

Meeting the challenge of diabetic kidney disease

Healthcare professionals have an important role to play in focusing more attention on diabetic kidney disease, by implementing new interventions and educating their patients, says **Dr Andrew Frankel**

Cardiac and renal complications of diabetes rarely occur in isolation, for they reflect common underlying pathological mechanisms. People with diabetes and features of kidney disease highlight a group of individuals with a high cardiovascular risk, and most individuals with diabetes and vascular disease have some evidence of underlying kidney disease.

There is a growing number of people with diabetes in the UK. These individuals are developing the disease at an earlier age. And, because of successful cardiological intervention, they are surviving to an older age. Considering that it takes approximately 10 years from diagnosis of diabetes to manifest features of cardio-renal damage (admittedly we often do not know year zero), we are likely to see a progressive increase in the number of people who have cardio-renal damage. We are also likely to see many more of them go on to develop chronic kidney disease and, indeed, end-stage renal failure in the next 10 years.

The implications of this growth of individuals who need renal replacement therapy will add to the health economic challenge of diabetes over the next 10 years, as well as causing a significant amount of individual suffering. Because of this, there is a need to develop a more effective response to the challenge caused by these cardio-renal complications associated with long-term diabetes.

We now have evidence for interventions that can ameliorate the development of cardio-renal complications and also slow this down once developed. These include a recognition that more effective and sustained glycaemic control in the first five to 10 years after diagnosis will have a long-term benefit.

Once features of cardio-renal damage are present, the institution of therapies, which include maintenance of appropriate blood pressure control, use of inhibitors of the renin-angiotensin system and, now, the use of sodium glucose co-transporter inhibitors, all provide significant benefit. These are the interventions that healthcare professionals need to consider and implement for all their patients with diabetes who are at risk of kidney complications.



DR ANDREW FRANKEL is a consultant nephrologist at Imperial College Healthcare NHS Trust. He has a particular interest in the management of diabetes in the presence of kidney disease and has played a significant role in the development of national guidelines in this area.

Dr Frankel has also carried out extensive research on how diabetes affects the kidneys and on how kidney disease can affect the management of diabetes.

A patient-centred approach

There is a multitude of guidelines and advice sheets for healthcare professionals to try to support them in implementing good management plans. But I would argue that there is also a necessity to manage the issue from a patient-centred approach. There is a need to demystify kidney complications of diabetes and the implications of these for the individual's health. Every individual with diabetes needs to understand how kidney damage is identified, and how it is prevented and treated.

A starting point would be that the healthcare community works to ensure that every individual with diabetes is empowered to ask questions and know about their kidney function, as determined by their eGFR and albuminuria status. When describing eGFR to patients, I use a simplistic term of global kidney function, with 100% representing a broad figure for what would be expected in a fit young adult and give them their results as a percentage of this global kidney function. Similarly, we need to define simple descriptions of albumin in the urine to define albumin-to-creatinine ratios and ensure that everyone both knows and owns their own results.

Ensuring that we demystify these results will encourage a partnership between individuals with diabetes and healthcare professionals, in order that all would be alerted early to abnormalities of kidney function and implement treatment strategies that would best protect these individuals over time.

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