

Improving diabetes care in general practice

Roger Gadsby, John Grumitt

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Article points

1. People with diabetes should receive nine core processes of diabetes care, but there is wide variability between clinical commissioning groups and individual practices in achieving this target.
2. Underachieving practices need to implement strategies to improve diabetes care.
3. Strategies include establishing effective leadership, local diabetes networks and data analysis, as well as improving healthcare staff education and take-up of structured patient education.

Key words

- Education programmes
- Local diabetes networks
- Service delivery

Authors

Roger Gadsby MBE is Principal Teaching Fellow, Warwick Medical School, and Professor, University of Bedfordshire; John Grumitt is Managing Director of Metapath Solutions, Vice President of Diabetes UK and Vice President of the International Diabetes Federation.

As the majority of people with diabetes are looked after extensively in primary care, clinical commissioning groups (CCGs) need to meet Quality and Outcomes Framework (QOF) targets for high-quality diabetes care. However, the provision of nine core processes of diabetes care identified varies between CCGs and widely between practices. Underachieving practices need to identify what can be common problems and implement strategies to meet QOF targets, including establishing effective leadership, local diabetes networks, intermediate teams, and staff and patient education.

It is thought that in many Clinical Commissioning Group (CCG) areas, around 75% of people with diabetes are looked after exclusively in primary care (Gadsby, 2009b). The Quality and Outcomes Framework (QOF), introduced in 2004, is a “pay for performance” programme that incentivises general practice to improve diabetes care (Gadsby, 2009a). QOF rewards practices for the regular recording of nine core processes of diabetes care, identified as:

- BMI.
- Blood pressure.
- Smoking status.
- Foot check.
- Retinopathy screening.
- Microalbuminuria testing.
- HbA_{1c}.
- Cholesterol level.
- Creatinine level.

The National Diabetes Audit (NDA) provides annual information to monitor improvement in care in England and Wales. In 2004–05 the NDA showed that only around 5% of people with diabetes in England and Wales had all nine core processes of diabetes care performed (Health and Social Care Information Centre [HSCIC], 2006); by 2010–11 this figure had risen to 54% (HSCIC, 2012). There is a move to pilot a composite diabetes indicator in 2014, based on QOF’s nine core diabetes measures.

Although there has been an overall improvement in the recording of the nine core processes of

diabetes care, there is still a wide variation in the performance of CCGs and an even wider variation between individual practices; this is highlighted in the *NHS Atlas of Variation in Healthcare for People with Diabetes* (Right Care, 2012) and in *Figure 1*. Wide variation is also seen when specific “hard” diabetes clinical outcomes, such as amputation rates, are analysed and compared across different areas in England (Right Care, 2012).

This degree of variation is felt to be unacceptable, and we have observed a political will in the NHS to help and encourage improvement in those practices that, at present, occupy the bottom quartile of achievers of good diabetes care.

In this article we discuss, based on our experiences, some of the ways that practices can be helped to improve diabetes care.

Common features that may be present in underachieving practices

1. Poor organisation of diabetes care in the practice

Practices will sometimes be seeing people with diabetes reactively, when they present with another clinical problem, rather than proactively, such as for a review of their diabetes. They may be seen in a normal surgery rather than a dedicated diabetes clinic or session, and may be seen by a healthcare professional (HCP) whose knowledge may not be as complete or up to date as it could be. This can apply to GPs as well as nurses or healthcare assistants, whose training

and experience may be inadequate to provide high-quality care in an efficient manner. Clinical leadership on diabetes care in the practice may also be lacking.

There is unlikely to be a well-defined or well-understood protocol for diabetes care in underachieving practices. This may be compounded by the absence of a comprehensive, integrated diabetes care pathway across all providers in the local area.

2. Reliance on secondary care to provide much of the routine diabetes care

A practice that does not invest through employing and keeping updated staff trained to

deliver high-quality diabetes care will usually have higher secondary care referral rates. Such referrals are costly to the local health economy and may reduce overall quality and satisfaction with treatment owing to problems such as travel to hospital, car parking charges, waiting times in the outpatient department, loss of time from paid employment and loss of continuity of care through seeing a different junior hospital doctor at each attendance.

3. Poor achievement of QOF scores across a number of other clinical areas

Practices that have poor organisation of diabetes care are often found to have poor achievement in other clinical areas, such as cardiovascular disease, asthma or chronic obstructive pulmonary disease, which reflects the poor organisational development within the practice. Improvement in diabetes care may therefore have “knock-on” effects on improving care for other clinical conditions, resulting in improved QOF scores.

4. Poor use of technological resources

Decision-making can be greatly improved with the use of relevant and reliable data. However, some practices may not have sufficient capability to collect, analyse and use data, or may not have the tools to communicate effectively with stakeholders within or beyond their team, and with patients. As is the case with clinical leadership, there is a need for leadership competence in data collection and analysis to enable efficient application of what is potentially available.

Ways to improve diabetes care

In our combined clinical experience, we have supported or led a number of initiatives that have generated substantial and sustained improvements to the care that people with diabetes receive. This experience, together with reviews of practices that have achieved better outcomes, leads us to suggest the following ways of improving diabetes care in general practice.

A. Ensure there is effective leadership

Establishing high-quality care requires effective leadership on two levels. Clinical leadership

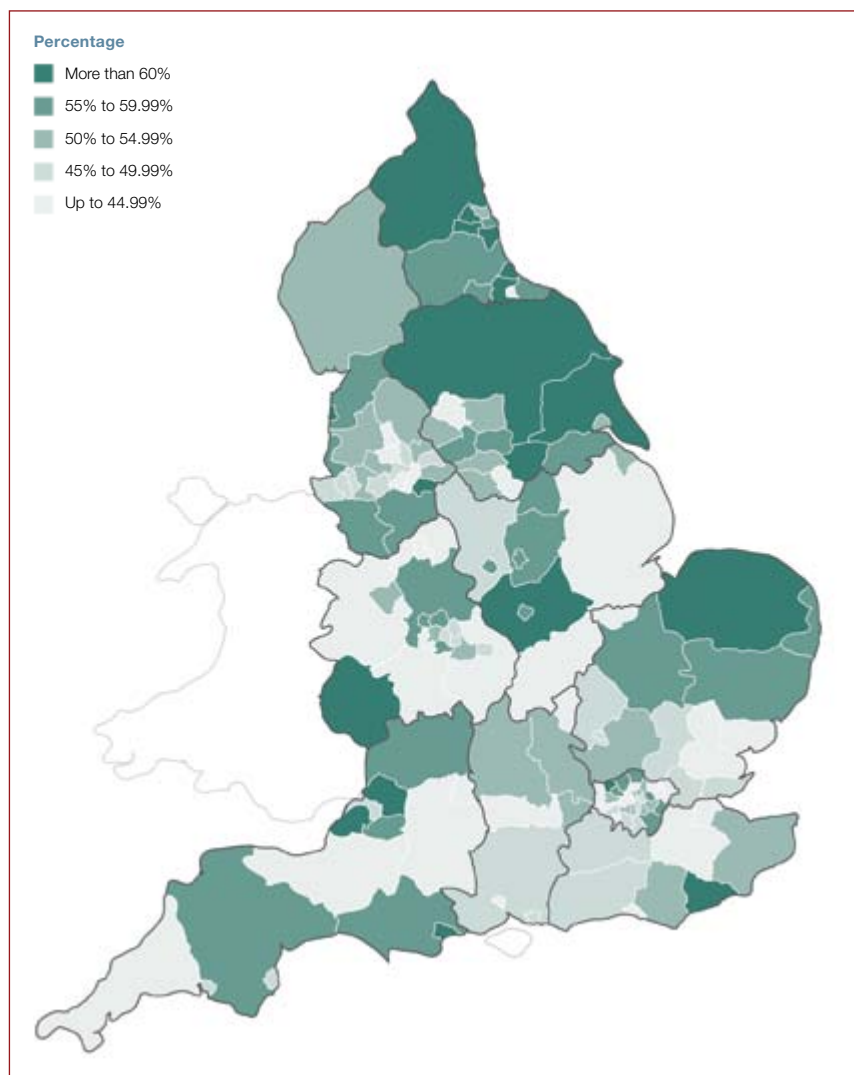


Figure 1. Percentage of people with diabetes who received the nine basic diabetes care processes in 2009–10 by primary care trust area (© National Audit Office, 2012).

is, of course, essential to provide technical and practical input to the design of services that adhere to published standards of care; however, this alone is not sufficient. There are numerous examples of diligent clinical experts with limited influence across the relatively complex diabetes care pathway. To overcome these potential barriers, skilled management is required. At times of scarce resources, it is often said that services must protect frontline staff; however, if the services are relatively inefficient or underperforming, organisational change is needed to achieve effective care provision.

We believe that leadership encompasses the following factors, in particular:

- Focusing on an agreed set of principles on which a local pathway is built. (Sometimes referred to as “core values”, successfully applied these become the framework for consistently efficient decision-making and effective collaboration.)
- Clear communication across the diabetes care pathway providing common understanding of processes.
- Facilitation to support the coming-together of organisations or individuals that may have little recent experience of collaborative working.
- Objectivity to ensure focus on delivering the best possible patient outcomes.

B. Establish an effective local diabetes network

NHS Diabetes and Diabetes UK (2012) recently published a comprehensive guide to support the development of local diabetes networks following the clear evidence of their potential to improve diabetes service provision. Local diabetes networks engage local stakeholders, including clinical staff, managers and people with diabetes, to work collaboratively to support informed commissioning decisions and to ensure that service delivery processes are reviewed and actions taken to make them efficient and effective.

Important elements of a successful local diabetes network include:

- Director-level (and ideally chief executive officer-level) sponsorship from all provider organisations.
- A publicly declared goal, plus committed deliverables.

- Representation of commissioners, clinicians from across the pathway, service managers and, of course, service users (i.e. people with diabetes).
- Clear terms of reference together with role descriptions for all.
- An effective impartial chair.

In particular, when driving service improvement, a local diabetes network can provide the essential dialogue required to bring disparate elements of the diabetes care pathway together. Furthermore, when there is actively managed patient involvement, it can help maintain focus on creating a service tailored to meeting the needs of its users.

C. Develop an intermediate care team that fosters integrated, collaborative working

Some years ago, the *Diabetes Guide for London* (Healthcare for London, 2009) offered a comprehensive description of the key elements of diabetes care and how they might be provided. It described four tiers of diabetes care: hospital-based care, specialist care, enhanced essential care, essential care (see *Figure 2*).

Intermediate care teams represent an essential role in effective diabetes care by:

- Supporting the link between primary and secondary care, as well as with other providers.
- Providing clinical governance to community teams.
- Making available clinical leadership and support to raise standards, thereby reducing variation in the quality of care provided across primary care. (This includes objective analysis of performance data and virtual clinic support, where cases are discussed and expertise shared to ensure that all individuals receive high-quality diabetes care in the primary care setting.)
- Coordinating and providing a comprehensive education programme for HCPs, which includes both training events and ongoing continuing professional development.
- Mentoring of HCPs as new skills are embedded. (Too often education is seen as a one-off learning event and the opportunity to reinforce learning is lost; mentoring can ensure this is not the case.)

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1. Virtual clinics provide an opportunity for all the relevant members of the practice team to work collectively.
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- Facilitating triage as part of a well-defined pathway referral system.

When virtual clinics were introduced in Bexley, South East London, where John (Grumitt) was leading the introduction of a new integrated service, it was necessary to overcome some housekeeping issues that largely stemmed from the fact that the specialist had not visited practices before, nor were the practices used to such ways of working. However, with issues successfully overcome via patience and determination, the virtual clinics rapidly established themselves as being extremely popular with HCPs. Furthermore, they provided an opportunity for all the relevant members of the practice team to work collectively. Discussing current challenging cases gave a focus on immediately dealing with a problem at hand, and wherever possible the specialist used each case as a learning opportunity.

Importantly, the patient relationship remained with the primary care team. The data that were available suggested that this was a major contributor to the significantly reduced referrals from primary to secondary care, which fell in total by over two-

thirds. Easy-to-follow, comprehensive diabetes care pathway guidelines were made available to all. In addition, a “closed loop” referral pathway provided a reliable process, ensuring that cases were not lost or allowed to bypass a well-defined pathway. It is, of course, difficult to attribute this reduction solely to the virtual clinics, as a number of other improvements were made simultaneously.

D. Encourage availability and use of data to improve decision-making

The limited use of data for decision-making has been written about extensively and is gaining increasing media coverage (e.g. *The Guardian*, 2013a; 2013b). We have found, in various locations, that such analyses present an opportunity to determine the quality of care delivered. Practice databases can be analysed with relative ease with the help of tools such as ECLIPSE or simple MIQUEST queries, as well as numerous other solutions. This data can then be analysed, for example:

- To identify those not achieving target outcomes and comparing their medication. (While QOF results show that a great proportion of patients

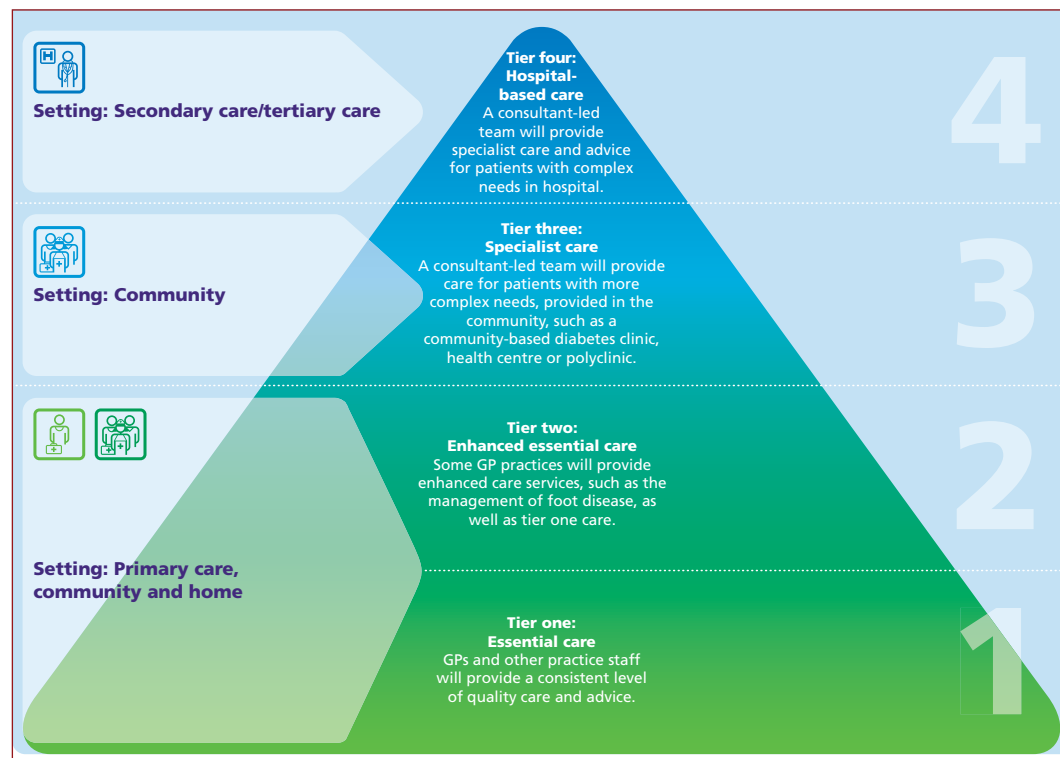


Figure 2. Settings of diabetes care – a four-tier service. Reproduced from Diabetes Guide for London (*Healthcare for London*, 2009).

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1. Commissioning a patient education programme is not the whole picture; audit evidence illustrates that the outcomes achieved vary.
2. Improvements in practice infrastructure might include “parachuting in” a trained diabetes nurse into a practice that wants to improve its diabetes care but does not have the nurse resources to do so.

have had medication reviews, a significant proportion of these were found to benefit from further improvements.*)

- To combine algorithms so that those at risk of complications can be identified to ensure they receive the appropriate care.
- To compare data in numerous ways – within the practice, between practices and over time – to improve understanding and performance.
- To examine where and by whom a patient’s care is being delivered to ensure it is optimal.

In addition, introducing standardised referral templates (which allow free text) and automated data extraction greatly improved the efficiency and quality of triage decision-making.

The opportunity to build on the use of health data is substantial. Examples include:

- Improving the efficiency of use of health resources.
- Tracking the outcomes achieved and taking appropriate action based on evidence rather than supposition.
- Empowering patients, enabling them to make informed and improved decisions. (This is particularly the case when considering those living with long-term conditions, who are mostly making decisions on their own.)

E. Improve access to and take-up of structured patient education

Patient empowerment relies upon an element of understanding that is often missing. Imagine handing the keys of a car to an untrained person and asking that they drive up a motorway; as ludicrous as this might sound, all too often we assign the equivalent expectation on people with diabetes without a second thought. There are, of course, the nationally accredited structured education programmes, such as DAFNE (Dose Adjustment For Normal Eating), DESMOND (Diabetes Education for Ongoing and Newly Diagnosed) and X-PERT, as well as numerous local initiatives that seek to fill perceived gaps or undercut the investment these programmes require; however, in our experience most, if not all, suffer from their own shortfalls, thus not meeting the requirements of structured patient education.

Commissioning a patient education programme is not the whole picture; audit evidence illustrates

that the outcomes achieved vary (e.g. X-PERT, 2011). To deliver on their promise, education programmes should:

- Be effectively and widely marketed to HCPs and patients. (Even those programmes achieving larger take up are sometimes driven by a few large practices, which is hardly equitable.)
- Include simple referral or booking processes for both HCPs and patients to easily access.
- Be subject to meticulous planning that ensures courses are provided where and when patients can most easily access them.
- Be led by people who are good educators rather than excellent technicians; we all remember the teacher that inspired us. (In Bexley, the X-PERT programme demonstrated the effectiveness of lay peer educators, who constituted 50% of the total training cohort.)
- Record and use detailed feedback to drive continuous development of the service.

Supporting improvements in practice infrastructure and education of practice staff

Improvements in practice infrastructure might include “parachuting in” a trained diabetes nurse into a practice that wants to improve its diabetes care but does not have the nurse resources to do so. The new nurse could draw up protocols, run practice diabetes clinics or sessions, and improve diabetes care. Other nurses in the practice would be encouraged to attend diabetes education programmes and to take over the diabetes clinic once competent.

Diabetes education programmes to help GPs and practice nurses to improve their care of people with diabetes have been developed and are widely available; examples include the Certificate of Diabetes Care from Warwick Medical School (2014) and PITstop Diabetes (2013).

*When looking in detail at patient medications and the clinical outcomes, it was relatively straightforward to identify individuals who might benefit from a change in medication to improve the management of their condition. We ran an analysis to identify people with an HbA_{1c} of more than 64 mmol/mol (8%). If we found that this had been the case for some years with no change in antidiabetes agents, we made a suggestion, or directly intervened, to get the patient in, in order to have a discussion with a view to escalating the treatment to an injectable therapy.

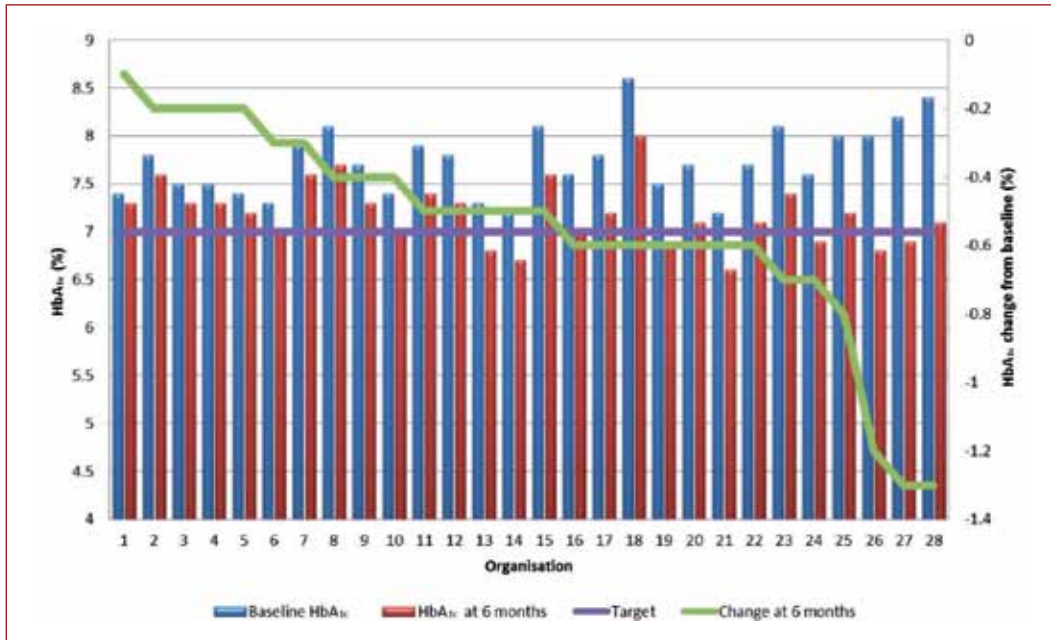


Figure 3. HbA_{1c} change from baseline to 6 months across 28 local health economies from the X-PERT Audit Report published in February 2011 (X-PERT, 2011; reproduced with permission from Dr Trudi Deakin).

Is there evidence that diabetes care can be improved?

There is emerging evidence that diabetes care can be improved across a local health economy using the principles outlined above. *Figure 3*, which is based on X-PERT national audit data from February 2011, shows improvements in HbA_{1c} over 6 months in 28 local health economies. Bexley is the provider on the far right (number 28 on the figure), which shows the largest reduction in HbA_{1c} for a period during which many of the means of improvement outlined in this article were implemented.

Conclusions

There is clear evidence of wide variation in the delivery of diabetes care between CCGs, and even wider variation between practices in England. This variation is felt to be unacceptable, and efforts to reduce variability are being focused on improving those practices that have the lowest performance. Common features of poorly performing practices have been outlined and a number of ways of improving care described, including clinical leadership, local diabetes networks, intermediate clinics, use of data, improving practice infrastructure, healthcare staff education and improving take-up of structured patient education.

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Since 1 April 2013, CCGs have taken on the responsibility to deliver high-quality diabetes care in primary care. The performance of all general practices within a CCG now becomes the responsibility of all in the CCG, and so all have a stake in improving performance, particularly the practices with the lowest performance. We hope that the suggestions made in this article will help CCGs achieve improvements in diabetes care. ■

- Gadsby R (2009a) What has QoF ever done for diabetes? *Practical Diabetes International* **26**: 314–5
- Gadsby R (2009b) What would a “gold standard” diabetes service look like? *Diabetes & Primary Care* **11**: 103–8
- Health and Social Care Information Centre (2006) *National Diabetes Audit 2004–05*. HSCIC, Leeds
- Health and Social Care Information Centre (2012) *National Diabetes Audit 2010–11*. HSCIC, Leeds.
- Healthcare for London (2009) *Diabetes Guide for London*. NHS, London. Available at: <http://bit.ly/1jpF4hh> (accessed 16.01.14)
- National Audit Office (2012) *The Management of Adult Services in the NHS*. Department of Health, London
- NHS Diabetes, Diabetes UK (2012) *Service improvement and delivery: Implementing local diabetes networks*. Diabetes UK, London
- PITstop Diabetes (2013) *Programme for insulin therapy*. Available at: <http://www.pitstopdiabetes.co.uk> (accessed 16.01.14)
- Right Care (2012) *NHS Atlas of Variation in Healthcare for People with Diabetes*. NHS, London. Available at: <http://bit.ly/1mwqQK> (accessed 16.01.14)
- The Guardian* (2013a) *Five ways to enable transparency in the NHS*. Available at: <http://bit.ly/1e9YGE7> (accessed 16.01.14)
- The Guardian* (2013b) *NHS to launch Tripadvisor-style website*. Available at: <http://bit.ly/1cyIYld> (accessed 16.01.14)
- Warwick Medical School (2014) *Diabetes courses*. Available at: <http://bit.ly/1dRlKrt> (accessed 16.01.14)
- X-PERT (2011) *X-PERT Audit Report*. X-PERT, Hebden Bridge, West Yorkshire