertraline	Other	222,471	307,305

Source: Prescribing Information System, ISD Scotland

All of the top 5 drugs show an increase in dispensed items when comparing 2002/03 to 2011/12. Citalopram shows the largest increase, up 476,847 items from 2002/03. The top 5 drugs in 2011/12 are the same as top 5 drugs in 2010/11 with the exception of Sertraline which replaces Venlafaxine. This is largely due to Venlafaxine's decline between 2005/06 and 2008/09, probably due to adverse publicity, e.g., [BBC Panorama](#), regarding addiction fears and unpleasant withdrawal symptoms. Concerns were raised in December 2004 about potential for cardiotoxicity and toxicity in overdose with Venlafaxine. [The Medicines and Healthcare Regulatory Agency](#) (MHRA) issued guidelines restricting use of Venlafaxine to specialist initiation and contraindications in patients with heart disease; with an adverse effect on prescribing. New guidelines issued in May 2006 saw these restrictions being largely lifted.

Figure 12, below, provide a comparison of the items dispensed for different strengths of Amitriptyline for financial years 2002/03 to 2011/12.

Figure 12: Amitriptyline – Comparison of prescribed strength 10mg and 25mg tablets – 2002/03 to 2011/12



Source: Prescribing Information System, ISD Scotland

Figure 12 shows that the number of prescriptions dispensed for 10mg Amitriptyline tablets has increased from 23.9% of dispensed items in 2002/03 to 47.9% by 2011/12. At the same time prescribing of the 25mg Amitriptyline tablets declined from 48.3% to 32.6% of dispensed items. Prescribing of 50mg has also declined from 26.1% in 2002/03 to

19.1% by 2011/12. It can be inferred, therefore, that a change in practice has occurred with Amitriptyline being used to treat other indications.

The BNF states that use of Amitriptyline is not recommended to treat depression, particularly in lower dosage strengths (less than 30mg). Lower dosage strengths of Amitriptyline are however used to treat neuropathic pain and for migraine prophylaxis (unlicensed indications). In both conditions the typical starting dose is 10mg which can be increased to 75mg daily if needed. It may also be used for bed-wetting in children which is also an unlicensed indication.

In Scotland a total of 718,330 patients received treatment with an antidepressant medicine (BNF 4.3) in 2011/12. In the same year 204,839 patients were dispensed Amitriptyline, accounting for 29% of all patients being prescribed an antidepressant.

Attention Deficit Hyperactivity Disorder (ADHD)

The CHI capture rate for Attention Deficit Hyperactivity Disorder (ADHD) is:

- 2009/10 = 87.6%
- 2010/11 = 91.0%
- 2011/12 = 91.8%

NHS Scotland

Table 6 shows the number of patients who were dispensed a drug for ADHD, by gender, for financial years 2009/10 to 2011/12.

Table 6: Patients by Gender – ADHD Drugs – 2009/10 to 2011/12

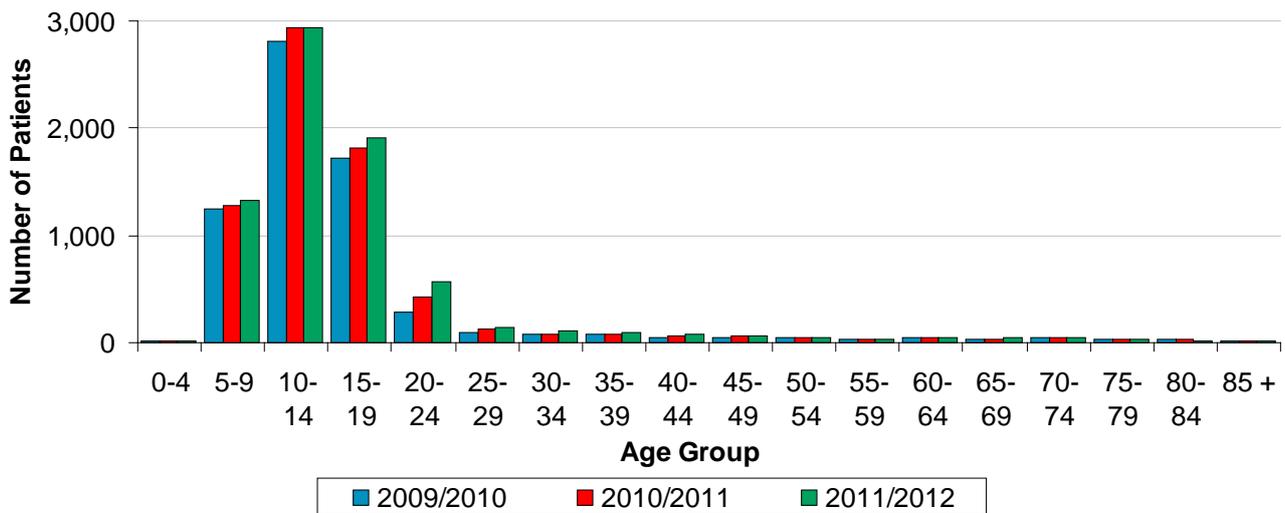
Financial Year	Total	Male	Female
2009/10	6,711	5,500	1,211
2010/11	7,138	5,860	1,278
2011/12	7,511	6,103	1,408

Source: Prescribing Information System, ISD Scotland

Table 6 shows that the vast majority of patients dispensed an ADHD drug were male, with an average rate of 81.3% male and 18.7% female; which agrees with the previously made statement that the prevalence of ADHD in males is 4 times that of females.

Figure 13 below shows the number of patients who were dispensed an item for ADHD, by age group, for financial years 2009/10 to 2011/12.

Figure 13: Patients by Age Group – ADHD Drugs – 2009/10 to 2011/12



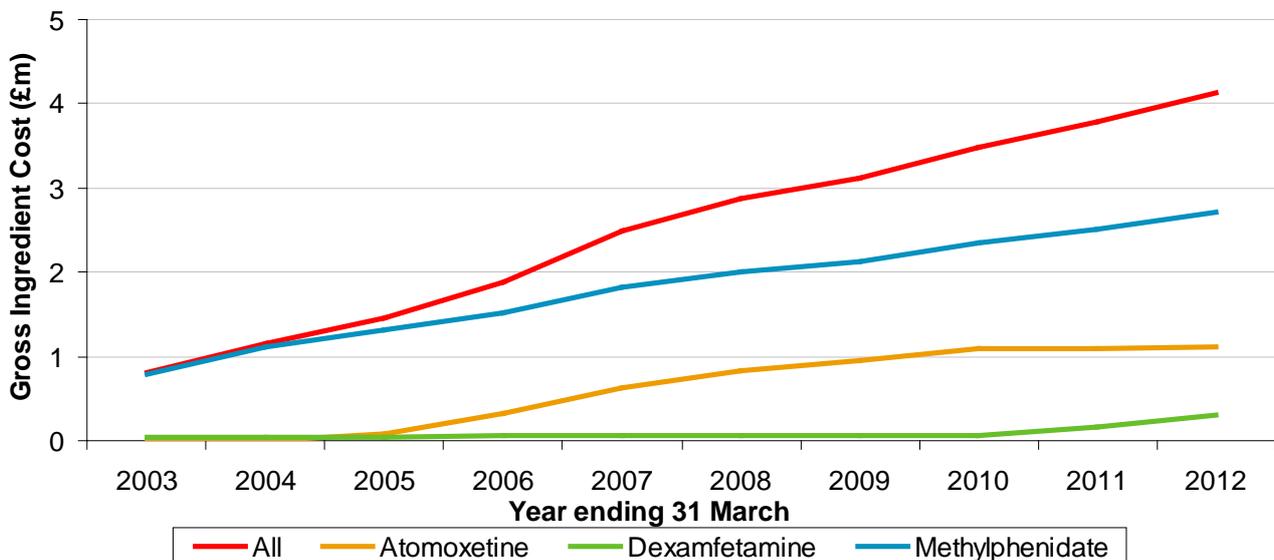
Source: Prescribing Information System, ISD Scotland

ADHD Drugs are in general licensed for the ages 5–18; however one of the drugs, Dexamphetamine Sulphate is also licensed for use to treat narcolepsy in the elderly. Initiating treatment of ADHD in adulthood is unlicensed, however for those who were initially prescribed ADHD drugs when younger treatment may continue into adulthood.

Prescribing of Methylphenidate continues to dominate in BNF section 4.4, accounting for 81.9% of ADHD drug dispensing, and with growth in the past year of 7.8%. In total the prescribing of "ADHD drugs" increased by 7.1% between 2010/11 and 2011/12.

Figure 14, below, show the Gross Ingredient Cost in total and by individual drug for the financial years 2002/03 to 2011/12.

Figure 14: Gross Ingredient Cost (£) – ADHD Drugs – 2002/03 to 2011/12



Source: Prescribing Information System, ISD Scotland

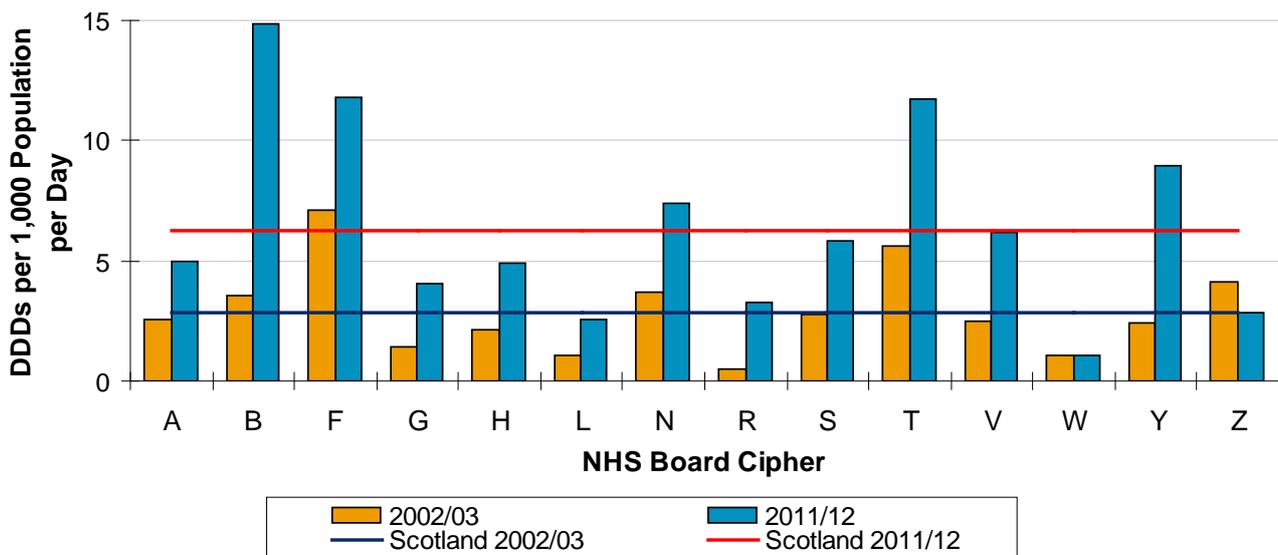
The Gross Ingredient Cost of Methylphenidate shows a marked upward shift after 2002/03, which contrasts with a lower rate of growth at that time period. The cause of this abrupt change is the introduction in March 2002 of a Modified Release (MR) preparation of Methylphenidate - Concerta XL, followed by Equasym XL in March 2005, and Medikinet XL in February 2007. The new release mechanism offers the advantage of once-daily dose for children, compared to three previously. However, the patient benefit comes with a cost penalty as the new formulation is three to four times more expensive than the original.

NHS Boards

Please note that after patient based analysis it has been identified that the ages of patients using ADHD drugs is more varied than the ages for which drugs are licensed. Based on this, calculations of the number of DDDs per 1,000 population per day are now based on GRO population estimates for ages 0-19.

Figure 15 shows prescribing of ADHD drugs by NHS Board in terms of the number of DDDs per 1,000 population per day. Please refer to Table 2 which provides a translation between the NHS Board name and the cipher.

Figure 15: Number of Defined Daily Doses per 1,000 Population (aged 0-19) per Day – ADHD Drugs – 2002/03 and 2011/12



Source: Prescribing Information System, ISD Scotland

Among the NHS Boards, the highest recorded rate for 2011/2012 was in NHS Borders at 14.9 DDDs per 1,000 population per day and Western Isles the lowest at 1.1 DDDs per 1,000 population per day. NHS Greater Glasgow & Clyde, the largest NHS Board in Scotland, has one of the lowest prescribing rates at 4.0 DDDs per 1,000 population per day.

Dementia

The CHI capture rate for dementia is:

- 2009/10 = 84.0%
- 2010/11 = 87.4%
- 2011/12 = 87.0%

NHS Scotland

Table 7 shows the number of patients who were dispensed a drug for dementia, by gender, for financial years 2009/10 to 2011/12.

Table 7: Patients by Gender – Dementia Drugs – 2009/10 to 2011/12

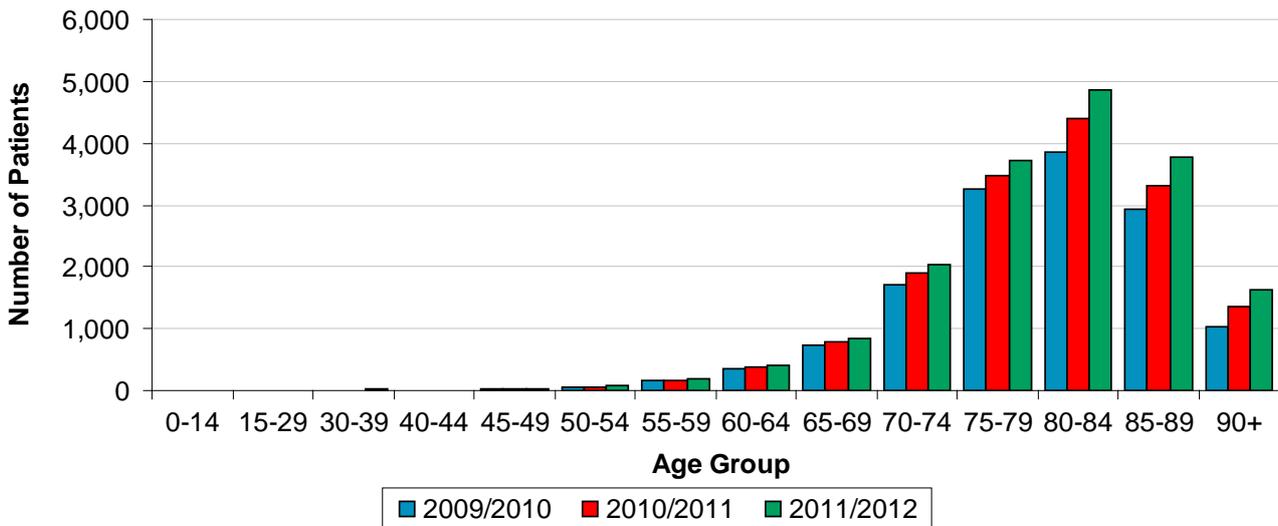
Financial Year	Total	Male	Female
2009/10	14,122	4,884	9,238
2010/11	15,886	5,486	10,400
2011/12	17,546	6,150	11,396

Source: Prescribing Information System, ISD Scotland

Table 7 shows that the majority of patients prescribed dementia drugs were female, with an average rate of 35.1% male and 64.9% female.

Figure 16 below shows the trend of the age group of patients in Scotland who were dispensed drugs for dementia, 2009/10 to 2011/12.

Figure 16: Patients by Age Group – Drugs for Dementia – 2009/10 to 2011/12

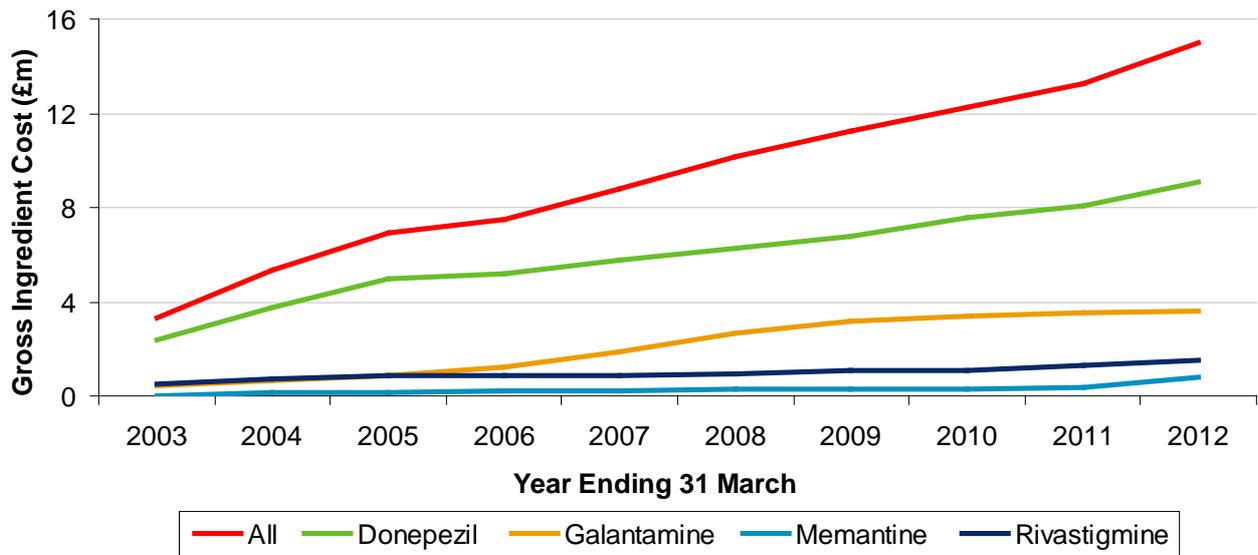


Source: Prescribing Information System, ISD Scotland

Figure 16 shows that the majority of patients being prescribed dementia drugs are aged 70 and above. This is due to the late onset of the condition in life. The age group with the greatest number of patients to receive a drug for dementia was '80-84', with 4,849 patients in 2011/12.

Figure 17 below, show the Gross Ingredient Cost in total and by individual drug for financial years 2002/03 to 2011/12.

Figure 17: Gross Ingredient Cost (£) – Dementia Drugs – 2002/03 to 2011/12



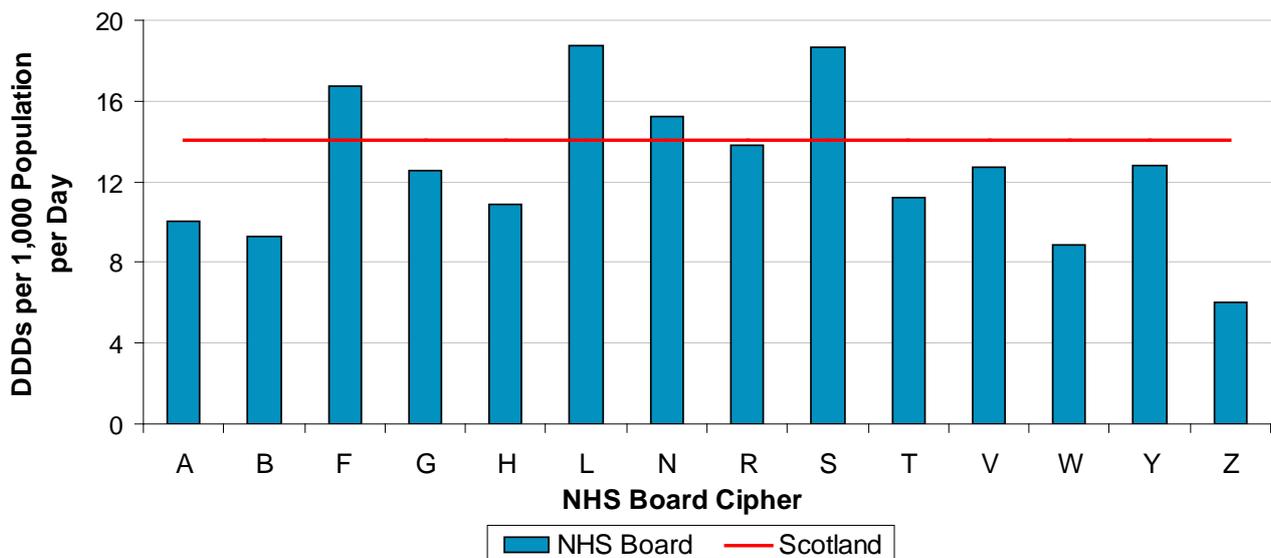
Source: Prescribing Information System, ISD Scotland

The total Gross Ingredient Cost for dementia drugs has grown from £3.3m in 2002/03 to £15.0m by 2011/12. This could be attributed to the cost of Donepezil, which is still in patent, or it could be due to the associated rise in items.

NHS Boards

Figure 18 shows the number of Defined Daily Doses per 1,000 population (aged 60+) per day. Please refer to Table 2 which provides a translation between the NHS Board name and the cipher.

Figure 18: Number of Defined Daily Doses per 1,000 Population (aged 60+) per Day – Dementia Drugs – 2010/11



Source: Prescribing Information System, ISD Scotland

In Scotland an average of 14.1 DDDs were dispensed per 1,000 population per day during 2011/12. Four NHS Boards prescribed above the national average for dementia, of which NHS Lanarkshire prescribed the highest with 18.7 DDDs per 1,000 population per day. NHS Lothian had the second highest prescribing rate with 18.6 DDDs, while NHS Shetland once again had the lowest rate, with 6.1 DDDs per 1,000 population per day.

Glossary

Gross Ingredient Cost (GIC)	Cost of drugs and appliances reimbursed before deduction of any dispenser discount (nb this definition differs from other parts of the UK).
Prescription item	An item is an individual product prescribed e.g. 100 aspirin tablets of 300mg.
Prescription form	A prescription form that can contain up to three items.
Quantity	Quantity dispensed of an individual item e.g. 100 tablets
Defined Daily Dose (DDD)	Assumed average maintenance dose per day for a drug when used for its main indication in adults, as defined by World Health Organisation.
Approved Drug Name	As listed in BNF, being the recognised official non-proprietary title (recommended International Non-Proprietary Name - rINN).
Prescribable Item Name	The drug name written on the prescription - can be by approved name or a brand name.
British National Formulary (BNF)	A standard classification of drugs into conditions of primary therapeutic use, the aim is to provide prescribers, pharmacists and other healthcare professionals with sound up-to-date information about the use of medicines.
Prescribed Health Board	The NHS Board with which the prescriber holds a contract to prescribe, i.e. GP, Dentist, Non-medical prescriber.

List of Tables

Table No.	Name	Time period	File & size
1	Hypnotics and Anxiolytics	Financial Years 1993/94 to 2011/12	Excel [734kb]
2	Psychoses and related disorders	Financial Years 1993/94 to 2011/12	Excel [4949kb]
3	Antidepressants	Financial Years 1993/94 to 2011/12	Excel [917kb]
4	Attention Deficit Hyperactivity Disorder	Financial Years 1995/96 to 2011/12	Excel [4352kb]
5	Dementia	Financial Years 1996/97 to 2011/12	Excel [1420kb]

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Further Information

Further information can be found on the [ISD website](#)

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Appendix

A1 – Background Information

How the data is obtained

[Practitioner Services](#), a division of NHS National Services Scotland, processes all NHS prescriptions for payment of pharmacists, dispensing doctors and appliance suppliers. This gives a full record from which trends in prescribing can be investigated at a detailed level. The data includes prescribing by GPs, nurses, dentists, pharmacists and hospitals, where the latter was dispensed in the community. Hospital dispensed prescriptions are NOT included in the figures. The Information Services Division (ISD) cannot say what proportion of the drug dispensed is actually consumed. These data do NOT include products purchased "over the counter". Prescriptions processed internally by Boards for payment purposes are NOT included in these data.

Patient Based Analysis

Patient based analysis has been made possible through the recent availability of comprehensive patient identifiable data. All NHS patients have a unique Community Health Index (CHI) number which makes it possible to identify which prescription items have been dispensed for individual patients. Prior to April 2009, the proportion of prescriptions with a valid CHI number recorded was not comprehensive enough to make patient based analysis possible. For medicines used in mental health, CHI capture rates have improved, becoming high enough to permit accurate patient analyses for financial years 2009/10 to 2011/12. The patient count for any given year shows the total number of patients who have been dispensed at least one prescription item during the course of that year.

Defined daily doses

A method of examining prescribing levels using different formulations of products (for example chewing gum, patches and tablets) are [Defined Daily Dose \(DDD\)](#) as developed by [the World Health Organisation \(WHO\)](#).

A Defined daily dose is defined as "the assumed average maintenance dose per day for a drug used on its main indication in adults". DDD's are a statistical measure derived from the international use of the substance in question. As British prescribing patterns may differ from the accepted international value, each DDD should be regarded as a technical value, a close approximation of an average of the actually used doses. The DDD's are therefore not necessarily the most frequently prescribed or used doses. Each drug is assigned a DDD value, based on its active ingredient. It should be noted, however, that it is an arbitrary unit for measurement purposes and makes no pretence to be a therapeutic recommendation. The value is derived from literature, manufacturer's recommendations and experience gained in the field. An international committee from twelve countries, including Britain, consider the evidence and assign a DDD value for a drug in its main indication. All new DDDs are reviewed after three years; existing DDDs after five years.

A2 – Publication Metadata (including revisions details)

Metadata Indicator	Description
Publication title	NHS Scotland Prescribing – Medicines used in mental health
Description	Summary and detailed statistics on prescribing and dispensing in the community in Scotland including: Medicines used in mental health (based on BNF section 4.1, 4.2, 4.3, 4.4 and 4.11) presented for NHS Scotland and by NHS board. The number of items, gross ingredient cost and defined daily doses are shown.
Theme	Health and Social Care
Topic	Health Care Personnel, Finance and Performance
Format	Excel workbooks
Data source(s)	Prescribing Information System (PIS). All data held in PIS is sourced from Practitioner Services Division (PSD) within NHS National Services Scotland who are responsible for the remuneration and reimbursement of dispensing contractors within Scotland.
Date that data are acquired	Data is acquired on a monthly basis from PSD following payment approximately 2 calendar months after the end of the month being claimed for payment by contactors
Release date	25 September 2012
Frequency	Annual
Timeframe of data and timeliness	Data covering year to 31 March 2012
Continuity of data	Data is held in PIS for the most recent 10 years and is stored in archive files back to 1993/94. The definition of the main measures such as gross ingredient cost and number of items are unchanged over this period. Types and value of dispensing fees are agreed with the Scottish Government and set annually. Details can be found in the Scottish Drug Tariff and in Primary Care circulars issued by the Government. Drug products are first licensed as proprietary medicines but generic versions often appear once the original patent expires. This can affect the price and uptake of these drugs. The Scottish Government sets the reimbursement price of generic drug products via the Scottish Drug Tariff which is updated and issued quarterly.
Revisions statement	Data are sourced from monthly pharmacy payments data on an ongoing basis therefore once published there is no routine requirement to revise historical data. However occasionally adjustments are made to pharmacy payments retrospectively by PSD for example due to an administrative error. Retrospective revisions can also occur the classification of drugs in the British National Formulary (BNF). Where either of these occur and are deemed to be significant in line with ISD's Revisions policy, a revision will be made to published data. This will be notified on the website.

Revisions relevant to this publication	
Concepts and definitions	The data published in all these releases correspond to prescriptions that have been dispensed in the community in Scotland, i.e. dispensed by a pharmacy, dispensing doctor or appliance supplier. This includes prescriptions which were issued in another UK country but dispensed in Scotland. These data do not include prescription drugs that were supplied and administered to patients in a hospital setting. Prescriptions issued in hospital to patients on discharge and dispensed in the community are included. Each excel workbook contains further detailed definitions of the main measures and links to a glossary.
Relevance and key uses of the statistics	These statistics are the primary source of data used to monitor the national community drugs bill within Scotland and the pharmacy contract agreed with dispensing contractors. They are also used to monitor national and local prescribing indicators covering both the quality and efficiency of prescribing in general practice.
Accuracy	The data is sourced from a payment system and routine monthly checks are carried out by PSD on a random sample of approximately 5% of prescription payments. These check all data captured for payment and the accuracy of the payment calculation and have a target accuracy of 98% which is routinely met. Data that is captured but is not mandatory for payment purposes can be of lower quality; principally this includes the prescriber code which links a prescription back to the individual prescriber e.g. GP and their organisation including NHS Board. Routine monitoring of unallocated prescriptions is carried out and correct codes are applied before publication. This ensures that unallocated prescriptions account for under 2% of all prescriptions. For remaining unallocated prescriptions, the prescribing NHS Board is assumed to be the same as the dispensing NHS Board.
Completeness	The Prescribing Information System holds information on 100% of NHS Scotland prescriptions dispensed within the community and claimed for payment by a pharmacy contractor (i.e. pharmacy, dispensing doctor or appliance supplier). It does not include data on prescriptions dispensed but not claimed (likely to be very small) or prescriptions prescribed but not submitted for dispensing by a patient. Some research has estimated these latter prescriptions to account for around 6% of all prescriptions issued to patients. Of course it is not possible to determine from payment data how much of the medicine dispensed to patients is actually taken in accordance with dosage instructions.
Comparability	The main measures of drug ingredient cost and volumes of items dispensed in the community are comparable across the UK countries. However it should be noted that the Gross Ingredient Cost (GIC) within Scotland is equivalent to

	the Net Ingredient Cost (NIC) in England, i.e. the reimbursement cost of drugs before any pharmacy discounts are applied. Also each country determines its own dispensing fees based on separate contractual arrangements with dispensing contractors in each country. A common formulary called the British National Formulary (BNF) is used to classify drugs based on therapeutic use.
Accessibility	It is the policy of ISD Scotland to make its web sites and products accessible according to published guidelines .
Coherence and clarity	All prescribing tables are accessible via the ISD website . Prescribing statistics are presented within excel spreadsheets for NHS Scotland and where appropriate broken down by NHS Board.
Value type and unit of measurement	The main units of measure of drug reimbursement costs are Gross Ingredient Cost (GIC) and Net ingredient cost (NIC) quantity. The latter takes account of pharmacy discounts, the rates for which are set by the Scottish Government in the Scottish Drug Tariff. There are a large number of individual dispensing remuneration fees paid to dispensing contractors details of which can be found in the Scottish Drug Tariff. The main measures of drug volume are items (the number of individual drug items on a prescription form), quantity (the total number of tablets, capsules etc), and defined daily doses (DDDs - estimated average daily maintenance doses for a total quantity of prescribed). Further details and definitions can be found in the glossary.
Disclosure	The ISD protocol on Statistical Disclosure Protocol is followed.
Official Statistics designation	National Statistics (Legacy designation, awaiting final designation by UK statistics Authority).
UK Statistics Authority Assessment	Assessment by UK Statistics Authority completed and assessment report issued.
Last published	27 September 2011
Next published	24 September 2013
Date of first publication	December 2006
Help email	NSS.isdprescribing@nhs.net
Date form completed	10 September 2012

A3 – Early Access details (including Pre-Release Access)

Pre-Release Access

Under terms of the "Pre-Release Access to Official Statistics (Scotland) Order 2008", ISD are obliged to publish information on those receiving Pre-Release Access ("Pre-Release Access" refers to statistics in their final form prior to publication). The standard maximum Pre-Release Access is five working days. Shown below are details of those receiving standard Pre-Release Access and, separately, those receiving extended Pre-Release Access.

Standard Pre-Release Access:

Scottish Government Health Department
NHS Board Chief Executives
NHS Board Communication leads
Healthcare Improvement Scotland

Extended Pre-Release Access

Extended Pre-Release Access of 8 working days is given to a small number of named individuals in the Scottish Government Health Department (Analytical Services Division). This Pre-Release Access is for the sole purpose of enabling that department to gain an understanding of the statistics prior to briefing others in Scottish Government (during the period of standard Pre-Release Access).

Scottish Government Health Department (Analytical Services Division)

Early Access for Management Information

These statistics will also have been made available to those who needed access to 'management information', ie as part of the delivery of health and care:

Early Access for Quality Assurance

These statistics will also have been made available to those who needed access to help quality assure the publication:

A4 – ISD and Official Statistics

About ISD

Scotland has some of the best health service data in the world combining high quality, consistency, national coverage and the ability to link data to allow patient based analysis and follow up.

Information Services Division (ISD) is a business operating unit of NHS National Services Scotland and has been in existence for over 40 years. We are an essential support service to NHSScotland and the Scottish Government and others, responsive to the needs of NHSScotland as the delivery of health and social care evolves.

Purpose: To deliver effective national and specialist intelligence services to improve the health and wellbeing of people in Scotland.

Mission: Better Information, Better Decisions, Better Health

Vision: To be a valued partner in improving health and wellbeing in Scotland by providing a world class intelligence service.

Official Statistics

Information Services Division (ISD) is the principal and authoritative source of statistics on health and care services in Scotland. ISD is designated by legislation as a producer of 'Official Statistics'. Our official statistics publications are produced to a high professional standard and comply with the Code of Practice for Official Statistics. The Code of Practice is produced and monitored by the UK Statistics Authority which is independent of Government. Under the Code of Practice, the format, content and timing of statistics publications are the responsibility of professional staff working within ISD.

ISD's statistical publications are currently classified as one of the following:

- National Statistics (ie assessed by the UK Statistics Authority as complying with the Code of Practice)
- National Statistics (ie legacy, still to be assessed by the UK Statistics Authority)
- Official Statistics (ie still to be assessed by the UK Statistics Authority)
- other (not Official Statistics)

Further information on ISD's statistics, including compliance with the Code of Practice for Official Statistics, and on the UK Statistics Authority, is available on the [ISD website](#).

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 Official Statistics. Designation can be broadly interpreted to mean that the statistics:

- meet identified user needs;
- are well explained and readily accessible;
- are produced according to sound methods, and
- are managed impartially and objectively in the public interest.

Once statistics have been designated as National Statistics it is a statutory requirement that the Code of Practice shall continue to be observed.