There are currently 2.6 million people aged 17 or over in England who have a diagnosis of diabetes – an age-related prevalence of 5.8 per cent (based on Quality and Outcomes Framework data). Prescribing for diabetes now accounts for 4.3 per cent of NHS prescribing volume and 9.3 per cent of spending on medicines.

Volume and cost have increased by about 50 per cent in the seven years to 2012/13, the latest statistics from the Health and Social Care Information Centre¹ show. This far exceeds the overall increase in prescribing but the rate of growth now shows signs of easing.


Steve Chaplin BPharm, MSc

Steve Chaplin examines the latest statistics on the volume and cost of drugs prescribed for diabetes, with prescribing of newer agents accounting for most of the increase in spending.

Figure 1. Number of items prescribed (top) and net ingredient cost of drugs used in diabetes, 2005/6–2012/13 by quarter

Changes in prescribing drugs for diabetes

In 2012/13, 42.5 million items were prescribed for BNF section 6.1 (Drugs in diabetes) at a cost of £764 million. This was a 4.7 per cent increase in volume in one year – below the 6.1–9.3 per cent range since 2005/06. Cost growth was also down – 0.7 per cent compared with 2011/12, whereas it exceeded 11 per cent in three of the past seven years. This, however, was a smaller reduction than in the drugs bill overall, which fell by 3.9 per cent.

The biggest change in the past seven years has been a marked increase in the prescribing of drugs other than insulins, rising from 16.1 million items in 2005/06 to 29.6 million in 2012/13 (see Figure 1). By contrast, prescribing of insulins (4.8 to 6.3 million items) and testing products (5.6 to 6.4 million items) has changed little. Insulins still account for about 40 per cent of spending but the proportion of costs due to other drugs has increased from 26 to 35 per cent and that for testing products decreased from 29 to 21 per cent (see Figure 1).

Insulins

The category of short-acting insulins has seen volume growth of 64 per cent since
2005/06 and cost growth of 56 per cent, far exceeding growth in prescribing of the intermediate and long-acting insulins (22 per cent) and their costs (up 41 per cent). Virtually all prescribing is now for the rapid-acting analogues aspart (NovoRapid), glulisine (Apidra) and lispro (Humalog).

Excluding biphasic insulins, isophane insulin, glargine (Lantus) and detemir (Levemir) account for all the remaining longer-acting insulins. Glargine accounted for about 55 per cent of items in both 2005/06 and 2012/13 but the use of isophane insulin fell (from 32 to 17 per cent) and that of detemir increased (from 13 to 28 per cent).

The proportion of prescriptions for intermediate and long-acting insulins as detemir and glargine is a QIPP performance indicator. In 2012/13, this averaged 83 per cent, with a range of 39 to 97 per cent between PCTs.

The analogues have also increased their share of the biphasic insulin sector, with prescribing and costs of biphasic insulin aspart (NovoMix) increasing by about 80 per cent and that of biphasic insulin lispro (Humalog Mix) by about 60 per cent; this contrasts with a 50 per cent decline in the use of biphasic isophane insulins.

**Antidiabetic drugs**

Prescribing volume and cost for metformin have almost doubled in the last seven years (see Figure 1) and it remains the most frequently prescribed antidiabetic drug. By contrast, use of the sulfonylureas increased by a relatively modest 46 per cent, with costs only 2 per cent higher now than in 2005/06.

The proportion of antidiabetic drugs due to metformin and sulfonylureas is another QIPP indicator. In 2012/13, this averaged 85 per cent (range 75–94 per cent) and has been falling slowly over the past four years.

**Other antidiabetic drugs**

This section includes the glucagon-like peptide-1 (GLP-1) analogues, the dipeptidyl peptidase-4 (DPP-4) inhibitors, pioglitazone, acarbose, repaglinide and nateglinide (Starlix), dapagliflozin (Forxiga, which is excluded from the analysis due to low numbers of prescriptions) and combinations with metformin.

There has been a huge increase in prescribing of the DPP-4 inhibitors, which are now the largest class by volume, and GLP-1 analogues, which now rank second by cost (see Figure 2). Though pioglitazone remains the second most frequently prescribed drug in this category, its use is declining following safety warnings about the glitazones.

Sitagliptin (Januvia) is the top drug in this category (66 per cent of items, up by 29 per cent since 2011/12, and 49 per cent of spending, up by 27 per cent) but the prize for most expensive drug goes to liraglutide (Victoza) at £98 per item. Volume and cost growth exceeded 40 per cent in the last year and, though liraglutide made up only 7.7 per cent of items in 2012/13, it accounted for 20 per cent of costs. The older exenatide has, at £80.36, the second-highest cost per item in this category.

**Diagnostic and monitoring devices**

This category is almost all due to items for testing blood glucose. Growth compared with medicines prescribing
has been modest but it now accounts for 14 per cent of items and, at £165 million, 21 per cent of costs of prescribing for diabetes.

Summary
Prescribing for the treatment of diabetes has been increasing rapidly but the latest figures suggest the rate of growth is moderating. Newer agents account for much of the increase in spending, notably the insulin analogues, DPP-4 inhibitors and GLP-1 analogues, but metformin is still the most frequently prescribed anti-diabetic drug.

Reference

Declaration of interests
None to declare.

Steve Chaplin is a pharmacist who specialises in writing on therapeutics