

Analysing adherence: Controlling prescribing costs

As healthcare professionals, we expect our patients with diabetes to adhere to demanding lifestyle and drug treatment regimens, which frequently intensify and become more complicated with time. However, the person with diabetes may make autonomous choices about their disease management, which may not align with those of their healthcare professionals. Unfortunately, implementation and persistence with behaviour change is challenging at best and impossible at worst, and non-adherence to prescribed medicines can cause treatment failure and increase mortality and healthcare costs (DiMatteo et al, 2002; Simpson et al, 2006).

Prescribing for diabetes in England has recently been scrutinised and, unsurprisingly, shows increases both in cost and amounts of drugs prescribed (Information Centre for Health and Social Care [ICHSC], 2009). The report also raises important areas for debate among healthcare professionals, including primary care teams, and should encourage us to focus on medication adherence once again.

Prescribing costs

Between the beginning of 2002 and September 2008 the number of diabetes items prescribed in England increased by 73.3%, and the total cost rose by 93.2%. Since the diabetes drug spend in hospitals only accounts for 2.1% of the total cost of diabetes drugs, responsibility for these changes must lie with us in primary care and with our attempts to effectively manage the escalating numbers of people diagnosed with the condition. Oral anti-diabetes drugs (OADs) had shown over a 10% increase in prescriptions, but nearly a 20% increase in costs (ICHSC, 2009).

In the year to September 2008, 20.3 million OADs were prescribed, at a cost of £161.3 million. The thiazolidinediones accounted for more than half of the spending on OADs in that year, but this represented a 2.5% reduction in items and an 11.3% decrease in costs over the previous year (ICHSC, 2009) – a trend that may have continued since, due to displacement by the newer drugs. However, the budget

impact of increasing prescribing of those newer drugs is likely to be large.

Insulin costs were continuing to rise in the final year of the analysis, with a 12.1% increase in costs of short-acting insulins and a 13.4% increase in the cost of non-biphasic intermediate and long-acting insulins. Interestingly, the final results of the 4T (Treating To Target in Type 2 diabetes; Holman et al, 2009) study demonstrated that after 3 years, those whose initial insulin regimen comprised basal or three-times daily prandial insulin added to oral agents, had better glycaemic control than those treated with a biphasic insulin-based regimen.

A meta-analysis of insulin use showed that rapid- and long-acting insulin analogues offer little benefit compared with conventional insulins in terms of glycaemic control or reduced hypoglycaemia, suggesting that long-term, high-quality studies are needed to determine whether insulin analogues reduce the risk of long-term complications of diabetes (Singh et al, 2009). This is without taking issues of adherence with insulin regimens into consideration.

In a recently published US study of 502 adults self-identified as taking insulin therapy for either type 1 or type 2 diabetes, 57% of the respondents reported omitting insulin injections, with 20% omitting insulin injections regularly (Peyrot et al, 2010). Healthcare professionals should always engage with people with diabetes about their adherence to any of their regimens.

Improving adherence

NICE has published a clinical guideline for involving people in decisions about prescribed drugs and increasing adherence (National Collaborating Centre for Primary Care [NCCPC], 2009). The guideline outlines useful strategies that may improve adherence to drug treatment, but also recommends that prescribers accept the person's right to decide not to take a drug, provided they have capacity, even when they do not agree with the decision.

In contemporary diabetes management, the principles of patient autonomy and shared decision-making are paramount. Allowing people with diabetes to participate fully in



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The Primary Care Diabetes Society is conducting a survey to find out what diabetes services are provided in PCTs and Care Trusts across England. To take part, please see page 53.

decisions regarding their management is an important way of improving adherence both to drug treatment and self-care. Underpinning this is the knowledge that people who make meaningful choices about the interactions between their illnesses and clinical interventions adhere more successfully to regimens (Broom and Whittaker, 2004).

To enable people to make empowering decisions about their drug treatment, prescribers need to stay abreast of the latest guidance on drug treatments, as the science behind these treatments is being continuously examined. A recent study analysed a UK general practice database of 91 521 people with type 2 diabetes, to investigate the risk of incident myocardial infarction, congestive heart failure, and all cause mortality associated with prescription of OADs (Tzoulaki et al, 2009). Sulphonylureas were found to have an unfavorable risk profile compared with metformin for all outcomes examined, while pioglitazone had a favourable risk profile compared with rosiglitazone. Kamlesh Khunti and other authors of the study comment on this article on page 12.

Conclusion

The analysis by the ICHSC (2009) of prescribing in England should continue to stimulate debate well into this new decade, as prescribers and healthcare teams continuously improve their evidence-based practice. Internet searches have failed to identify any such high-profile analyses of diabetes prescribing in the other home nations – either this is not available, or not sufficiently publicised to influence prescribing or debate. A drug is most expensive when a person is not taking it, so we would do well to re-read the NICE guideline (NCCPC, 2009) and explore ways to implement it in our own practices this year. This alone may make a huge impact both on our patients' quality of care and our prescribing costs. ■

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