

The role of diabetes specialist practitioners in renal services

The renal services at Imperial College Healthcare NHS Trust are responsible for supporting people with kidney disease across the whole of north-west London. This includes caring for more than 3500 people on some form of kidney replacement therapy (on dialysis or with a transplant), and performing an average of 200 kidney transplants a year. This area of London has some of the country's highest rates of end-stage kidney disease.

Diabetes and renal disease are inextricably linked. A bi-directional relationship exists between these conditions, with diabetes increasing the likelihood of developing kidney disease, while kidney disease intensifies complications associated with diabetes (Kumar et al, 2023). Around 40% of people with diabetes may go on to develop diabetic kidney disease, which is the leading cause of kidney failure in the UK, with around 20% of those starting dialysis having the condition (Kidney Research UK, 2024). Both are complex conditions that require specialist support.

For people with serious kidney disease, attending clinics for even routine care is difficult. Dialysis and transplant patients, for example, are subjected to many different clinic appointments, which is exhausting for them and can become almost impossible to manage. In an NHS that, by its nature, can struggle to provide a service that links the work of two specialities, healthcare can become unstructured and fail to deliver the best outcomes.

Why is this important?

The nuances of glycaemic control across the renal modalities can be challenging to understand. People with deteriorating renal function, and those on dialysis, often need a more relaxed approach to their diabetes control to prevent unpleasant and dangerous complications. Hypoglycaemia, for example, can occur because the prolongation of insulin clearance leads to a decreased insulin

requirement (Pham et al, 2024).

Conversely, after kidney transplantation, people often experience hyperglycaemia initially, which can also be challenging. This can be due to post-operative stress, high doses of corticosteroids used for immunosuppression, pain, infection or previously undiagnosed diabetes exacerbated by these other factors (Chowdhury et al, 2021). Good glycaemic control and an understanding of how to achieve it is paramount to protect the new graft and increase overall graft survival (Kukla et al, 2021).

Providing the necessary level of care is demanding, as diabetes teams are generally overcommitted and are unable to offer regular appointments or follow-up. Transplant patients often need to be seen once or twice a week. Their diabetes changes rapidly in this period, requiring quite often intense intervention in a period when they have to contend with significant health changes and personal demands. It is unrealistic to expect the majority of diabetes teams to see these people on a weekly basis.

Patients undergoing dialysis very often find it challenging to attend appointments for diabetes, and often miss out on even the most basic care that would normally be offered to people with diabetes. There are a number of reasons for this, including the disruption to work, difficulty with transportation, and the physical and emotional toll that is associated with the treatment. Additionally, there are misconceptions around who provides and is responsible for this care, and low engagement from individuals who are generally fatigued from navigating the rules and inflexibility of healthcare systems.

This can result in people, particularly if they are undergoing dialysis, falling out of care and missing out on up-to-date treatment, having poorer outcomes and, generally, being left out in the cold.

This illustrates how cultural and social factors are significant in the management of these two associated health conditions.



Jo Reed

Diabetes Specialist Nurse, employed by the renal team at Imperial College Healthcare NHS Trust

Citation: Reed J (2024) The role of diabetes specialist practitioners in renal services. *Journal of Diabetes Nursing* [Early view publication]

“The continuity of care makes it possible to build relationships with individuals, to get to know them well and to follow their journey.”

Diabetes specialist practitioner role in renal services

The renal team at Imperial College Healthcare NHS Trust recognised the pitfalls of working in silos and the need for more diabetes specialist input. A more creative approach was required, so the role of diabetes specialist practitioner within the renal team was developed.

The role is designed to achieve the following:

- Provide clinical expertise and support for outpatients and inpatients with diabetes.
- Close working relationships with local diabetes teams to provide a seamless pathway of care.
- Meet the need for services to work together more and to provide care differently. This role helps to link services across north-west London.
- Benefit both staff and service users by removing barriers between diabetes and renal services.
- Educate other clinicians about renal diabetes.
- Provide a one-stop service for patients to reduce the number of visits they make to different services and to provide consistent care.
- See people on the renal wards, clinics and dialysis units in a timely manner.

However, challenges remain:

- The number of renal patients with diabetes is growing nationally, to the point that it will soon become a public health emergency.
- Demand for a service that provides time-consuming and intense care is already high, and will inevitably increase.
- Fulfilling the aims of the role in a timely manner and within budget constraints is difficult. The issue of whose clinical and financial responsibility this group are remains, and continues to lead to misconceptions about ongoing care. GPs may mistakenly think that the dialysis units are caring for these people's diabetes. Diabetes teams may not see them, as they are not being paid to do so. The result is that care can be missed altogether.
- This model does not represent standard diabetes care. Clinicians need to be aware of the complexities of care in people who are receiving dialysis or are post-transplant.

Despite these challenges, there are clear positives and significant benefits that can be gained:

- A one-stop service.
- The continuity of care makes it possible to build relationships with individuals, get to know them well and follow their journey.
- Patients are more prepared for transplant surgery after being seen on the units. They have a greater understanding of what happens post surgery, such as the probable need for more antidiabetes medication.
- If people are seen on the wards immediately post-transplant, timely care can be given. The diabetes specialist practitioner is able to identify these patients proactively, rather than waiting for referrals.
- Intensive consultations in the immediate post-transplant period result in better outcomes in this complex group.
- The right health messages can be promoted to both clinicians and patients. Diabetes remains the most common cause of end-stage renal failure in this country.

What needs to change?

- Collaborative working between two and more teams helps to reduce silos. Different models of care need to be explored.
- With suitable governance, nurses are well positioned to provide this link by, for example, going to patients on dialysis and offering practical and useful advice tailored to their needs.

Future plans

Locally, there are plans to further improve outcomes in kidney transplant patients by increasing the presence and involvement of a diabetes specialist practitioner in dialysis units. It is hoped this will improve patient understanding and control in anticipation of possible future transplantation. ■

Chowdhury TA, Wahba M, Mallik R et al (2021) Association of British Clinical Diabetologists and Renal Association guidelines on the detection and management of diabetes post solid organ transplantation. *Diabet Med* **38**: e14523

Kidney Research UK (2024) *Diabetes and kidney disease. What is diabetes?* Kidney Research UK, Peterborough. Available here: <https://www.kidneyresearchuk.org/conditions-symptoms/diabetes/> (accessed 31.05.24)

Kukla A, Ventura-Aguar P, Cooper M et al (2021) Transplant options for patients with diabetes and advanced kidney disease: A review. *Am J Kidney Dis* **78**: 418–28

Kumar M, Dev S, Khalid MU et al (2023) The bidirectional link between diabetes and kidney disease: mechanisms and management. *Cureus* **15**: e45615

Pham NT, Cruz D, Madera-Marin L et al (2024) Diabetic kidney disease in post-kidney transplant patients. *J Clin Med* **13**: 793