

# Let's not underestimate the impact of lifestyle on diabetes control

Avoiding both short- and long-term complications are the primary goals of diabetes management. Not only are diabetes-related complications responsible for significant healthcare costs but they also can have a hugely negative impact on quality of life for the person living with the condition. Much of what we do is aimed at reducing modifiable risk factors, including hypertension, dyslipidaemia, high blood glucose and, where appropriate, associated overweight and obesity, and this frequently involves the prescription of medication.

Once upon a time, our drug options for lowering blood glucose were limited: metformin, usually followed by a sulfonylurea and ultimately, for up to 50% of people, insulin therapy. More recently, a growing number of new diabetes drugs offer significant advantages, with low hypoglycaemia risk, cardiorenal benefits beyond glucose lowering and, for some, a very welcome associated weight loss. Over time, our confidence in these therapies has grown, and prescribing GLP-1 receptor agonists (GLP-1 RAs) and SGLT2 inhibitors has become second-nature. A good deal of my time in practice is spent discussing the pros and cons of these agents, and most consultations culminate in my issuing a prescription.

However, things changed in the autumn of 2022 when shortages of the long-acting GLP-1 RAs semaglutide and dulaglutide emerged, with MHRA supply notifications issued in October 2023. The Primary Care Diabetes Society (PCDS) responded with a consensus statement to support clinicians during a period where supply was intermittent, but we were optimistic that the problem would resolve by early 2023. Significant geographical variation in supply was anecdotally reported, and it has been very difficult to manage the uncertainty. Regular calls to check the stock at our local pharmacy have, frustratingly, become a feature of my day. The supply problem with GLP-1 RA therapies appears to have escalated over recent weeks.

Demand for these agents has far exceeded supply. Increasingly, we have been prescribing GLP-1 RA therapy for the management of type 2 diabetes (at least until October 2022, when we were advised not to initiate either Ozempic or Trulicity), but there has also been huge demand for off-label prescribing within the private sector, fuelled by a widely promoted weight loss trend on social media. The situation has now escalated to the point where it may not be possible to offer people who are currently prescribed these agents for type 2 diabetes management to switch to a different oral or injectable GLP-1 RA, due to limited supply of all agents across the class.

For this reason, the PCDS and Association of British Clinical Diabetologists (ABCD) have [jointly issued new guidance](#) to support clinicians during this period of national shortage. A different approach may be required that involves switching to other classes of antihyperglycaemic agents according to the circumstances, needs and preferences of the individual. Where appropriate, this may include initiation of DPP-4 inhibitors, pioglitazone, sulfonylureas and, possibly, insulin. Referring




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Association of  
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**PCDS**  
Primary Care Diabetes Society

**Glucagon-Like-Peptide 1 Receptor Agonist National Shortage**  
Guidance from the Primary Care Diabetes Society (PCDS) and Association of British Clinical Diabetologists (ABCD)

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[Click here to access the joint PCDS/ABCD guidance](#)

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to NICE and SIGN guidance and ensuring we re-acquaint ourselves with agents we have been using less frequently will be needed.

Understandably, many people who are established on GLP-1 RA therapy and gaining benefit will be disappointed to have to stop or switch medications, and clinicians may be frustrated that they cannot offer a therapeutic intervention they feel would confer benefit. Clinicians should involve the person with diabetes in shared decision making when discussing alternative therapeutic options, and [NICE does provide guidance on this](#).

For those less familiar with the practicalities of prescribing the older agents, you may find our [Prescribing pearls series](#) valuable – we have already published guides for metformin and sulfonylureas, and pioglitazone and DPP-4 inhibitors will follow soon!

### Let's not overlook lifestyle interventions

Given the current challenges with drug shortages, there may be an opportunity to re-focus our attention on the benefits of lifestyle interventions. These are a key component in the management of most long-term conditions, and they feature in every clinical guideline for the management of type 2 diabetes. Despite this, I suspect that many healthcare providers will question their impact, and they probably devote less time to offering lifestyle advice and support than discussing possible pharmacological options.

A few years ago, I decided to learn much more about the root cause of type 2 diabetes and the impact of diet and lifestyle. This was partly prompted by the DiRECT study and the realisation that type 2 diabetes remission was a possibility for some (Lean et al, 2019). I always discuss type 2 diabetes remission with those who have a shorter duration of diabetes (typically less than 6 years) and are not on insulin; however, the nutritional principles underpinning the approach are applicable even for those with longer-duration diabetes, even if remission is less likely.

Most people are motivated by hope, and the hope that type 2 diabetes remission may be within a person's reach is very compelling. Over the years, a proportion of individuals have achieved remission but have not always

managed to sustain the change; however, many more have been able to at least lower their HbA<sub>1c</sub> – in some cases, quite impressively – with lifestyle intervention.

The results from DiRECT provided the catalyst for the *NHS Type 2 Diabetes Path to Remission* programme, and Jonathan Valabhji provided an update on this pilot project at the 2023 Diabetes UK Professional Conference in Liverpool earlier this year. Five-year follow-up weight, remission and clinical outcomes from the DiRECT interventions were also presented. See our latest [Conference over coffee](#) for the headline figures.

A key component when predicting the likelihood of remission is weight reduction, but achieving and maintaining weight loss is not easy; it requires understanding, education, support, and considerable motivation and determination to succeed. This issue, Nerys Frater describes how her interest in lifestyle medicine grew and was the catalyst for setting up [type 2 diabetes lifestyle clinics in West Wales](#). Her reflections may just inspire you to consider your approach to type 2 diabetes management.

Many healthcare professionals I have spoken to over the years are quite sceptical about the impact of lifestyle intervention on diabetes, believing that it is unlikely to reduce blood glucose levels enough or that people will be unable or unwilling to make changes (and sustain them in the longer term). However, we should never be too hasty in judging what a person will or will not be able to achieve. Last week, I was preparing ahead of a consultation with a person established on a once-weekly GLP-1 RA. He was being prescribed the agent as monotherapy having been unable to tolerate or accept other blood glucose-lowering therapies and initially responded very well. However, his latest HbA<sub>1c</sub> was 77 mmol/mol.

My initial thought was that he may have been unable to obtain his medication. However, during our consultation, he explained that he had been taking his GLP-1 RA consistently prior to having his bloods taken. He had viewed his results online and was shocked to see the high HbA<sub>1c</sub>, but he described how this made him realise he had largely been ignoring what he was eating and had persuaded himself that all would be fine if he just kept taking his medication. Realising this was not

the case, and compounded by the fact that the pharmacy had no stock, he decided to refocus on his lifestyle.

Interestingly, he had taken advantage of a free 2-week trial of intermittently scanned continuous glucose monitoring (isCGM) he saw advertised on TV, and he was keen to share the data stored on his phone over the preceding 2-week period. He described how this technology had provided him with objective measures of his glucose levels 24-7 and allowed him to see how certain foods affected his glucose. Even over this short period of time, he had been able to gather a wealth of information, and this had helped him to make informed choices and make positive lifestyle changes. His GMI (a predictor of HbA<sub>1c</sub>) was 41 mmol/mol!

Of course, it is early days and disappointing that I am unable to prescribe further isCGM for him, even over the short term to support his self-management, because I do feel that, with the right advice and support, this could be an effective (and ultimately cost-effective/cost-saving) strategy for some.

Evidence to support the impact of lifestyle on diabetes control is growing, and in this issue [Pam Brown summarises a study](#) exploring the impact of adopting a variety of lifestyle behaviours in over 15 000 participants with type 2 diabetes. Adopting four or more of the five behaviours was associated with a 46% reduced risk of developing microvascular complications. Hopefully this will help us to convey the benefits of positive lifestyle behaviours in reducing the risk of retinopathy, nephropathy and neuropathy.

### Also in this issue

We talk a lot about initiating medications but less about deprescribing. Indeed, there is little guidance on when to consider this and how to do so safely, so [Samina Ali's practical tips](#) are most welcome.

Checking that a person has attended for their regular retinal screening and sharing their latest results often feels like the extent of our role in managing retinopathy. However, in my experience, people do sometimes ask for more detailed information, so we have included a [Q&A on diabetic retinopathy](#), which covers the key questions and queries you may have in relation to this topic.

We focus a lot on cardiovascular disease in diabetes, but probably more on ischaemic heart disease and stroke than on peripheral arterial disease (PAD). Reading Mike Kirby's comprehensive [At a glance factsheet](#), I was surprised to learn that around 50% of patients with PAD will be asymptomatic, making opportunistic history taking and physical examination all the more important to detect the condition early.

In this issue's [interactive case study](#), David Morris focuses on erectile dysfunction, a common complication in men with type 2 diabetes, which shares many risk factors with PAD.

Finally, Pam Brown's other *Diabetes Distilled* summaries cover the [differences in type 2 diabetes between men and women](#), the developmental [once-weekly insulin icodec](#) and real-world evidence of the [renoprotective effects of SGLT2 inhibitors](#). I hope you will enjoy them! ■



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#### Reference

Lean MEJ, Leslie WS, Barnes AC et al (2019) Durability of a primary care-led weight-management intervention for remission of type 2 diabetes: 2-year results of the DiRECT open-label, cluster-randomised trial. *Lancet Diabetes Endocrinol* 7: 344–55