

# The Super Six model of diabetes care: Two years on

Partha Kar, Darryl Meeking, Michael Cummings, Iain Cranston

**In recent years, there has been ongoing debate in diabetes care about which individuals need to stay within secondary care and the underlying reasons for this. This article provides an update on a new model, named “Super Six”, which bridges the divide between primary care clinicians and specialists, enabling primary care teams to function within an extended clinical professional domain in their community setting. In the model, the role of a diabetes specialist is redefined, away from the traditional alignment of simply being a hospital-based expert. Furthermore, there is an expansion of the role’s educator component, not only that directed to people with diabetes but also for primary care clinicians. This update presents new findings on the level of satisfaction with the model, and other views, expressed by healthcare professionals and people with diabetes, as well as looking ahead to possible future developments.**

The level and quality of care for people with diabetes in any setting is of great importance, particularly owing to the complex nature of the condition. Recently, there has been a drive towards increasing skills and knowledge in primary care and moving away from the traditional model of all diabetes care being delivered in a specialist setting; in our experience, this has been met with conflicting views. In addition, there has been ongoing debate in diabetes care about which individuals need to stay within secondary care and the underlying reasons for this (Findley et al, 2013).

In 2010–2011, across Portsmouth and south-east Hampshire (an area for which the healthcare setting is described in more detail in a previous article in this journal [Kar, 2012]), there were two key issues identified by the local healthcare professionals and policy-makers as being barriers to improving diabetes care:

- Inefficiencies in the traditional pathway (e.g. long-term follow-up for individuals with diabetes was being conducted in specialist care clinics [at significant expense], resulting in an absence of structured care plans or duplication of effort).
- Variation in the quality of the service provided in primary care and in the community setting

(this was believed to be contributing to higher than expected rates of both diabetic emergency admissions and complications in the local population).

Quality-of-care issues, simply put, centred on the knowledge of healthcare professionals and patients. Among the clinicians, there were varying levels of knowledge of diabetes and insulin management. In addition, there was no access for people with diabetes to prompt specialist advice on diabetes management (their preference was for care management within the primary care setting).

Consequently, the specialist diabetes team at Portsmouth Hospitals NHS Trust decided to restructure their care process (Kar, 2012). Under the new alignment, diabetes care was to be delivered by dividing the team’s roles into two key areas:

- 1 **Specialist service delivery**, which comprised six defined areas of diabetes care (see *Box 1*).
- 2 A **healthcare professional educator role**, which offered educational support to primary care via “virtual” access (telephone and email) and direct visits to GP practices (each practice getting two visits per year) for all other people with diabetes within the community. A consultant and a diabetes specialist nurse visited each practice,

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## Article points

1. Barriers to improving diabetes care included inefficiencies in the traditional pathway, as long-term follow-up for people with diabetes was conducted in specialist clinics, and variation in the quality of care provided in primary and community care.
2. The authors restructured the diabetes care pathway so that the specialist diabetes team’s role was to provide specialist service delivery, comprising six defined areas of diabetes care, and health education support to primary care.
3. Since implementation of the service, more than 90% of individuals with diabetes have been discharged from appropriate secondary care clinics; with a cost per follow-up appointment of around £90, this represents approximately a £90 000 saving each year.

## Key words

- Diabetes care model
- Level of care
- Specialist diabetes team

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### Page points

1. The redesigned diabetes care pathway was developed jointly between commissioners and providers from across the healthcare community.
2. Using existing policy and best practice guidance, it was agreed that there would be an aim of discharging 90% of people with diabetes who were currently receiving follow-up secondary care in “general/complex diabetes clinics” back into primary care.
3. GP engagement was recognised as being vital, and this was thus sought early in the process of redesigning the diabetes care pathway
4. A baseline assessment was undertaken by consultants and GPs, with the agreement of patients. This identified individuals with diabetes who could be discharged to primary care and those who were more appropriately retained by the specialist care team, within the Super Six clinics.

and the educational session was attended by the GPs and practice nurses. Predefined options were offered for these sessions, each with the specific goal of using specialist time effectively to improve patient care at a surgery level. This is discussed in more detail later in the article.

### Development of a redesigned diabetes care pathway

The redesigned diabetes care pathway was developed jointly between commissioners and providers from across the healthcare community. Some secondary care services – specifically, the attendance of people with diabetes at what were labelled “general/complex diabetes clinics” – were decommissioned and resources were reallocated to community-based services.

The project was led by a group that comprised a hospital team, a GP with a special interest in diabetes and leads (both clinical and non-clinical) of what we now know as clinical commissioning

groups. In order to engage with the wider primary care setting, local events and focus groups were held and opinions obtained on: the optimal model; how support could be delivered at a time of mutual convenience; and the desirable main focus areas. Similar focus groups with people with diabetes were also undertaken.

The care pathway’s development was agreed by local commissioners after discussion with the specialist and community teams. Using existing policy and best practice guidance, it was agreed that there would be an aim of discharging 90% of people with diabetes who were currently receiving follow-up secondary care in “general/complex diabetes clinics” back into primary care. This required a local enhanced service and appropriate specialist support and education programmes to be in place.

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A baseline assessment was undertaken by consultants and GPs, with the agreement of patients. This identified individuals with diabetes who could be discharged to primary care and those who were more appropriately retained by the specialist care team, within the Super Six clinics. Subsequently, practice meetings were held with both a diabetologist and specialist nurse to review those individuals identified for potential discharge from the specialist team. All other patients were discharged back to primary care. The possibility that they might still have more complex needs was not ignored. Despite the variable expertise and resources available in primary care, it was felt that these needs could still be supported, drawing on the expertise of the specialists in their educator capacity.

As noted earlier, beyond the Super Six clinics, the other core component of the model was the role of specialists as educators. This process involved a combination of virtual and face-to-face contacts. The most frequent non-virtual contact came via practice visits (conducted at least every 6 months), which complemented the existing contacts by the community nurse specialists. The onus was shifted towards the practices to decide how best to utilise the visits, although not in a hands-off fashion. Various options were suggested (see *Box 2*), and it was deemed essential to offer flexibility in choice rather than enforcing any

#### Box 1. The defined areas of specialist diabetes care in the Super Six model.

- Inpatient diabetes
- Antenatal diabetes
- Diabetic foot care
- Diabetic nephropathy (individuals on dialysis or with progressive decline of renal function)
- Insulin pumps
- Type 1 diabetes (individuals with poor control or young people)

#### Box 2. Options available during GP practice visits in the Super Six model.

- Virtual clinics (case-based discussions)
- Database reviews to discuss individuals with regard to achievement of Quality and Outcomes Framework target
- Reviews of audits completed by the GP practice on diabetes care
- Educational sessions on areas of diabetes management of the practice’s choice
- Patient reviews (in conjunction with GPs or practice nurses)

“plan” or “model”. The idea was for primary care professionals to use the cases discussed as learning opportunities, and that this would then create a “ripple effect”, assisting with subsequent cases of similar complexity.

These meetings began the process of support for, and engagement with, practices. Through patient reviews the team were able to identify care management issues and education requirements for clinicians in each practice. “Open access” arrangements for rapid support and advice via telephone or email were put in place, with response times clearly outlined. This promoted partnership working and a culture of joint problem-solving between primary care and community-based clinicians and the specialist team. A continuing aim has been to stay away from “case holding”, which is a common approach for most intermediate teams. Such an approach provides a means of taking pressure off hospital teams but not necessarily a focus on tackling service variations in primary care.

The principles of community-based working adhered to have been developed around peer support and an avoidance of case holding or regular review of patients. This has both freed up the team to provide education and empowered primary care to look after more complex cases, all underpinned with regular support (see Figure 1).

Overall, implementation of a new model was not going to be without challenges. For instance, it was necessary to negotiate the consequential loss of the hospital tariff for clinic attendance with managers. Such discussions were helped by focusing on the balance that existed with a drop in sessional programmed activity from the acute trust. Similar measure approaches were adopted in overcoming other potential hurdles.

For more background information on implementation of the model, readers are referred to a previous article in this journal (Kar, 2012).

### Results and outcomes

Since implementation of the service in November 2011, which started with 53 GP practices, the model has now extended to a total of 80 GP practices (representing 100% practice coverage across two clinical commissioning groups in the areas). More than 90% of people with diabetes (978 individuals,

at the time of writing) have been discharged from secondary care clinics. With the cost of a follow-up appointment being approximately £90 (unpublished local data), this represents a saving of around £90 000 in a year. In addition, new “general diabetes” referrals have reduced from 15 a month to one a month, leading to further savings that have helped the shift of resources from a traditional hospital setting into the community.

Patient feedback has been collated as an integral part of ensuring the service’s effective delivery. Eighty-nine per cent of people with diabetes felt that the new model had been “strongly beneficial”. Many individuals also reported feeling more empowered and in control of their diabetes as a result of the new model, with the training often

*“Individuals also reported being empowered and in control of their diabetes, with the training being equally useful for their carers or significant others who were able to accompany them.”*

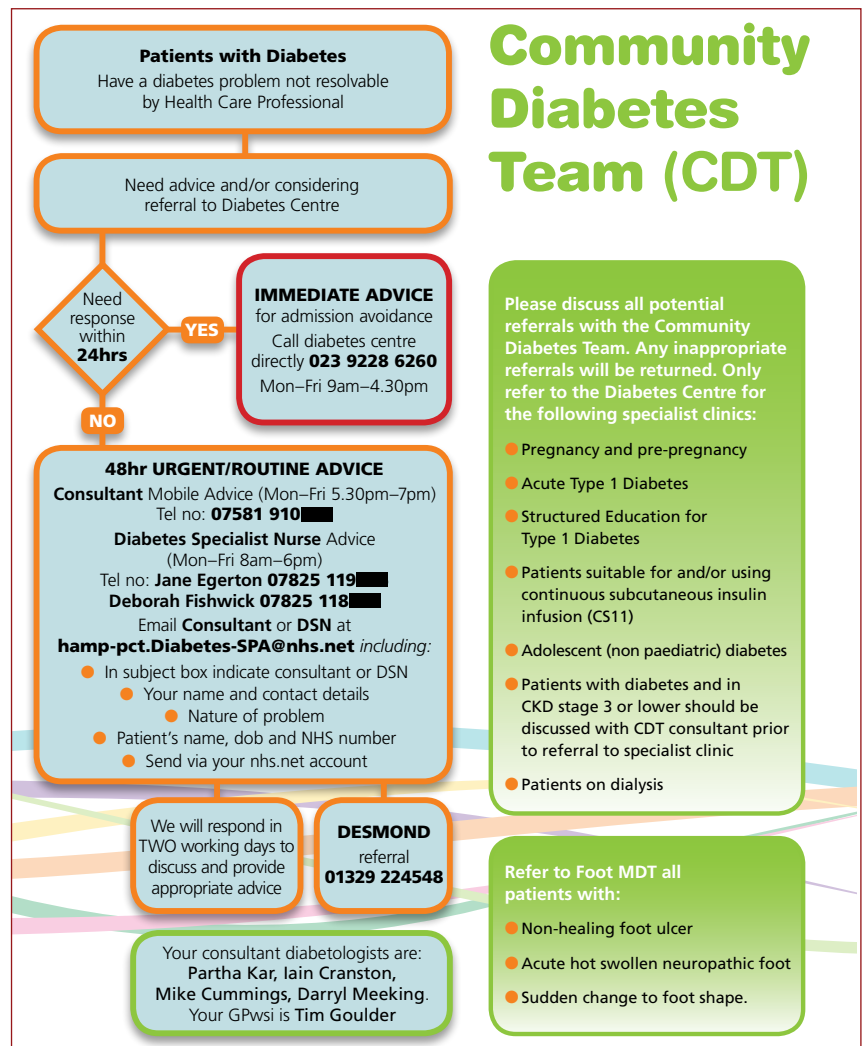


Figure 1. The diabetes care pathway followed by the community diabetes team in the authors’ locality.

**Box 3. Awards in recognition of the Super Six model of diabetes care.**

- Shortlisted for the *British Medical Journal* Awards 2013 (Diabetes Team of the Year, Clinical Leadership Team of the Year)
- Shortlisted for the HSJ Awards 2012 in management of long-term conditions
- Winner of Care Integration Awards 2012
- Quality in Care Award 2012: Best Network Initiative
- Quality in Care Award 2012: Best Innovative Commissioning Initiative
- Quality in Care Award 2011: NHS Diabetes Team of the Year (silver award)
- Winner of the Healthcare and Social Awards 2010

deemed to be just as useful for carers or significant others who accompanied them.

Primary care feedback (collated by the administrative team from questionnaires sent to all GP practices) has shown that 91% of practices would like the service to continue and have had a high level of satisfaction; the remaining 9% stated that “it was too early to comment.”

Early in the process of implementing a new local healthcare delivery model for diabetes care, fears were expressed that the changes may result in an increase in the frequency of major events, owing to fewer patients directly seeing specialists. After 18 months of having this new model in place, however, the monitoring of hard outcome measures has demonstrated encouraging results. Based on data available from the hospital business intelligence unit and a comparison of admission data from the year before the model was launched and 12 months after, there has been a reduction of episodes of diabetic ketoacidosis by 18% (228 to 187), a reduction of hypoglycaemic admissions by 16% (116 to 97) and a reduction of admissions with hyperglycaemic non-ketotic coma by 22% (nine to seven). Local rates of myocardial infarction, amputation and strokes in individuals with diabetes have also been monitored from November 2011, and, encouragingly, they have not shown any increase. Longer-term data will be needed to draw a firmer conclusion, and it will be difficult to adequately control for all possible confounders. Nevertheless, these are positive signs.

The innovative model of working aimed at crystallising the role of diabetes specialists within an acute trust while using their skills and expertise within the community has also been recognised locally and nationally as an example of good practice (*Box 3*). This has also showcased an example of integrated care where three providers (Portsmouth Hospitals NHS Trust, Southern Health NHS Foundation Trust and Solent NHS Trust) have come together to work to one designated pathway for improvement of patient care.

**Impact upon the specialist team, primary care and people with diabetes**

This model has helped the team to redevelop the role of diabetes specialist teams within acute trusts by:

- Freeing up the specialist team to deliver high-quality care in areas where their expertise is better suited within acute trusts, such as concentrating on supporting individuals with diabetes admitted to hospital for any reason.
- Upskilling of primary care practitioners through developing the educational role (in particular, strengthening the concept of the consultant as an educator).
- Creating time for healthcare innovation and considering more effective uses for existing resources. An example of an innovation is the development of a “hypo hotline” with the local ambulance trust, which has been a major contributory factor in helping to reduce admissions secondary to hypoglycaemic events.

Other areas of service delivery change have centred on the care of young people with type 1 diabetes, with sessions on alcohol and drugs being delivered directly within university campuses. In addition, “patient engagement events” have been held (these have been attended by the local team and commissioners).

Future developments will include the specialist team providing “24/7” cover for individuals with diabetes across the region, along with the provision of an ambulatory care area for people with diabetes.

The implementation of the new model has also helped the community diabetes team to focus upon overall care, redirecting individuals with diabetes appropriately to specialist care. This has prevented reduplication of work and allowed an enhanced focus on education for primary care.

The basic principle has been to avoid case holding within the intermediate setting. We have heard anecdotes of other models in which this has been attempted but with a result of intermediate tiers being overburdened by high patient numbers, thereby taking away the specialist team from providing education and support for primary care practitioners. In our view, at least, creating an intermediate tier simply moves the patients from one building to another without enhancing the education within primary care and thereby fails to develop the parties concerned in handling similarly complex cases in the future.

The Super Six model, in contrast, stays away from providing an intermediate tier and works

as a support structure, or bridging link, between primary and specialist care.

### Looking ahead

For many years, the debate has raged about where individuals with diabetes are best served: primary care or specialist care. The Super Six model of care aims to integrate all levels without the need to create an intermediary service. Direct interaction between primary care practitioners and specialists, whether it be by virtual means or in a face-to-face capacity, not only helps to raise levels of awareness but also fosters better working relationships between primary and specialist care.

With financial pressure, there is an urgent need to develop models looking at the present and future, especially in a world where an increasing prevalence of diabetes will put higher pressure on the already overburdened setting of primary care.

The Super Six model hinges on specialists re-evaluating their way of working and being ready to engage and work differently. Encouragingly, centres such as Derby (Rea et al, 2011), North London (Vize, 2012) and Medway (unpublished experiences) are already looking at delivering such models of care, based on similar principles.

The recent findings reported in the *National Diabetes Inpatient Audit–2012* (Health and Social Care Information Centre, 2013) highlight, in general terms, the suboptimal care that individuals with diabetes receive. Specialists should be using their skills to improve this, not least through the capacity of educator to many people with type 2 diabetes in the wider community. An alternative model touted, whereby the specialists should be

involved in all aspects of care, although laudable, is unfortunately not a sustainable one within present financial constraints. Moreover, it would go against the direction of travel regarding the rise of the community care setting. Adaptation to a new role, we feel, is what is needed to improve diabetes care all round.

### The basis for success

In reflecting on what has been achieved, it is clear that the basis for success has been in redefining the role of a consultant to that of a specialist who is capable, as an educator, of providing a support framework for primary care via direct or virtual means. Success has also hinged on specialists being brave enough to embrace the concept of not having to see each patient but actually supporting the concept of care being delivered, for the most part, in the community setting.

The overarching lesson, thinking more broadly, is that different parties need to show respect for each other's area of expertise. No-one can deliver everything; rather, there is a need to work together to deliver good-quality care rather than operating in isolation. Our particular achievements, with regard to the Super Six model, have relied on the strong relationships that have been built across primary and secondary care.

One of the key lessons has been in the benefits of having the same specialist team be a part of both the acute and community teams. This has helped to create a seamless bridging link and to avoid both the creation of silos and the need for conflict between different providers. This has also given the opportunity for the acute nursing team to concentrate on delivering optimal care in the six areas while the community nursing team has concentrated on education and support for primary care. ■

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