DSN care closer to home: The South Leicestershire experience

Judith Leonard, Maxine Stewart, Geri Gray

Article points

1. Current Government policy is to provide care nearer to home.
2. Direct referral to cDSNs offers quality diabetes care promoting self-management.
3. Employment of DSNs by PCTs enables care to be tailored to local needs.
4. The model of care in South Leicestershire is well placed to meet Healthcare Commission guidance to a high standard.

Key words

- Local need
- Care model
- Self-management
- Service improvement

Judith Leonard is a Clinical Nurse Specialist – Diabetes. Maxine Stewart and Geri Gray are Community Diabetes Specialist Nurses. All are based at Leicestershire County and Rutland Primary Care Trust.

Providing diabetes care closer to home represents opportunities to improve care for people with diabetes. It is important that this is managed for the benefit of people with diabetes and also to improve links between primary and secondary care to promote high-quality care for all. This article discusses how one PCT employed community diabetes specialist nurses (cDSNs) with the aim of bringing quality nurse-led interventions closer to home.

Implementing the White Paper *Our health, our care, our say: making it happen* (DoH, 2006a) will mean providing more diabetes care closer to the patient's home, particularly with plans for the provision of greater support for people with long-term needs. Since 2002, Leicestershire County and Rutland PCT (formerly South Leicestershire PCT) has employed DSNs to make this happen. Their experience was quoted in the White Paper (DoH, 2006a).

As the current national momentum for change in diabetes services is to move to greater community provision, it seems pertinent to reflect on the South Leicestershire experience.

In 2001, a group of GPs with a specialist interest (GPSIs) in diabetes, representing the nine practices in the former Oadby and Wigston Primary Care Group, identified a gap in care provision for their local area. Historically, people in south Leicestershire identified as having more complex diabetes needs were referred to secondary care or managed with limited resources in primary care. Some areas of Leicestershire did have medical consultant outreach clinics at which hospital-employed DSNs were present, but South Leicestershire did not.

Three main areas were identified where there was a need for local DSN-led services that practices could directly refer to.

- Transfer to insulin for people with type 2 diabetes.
- Interventions for individuals with poor glycaemic control on insulin (not normally also under secondary care).
- Education for people newly diagnosed with type 2 diabetes.

The GPSIs approached the primary care executive committee with proposals to improve the diabetes service in primary care, acknowledging that both primary and secondary care were struggling to manage the growing number of people with diabetes. This service development occurred working in collaboration with University Hospitals of Leicester NHS Trust to promote best practice in the community and avoid the

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1. The first full-time DSN was appointed in 2002. In addition to providing the new referral pathway, it was also agreed that the post should offer education and support for all primary care staff.
2. The posts have evolved with ongoing secondary care support towards their professional development.
3. The DSNs, in conjunction with the individual, decide on the choice of regimen and device.
4. Education has been, and can be, provided for practice teams to initiate insulin with support.

DSN post holder becoming professionally isolated. The hospital diabetes service manager was also very proactive in liaising to improve links between primary and secondary care.

The first full-time DSN was appointed in 2002. In addition to providing the new referral pathway, it was also agreed that the post should offer education and support for all primary care staff and feed into planning for diabetes services.

The GPSIs so liked the role and the benefits they saw to patient care that, in 2003, they asked the PCT to fund another DSN post so the service could cover a wider geographical area. Secondary care consultants were also supportive of this. Two further DSNs were appointed, initially in development posts, providing 2.2 whole-time equivalents between 20 practices with approximately 5200 people with diabetes. The posts have evolved with ongoing secondary care support towards their professional development.

It could be argued that this model of change was initiated from the 'bottom-up' but by an influential group of healthcare professionals. The model of care very much fits into levels 3 and 4, locally defined care, as described in the *Diabetes Commissioning Toolkit* (DoH, 2006b). The DSN team were runners up in the Leicestershire, Northamptonshire and Rutland Leadership and Innovation Awards (2005) for the 'Development of New and Changing Roles'.

People with complex diabetes needs are still referred to consultant-led hospital clinics; for example, those newly diagnosed with type 1 diabetes, women who are pregnant and people with renal failure – GPs make the decision who to refer. If the team members think they cannot act in the person with diabetes' best interests, they seek consultant opinion and refer appropriately on.

Benefits of the local DSN service

So what are the benefits of the service? Local feedback is extremely positive from both clinicians and patients. We will first consider each of the three main referral criteria.

1. Transfer to insulin for people with type 2 diabetes

Of the 20 practices in the area, 16 refer people with type 2 diabetes for insulin assessment and initiation. The DSNs, in conjunction with the individual, decide on the choice of regimen and device. One of the team is an independent nurse prescriber and issues prescriptions for insulin and oral diabetes agents.

Education has been, and can be, provided for practice teams to initiate insulin with support, but, in the past, time has always been a major issue in them choosing not to do this.

Local audit reveals that approximately 50 individuals a year are referred to commence insulin. In 2004–2005, the average HbA_{1c} on referral was 9.8% with the average lowest follow-up HbA_{1c} between 3 and 8 months later dropping to 7.5%. Insulin initiations are normally undertaken in groups (numbers permitting) as this appears to benefit people in terms of promoting self-management, although this has not been formally assessed.

2. Interventions for individuals with poor glycaemic control on insulin (not normally also under secondary care)

This forms a major referral group. Historically, people with diabetes were often transferred out of secondary care post insulin-initiation, with limited infrastructure and skills for primary care health professionals to care for this group. This also includes the expected group that did not attend appointments at secondary care clinics, many of whom were young adults with type 1 diabetes. There are also significant numbers of housebound people, or those in care homes, who fall into this referral group.

Local audit reveals that the average referral HbA_{1c} for poor glycaemic control

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2. Patient questionnaire feedback from the DESMOND courses has been excellent.
3. The service has provided opportunities to develop education tailored to local healthcare professionals.
4. Working alongside practice nurses who have considerable input into managing people with diabetes is key in reducing variations in general practice care.

on insulin was 9.6%. At 8 months post DSN intervention, this had only fallen to an average of 8.2%. This is disappointing, but can also be viewed as encouraging as the group includes people with a long history of poor control, the elderly and those referred with recurrent hypoglycaemic episodes. The key aim of the intervention is to enable people with diabetes to empower themselves to self-manage their diabetes.

3. Education for people newly diagnosed with type 2 diabetes

Initially, the post holder was referred this group of individuals to deliver education on a one-to-one basis. It was rapidly demonstrated that this was not viable in terms of numbers, and group education was initiated. The DSN and community dietitian visited Portsmouth in 2002 to observe their group education model (which was later used as a basis for DESMOND [Diabetes Education and Self-Management for Ongoing and Newly Diagnosed]) and, as a result, developed a 3-hour modified curriculum. These education groups were very successful.

South Leicestershire PCT was then involved both in the DESMOND pilot and randomised controlled trial. DESMOND is a new approach to systematic education for type 2 diabetes that has the following principles.

- A theoretical basis, including an emphasis on self-management.
- A clear philosophy.
- An approach characterised by the integration of education with clinical management.
- A framework supporting a cycle of continuous development.

The results of the trial have now been published (Davies et al, 2008) and Leicestershire County and Rutland PCT have agreed to finance the continuation of the courses. The DSNs are delighted that the PCT has agreed to fund this structured education in line with national guidance (DoH, 2005) and hope that this will happen all over the country (Kilvert, 2007).

Patient questionnaire feedback from the DESMOND courses has been excellent. One lady wrote:

> *'Being diagnosed with type 2 [diabetes] was a total shock. I spent the first 3 months post-diagnosis in denial. Whilst I was doing what I was told, I did not understand why and genuinely believed I would get better! I cannot thank the DESMOND people enough. They made sure that I knew what I had got, it wasn't my fault, what could happen if I ignored it and what I needed to do. Finally, DESMOND should be made compulsory.'*

A 54-year-old gentleman writing for the local press about attending one of the DESMOND courses in our area commented:

> *'It was fantastic. My wife was able to come along and we learned about diabetes and how to control the condition. It was good to meet people in a similar position and hear how they were coping.'*

Another patient commented:

> *'I felt the [DESMOND] programme was very helpful to me. It helped me understand diabetes better. The information I was given has helped me to know what to look for when buying food and how to try and lose a bit of weight. The atmosphere was very friendly and informal. A good way to learn about diabetes and how to handle it better. I would recommend it to anyone with [type 2] diabetes.'*

Education of staff

The service has provided opportunities to develop education tailored to local healthcare professionals. Examples of this have included working in practice clinics with newly employed practice nurses,

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2. It has always been considered important to liaise with secondary care DSNs in education provision for primary care.
3. The majority of referrals made to the cDSN service would probably have been made to secondary care consultants in diabetes prior to 2002.

doing joint visits with district nurses when there are particular concerns and providing local education sessions for healthcare professionals. Working alongside practice nurses, particularly those who have considerable input into managing people with diabetes, is key in reducing variations in general practice care.

DSNs in South Leicestershire successfully piloted an education programme – DEAL (Diabetes Education Across Leicestershire) – jointly facilitated at the time by an advanced diabetes educator for Leicester and Leicestershire. This training programme consisted of seven afternoon sessions for registered healthcare professionals providing care for people with diabetes. Sessions in the locality were mainly attended by practice nurses, district nurses and prison nurses; the sessions were well evaluated. Sessions were delivered by cDSNs and a dietitian with input from secondary care consultants and DSNs.

It has always been considered important to liaise with secondary care DSNs in education provision for primary care. Locally, such liaison has been successful – especially with valuable support and leadership from the Leicester and Leicestershire diabetes nurse consultant

Local planning of diabetes services

The post holders have played an active role in contributing a local angle to the development of diabetes services in Leicestershire. The team, working in partnership with secondary care, has also been involved with developing the Leicester and Leicestershire Diabetes Guidelines and Personal Diabetes Handbook (UHL NHS Trust, 2004; 2006).

Case study examples of the type of referrals made to the cDSN service

Prior to 2002, the majority of referrals made to the cDSN service would probably have been made to secondary care consultants in diabetes.

The examples below particularly highlight the benefits of certain individuals being seen locally.

Case study 1

Mrs M, aged 74 years, was admitted to hospital as an emergency and diagnosed with type 1 diabetes. She was commenced on insulin and the hospital DSNs liaised with our service about the lady upon her discharge. She is the full-time carer of her husband who has severe dementia. Mrs M was contacted by our service the day after discharge and it became quite clear that she was distressed and could recall little of the education that had been given by the bedside. A home visit was arranged as she felt unable to leave her husband. She was shocked by her diagnosis and felt overwhelmed by thoughts of this both day and night. Regular support and education for self-management was provided at home, and she gradually gained confidence in understanding and managing her diabetes.

As Mrs M became less anxious, she was provided with telephone support as required. She still phones the service for occasional advice; for example, when she was preparing to undergo a colonoscopy procedure. Mrs M very much valued the locally accessible service.

Case study 2

V is a 79-year-old widow with type 2 diabetes, she was referred to the community diabetes service by the intermediate care team. She was acutely ill with a chest infection and dehydration but refusing hospital admission and both her son and husband died recently. Her diabetes at the time was managed with a basal insulin and oral hypoglycaemic agents, but blood glucose monitoring revealed levels to be between 15 and 26 mmol/l. A same-day visit was arranged to initiate rapid-acting insulin that would be administered by the intermediate care team following a sliding scale regimen.

V was able to be cared for at home, as she wished, and the intermediate care team's confidence increased to continue to care for her at home with GP and DSN involvement.

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1. When the cDSN has checked follow-up HbA1c results and decides appropriate intervention has been given to support optimal self-management, individuals are discharged back to primary care.
2. There are still uncertainties for healthcare professionals involved in diabetes care. However, what is certain is the large and growing population with diabetes.
3. Providing care nearer to home and promoting self-care must be of benefit to the majority of people with diabetes and economically desirable.
4. Local commissioners need to decide on the most appropriate local models for different localities to best meet the needs for service improvement and cost-effective diabetes care.

When the cDSN has checked follow-up HbA_{1c} results and decides appropriate intervention has been provided in order to support optimal self-management, individuals are discharged back to primary care. They are, however, always informed that they can contact the DSN service directly if they require advice.

Future and healthcare commission guidance

The recently published Healthcare Commission review of diabetes services (Healthcare Commission, 2007) recommends five areas for improvement.

- Better partnership between people with diabetes and healthcare professionals when planning and agreeing their care.
- Increasing the number of people with diabetes attending education courses and improving their knowledge and skills.
- Working more closely with all organisations providing and commissioning diabetes services.
- Increasing the number of people with diabetes with an HbA_{1c} of 7.4% or lower.
- Reducing variation in GP practices' achievements.

The local model of our service very much fits into bringing about changes for this service improvement to continually evolve. The small DSN team has direct contact with practices to be aware of the local improvements required. Leicestershire County and Rutland PCT received a fair rating in the Healthcare Commission review, as did 73% of all PCTs. There are, however, 22 000 people with diabetes in the PCT area and our service only covers approximately 5200 of these. In 2006, four Leicestershire PCTs merged to become one. The model of care described here has been similarly mirrored in another area of the county. This has also proved popular with local practices referring large numbers of people with diabetes to the new service. Again, the number of DSNs employed has grown.

Conclusion

There are still uncertainties for healthcare professionals involved in diabetes care. However, what is certain is the large and growing population with diabetes. Providing care closer to home and promoting self care must be of benefit to the majority of people with diabetes and economically desirable. Commissioners need to decide on the most appropriate local models for different localities to best meet the needs for service improvement and cost-effective diabetes care. ■

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