

PHARMACEUTICAL DIRECTORATE

MANAGEMENT TEAM MEETING: 07/03/2006

ITEM NO:

UPDATE ON GROWTH IN PRESCRIPTION VOLUME AND COST YEAR TO DECEMBER 2006

KEY FINDINGS

- Prescription volume for the year to December 2006 increased by 4.5%. Growth has been below 5.0% and showing a declining trend since September 2006. Growth in volume for 2006/07 is expected to be 4.8%. Uptake of the repeat dispensing service is estimated to contribute about 0.6% of this growth.
- Prescription cost has increased by 3.2 % in the year to December 2006 compared to the same period in the previous year. Annual growth has remained stable for the last three months which coincides with the October 2006 price changes to drugs in Category M. The Department of Health have now released price changes to be implemented from 1st January 2007 and these will help to control growth in spending on the drugs bill.
- Repeat dispensing is continuing to slowly increase. 89 PCTs still have an activity level of less than 0.5% of all items being supplied on repeat forms. It is unlikely that activity in this area will change significantly by the end of financial year 2006/07.
- Prescribing by nurses (6.3 million items; +55.9%) and pharmacists (31,000 items; +170%) continues to increase in the year to December 2006. The NHSBSA PPD has 7 physiotherapists and 1 podiatrist on its database of prescribers. August 2006 saw the first prescriptions received from allied health professionals. Since that time 97 items have been received from physiotherapists.
- As at 7th January 2007 there are over 2,600 private prescribers (including 1 private nurse) on the NHSBSA PPD database of prescribers. In the quarter to December 2006, 10,451 private prescriptions were received for controlled drugs, all from doctors, an increase on the previous quarter of 16.4%.

INTRODUCTION

This report explores trends in prescription volume and cost for the year to December 2006 compared to the previous year. The report aims to identify whether there have been changes to the main drivers for growth in volume and cost and to estimate likely future growth in volume. Data are from PACT (Prescribing Analysis and Cost) and relate to general practice prescribing in England. Prescription volume has been analysed using the item as the measure; net ingredient cost has been used to express cost.

1. HEADLINE TRENDS

1.1 Volume

In the year to December 2006 prescription volume increased by 4.5% per annum (to 741 million items). Over the last two years volume growth has fluctuated between 5.0% and 6.0%, however, growth appears to be slowing (figure 1). Growth has now been below 5.0% and has shown a declining trend since September 2006. Early indications for January 2007, based upon prescriptions declared by pharmacists indicate an increase in prescribing when compared to January 2006.

The trend over the quarter to December 2006 revealed a peak in November 2006 prescribing (figure 2). This peak is more pronounced than that seen last year and an opposing trend to that seen in 2002, 2003 and 2004. The peak in November is due to the administration of the flu vaccine.

Figure 1: Change in rate of growth of prescription items

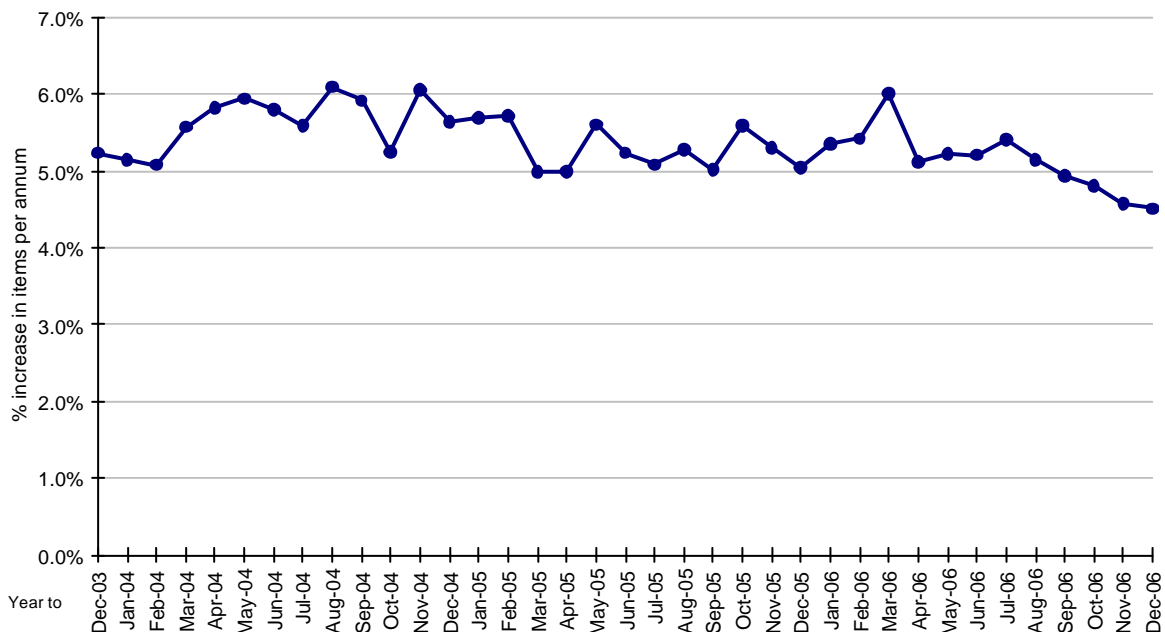


Figure 2: Number of Items Prescribed in General Practice in England

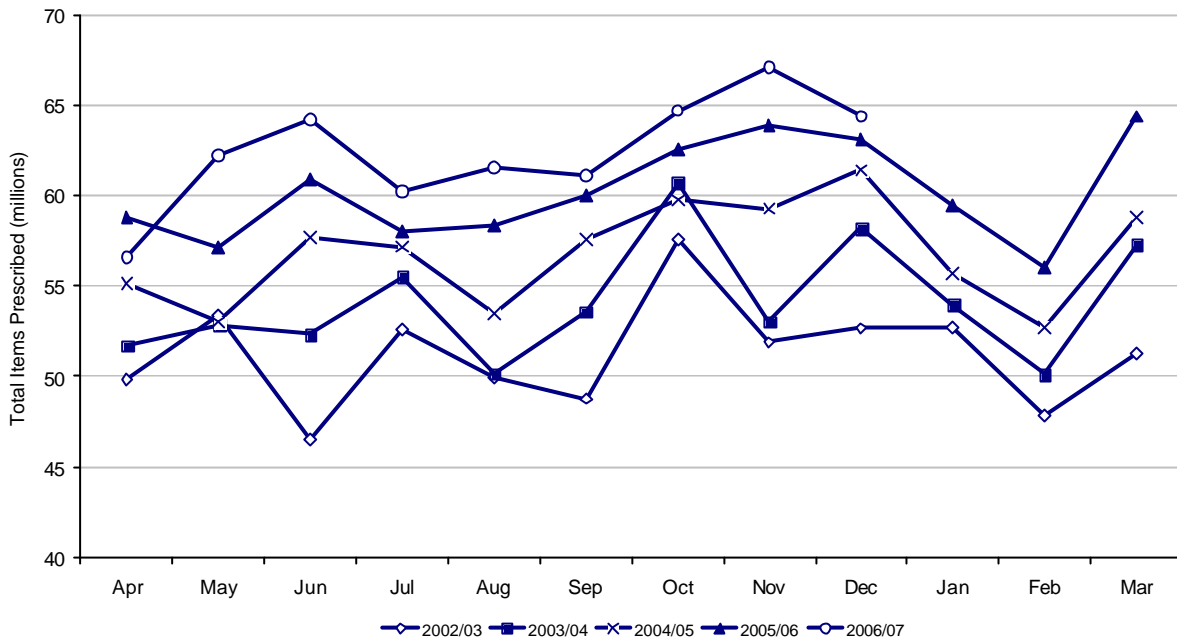


Figure 3: Trend in Items by Number of Dispensing Days in the Month

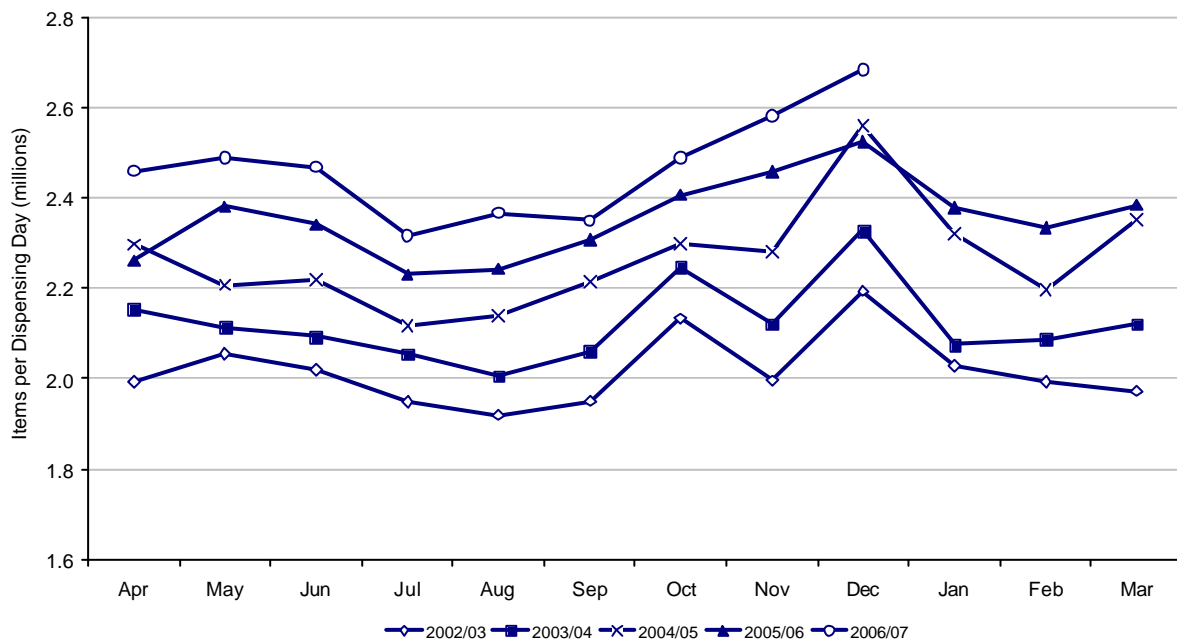


Figure 3 takes into account the number of “dispensing days” in each month. Dispensing days includes week days and Saturdays but excludes Sundays and bank holidays. When the number of items in a month is divided by the number of dispensing days, there is less variation than for items alone. Considering dispensing days, the growth in volume for the year to December 2006 is 4.5%. The trend in the quarter to December 2006 is very similar to that observed over

the last 4 years and can be attributed to the smaller number of dispensing days in December due to the festive season, although, the gradient of increase is not as great as that observed in previous years.

1.2 Cost

Prescription cost has risen to £7,998 million in the year to December 2006, a 3.2% growth rate compared to the previous year. Figure 4 shows that prior to 2006 the rate of growth in prescribing cost steadily slowed down. Decreases were originally due to the implementation of Department of Health (DH) policies to control spending on the drugs bill in primary care including the Pharmaceutical Price Regulation Scheme (PPRS) and Category M. However, the trend changed in January 2006 which coincided with the policies running for 12 months and growth started to increase.

Over recent months growth in cost appears to be stabilising, annual growth has remained at 3.2% for the last three months. This effect coincides with price changes to drugs in category M that took place in October 2006 to help to control growth in spending on the drugs bill.

Figure 4: Change in Rate of Growth of Prescription Costs

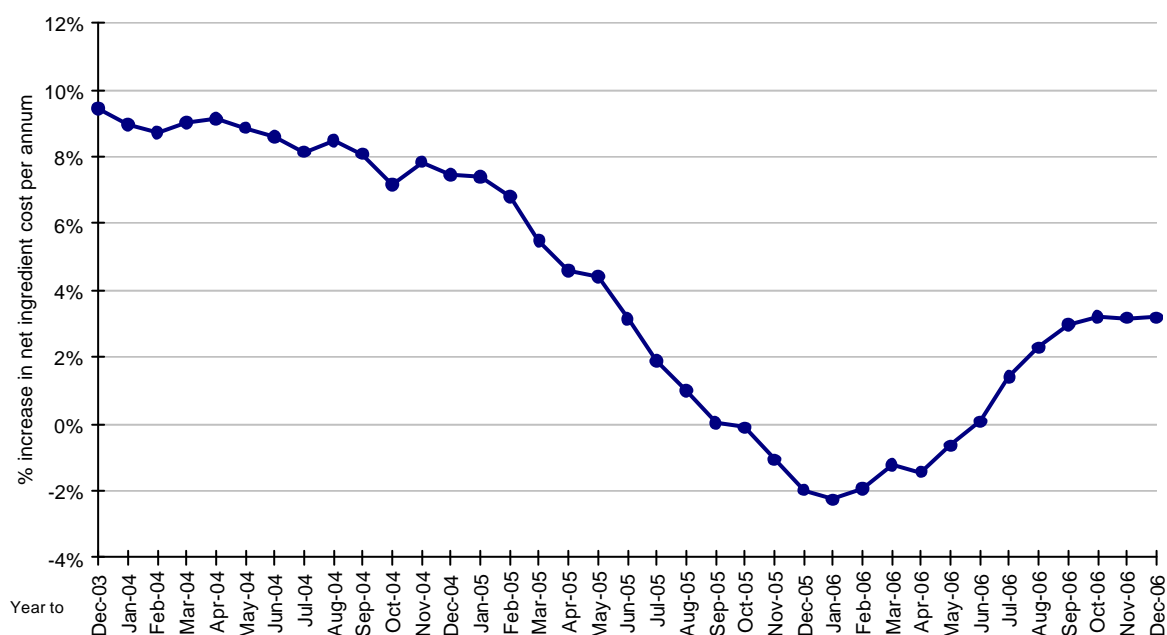
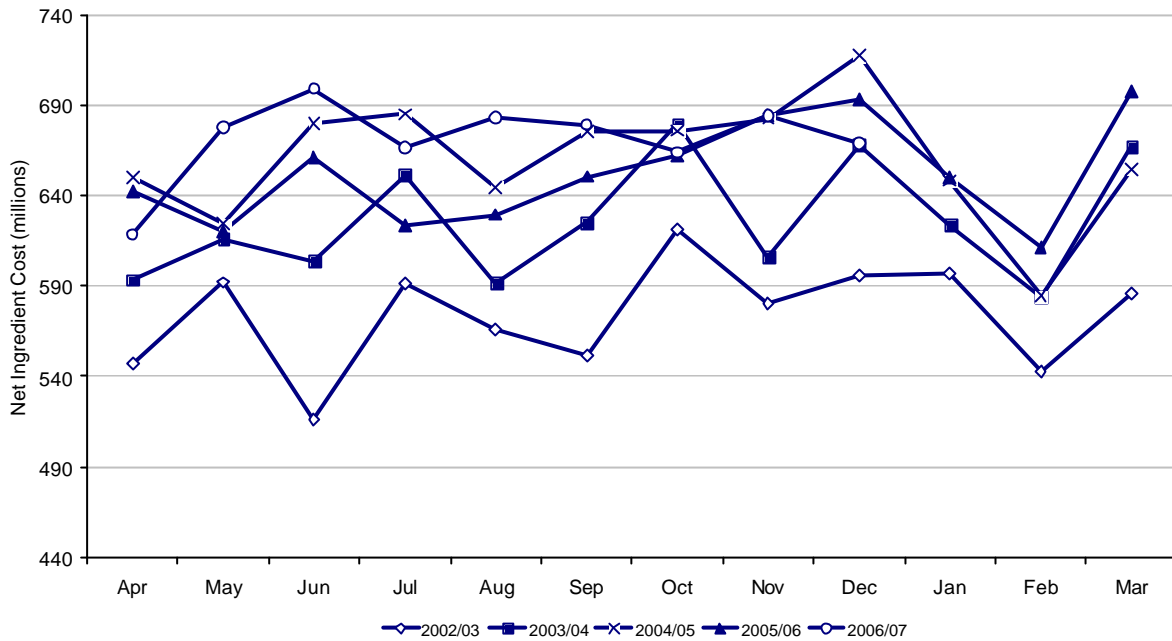


Figure 5 shows the total spending on prescribed drugs in general practice year on year for the last 5 years. Cost in October and November remained relatively stable compared to the previous year. However, December 2006 saw the first decrease in cost in the last five years when compared against November.

Figure 5: Total Spending on Prescribed Drugs in General Practice in England



2. FACTORS AFFECTING GROWTH IN VOLUME AND COST

2.1 Introduction

Prescription volume has been growing year on year in primary care with patients receiving more items per head. Volume can increase when new products are introduced for an indication not previously treated by drugs e.g. the bisphosphonate drugs used for the prevention and treatment of osteoporosis. New products do not increase volume if they replace an older product. Changes to indications for prescribing of older drugs can also increase volume because more patients would become eligible for drug therapy. Volume also increases if the duration of prescriptions is shortened e.g. if a patient receives 4 prescriptions of 1 week duration instead of 1 prescription of 28 days duration. There are various reasons why prescription duration for individual patients can decrease; one important influence is the introduction of repeat dispensing. This section of the report looks at trends in volume and cost in individual therapeutic areas and at what is happening with repeat dispensing to determine how prescription volume is likely to change over the next year.

2.2 Growth in Volume in Individual Therapeutic Areas

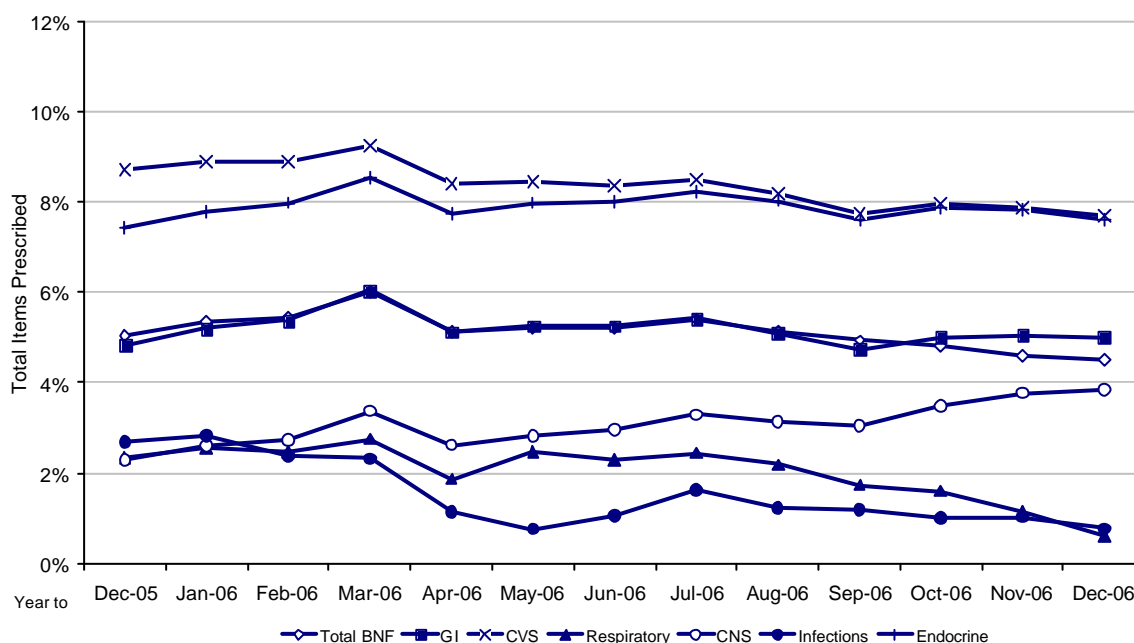
Table 1 compares the prescription volume per annum for the six largest therapeutic areas in the year to December 2006 with the previous year. These six areas make up 76.9% of prescribing in the year to December 2006. Figure 6 shows that for the top area (cardiovascular system) the rate of growth for items has slowed between the year to December 2005 and December 2006 from 8.7% to 7.7% per annum. Growth in volume in drugs to treat the cardiovascular system has remained below 8.0% since September 2006.

Comparing the year to December 2005 and December 2006 the rate of growth in items per annum for the second largest area (central nervous system) has increased from 2.3% to 3.8%. The trend in the other top therapeutic areas is towards faster growth in volume in the year to December 2006 compared to 2005.

Table 1: Volume of the Top Six Therapeutic Areas based on Volume.

Therapeutic Area	Items (Millions)		
	Year to Dec 2005	Year to Dec 2006	% difference
Cardiovascular system	217.73	234.50	7.7
Central nervous system	121.72	126.41	3.8
Endocrine system	57.99	62.40	7.6
Respiratory system	51.84	52.16	0.6
Gastro-intestinal system	53.37	56.05	5.0
Infections	38.27	38.56	0.8
All others	168.82	171.65	1.7
Total	709.74	741.73	4.5

Figure 6: Change in Rate of Growth of Prescribing for Top 6 Therapeutic Areas



These changes do not necessarily explain the reduction in overall growth to 4.5% in the year to December 2006, but considering changes in the month of December from 2005 to 2006 may indicate the areas of reducing growth. Growth in volume increased by just 2% when comparing December 2005 to December 2006. Over the same time period significant decreases in prescribing

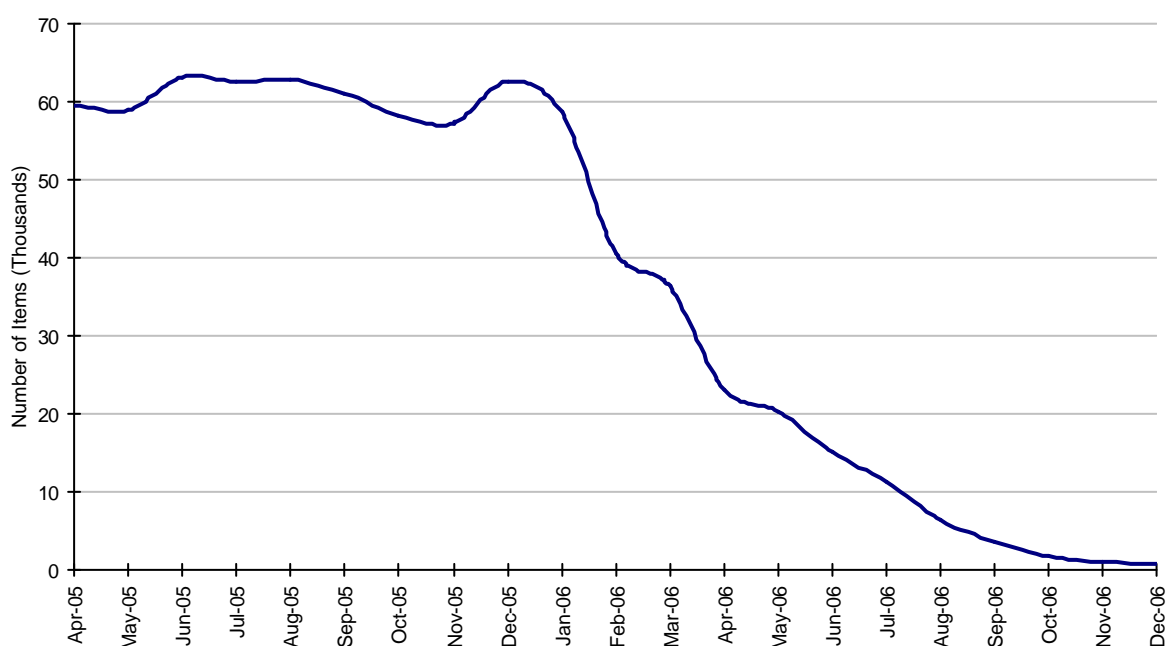
were seen in relation to the respiratory system (-5.4%), infections (-6.0%), musculoskeletal and joint diseases (-5.0%), skin (-6.8%) and dressings (-5.8%).

At a lower level, the drug groups seeing the greatest decreases in volume are antibacterial drugs (-232,226 items), drugs used in rheumatic disease and gout (-118,634), bronchodilators (-107,025), oxygen (-61,843) and topical corticosteroids (-57,223).

Antibacterial drugs used in the treatment of bacterial infections, bronchodilators to treat asthma and topical corticosteroids to treat inflammatory conditions of the skin all tend to increase over the autumnal months due to the cold and damp conditions associated with that time of year. However, in 2006 the months of October, November and December have been unusually mild which may have resulted in less patients suffering the symptoms or conditions associated with these drugs and as such resulting in lower levels of prescribing.

In October 2005 the European Medicines Agency (EMA) conducted a review of the use of non-selective non-steroidal anti-inflammatory drugs (NSAIDs). The review signalled a potentially increased thrombotic risk (such as heart attack and stroke) in the use of NSAIDs. Although the EMA concluded that the overall benefit-risk balance of these medicines remains positive it was recommended that doctors prescribe the lowest dose of NSAIDs for the shortest possible duration to control symptoms. This may explain the significant reduction in prescribing of drugs used in rheumatic disease and gout and drugs for musculoskeletal and joint diseases.

Figure 7: Items prescribed for oxygen



The large reduction in the number of oxygen items prescribed is a result of the new home oxygen service contract. Originally, domiciliary oxygen was ordered for patients by GPs. The new model has transferred responsibility to specialist consultants in hospital for long term oxygen therapy. The change in the process was implemented in February 2006 and relieved GPs of the burden of writing prescriptions. Since then the number of items prescribed for oxygen per month has dramatically decreased (see figure7).

Newly marketed drugs that represent therapeutic advances are often referred to the National Institute for Health and Clinical Excellence (NICE) for the provision of national guidance on their use. Previous reports have shown that NICE technology appraisals are not usually a major driver of growth in volume. Technology appraisals often focus on choice of drugs therefore volume should not change appreciably as a result. Clinical guidelines focus on appropriate prescribing for specific diseases or conditions and are more likely to affect volume.

The NICE clinical guideline for the management of hypertension in adults in primary care was published June 2006 and recommended a change in prescribing from beta-blockers to either thiazide diuretics, calcium channel blockers and ACE inhibitors or a combination of these drugs. The quarter to December 2006 shows that the number of prescriptions for beta blockers has decreased (262,115 items; -3.7%) whilst items for the three replacement drugs have increased by 1,528,979 (8.3%), Cost on the other hand has decreased by 12.6% (approximately £18.5 million).

In January 2006 a NICE technology appraisal for statins for the prevention of cardiovascular events was published. It was estimated 1.7 million additional people in England and Wales would receive treatment with statins leading to an increase in volume. The quarter to December 2006, when compared to the same quarter of the previous year, saw an increase of 1.5 million items (16.3%). Over the same time period prescribing for the cardiovascular system increased by 4 million items and nearly 40% of this increase can be attributed to statins alone. This guidance should continue to increase volume growth in cardiovascular system drugs throughout 2006/07.

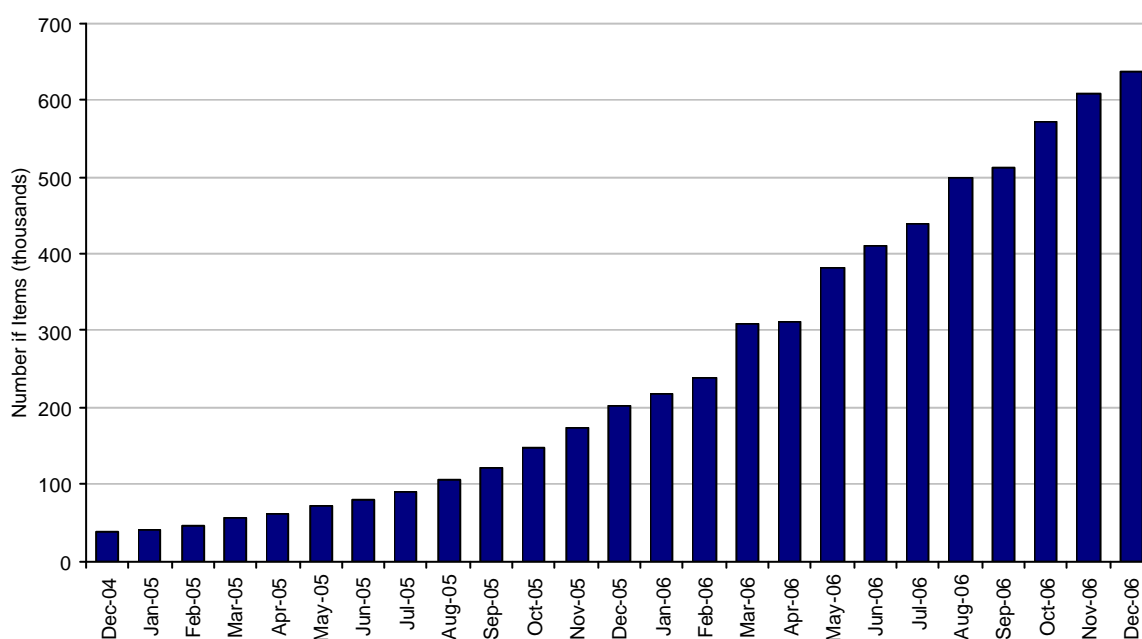
In financial year 2006/07 eight new clinical domains including dementia, depression and obesity were added to the Quality and Outcomes Framework (QOF) that forms part of the General Medical Services (GMS) contract. The QOF rewards practices for improving patient care in the areas of each clinical domain and as such has the potential to increase prescription volume and cost. Most of the areas of prescribing covered by the QOF are already areas of high growth including coronary heart disease, stroke, hypertension, diabetes, chronic obstructive pulmonary disease, epilepsy, cancer, mental health, and asthma. The drugs that fall into these clinical domains made up 50% of overall prescribing and 53% of cost in the year to December 2006. The proportions above are stable on last quarter, however, they are slightly greater than figures reported last financial year due to the new clinical domains being added to the QOF for 2006/07.

2.3 Growth in Repeat Dispensing

Repeat dispensing is now an essential service that should be provided by all pharmacies that hold a national pharmacy contract. Figure 8 shows the increase in repeat dispensing items between December 2004 and December 2006. Bristol Teaching PCT has the highest rate of repeat dispensing of all items at 10.4% in the quarter to December 2006 compared to 1.0% at the national level. A PCT reorganisation took place from October 2006 and the new Bristol Teaching PCT is made up from Bristol North and Bristol South and West PCTs.

Repeat dispensing has rolled out at a slower rate across the rest of the country than initially predicted. The number of PCTs submitting repeat dispensing items each month has increased substantially since the beginning of the pilot. Forms have now been received from all PCTs at some point since the implementation of repeat dispensing. In the majority of PCTs repeat dispensing activity is low. In the quarter to December 2006, 89 of the 152 new PCTs have an activity level of less than 0.5% of all items being supplied on repeat forms (table 2).

Figure 8: Trends in Repeat Dispensing



It is unlikely that the number of items dispensed on repeat forms will increase substantially in 2006/07 unless PCTs actively promote the service to GP practices. Repeat dispensing activity as at December 2006 has been used to project possible uptake of the service at March 2007 (table 2). If repeat dispensing activity reaches this level, total items would increase by 0.6% in 2006/07 compared to financial year 2005/06 (around 4 million additional items).

Table 2: Uptake of Repeat Dispensing in Sept 2006 and Projected Uptake for 2006/07

% Repeat Dispensing Items of Total	Number of PCTs in quarter to Dec 2006	Projected Number of PCTs in quarter to March 2007
>12%	0	0
8% to 12%	1	1
4% to 8%	1	1
3% to 4%	0	1
2% to 3%	11	9
1% to 2%	14	16
0.5% to 1%	37	35
<0.5%	89	90

It was expected that Repeat Dispensing would be best suited to patients with chronic conditions that are considered likely to remain stable for the duration of the repeatable prescription. It is no surprise then that the majority of items prescribed under repeat dispensing in the quarter to December 2006 are for the treatment of hypertension, cholesterol, diabetes and thyroid problems.

2.4 Forecast of Growth in Volume for 2006/07

In the previous report 'update on growth in prescription volume and cost year to September 2006' growth in volume was forecast to be around 5.5% for financial year 2006/07. However, annual growth has been below 5% for the last three months (October, November and December 2006) and this will have an effect on end of year growth. Prescriptions declared by pharmacists for January 2007 show there is likely to be an increase in prescribing but it is doubtful that this increase will push growth back up to 5.5%. The reduction in growth in the quarter to December 2006 can be attributed to the unusually mild autumn and the new home oxygen service contract.

Growth will be maintained by the NICE guidance for prescribing of statins and by the Quality and Outcomes Framework of the GMS contract. Repeat dispensing will have an effect on growth although not at a significant level. Prescription items are therefore expected to grow at around 4.8% in 2006/07.

2.5 Growth in Cost in Individual Therapeutic Areas

The Department of Health's policies to control drug prices (the generic prices review and the renegotiated PPRS) have had a major impact on the drugs bill (table 3). Figure 9 shows the change in the rate of growth per annum for cost between December 2005 and December 2006 for the top six therapeutic areas based on volume.

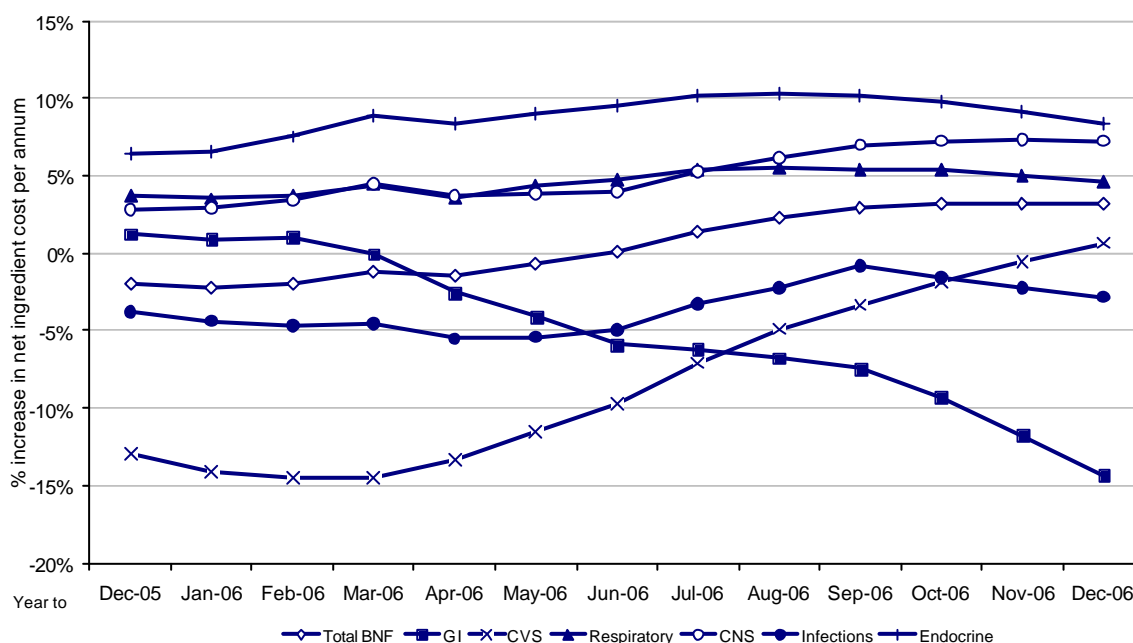
Cost for gastro-intestinal system drugs has decreased the most (-14.3%) whilst volume has increased over the same time period (+5.0%). The reduction in cost can be attributed to lansoprazole being classified a category M drug in March 2006. For example, the pack price of 28 lansoprazole 30mg gastro resistant capsules reduced from £23.63 in February 2006 to £6.73 in March 2006 and has

further reduced to £4.72 in December 2006. These price reductions have reduced the cost of prescribing lansoprazole by over £116 million to £105 million in the year to December 2006 when compared to the previous year.

Table 3: Cost of the Top Six Therapeutic Areas based on Volume.

Therapeutic Area	Cost (£ Millions)		
	Year to Dec 2005	Year to Dec 2006	% difference
Cardiovascular system	1869.70	1882.33	0.7
Central nervous system	1417.43	1520.14	7.2
Endocrine system	815.51	883.81	8.4
Respiratory system	798.64	835.20	4.6
Gastro-intestinal system	651.90	558.49	-14.3
Infections	219.34	213.15	-2.8
All others	1979.07	2105.30	6.4
Total	7751.59	7998.42	3.2

Figure 9: Change in Rate of Growth of Cost for Top 6 Therapeutic Areas



The cost for drugs for the endocrine system continues to increase the most of the top six therapeutic areas. In the year to December 2006, nearly 50% of the increase in cost for drugs for diabetes can be explained by metformin and rosiglitazone (for the treatment of type 2 diabetes). The prices of these drugs have not changed significantly over the time period; therefore such a large increase is attributed to increasing prescription volume most likely due to the

increasing number of patients diagnosed with diabetes. The volume of insulin aspart, in particular novorapid, has also increased and accounts for 15.8% of the increase in cost for drugs for diabetes in the year to December 2006.

Significant growth in cost can be seen in relation to the central nervous system up to December 2006. The majority of the 7.2% increase can be attributed to analgesics, in particular pregabalin, paracetamol and co-codamol. The most commonly prescribed paracetamol and co-codamol were reclassified from Category A to Category M in April 2005; this resulted in the costs of some drugs increasing more than 100%. The volume of paracetamol and co-codamol has remained relatively stable over the same time period. However, the volume of pregabalin has more than doubled to nearly 450,000 items when comparing the year to December 2006 with the previous year. This has resulted in an increase in cost of more than £20 million, to £35 million in the year to December 2006.

The prices of drugs in Category M are reviewed quarterly and price changes are introduced when appropriate. This mechanism helps to maintain the downwards pressure on the drugs bill. Price reductions in Category M drugs were planned from October 2006 with the purpose of reducing the drugs bill by a further £150 million over a six month period. Costs in the quarter to December 2006 have reduced by just under £22 million pounds when compared to the same period in the previous year. The Department of Health have also published further price changes to Category M to take place from 1st January 2007.

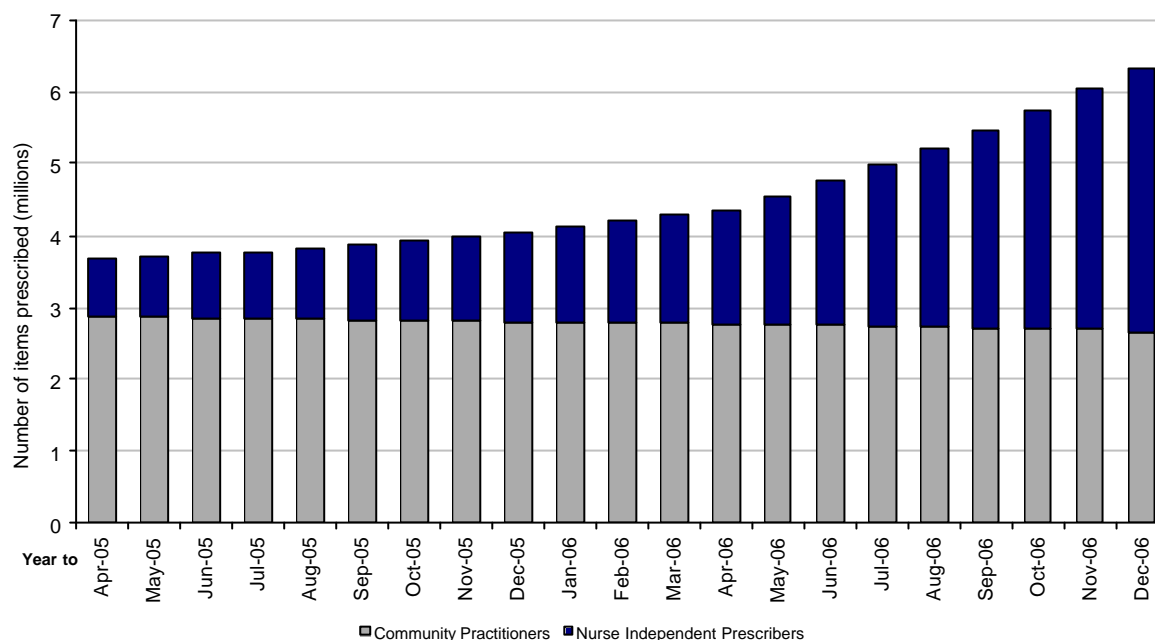
In 2005 the DH consulted on the arrangements for the provision of dressings, incontinence appliances, stoma appliances, chemical reagents and other appliances to primary and secondary care. A further consultation opened in July 2006 detailing proposals for a reconfiguration of the services provided to ensure equity, consistency and quality in the provision of those appliances. The consultation also proposes changes to the listing structure of stoma and incontinence appliances, and catheters in the Drug Tariff to inform users which products are functionally equivalent and to allow easier comparison of prices. The consultations regarding dressings and chemical reagents have now ended and resulted in reimbursement prices being reduced by 8% and 12% respectively, on all affected products from 1st October 2006. The quarter to December 2006 when compared to the same period of the previous year showed that volume remained stable, however, cost reduced by 5.7% for dressings and chemical reagents. A further consultation started in November 2006 to discuss Drug Tariff reimbursement prices for stoma and incontinence appliances to ensure that the NHS is receiving value-for-money, it is expected that the outcome of this consultation will be available in summer 2007.

The DH policies to control prices of generic drugs and appliances aim to hold back the growth in the drugs bill that would otherwise be seen from the increase in volume of prescriptions and the introduction of new more expensive products.

3. FACTORS AFFECTING COMPLEXITY OF PRESCRIPTION PROCESSING

3.1 Non-Medical Prescribers

Figure 10: Trend in Nurse Prescribing (rolling 12 month)



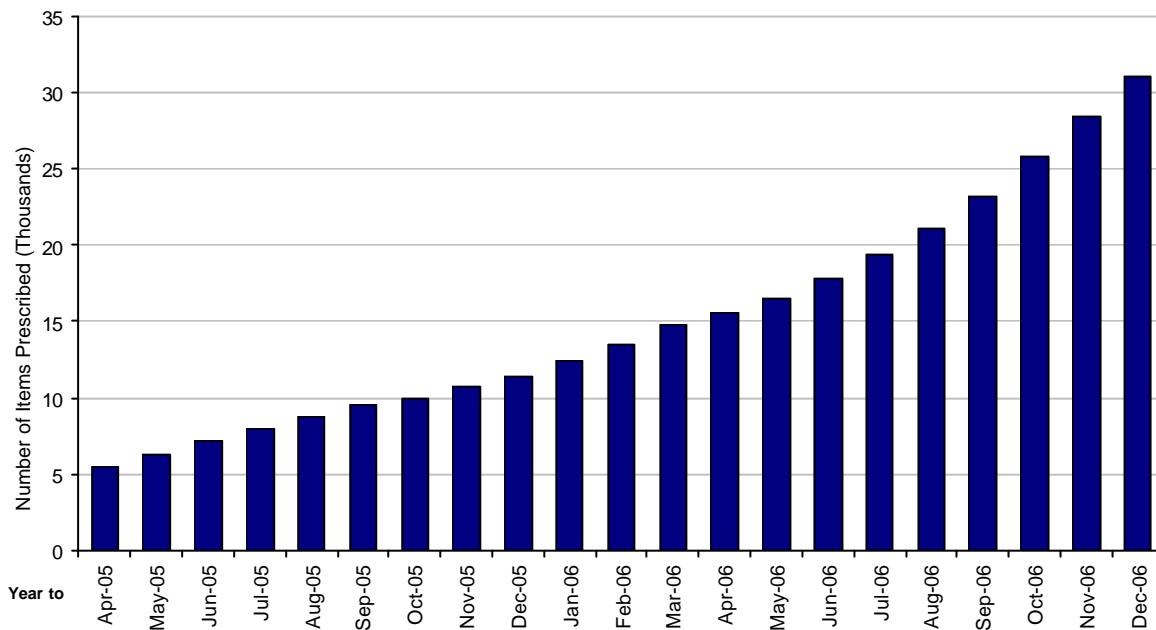
From 1st May 2006, the nurse prescribers extended formulary was discontinued and qualified nurse independent prescribers (formerly known as extended formulary nurse prescribers) are now able to prescribe any licensed medicine for any medical condition within their competence, including some controlled drugs. As at 7th January 2007 there are over 6,614 nurse independent prescribers and 22,719 community practitioners on the NHSBSA PPD database of prescribers. The proportion of nurse independent prescribers is growing at a faster rate than community practitioners.

Figure 10 shows the total number of items prescribed by community practitioners and nurse independent prescribers. In the year to December 2006 the NHSBSA PPD received 6.3 million items for processing from nurses, a 55.9% increase on the previous year. Every PCT in England has submitted nurse prescriptions to the PPD in the year to December 2006. Knowsley PCT has the greatest number of items prescribed by nurses (133,319) as well as the greatest proportion of nurse prescribing to total prescribing (4.5%). This is a huge increase on the previous year in which nurses in Knowsley PCT prescribed around 20,000 items.

The NHSBSA PPD database of prescribers now contains the details of 355 pharmacist prescribers. Regulations were introduced on 1st May 2006 that allow pharmacists to independently prescribe any licensed medicine for any medical condition that a pharmacist prescriber is competent to treat, with the exception of controlled drugs and unlicensed medicines. In the year to December 2006, the NHSBSA PPD received 31,052 items for processing from pharmacist prescribers (figure 11). This is an increase of over 170% on the year to

December 2005. Up to December 2006 no pharmacists had registered as independent prescribers with the Royal Pharmaceutical Society. However, the Pharmaceutical Journal reported in February 2007 that the first pharmacist independent prescriber had written their first prescription, for a salbutamol inhaler. Pharmacy prescriptions have been received from only 74 (of 152) PCTs in the year to December 2006. Nearly 40% of pharmacy prescribing is received from only three PCTs; North Lancashire (19.1%), Croydon (9.4%) and Walsall Teaching (8.2%). Pharmacy prescribing in Croydon has increased from zero in the year to December 2005 to nearly 3,000 items this year.

Figure 11: Trend in Pharmacy Prescribing (rolling 12 months)

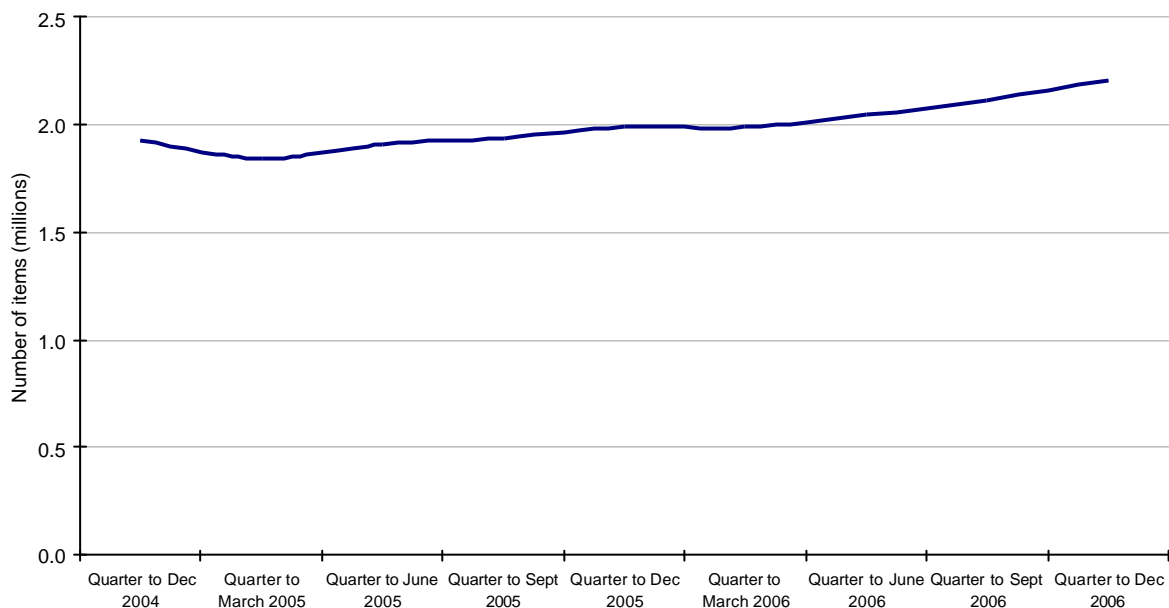


Parliamentary approval for amendments to medicines legislation and NHS regulations was given in May 2005 to allow more health professionals to prescribe medicines as supplementary prescribers in partnership with a doctor. From July 2006 chiropodists/podiatrists, physiotherapists, radiographers and optometrists are also able to prescribe controlled drugs as supplementary prescribers, but only where there is a patient need and the doctor has agreed. The NHSBSA PPD currently has 7 physiotherapists and 1 podiatrist registered on the database. The PPD received its first prescription from an allied health professional (a physiotherapist) in August 2006. Since that time 97 items have been prescribed by physiotherapists from three PCTs; Salford (87.7%), Medway Teaching (11.3%) and Nottingham (1%). However, the physiotherapist in Salford is also a community matron supplementary prescribing alongside a GP and therefore the 85 items prescribed includes simvastatin, microgynon and ramipril i.e. items not expected to be prescribed by a physiotherapist. Consequently, actual physiotherapist prescribing may be inflated due to individuals carrying out 'dual' roles. The PPD has received no prescriptions from any other allied health professionals.

The non-medical prescriber initiative has the potential to increase prescription volume however the DH anticipates that it will replace existing prescribing and take pressure off GPs by allowing them to focus on more complex cases thereby improving the availability of care for patients.

3.2 Safer Management of Controlled Drugs

Figure 12: Total controlled drugs (NHS FP10 prescribing)



The Fourth Report of the Shipman Inquiry (The Regulation of Controlled Drugs in the Community) was published on 14 July 2004 and is concerned with the systems for ensuring the safe and appropriate use of controlled drugs whilst ensuring patients can easily access the treatment they need. The following sections examine the prescribing of controlled drugs both on the NHS FP10 and private prescriptions.

Figure 12 shows the trend of total schedule 2 and 3 prescribed Controlled Drugs on NHS FP10 forms. In the quarter to December 2006 temazepam is the controlled drug prescribed the most (826,345 items) followed by methadone (400,609 items). Over the same time period prescribing of temazepam decreased (3.7%) whilst methadone significantly increased (18.7%).

The Misuse of Drugs Regulations were amended 12th June 2006 and came into effect 7th July 2006 so that copies of private prescriptions for Schedule 2 and 3 controlled drugs dispensed in community pharmacies should be submitted to the NHSBSA PPD each month. As at 7th January 2007 there are 2,618 private prescribers (including 1 private nurse) on the NHSBSA PPD database of prescribers.

In the quarter to December 2006, 10,451 private prescriptions for controlled drugs were received, all from doctors. This is an increase of 16.4% on the

quarter to September 2006. PCTs are able to monitor prescribing of controlled drugs by private prescribers using ePACT.net.

Table 4: Private Prescribing by Drug

Drug	Items	
	Quarter to December 2006	proportion
Methadone	5810	55.6%
Dexamfetamine	1760	16.8%
Temazepam	949	9.1%
Morphine	718	6.9%
Buprenorphine	343	3.3%
Methylphenidate	328	3.1%
All Others	543	5.2%
Total	10,451	100%

Of the 10,451 prescriptions received this quarter the majority are analgesics/drugs for substance dependence (70.1%). Table 4 shows the top six drugs privately prescribed. The greater proportion of private prescribing is for methadone that can fall into both the analgesic and drugs for substance misuse categories and makes up 55.6% of all private prescribing in the quarter to December 2006; considering this it appears that the majority of private prescribing could be for drug addiction.

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22nd February 2007