Birmingham Community Healthcare NHS
NHS Trust

MEETING REPORT

Safe and effective diabetes care: The future

A report from a Birmingham Community Healthcare NHS Trust conference on 21 June 2011 at the Campanile Hotel, Birmingham.
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Waqar Malik introducing the meeting.

Introduction

With the development of GP commissioning, and more diabetes services being delivered in primary care, this half-day conference organised by the Birmingham Community Healthcare NHS Trust aimed to share experiences and challenges of Local Enhanced Services (LES) for diabetes care in Birmingham GP practices and to demonstrate how community diabetes providers can support safe, high quality diabetes management in primary care.

The event was divided into two parts: the first part consisted of four presentations – a keynote speech which set the scene for diabetes and primary care, followed by two presentations about existing models of LES for diabetes care, and a presentation about a proposed foundation LES model. The second part of the event consisted of four workshops, and delegates chose to attend the two which most interested them.

"Recent local and national developments give an excellent opportunity to harness the best of what has been achieved while we move forward towards integrated seamless diabetes care" said Dr Waqar Malik (Community Diabetes Consultant, Birmingham Community Healthcare NHS Trust), quoting Tracy Taylor, the Chief Executive Officer of the Birmingham Community Healthcare NHS Trust, as he welcomed over 100 delegates to this, the first conference organised by the Birmingham community diabetes specialist team.

This half-day event for healthcare professionals from Birmingham aimed to describe, in the context of NHS reforms, the experiences, achievements and challenges in developing safe and effective diabetes care.

Setting the scene: Diabetes and primary care

Vinod Patel (Associate Professor in Clinical Skills, University of Warwick and Honorary Consultant Physician, George Eliot Hospital NHS Trust, Nuneaton, Warwickshire)

Dr Vinod Patel opened his keynote speech by reminding delegates that Birmingham has a large south Asian population, and diabetes develops earlier in this group (at an average age of 47 years), resulting in 10 years of life lost, compared with 7 years of life lost in Europid patients (Goodkin, 1975; Donnelly et al, 2000).

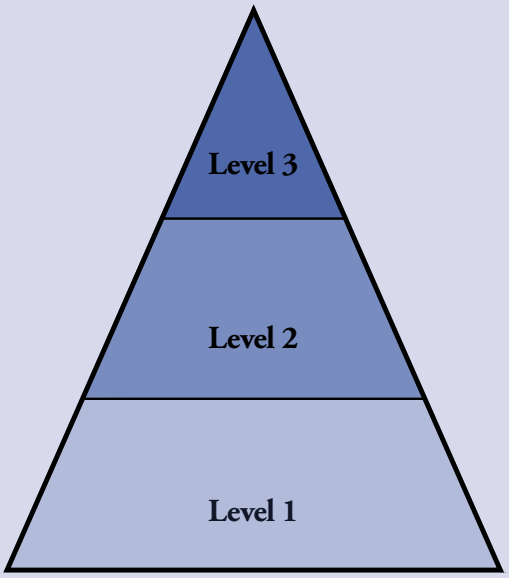
The Kaiser Permanente model (*Figure 1*) places secondary and tertiary care services at the top of the "pyramid" of care, meaning that they involve a high level of complexity of care or case management. Because they receive a substantial amount of available funding, there is a need to think about how to deliver the best quality primary diabetes care with the remaining funds available. Primary diabetes care as a whole has improved in the past decade, particularly with the implementation of the QOF, the introduction of care planning and a recognition of the need to work in partnership with people with diabetes. However, the care provided needs a strong evidence base in order to ensure it benefits the person.

A key consideration for primary diabetes care providers is the ethnicity of the local population, which affects the prevalence of the condition. For example, diabetes prevalence in the Samburu tribe in Kenya is about 0.1%. In contrast it is 200 times higher in south Asians, and 50 times higher in Europid patients (Gholap et al, 2010; Diabetes UK, 2010). These differences may be explained in part by diet and differing levels of physical activity amongst these groups (Williams et al, 2011), and they are important issues for primary care providers to address, particularly as type 2 diabetes is thought to be preventable in up to 90% of people (Hu et al, 2001).

In addition to antidiabetes medications, safe and effective diabetes care requires a multifactorial approach to treatment, including the use of angiotensin-converting

Vinod Patel giving the conference keynote address.

Figure 1. The Kaiser Permanente Model for chronic care.



Level 3: Intensive or case management
Highly complex case management.
Patients have complex medical problems, and high intensity management is required.

Level 2: Assisted care or care management
High risk disease management.
Patients have sub-optimal control and may benefit from participation in a short term care management programme from which they can learn self-management skills.

Level 1: Usual care with support
70 to 80% of the population.
Patients can be supported by routine self-care, but may need basic self-management education.

enzyme inhibitors, aspirin and statins. Studies demonstrate that multifactorial interventions do benefit people with diabetes. For example, the UKPDS (United Kingdom Prospective Diabetes Study) showed that by combining effective glycaemic and blood pressure control, the risk of any diabetes-related endpoint was low (Mogensen, 2000). Furthermore, the STENO-2 study demonstrated that intensive multifactorial intervention in people with type 2 diabetes reduced the risk of cardiovascular and microvascular events by over 50% at 7.8 years follow-up (Gaede et al, 2003). At 13.3 years follow-up, intensive multifactorial intervention was associated with a 57% lower risk of death from cardiovascular causes (Gaede et al, 2008).

Following on from this, Dr Patel discussed ways of effectively delivering multifactorial interventions. For example, the Diabetes Matrix is an integrated approach to prevention, care and commissioning. It consists of 10 levels, ranging from the top priority of community prevention of diabetes, which targets the whole population, through to rationalised long-term care for people with co-morbidities not amenable to treatment.

Dr Patel also emphasised the importance of patient education, and introduced the George Eliot Diabetes Care Alphabet Strategy and the Diabetes Passport, which collectively provide a care plan and help people understand what their diabetes targets are (e.g. blood pressure, cholesterol) and how to achieve them. This is important as many people with diabetes do not know what their targets are, and it is estimated that a person with diabetes spends only 3 hours with a healthcare professional each year, out of a total 8760 hours (Pringle, 2003).

Dr Patel proposed that diabetes care should therefore follow the POETIC acronym. In other words, it needs to be patient-centred, outcome-based, evidence-based, team-oriented, integrated and cost-effective. Summing up, Dr Patel proposed the abolition of the terms "primary" and "secondary" care, and instead we should see ourselves as commissioned to work as a single team with a common goal, working for people with diabetes in an integrated manner.

Jill Hill, talking about the Birmingham East and North LES.

The Birmingham East and North LES for diabetes

Jill Hill (Diabetes Nurse Consultant, Birmingham Community Healthcare NHS Trust)

Jill Hill spoke about the activities of the Birmingham East and North (BEN) Local Enhanced Service (LES) for diabetes, addressing the questions why have an LES for diabetes, what is expected from the practice, how does the community diabetes team support the LES, and does it work?

As the number of people developing diabetes continues to rise, it is clear that the traditional hospital model for diabetes management is unable to deal with this growing population, she said. In 2006, the White Paper entitled "Our Health, Our Care, Our Say" (Department of

Health, 2006) proposed moving services out of secondary care, making them more localised. This is particularly important because in the context of diabetes, primary care is good at working with people with long-term conditions. She also added that delivering routine diabetes services at a primary care level can provide high quality, good value for money.

The Kaiser Permanente model (*Figure 1*) provides a number of principles for how diabetes care can be best delivered. Using this model, most people with diabetes can manage the condition themselves with the support of primary care, and people with more complex medical problems can be managed at the upper levels of the pyramid in specialist care services. Although people do drift in and out of the different levels of the pyramid, primary care teams are ideally placed to identify what level of care a person with diabetes requires.

Practices in BEN that want to participate in the LES for diabetes need at least one GP and practice nurse (PN) with an interest in diabetes and who have completed the required diabetes education programmes, and to be managing about 90% of the practice diabetes population. The practice needs to introduce a register for people with impaired glucose tolerance (IGT) to identify those at risk of diabetes. The practice needs to audit their service, which includes participation in the National Diabetes Audit and DiabetesE. Finally, said Jill, the practice needs to provide advanced, systematic diabetes care over and above the QOF.

The BEN community diabetes team supports the LES by providing group or structured patient education (SPE). Examples include New to Type 2 Diabetes, X-PERT (both available in English and Urdu), and DAFNE (Dose Adjustment for Normal Eating). These resources aim to empower people with diabetes to effectively self-manage their condition, and may help to avoid unnecessary referrals to secondary care.

Koteshwara Muralidhara, introducing the Heart of Birmingham LES.

Healthcare professional education is also embedded within the BEN LES, and it helps to build up relationships between the community diabetes team, GPs and PNs. Examples of educational activities or initiatives include the Warwick Certificate in Diabetes Care (CIDC), the MERIT optimising insulin therapy course, insulin initiation courses and a diabetes journal club.

The BEN LES is also supported by the provision of clear guidelines and referral pathways. There are specialist clinics in the community that support people with diabetes who have complex needs, oral glucose tolerance testing groups and education services, practice-based clinics, group consultations and Practice Nurses with Specialist Interest services.

Currently, 42 out of a total of 78 practices in BEN are signed up to the diabetes LES, and a further seven practices wish to provide the LES for the first time. In total, these LES practices provide services for a population of about 18 000 people with diabetes.

Data collected in BEN shows that the LES is effective. LES practices in BEN are less likely to refer people to secondary care diabetes clinics, and they foster close working relationships between community specialists and primary care. Three QOF indicators have been selected to monitor the effectiveness of LES practices, DM 12 (blood pressure <145/85 mmHg), DM 17 (cholesterol <5 mmol/L) and DM 23 (HbA_{1c} <7% [<53 mmol/mol]). Considering these three indicators, LES practices perform better than non-LES practices in BEN.

Reflecting on what could have been done better, when the BEN LES was initially set up, a thorough baseline audit was not carried out. This has made it difficult to demonstrate the impact of the service, especially as it was established before the introduction of the QOF.

The Heart of Birmingham LES for diabetes

Koteshwara Muralidhara (Consultant Diabetologist, Birmingham Community Healthcare NHS Trust)

The Heart of Birmingham (HoB) PCT serves a densely populated, socially deprived area, with an ethnically diverse population which includes many young people, said Dr Koteshwara Muralidhara, as he began his presentation. Social deprivation is a known risk factor for the development of diabetes (Kumari et al, 2004), and HoB has the highest prevalence of diabetes in the UK.

The performance of diabetes services within HoB lags behind the rest of the country. About 50% of deaths in the HoB area occur before the age of 75 years, and every year more than 300 people die prematurely from either heart disease, diabetes or chronic kidney disease (CKD). Therefore, said Dr Muralidhara, HoB is focussing on the early diagnosis and management of these three conditions, and the LES contract is being used as a screening vehicle for this project.

The HoB LES for diabetes aims to improve care by developing capacity in primary care, while avoiding duplication of care. It provides quality care closer to home, reduces referrals and offers appropriate community-based alternatives to secondary care. The level of care delivered goes over and above that which is stipulated in the Quality Indicators for the GMS contract, and it aims to complement essential services.

Dr Muralidhara went on to explain

that the HoB LES has been well taken up, with almost 90% of the surgeries in HoB signing up for the LES so far, and it is anticipated that 51 000 patients will be screened through the service for heart disease, diabetes or CKD.

As with the BEN LES, HoB LES practices must meet a range of entry criteria, including having a GP or PN trained in diabetes (University of Warwick CIDC or equivalent), who has attended at least 50% of the HoBtPCT diabetes update workshops in the past year. The practice must also have gained more than 80 QOF points for diabetes in the previous year.

The LES care assessment covers a number of criteria including assessing the achievement of enhanced targets in terms of people measuring and consequently reaching target HbA_{1c}. All newly diagnosed people with diabetes are referred for group education, along with all those with an HbA_{1c} >7.5% (>58 mmol/mol), unless the person has previously attended such a group and does not wish to do so again. Those with IGT or impaired fasting glycaemia (IFG) are also assessed, identified and managed, and the completion of the web-based DiabetesE audit programme is required. Other criteria covered by the LES care assessment include staff competency, and financial details.

As mentioned earlier, the HoB LES has found acceptance among the majority of GP practices in the area, and it has impacted the care delivered to people with diabetes in the HoB. Compared with an INDIGO group (which is defined as a relatively young population with a greater than average proportion of black and Asian ethnic groups, and a higher than average deprivation), the HoB LES has helped to improve diabetes performance. Specifically, there are fewer major and minor lower limb amputations and fewer emergency admissions for ketoacidosis and coma, and more people achieve HbA_{1c}, cholesterol and blood pressure targets in the HoB (Yorkshire and Humber Public Health Observatory, 2011). In addition, concluded Dr Muralidhara, diabetes spending and outcomes have also improved. Overall, the HoB LES has helped to improve cardiovascular screening in the area.

The foundations of the LES for diabetes: Preparing practices for the diabetes LES

Waqar Malik (Community Diabetes Consultant, Birmingham Community Healthcare NHS Trust)

In this presentation, Dr Waqar Malik described how practices not currently signed up to the diabetes LES might be encouraged to do so. Dr Malik explained that, in 2004, he and his and colleagues set a goal to provide the best possible diabetes care in Birmingham, with the vision that both the people with diabetes and the GP practices would work together to achieve this via the introduction of the LES. Although knowledge was identified as an important element in the initiative, it was recognised that this must be translated into a good process of care. The need for practices to have a good call and recall system was identified as being important, along with a very proactive PN. The idea of the diabetes LES was to maximise the benefit of having the GP surgery as the service provider. It was also envisaged that the provision of specialist care would be embedded rather than discrete, that specialist diabetes services would have ownership, and would aim to address the needs of the practice population.

Some practices have been apprehensive about signing up to the LES, due to issues regarding availability and retention of trained primary care staff, which prevent them from fulfilling the requirements of the LES. Also, those practices with higher secondary care patient attendances were in need of more help to set up the service. Dr Malik explained that it was felt that there was a need to create a foundation LES to help practices take this step.

Dr Malik then went on to show that even though there may be challenges in setting up a LES, data demonstrate that there are benefits. For example, preliminary data presented during the meeting showed that the probability of a LES practice achieving DM 23 targets (HbA_{1c} <7% [<53 mmol/mol]) is 53% compared with 43% for non-LES practices, which is statistically significant. In terms of secondary care referral, the probability of referring patients for a first hospital appointment by a LES practice is 10%, compared with 20% for a non-LES practice, and again, this is statistically significant. LES practices also refer significantly fewer patients for follow-up hospital appointments (16% for a LES practice vs. 39% for a non-LES practice). Therefore, LES practices also make economic sense.

So what will a foundation LES look like? Dr Malik explained for example that a foundation LES will be required to keep a register for both diabetes mellitus and IGT. The lead doctor must complete the Warwick CIDC and the PN must do the foundation course. Practices are to follow agreed referral criteria to secondary care, refer patients to a structured education programme, and take part in the National Diabetes Audit or DiabetesE. The foundation LES will aim to look after 70% of people with diabetes in primary care (rather than 90% in the model which Jill Hill described earlier). To start with, an incentive scheme will be run in four practices, which have already been identified.

Finally, Dr Malik introduced two other aspects which will be unique to the foundation LES. Virtual clinics will involve undertaking an audit of people with diabetes in the foundation LES practice in order to identify cases which would benefit from specialist input. The GP and the PNs then discuss these cases with a specialist every 4 months (for example) in order to create a management plan that can be implemented by the foundation LES practice.

Group consultations will also be unique to the foundation LES. In many practices

there is often a group of people with diabetes who are "lost in the system". They fail to attend diabetes consultations, or are generally disengaged with the system. Group consultations will aim to bring small groups of these people with diabetes together for a longer consultation time as a way of re-engaging them in their treatment.

Workshops

During the second part of the conference, four workshops were offered, with delegates choosing to attend the two sessions that were of most interest to them.

WORKSHOP 1: Are you fit for purpose? Workforce development

Jill Hill (Diabetes Nurse Consultant, Birmingham Community Healthcare NHS Trust)

This workshop opened with a discussion about what the statement "getting the right people with the right skills and competencies in the right place at the right time" really means, a question which is posed in the Skills For Health document "Introduction to Workforce Planning" (NHS Scotland). The definition of the "right person" has changed over time as experience in diabetes management has increased, and certainly the "right place" has changed with the moving of much of diabetes management from secondary into primary care and community clinics.

The groups considered why it was deemed important that staff met defined competencies. Best value for money was an important driver to ensure that relatively expensive specialist care supported complex diabetes needs, while increasingly, many routine aspects of diabetes care are delegated to unregistered practitioners (e.g. taking bloods and other components of the annual diabetes review). Safe care and avoidance of litigation, and demonstrating fitness for purpose to provide services for commissioning was also agreed.

The third edition of the Integrated Career and Competency Framework for Diabetes Nursing (TREND-UK, 2011) was used as an example of defining competencies for different levels of staff working in a GP practice. The lack of accredited, comprehensive, practical diabetes courses for the increasing numbers of unregistered practitioners working in GP practices was identified as an issue and a potential area for development for the community diabetes team.

WORKSHOP 2: Care planning in practice

Kate Parrish (Quality Improvement Consultant, Eli Lilly and Company Ltd, "Putting Care Planning into Practice" Project Manager and Developer)

Care planning offers people active involvement in deciding, agreeing and owning how their diabetes is managed. It is thought that when people are actively involved in decision-making they are more likely to be successful in self-management (Department of Health, 2008). In addition, consultations between the person with diabetes and the healthcare professional will be more satisfying.

Care planning is a process which brings the patient's personal agenda to the forefront of the discussion, enabling mutually agreed goal setting. The Birmingham Community Healthcare NHS Trust is organising workshops to enable staff to gain experience of putting care planning into practice.

The group discussed what skills are needed in order to provide a good standard of care planning. Responses included good time management, effective listening skills, empathy and the ability to encourage the person with diabetes by giving positive feedback on the changes they are making. In order to ensure that the person with diabetes remains motivated, it is best for only one or two achievable goals to be set in the care plan.

The "Putting Care Planning into Practice" project was developed by Kate Parrish, Eli Lilly, in 2009 with the help of Dr Waqar Malik and Dr Patrick Hill to aid implementation of care planning and to track patient experience, clinical parameters and appointments. The main aim of the project is to evaluate the use of diabetes care plans before and after attending a care planning workshop. The secondary goal is to track the impact of this on four clinical parameters, namely blood pressure, cholesterol, weight and HbA_{1c} and to track the patients' evaluation of their care planning consultation. Initial unpublished data from the early stages of the project, where participants answered questions about their care planning experience, suggest that when this process is used, people are more likely to discuss their goals in caring for their diabetes with clinic staff. It also suggested that they were more likely to discuss their own ideas about the best way to manage their diabetes and that they were being offered a written or printed copy of their care plan more frequently. The data also suggests that there is a reduction in the number of planned visits to general practice when this process is adopted.

WORKSHOP 3: The role of the diabetes specialist in supporting primary care

Waqar Malik (Community Diabetes Consultant, Birmingham Community Healthcare NHS Trust) and Koteshwara Muralidhara (Consultant Diabetologist, Birmingham Community Healthcare NHS Trust)

Dr Waqar Malik opened the workshop by asking why people with diabetes are referred to secondary care. He said that reasons include diagnostic uncertainty, complex disease, the presence of acute or chronic complications, or as referral being a way of sharing the burden, as the treatment of diabetes solely in general practice is not an easy task.

The transfer of care from secondary to primary care can be beneficial, as resource released in secondary care can then address all the complexities of patients left in secondary care. However, barriers were also identified during the discussion, including

the lack of compatibility between primary and secondary care IT systems, which may lead to information not being fed through to primary care, with potential for duplication of effort as a result.

The final part of the workshop introduced delegates to the virtual clinic concept, which is a unique component of the foundation LES. This approach may reduce unnecessary referrals to secondary care, and improve the skills of both GPs and PNs. It may also free up resources which can be used to improve vascular health and the prevention of diabetes in the population as a whole. Group consultations were also introduced as a way of re-engaging patients who have lost trust in the health delivery system.

WORKSHOP 4: Taster sessions – DAFNE, X-PERT, DESMOND, and weight management

Paul McArdle (Lead Clinical Dietitian, Birmingham Community Nutrition and Dietetic Service)

People with diabetes in Birmingham benefit from a range of education programmes and other services to help them manage their diabetes and weight. The taster sessions offered in this workshop were an opportunity for health professionals to sample the fun and interaction that people with diabetes experience through attending the X-PERT, DESMOND (Diabetes Education and Self Management for Ongoing and Newly Diagnosed) or DAFNE programmes, and to learn about the way the Birmingham Specialist Obesity Service helps people change their relationship with food (*Figure 2*). Indeed, the NICE recommendations for SPE in diabetes were implemented by PCTs in 2006, and empowerment is core to the National Service Framework (Standard 3) (Department of Health, 2001).

The programmes, delivered locally to a high standard by diabetes specialist dietitians and nurses, and diabetes educators, provide people with diabetes with comprehensive education to empower and improve self-management behaviours, and should be integral to the care pathway for all people with diabetes, said Paul. Run by the Community Diabetes Teams and the Community Nutrition and Dietetic Service in a range of sites across Birmingham, these valued services are accessible and responsive. Local healthcare professionals have a duty to be aware of what is available for their diabetes patients, said Paul, given the significant impact on quality of life and diabetes control that SPE can have.

More information about the services available can be found by visiting the following websites:

- www.dafne.uk.com
- www.xperthealth.org.uk
- www.desmond-project.org.uk
- www.dietetics.bham.nhs.uk.

Figure 2. The taster session workshop.

Conclusions

Jill Hill (Diabetes Nurse Consultant, Birmingham Community Healthcare NHS Trust)

Jill Hill closed the meeting by thanking all who took part in the main sessions and workshops. The enthusiasm of the delegates was recognised, particularly as they work in a challenging environment in which more and more people are being diagnosed with diabetes, and there are more targets to reach. The hard work of people with diabetes was also acknowledged, as well as their willingness to get involved in education and managing their condition. Delegates were reminded that we live in exciting and changing times. New diabetes therapies are coming onto the market, and there is the prospect of a new NHS and new ways of working. It was hoped that this half-day conference gave a flavour of the new ways of working together in partnership, in order to ensure that people with diabetes are seen in the right place at the right time by the right person. ■

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