The impact of an integrated Primary Care Network Diabetes Clinical Nurse Specialist

One in 16 people in the UK have diabetes, with the majority being managed in primary care. The increasing number of people living with diabetes is putting greater pressure on all areas of the health services (Diabetes UK, 2024). In addition, the impact of higher HbA_{1c} levels and worsening treatment targets following the COVID-19 lockdowns have further increased pressures on primary and secondary care services (Schäfer et al, 2023).

Diabetes treatments and technology are changing rapidly, and this has left many in primary care losing confidence and not having the required knowledge to understand the complicated treatment algorithms or next steps in diabetes management (Rushforth et al, 2016). This is compounded by the loss of healthcare professionals highly experienced in diabetes, owing to retirement or changes in role (Holmes, 2022).

Torridge Health Primary Care Network (PCN) recognised the need to improve and maintain good diabetes services, so that people living with the condition can have a good quality of life with increased longevity and reduced risk of complications. It worked with the lead diabetes clinical nurse specialist (CNS) at North Devon District Hospital to develop the role of Primary Care Network Diabetes Clinical Nurse Specialist (PCN DCNS).

Development of the role

The PCN developed a proposal that the Royal Devon University Healthcare NHS Foundation Trust would imburse a 0.6 WTE diabetes specialist nurse to support the six PCN practices. This post would be funded using the Additional Roles Reimbursement Scheme (ARRS). This idea to develop a PCN primary/secondary care integrated model of care for diabetes was fully supported as a priority by all six practices in the PCN.

The role was developed using *The Best Practice in the Delivery Of Diabetes Care in a Primary Care Network* guidance (Ali et al, 2021), with the aims of improving and standardising care and education across the PCN; integrating services from secondary care; improving access to education for clinicians managing diabetes; reducing health inequalities in a rural location; and improving outcomes for people living with diabetes.

How the role was implemented

Upon being appointed, an 8-week induction programme was developed for the PCN DCNS. It provided them with time to spend at each of the practices to ascertain their specific needs and to liaise with GPs, practice managers, practice nurses and clinical pharmacists to determine:

- The number of people living with diabetes per practice.
- How each surgery managed people with diabetes.
- How care processes were carried out.
- What the raw data showed, using a risk stratification tool (i.e. the ProActive Registry Management [PARM] tool).
- Levels of diabetes knowledge and the training attended.
- How long each practice clinician had for diabetes review appointments and follow-up.
- Whether the appointments were face to face or by telephone.
- Who did what.
- What support the practice felt they needed from a diabetes specialist.

Once this had been established, a plan was developed for the PCN DCNS to visit each practice on specific days on a rolling 4-week rota and offer joint clinics for virtual patient reviews with the practice nurses, clinical pharmacists and GPs to provide support and guidance to the practice diabetes teams. Where no practice nurse with an interest in diabetes was in post, drop-in sessions

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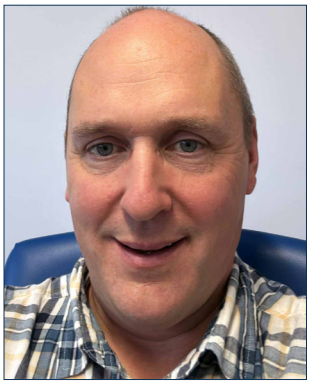

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were offered for GPs and slots were created to review patient notes. When a notes review was undertaken by the PCN DCNS, the clinical plan would be messaged to the GP or referring clinician along with its rationale for education purposes for the clinician.

At each practice, clinicians were able book face-to-face and telephone appointments for patients with the PCN DCNS. Once the patient had been seen, the outcome was again sent back to the referring clinician to further enhance the education opportunity.

Gaps in diabetes education across the practices were identified, so practice-specific education sessions were developed, which included workbooks for those clinicians new to diabetes. Ongoing support was provided, with time set aside in the clinical day to discuss any complex cases and the flexibility to contact the PCN DCNS by email if more urgent support was required.

The PCN DCNS implemented an ongoing audit to monitor changes in clinical parameters and provide further suggestions to the patient's GP if any deterioration was noted.

One practice that had significant issues recruiting a diabetes practice nurse was supported by the PCN DCNS who provided in-depth education to the clinical pharmacist team to enable them to provide diabetes management. This has not only very successfully improved holistic medicines management but has also attracted diabetes practice nurses to apply to this practice. This, in turn, has provided options to improve flow to a practice diabetes nurse where this has been deemed more appropriate, such as when injection sites need inspecting or more holistic dietary and lifestyle support is needed.

To ensure ongoing support and development of the new role, 6-weekly supervision sessions with the lead PCN GP and lead diabetes CNS are ongoing. These have led to changes in provision, such as increased face-to-face contact, more complex cases being reviewed in primary care and new technology implemented, depending on the practice and the needs of the population.

During these supervisory sessions, it was established that expanding the role to 0.8 WTE by adding a day to be spent in secondary care would be beneficial to ensure full integration. This was funded by the secondary care trust. It allowed the PCN DCNS to support junior colleagues in secondary care with complex inpatient management and while also having more support and weekly clinical supervision with senior colleagues regarding more complex cases. The PCN DCNS's knowledge of the primary care population ensures that people admitted to hospital are on the correct medication regimens, challenging social situation issues are highlighted promptly, complex discharges are supported and primary care teams alerted sooner.

The additional integrated day has also enabled the role to run healthcare professional education across North Devon and to re-introduce a community link nurse programme for any nurses with an interest in diabetes. Virtual monthly diabetes education sessions have been implemented in collaboration with lead diabetes CNSs across Devon, the Integrated Care Board and the Devon Training Hub.

It was noted that insulin and GLP-1 receptor agonist initiation was low in North Devon and Torridge. This has been addressed through education sessions developed and organised by the PCN DCNS. This has reduced onward referrals to secondary care and allowed more of the population to be cared for in their community.

This additional day in secondary care also established a closer link with the pre-operative team, ophthalmology, nephrology and heart failure nurses, providing a more holistic integrated approach to care.

The main challenges of the role

- Standardising practice across the PCN. The six surgeries remain separate businesses, and many were working in very different ways. This was overcome by holding meetings with the practice diabetes teams and practice managers, and becoming an advocate for gold standard care and appropriate timings of appointments. Consultations and reviews were simplified by implementing standardised Accurx text messages across the PCN and clear, standardised protocols for treatment targets.
- Advocating for nurses to have time out of their busy clinics to have 30–60 minutes to discuss complex cases with a specialist. This was achieved by highlighting to practice managers and clinicians the importance of this time in achieving goals and maintaining knowledge and skills in such a busy environment.

- Experienced nurses, providing nurse-led diabetes care, retiring or moving practices. This left practices deskilled and having to consider new models of working. This was addressed by working with practice managers and operations managers to look at new ways of working, including: upskilling clinical pharmacists and nurses new to diabetes; implementing regular education sessions for GPs to discuss complex cases in an informal manner; providing a simplified guide to navigating Ardens SystmOne templates, NICE guidance and local Devon formulary; and implementing clear protocols.
- Maintaining the PCN DCNS role as an educator and highlighting improvements in knowledge, skills and treatment targets. Having support from a GP mentor and lead diabetes CNS ensured that there was time in the clinic day to do this, as well as seeing people living with diabetes face to face and providing follow-ups.
- Inappropriate appointments booked for review of first- or second-line treatments, or for routine diabetes annual reviews and checks. This was highlighted to practice management teams, and a strict referral criterion was developed and distributed to all clinicians across the PCN.
- Education and support for the PCN DCNS and ensuring continued integration with secondary care. Initially, the role was 22.5 hours (0.6 WTE), solely in primary care, which resulted in a lack of regular clinical supervision and support.

An additional day was implemented by the lead diabetes CNS to work one day a week in secondary care helped to address this. It ensured that the PCN DCNS had the opportunity to enhance their knowledge and confidence in managing type 1 diabetes through wider access to the multidisciplinary team, and helped to reduce health inequalities in such a rural locality. There are people in North Devon that are unable to get to secondary care due to transport issues or previous upsetting experiences. They now have improved access to new technology and specialist support.

Results

Ongoing audit results show:

- 19% of people with diabetes in Torridge have been reviewed and had treatments optimised.

Table 1. Quality and Outcomes Framework data for three indicators across the Primary Care Network.

Year	DM006: Nephropathy or microalbuminuria	DM12: Foot exam (last 12 months)	DM014: Referred to structured education
2021–22	89.8	81.2	69.3
2022–23	84.9	89.3	94.7
2023–24	95.3	93.5	96.8

Table 2. Primary Care Network treatment targets met.

	Treatment target		
Year	HbA_{1c} ≤58 mmol/mol	Blood pressure	Cholesterol <5 mmol/L
2022	58%	62%	70%
2025	60%	64%	74%

- A sustained average HbA_{1c} reduction of 24 mmol/mol across the PCN.
- An ongoing improvement in Quality and Outcomes Framework data (*Table 1*).
- An ongoing improvement in achieving the three treatment targets (*Table 2*).
- National Diabetes Audit data is above the national average.
- Referrals to secondary care have reduced by an average of 30 referrals a month, saving approximately £109 per referral.
- HbA_{1c} levels have been optimised to expedite delayed surgical procedures.
- Hospital discharges are followed up, providing an integrated, consistent discharge

Data has identified:

- A 19% increase in reviews of complex cases.
- A 58% increase in engagement from the younger type 2 diabetes population.
- Improvement in diabetes knowledge in primary care clinicians, evidenced by a 67.5% reduction in advice and guidance queries.
- Greater confidence to initiate third-line treatments and injectable therapies, noted by a 50% reduction in queries about the former.
- A clear improvement in primary care clinicians' access to education and resources, identified by a staff survey.

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- Improved staff moral owing to increased support with complex patients, identified by a staff survey.

Patient feedback has identified:

- A greater understanding of diabetes.
- Feeling well supported and more in control.
- A preference to be seen in a familiar environment closer to home, or at home if they are housebound.

Sustainability of the role

Torridge PCN recruited the role through the ARSS, so the funding is permanent and secure. Its main vulnerability is the challenge of recruitment should the current PCN DCNS resign, as the role requires an understanding of both primary and secondary care systems.

The role could be replicated and is transferable across other PCNs. In view of the shortage of DSNs, recruitment would be a challenge. PCNs would need to prioritise diabetes and choose to prioritise the ARRS funding on this role.

Main learning points from the role

- The importance of communicating with practice management teams and practice diabetes teams to ensure continued success of the role.
- The need for the feedback to the referring clinician once a notes review has been completed, to ensure the ongoing education for the clinician.
- The success of regular joint clinics to discuss complex cases and enhance the clinician's knowledge and confidence.
- The importance of ongoing audit to highlight improved outcomes to the PCN executive team and to be able to showcase the importance of the role to the ICB and secondary care services.
- Owing to the isolated nature of the role, the need for regular clinical supervision and the importance of the integrated day in secondary care for the PCN DCNS to maintain competence, knowledge and skills.

Conclusion

The unique PCN DCNS role is fully integrated between primary and secondary care. The PCN's innovative approach to developing this model of care was recognised by being shortlisted for the Clinical Improvement Award (Long Term Conditions) at the 2024 General Practice Awards 2024.

It highlights the importance and success of having a DSN in primary care, the coalface of diabetes care. The clear improvement in outcomes for the people living with diabetes in Torridge Health PCN is helping to reduce the risk of complications and hospital admissions, while fostering improved quality of life and longevity.

The integrated role has helped to establish better working relationships between primary and secondary care. It has provided secondary care with a better understanding of how primary care works, reduced the number of referrals to secondary care, enabled prompt access to the wider multidisciplinary team and improved access to specialist services.

Greater input from diabetes specialists in primary care has improved clinician confidence, knowledge and skills, and has resulted in improved outcomes and experience for the person living with diabetes.

The evidence indicates that this integrated model would benefit people living with diabetes nationwide, helping to prevent diabetes-related complications presenting in primary care, and addressing the education and support deficit for primary care clinicians. ■

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