

# Type 2 diabetes, CVD, CKD, dementia and health inequality: Adopting a preventative approach

Conference season is upon us, and for those able to attend the face-to-face events it is a wonderful opportunity to engage in learning with like-minded colleagues, discuss issues, share ideas, ask questions, and even forge new connections and collaborations. As I mentioned in my last editorial, the demands of clinical practice may be such that it just isn't feasible to be there, although many events are now made available on demand, which is helpful. In the journal, we try to provide a flavour of the content with some of the key take-away messages in our *Conference over coffee* series. In this issue, we provide a summary of the key messages and practice points from our [14<sup>th</sup> PCDS Northern Irish Conference](#), held in Belfast on 19 September. I hope you'll agree that the programme encompassed a broad range of topics less frequently discussed, such as the link between diabetes and cancer, recognition and management of pancreatogenic (or type 3c) diabetes, deprescribing and end-of-life care, and psychological support for people living with diabetes.

At the time of writing, the 17<sup>th</sup> Scottish Conference and the 20<sup>th</sup> National Conference of the PCDS have also just taken place, both with a record number of attendees and fantastic programmes that included a session on how artificial intelligence might be incorporated in future diabetes service provision, and a lively debate about whether we should focus on glycaemic control or adopt a more holistic multifactorial approach, as well as our usual wide range of keynotes and masterclasses offering practical tips on managing obesity, diabetes and their associated long-term conditions and complications. Look out for summaries of the events in our next issue!

## Health inequalities

In the meantime, particularly for colleagues working in Scotland, you may be interested to

read about the ethnic disparities in quality of care reported by the Scottish Diabetes Research Network National Diabetes Dataset. This is the first UK study to explore ethnic differences across the delivery of all of the 9 key care processes. An earlier study in England found deprivation and ethnicity to be important determinants of inequalities in glycaemic control, prescribing of newer drugs and completion of the five care processes explored (Whyte et al, 2019). [As Pam Brown points out](#), it is incumbent upon us all to be aware of and strive to minimise inequalities in diabetes care, and she shares some excellent interventions that have been adopted to tackle the problem in her own practice.

## Gestational diabetes

Another group that can be overlooked is women with gestational diabetes (GDM). Recognising the risk factors for GDM is critical because it is typically asymptomatic, so all pregnant women at high risk should be screened early to identify it and optimise management of their diabetes and their pregnancy. As many as half of all women with GDM go on to develop type 2 diabetes within five years, so while we in primary care may not play a central role during the pregnancy, postpartum follow-up is very much our responsibility.

Women with GDM may have poor awareness of their risk of developing diabetes and are less likely to attend for follow-up screening. You can familiarise yourself with the recommended postpartum screening, which tests should be done, and when and how to interpret the results with [Elizabeth Daprè's How to](#).

## Chronic kidney disease

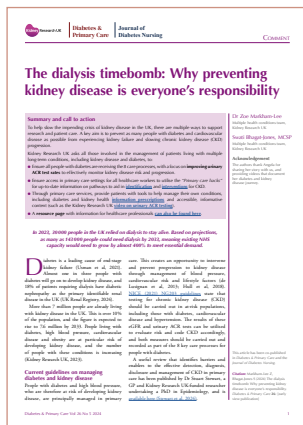
A third of people with diabetes develop chronic kidney disease (CKD), with diabetic nephropathy being the primary cause of end-stage renal disease in 18% of those receiving dialysis.



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Many people with diabetes will also be living with hypertension, cardiovascular disease and obesity – conditions that are all associated with an increased risk of kidney disease. As the number of people with these conditions rise, it is perhaps no surprise to hear about the “dialysis timebomb”. Huge concerns have been raised that it will be utterly impossible for existing NHS services to meet this increased demand. [Read our feature article here](#) from Kidney Research UK about why preventing kidney disease is everyone’s responsibility.

Obtaining urine samples to send for ACR testing has long been a problem, improving when added to the QOF indicators but with testing levels dropping after its removal. The article emphasises the importance of this test and provides links to resources we can share with our patients to explain more about the ACR test and, hopefully, improve uptake.

Making the diagnosis of CKD, coding it and then monitoring appropriately is key at the outset, but I know colleagues are often unsure about how then to manage the condition. I was, therefore, particularly interested to learn of the “3 within 3” concept adopted by the London Kidney Network, which highlights three key actions to take within 3 months of a diagnosis:

- Month 1: initiate and intensify RAS/RAAS blockade.
- Month 2: initiate SGLT2 inhibitor (as per NICE guidance).
- Month 3: initiate further blood pressure medication to achieve target of <140/90 mmHg (or 120–129/80 mmHg where ACR is >70 mg/mmol).
  - Consideration of finerenone is also recommended in those with an eGFR of 25–60 mL/min/1.73 m<sup>2</sup> and a urinary ACR >3 mg/mmol, providing potassium is <5 mmol/L.

### Cardiovascular disease

Alongside diabetes, hypertension is a major risk factor for kidney disease. Over the years, I have been aware of a variety of innovative ways of identifying people with undiagnosed hypertension. I’ve never forgotten the “rule of halves”, which stated something along the

lines that half of those with hypertension are not known to health services (i.e. remain undiagnosed), half of those with known hypertension do not receive any treatment, and half of those who are treated do not achieve adequate blood pressure control (Wilber and Barrow, 1972). Is this rule of halves still true today? I suspect it is, and therefore it is good to hear about initiatives that continue to address the problem – including a retinal screening service in Sussex offering opportunistic BP checks when people attend, as [Suneeta Kochhar and Marcia Excell describe in their article](#).

Antiplatelet drugs also play a major role in the treatment and prevention of myocardial infarction, ischaemic stroke and thrombosis. Our [interactive case study](#) this issue presents two scenarios where we are invited to consider whether antiplatelet therapy may or may not be appropriate for cardiovascular protection.

### Managing glycaemia

The emphasis in diabetes has, in more recent years, been on a more holistic approach, and increasingly we hear of the cardiorenal metabolic condition rather than diabetes alone. This makes sense given that diabetes rarely exists in isolation and typically sits alongside heart disease, renal impairment, and overweight and obesity. Although we have moved away from the more glucocentric approach of the past, we should not forget the importance of optimising glycaemic control and, in particular, its value early on in type 2 diabetes. This was clearly demonstrated by the UK Prospective Diabetes Study previously, but it should remain a priority according to a recent review of evidence, which we discuss in [Diabetes Distilled](#).

With an increasing number of newer options for glycaemic control, there may be a tendency to forget about some of the older agents. This issue, we continue our very popular *Prescribing pearls* series with [a guide to pioglitazone](#), with thanks to David Miller for a comprehensive yet practical guide to prescribing this agent. We may not prescribe it as often as other agents, but perhaps this makes it all the more important that we remember when it is appropriate and safe to prescribe, how to initiate and

monitor it, and to be aware of the benefits and potential risks.

## Diabetes and dementia

In our work, and perhaps in our personal lives too, we see the devastating impact of dementia – the decline in memory and cognitive function and changes to behaviour that, over time, make it increasingly difficult for a person to maintain their independence and their identity. People with diabetes are at an increased risk of developing dementia compared to those without diabetes. More recently, greater emphasis has been placed on preventative medicine – we’ve seen this work well in diabetes with the National Diabetes Prevention Programme and the Type 2 Diabetes Path to Remission, with their focus on identifying and reducing recognised risks. I was interested to see the same approach directed at [reducing dementia risk](#) described by Pam in *Diabetes Distilled*.

World Health Organization guidelines published in 2019 coined the phrase “What is good for the heart is good for the brain”. We are very much in the business of reducing cardiovascular risk as part of our holistic approach to diabetes management. It would appear, then, that the very same interventions we employ for heart protection (lipid and blood pressure management, smoking cessation, weight management, healthy eating and increased physical activity) also protect the brain and reduce the risk of dementia. As Pam points out, there is a huge opportunity here for us to help people understand and manage their risk of dementia due to diabetes, high LDL cholesterol, hypertension, obesity, low levels of physical activity, smoking and excess alcohol intake, which together account for 17% of the risk of dementia.

## Weight management

GLP-1 ± GIP receptor agonists remain topical, not only for healthcare professionals but also

among the general population, and the recent announcement of the [SURMOUNT-REAL UK](#) study – a five-year clinical trial of tirzepatide in Greater Manchester to evaluate its effectiveness in treating obesity, diabetes and obesity-related complications and measuring how the drug affects employment status and the number of sick days taken – has divided public opinion. According to the university, the evidence generated will seek to increase the global evidence base on the long-term impacts of weight loss medicines and potentially inform the UK’s care pathway approach to the treatment of obesity.

With greater awareness (and media attention), many more individuals with and without diabetes are expressing interest in these agents for weight loss. For those without existing type 2 diabetes, achieving weight loss in this way may be a successful upstream strategy for preventing the condition. Indeed, in the STEP 10 trial published in *Lancet Diabetes & Endocrinology*, the use of once-weekly subcutaneous semaglutide 2.4 mg for 52 weeks in those with obesity and prediabetes achieved an 81% prediabetes remission rate (i.e. a return to normoglycaemia) compared with 14% in the lifestyle-only group, and more than 11% greater mean weight loss. [Read more here!](#)

NICE is due to publish its Technical Appraisal, *Tirzepatide for managing overweight and obesity*, on 19 December 2024, so watch out for that and, importantly, plans for how the NHS will commission services to deliver weight loss drugs like this.

Until then, I hope you enjoy your reading! ■

Whyte MB, Hinton W, McGovern A et al (2019) Disparities in glycaemic control, monitoring, and treatment of type 2 diabetes in England: A retrospective cohort analysis. *PLoS Med* **16**: e1002942

Wilber JA, Barrow JG (1972) Hypertension – a community problem. *Am J Med* **52**: 653–63

The screenshot shows an article from 'diabetesdistilled' with the title 'Reducing dementia risk while delivering diabetes care'. It features a portrait of Pam Stevens. The text discusses the link between diabetes and dementia, mentioning that up to 40% of the population attributable fraction of dementia is potentially preventable. It lists several risk factors: high LDL cholesterol, hypertension, obesity, low levels of physical activity, smoking, and excess alcohol intake, which together account for 17% of the risk of dementia. The article also mentions the SURMOUNT-REAL UK study and the STEP 10 trial. A list of references is provided at the bottom of the article.