

# Improving patient services: mentored community diabetes clinics in West Suffolk

Mandy Hunt

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## Article points

1. Mentored community diabetes clinics were commissioned to improve diabetes care offered in primary care practices.
2. Up-skilling of practice nurses by diabetes specialist nurses led to significant reductions in emergency admissions and hospital follow-up appointments.
3. Mentored clinics achieved a significant reduction in HbA<sub>1c</sub> levels.

## Key words

- Commissioning
- Mentoring
- Outcomes
- Primary care
- Up-skilling

## Author

Mandy Hunt is Lead Diabetes Nurse at West Suffolk Hospital Trust.

**After poor 2013–14 Quality and Outcomes Framework results, West Suffolk Clinical Commissioning Group (CCG) commissioned a service providing mentored community diabetes clinics to all 24 practices within the area. The service up-skilled primary care teams to improve diabetes care, with diabetes specialist nurses educating practice nurses. Average patient HbA<sub>1c</sub> was significantly reduced from baseline at both 3 and 6 months. Between April 2015 and August 2016, the service led to significant reductions in both hospital-based follow-up appointments and emergency admissions in patients with diabetes where diabetes was not the primary diagnosis. There were no emergency admissions due to diabetes during this period. As a result of the changes, West Suffolk CCG moved up from 210 to 81 out of 211 CCGs in the 2015–16 Quality and Outcomes Framework league table.**

Diabetes UK's 2014 *Improving Delivery of Adult Diabetes Care Through Integration* advocates services based around the needs of local people and highlights ways in which to improve joint working. With up to 90% of the diabetes population having type 2 diabetes (International Diabetes Federation, 2017), models generally focus on integrated type 2 diabetes care pathways with patients being seen in primary care settings. Some trusts such as West Hampshire (<http://bit.ly/2ugTzNg>) are taking this a step further and moving both type 1 and 2 diabetes care away from acute areas into community settings.

## The pilot study

West Suffolk is a largely rural area in which approximately 6% of patients registered with a GP have diabetes, which equates to 11 000 people with diabetes aged 17 and over. The 2013–14 Quality and Outcomes Framework (QOF) figures rated West Suffolk Clinical Commissioning Group (CCG) 210 out of 211, based on cholesterol, blood

pressure and HbA<sub>1c</sub>. This was reported both nationally and locally, sparking interest from Diabetes UK.

Following a review of the QOF, referral data and softer intelligence following discussions with West Suffolk Hospital, £30 000 of transformational funds were allocated to a pilot project. The overall aims of the pilot were to:

- Reduce demand on secondary care.
- Up-skill primary care staff.
- Educate patients to self-manage their condition (including offering structured education).
- Manage patients in the community where possible.
- Improve outcomes for patients.
- Reduce emergency admissions.
- Improve patient experience.

The CCG proposed four GP practices whose QOF results for diabetes were below national targets. One of the four practices approached, which had poor outcome data for HbA<sub>1c</sub>, cholesterol and

blood pressure control, declined to participate because as a small practice it did not want to set up designated diabetes clinics, choosing to see its patients on an *ad hoc* basis. Due to the practice giving short notice of its withdrawal, another practice that met national average targets and was willing to take part stepped in, allowing the pilot to start.

The pilot study ran in 2014 over 6 months, with each practice having one 4-hour session a week led by a diabetes specialist nurse (DSN). Existing, experienced DSNs participated in the pilot to avoid the need to recruit a DSN. The DSN agreed the day and session each week with their individual surgery. The timings of sessions were led by availability.

In total, 22 4-hour sessions were delivered where a DSN mentored a practice nurse (PN). As the PNs had various levels of competence and were supported by different DSNs, consistency was not truly achieved. The pilot agreement, a pre-pilot meeting and mid-point meeting with the four surgeries, the CCG project lead and a patient representative, however, allowed sharing of information and supported some consistency in the mentored clinics.

## Results

The pilot was evaluated through quantitative and qualitative data collection. The results were written up in a brief CCG paper (a copy of which is available on request).

The focus of the project was reducing HbA<sub>1c</sub>. A quantitative review of the first 216 appointments showed that 63% of patients' HbA<sub>1c</sub> scores had improved, with 6% meeting or exceeding the target level of 58 mmol/mol (7.5%).

Blood pressure and lipid targets and treatments were discussed for all patients seen in accordance with local guidelines. In 6% of patients, blood pressure readings improved to meet the 140/80 mm/Hg target. Total cholesterol levels improved to  $\leq 4.0$  mmol/L in 7% of patients.

PNs reported that they felt better informed and empowered to pass on their knowledge to other members of the practice teams at the end of the pilot study. DSN support improved PNs' ability to titrate oral medications and provided them with the training required to start basal insulin and glucagon-like peptide-1. This led to a reduction in

the number of insulin and glucagon-like peptide-1 initiation referrals to the hospital diabetes clinic (HDC), leading to an estimated saving of £17 500 in outpatient costs.

In addition to these improvements, glycaemic control was managed more intensively and the management of more complex patients improved. PNs also reported improved confidence when managing patients with type 1 diabetes.

## Service development

A service was commissioned following the pilot to run from April 2015 to August 2016, with the aim of providing mentored clinics to all 24 practices at least once a month. The budget for this service was £378 240. The money was used to appoint two full-time band 7 DSNs and a part-time administrator, who worked 14 hours per week.

A DSN worked in one of four localities and in the main hub of the HDC, aiming to create a truly integrated DSN team. Each locality had an allocated DSN who spent the rest of their time working with outpatients at the HDC and at community outreach clinics. This allowed supervision and support from the diabetes multidisciplinary team. The patients were primarily referred by the GP practices, with some patients being seen after discharge from secondary care outpatient clinics instead of continuing with secondary care follow-up.

Mentored clinics were held in 20 of the surgeries. Three other surgeries were involved but due to staffing changes had to stop engaging in the service. The surgery that declined to be part of the pilot only accepted one mentored clinic and then declined further clinics. The CCG agreed this practice could run a "stand alone" clinic without DSN support.

DSNs continued to offer case discussions by telephone to participating surgeries. We noted that the PN population was quite transient and that performance could quickly decline with the departure of a designated PN.

In addition to the mentored clinics, educational sessions were arranged for PNs. Ongoing advice for continuing development of their individual diabetes management skills was also available, including peer reviews and support for Nursing & Midwifery Council revalidation. The mentored hours,

## Page points

1. The pilot focused on reducing HbA<sub>1c</sub>: 63% of patients' HbA<sub>1c</sub> scores had improved after 6 months.
2. Mentoring led to a reduction in referrals to secondary care and increased practice nurse confidence in initiating and titrating treatment.
3. The service held mentored clinics in 20 GP surgeries.
4. Educational sessions and ongoing advice were made available to practice nurses in addition to the clinics.

### Page points

1. In the mentored practices, a statistically significant reduction in HbA<sub>1c</sub> levels was observed at both 3 and 6 months. At 6 months, nearly 20% of patients achieved the national targets.
2. Following the reduction in referrals to secondary care achieved in the pilot study, there was no increase during the study period.
3. The telephone support offered by the DSNs to mentored practices resulted in a non-significant increase in telephone appointments.

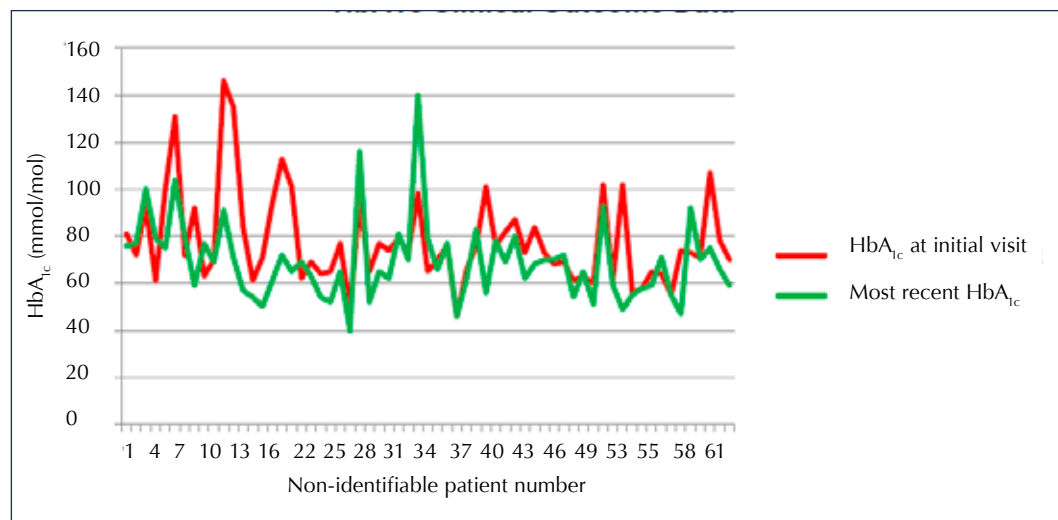


Figure 1. HbA<sub>1c</sub> levels at initial and most recent monitored clinic visits for a sample of patients (Thompson, 2015).

which varied from 8 hours per week to 4 hours per month, were added to PNs' study time. The *Integrated Career and Competency Framework for Diabetes Nursing* (Trend-UK, 2005) proved a useful resource, enabling PNs to improve their knowledge and skills in diabetes management. We offered the framework to assess individual nurse competency. The framework could then be repeated to assess growth and development. This has not been audited to date but has potential for the future. Meeting the Educational Needs of Primary Care Practitioner (MERIT) modules were run to underpin diabetes knowledge and treatments for practice teams (Hicks and McAuley, 2007). A Dietetic Information and Nutritional Evidence (DINE) programme was set up by the community DSNs, providing education sessions for PNs and GPs with a special interest in diabetes. This model allowed the DSNs to tailor support to individual practice needs, but had a strong emphasis on nurturing primary care teams to up-skill in diabetes care rather than deskill them by taking over existing services.

Although the majority of the mentored clinic time was with PNs, GPs were involved in the mentored clinics. Seven GPs have been directly involved and there has been case discussion with individual GPs.

## Results

### Outcomes

In the mentored practices there was a statistically significant reduction in HbA<sub>1c</sub> levels at both 3 and 6 months compared to baseline values ( $P=0.015$

and  $P<0.001$ , respectively). After 6 months of intervention, nearly 20% of patients referred to the service had achieved national HbA<sub>1c</sub> targets. Patients' average HbA<sub>1c</sub> level improved significantly from 78 mmol/mol (9.3%) in April–November 2015 to 69 mmol/mol (8.5%) in August 2016, see Figure 1.

Demand on secondary care was reduced, as there was no increase in referral rates following the initial reduction in referrals during the pilot study. There was a non-significant reduction in first outpatient appointments in the mentored practices. There was, however, a statistically significant reduction ( $P<0.001$ ) in hospital-based follow-up appointments.

There was a non-significant increase in telephone appointments in mentored practices and a slight reduction in non-mentored practices. This likely reflects the telephone support offered to mentored practices by the DSNs. After just 6 months' intervention, the mentored practices had no diabetes emergency admissions as a primary diagnosis, a statistically significant reduction ( $P=0.008$ ; Kulothungan, 2016).

The CCG found the design and delivery of the project to be appropriate and felt it likely contributed to some of the intended outcomes that were achieved. A very high clinic attendance rate of 97% was noted.

### Satisfaction

As a way of evaluating the outcomes of the mentoring sessions, we carried out a patient satisfaction survey. The survey asked: "How likely

**Box 1. Examples of patient survey responses about service changes.**

- "Less waiting, more personal. No need to travel the 26 mile round trip and pay for parking."
- "Very helpful – useful to people who can't travel to West Suffolk. Please continue this service."
- "The treatment I have received so far as a diabetic has been extremely good and helped me tremendously."
- "The service is excellent and I am very happy with it. I can discuss whatever I want with the nurses and I feel free. Thank you very much for your help."
- "Happy. More convenient the service [is] coming to us. I would happily tell anyone who asked. No car parking [problems]."
- "Very clear on how everything works. [They] talk to you in basic English so everybody can understand."

would you be to recommend this service to friends and family if they needed similar care or treatment?" Of the 92 patients who returned the questionnaire, 77 patients selected "Extremely Likely", 14 selected "Likely" and one patient "Neither Likely nor Unlikely". Patients were also asked to provide comments and suggestions (see *Box 1*).

The monitored clinics provided appointments with 140–200 people with diabetes each month. DSNs had telephone contact with 60–100 patients per month in addition to clinic sessions. Between January 2015 and August 2016, exclusive of the pilot patients, 360 patients were discharged from the HDC to mentored primary care clinics.

There has been positive feedback from practice nurses (see *Box 2*), GPs and practice managers in relation to the service. Three focus groups led by the local CCG reported a high level of patient satisfaction with the service. The main reasons for this were:

- They were seen close to home.
- The low cost and time involved.
- People were unable to travel to/get time off work to attend a HDC.
- They would rather be seen by their PN, who knows them well.

Difficulty finding parking at the hospital and car parking charges were causes of dissatisfaction with the hospital service.

**Benefits of the service**

The provision of a mentored service to improve the management of diabetes in the community had a number of positive effects for patients and staff. Benefits for patients included:

- People with complicated type 2 diabetes

and/or on-going suboptimal diabetes control being offered a specialist diabetes appointment in the community setting.

- Once discharged, inpatients were seen at local mentored clinics rather than attending hospital outpatient appointments.
- Outpatients were able to discharge themselves or be discharged from the HDC to a mentored practice for follow-up care.
- Patients who attended A&E or were referred by the East of England Scientific Network hypoglycaemia project with severe hypoglycaemia were considered for follow-up in mentored clinics, with the aim of preventing further emergency attendances.

Vulnerable patients benefitted from the service in various ways. Urgent HDC admissions, such as those for older patients who require insulin, were averted as a result of the service. This led to reduced stress and enabled older patients to stay at home. Patients with comorbidities, such as mental health problems, who have great difficulty attending HDCs and have high did-not-attend rates, were mainly seen in the surgeries but were sometimes seen at home or in other community settings to enable multidisciplinary working.

A number of patients with type 1 diabetes had been very poor attenders at hospital or outreach clinics, and so were not receiving the recognised care processes or support and education. Anecdotal feedback from patients and patient questionnaires distributed at mentored clinics suggest that main reasons for this poor attendance were lack of transport and financial resources, mental health problems, work or family commitments. Attendance at the mentored clinics enabled nurses to encourage

**Page points**

1. Benefits of the mentored service to patients included those with complicated type 2 diabetes or suboptimal control being offered a specialist diabetes appointment in the community setting.
2. Once discharged, inpatients were seen at local mentored clinics rather than attending hospital outpatient appointments.
3. The service resulted in urgent hospital diabetes clinic admissions being reduced. This benefitted vulnerable groups such as older people and those with comorbidities.

## Page points

1. Patients at mentored clinics were encouraged to attend group education. During 2016, this resulted in a 19% increase in attendance at Desmond sessions.
2. The service resulted in improved communication between primary care practices and the hospital diabetes and community nursing teams.
3. Challenges faced by the service included a lack of administrative and dietetic support, and accommodating additional time for longer appointments and telephone consultations.

## Box 2. Feedback from practice nurses.

Nurse 1:

"I have returned to work after a long absence and have found the clinics invaluable.

"Denise has been supportive, educational and the patients have found it really helpful to be seen in surgery and not hospital. The clinics have improved my knowledge, my practice and my confidence. I am hoping that they can continue so that my patients can be seen in surgery, and I continue being updated and educated with a view to eventually running tandem clinics."

Nurse 2:

"We have found your input with our new practice nurse invaluable over the past 6 months. She has gone from 'Diabetes naive' to confident and experienced in most aspects of Diabetes management under your expert tuition, and we look forward to this showing through in our QOF data. Without your input, this would simply not have been possible over such a short time. I hope the CCG continue to fund these posts so that other practices may enthuse their in-house nurses with special diabetes interest and skills, so that Suffolk-wide diabetics benefit from 1st class care."

patients to attend structured type 1 education in groups or one-to-one sessions.

Patients seen at mentored clinics were encouraged to attend group education. There was a 19.2% increase in attendance at Diabetes Education and Self Management or On-going and Newly Diagnosed (Desmond) sessions held between January and December 2016.

As a result of the service, there was improvement in communication between primary care practices and the hospital diabetes team. For example, there were an increased number of emails sent to DSNs and a generic NHS email was created for queries relating to patients seen at mentored clinics. The telephone support statistics are reflective of this enhanced communication. There was also improved communication with the community nursing teams. Discussion of complex patients while at the mentored clinics allowed individualised targets and safety issues to be incorporated into care planning with the community nurses and healthcare team, thus placing the patient at the centre of his or her care.

Newsletters were produced and emailed to GPs and PNs to share key messages and keep practices up to date (see *Figure 2*). In addition to this, a number of educational events were held to maintain awareness of the service and provide on-going support. PNs were able use mentored clinics towards their Nursing & Midwifery Council revalidation.

PNs and community nurses were able to telephone

the helpline for DSN advice on urgent and routine diabetes care and management. Community DSNs discussed cases seen in the mentored clinics with consultant diabetologists to ensure the best possible clinical decisions were being made.

## Challenges and limitations

As our budget was limited, it is uncertain that we would have done things differently when developing the service. A big problem with the service has been a lack of administrative support. This has resulted in the DSNs performing administrative tasks, which is poor use of their time and not cost-effective.

Appointments were 30 minutes long, which worked well. Achieving additional time for longer appointments and follow-up telephone consultations was initially seen as a challenge, however, as was having a standardised method of data collection including patient satisfaction.

A lack of dietetic support was identified, with an estimation that the DSNs were spending up to 75% of their time discussing diet. There was, however, a 19.2% increase in Desmond attendance and mentored patients were invited to shared carbohydrate awareness/counting sessions with people who were attending HDCs. We have recently been successful in securing NHS England Transformation Funds and plan to increase dietetic time and attendance at structured education for type 1 and 2 diabetes patients.



To date we have focused on above-target HbA<sub>1c</sub> levels. In the future we may extend the scope of the project to look at below-target HbA<sub>1c</sub> levels in the elderly, as this is related to emergency admissions and is not picked up in the QOF.

### Developments since August 2016

The 2015–16 diabetes QOF moved West Suffolk CCG up the league table from 210 to 81 out of 211 CCGs. This clearly demonstrates the positive effect of the service and is a credit to the West Suffolk Hospital diabetes team, participating GPs and PNs. It highlights the importance of mentoring practice teams in order to develop their skills and knowledge. It also demonstrates the positive effect the service has had on diabetes outcomes in West Suffolk. The most recent results and ratings for the 24 practices in the CCG have been published on the Public Health England website (<http://bit.ly/2tAVhvu>). The results show that blood glucose control had improved in three practices and was consistent in 19 practices. Our aims at this point in time were to secure ongoing funding by August 2016 and to be positioned in the top 10 CCGs in 2017–18.

We are still in negotiations with our CCG about the on-going funding of the service. We have been supported by the Acute Hospital Trust, which has continued to fund the two nurses we recruited. With this funding, we have been able to continue the mentored clinics.

One reason for developing the community diabetes service in West Suffolk was to increase the percentage of people with diabetes attending structured education. Re-evaluation of our current resources from the NHS England Transformation Fund and CCG investment is vital in reshaping diabetes services but clearly needs to be accompanied by further investment to ensure that patients receive the best possible care.

West Suffolk CCG is planning to invest in the Diabetes Dashboard, which gives live diabetes data that can be interpreted for individual practices. This has been recommended by a neighbouring CCG. We are able to review our individual practices' QOF data when we are in the practices, allowing us to assess their individual progress and shape the service offered. We also use fingertip data provided by Public Health England to monitor our overall progress and that of individual practices. Fingertip



Figure 2. A newsletter is distributed to all practices with access to the service.

data enable the enhancement and development of diabetes management in individual practices. For more information on fingertip data, visit <https://fingertips.phe.org.uk>.

In addition to investment in the Diabetes Dashboard and access to fingertip data, designated dietetic and administrative support is needed for service development and to improve patient outcomes.

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