

# **Delivery and organization of diabetes care: integrated care**

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## **Abstract**

Services for diabetes mellitus are currently often delivered across primary, community and specialist services managed by separate organizations, driven by different priorities, outcome measures and budgets, and supported by incompatible IT systems. Integrated care has been proposed as a solution to improve the fragmentation of diabetes services. Integrated diabetes care is the coordination of services around a patient supported by integration of the health system. In essence, diabetes integration is the whole health community joining in partnership to own the health outcomes of people with diabetes in their local area. This article examines what integration means to diabetes care, ranging from generalist to specialist diabetes care.

## **Keywords**

Commissioning of diabetes services; community care; diabetes care pathway; diabetes services; integrated care

## **Background**

The increasing prevalence of diabetes presents challenges for how care is delivered for people with diabetes mellitus. The current UK model of diabetes care, with patients moving between primary, community and specialist care, does not always support clinicians' aims of delivering high-quality, patient-centred care with an effective and efficient use of resources. Patients' complex needs may not be fully addressed, care is fragmented, and interventions can be delayed or duplicated.

## **Motivators for change**

Specific factors that may drive change include: 1) poor patient experience and poor patient outcomes, with significant unwarranted variation in outcomes across geographical areas, 2) lack of timeliness in the movement of patients between providers in a fragmented care system, 3) frustration with the lack of communication of clinically relevant information between different clinical providers, 4) unawareness of the most appropriate provider/location of care for a particular patient, 5) a desire to share skills and knowledge between primary and secondary care to manage a whole population more effectively, 6) a high variability of diabetes outcomes and experiences of people with diabetes within a local area.

## **Integrated care for diabetes**

Multiple national policies propose an integration between primary and specialist care to improve the care of people with long-term conditions. NHS England has promoted integrated care, while professional associations for healthcare professionals have described how to dissolve traditional boundaries between general practice, community services, hospitals and social care.

Care can be integrated in a number of ways: integration between primary and secondary care, social and healthcare, physical and mental health. Whatever its form, integrated care (Table 1) is 'an organizing principle for care delivery that aims to improve patient care and experience through improved coordination' with integration being 'a combined set of methods, processes and models that bring it about' (1).

## **Different ways to integrate care**

How integrated care may be organized spans from linkage, through coordination to full integration, with the latter recommended for care for people with severe, complex and long-term needs. Full integration does not necessarily mean organizations merging.

In diabetes, 'vertical integration' of care across traditional primary, community and secondary care providers is essential to reduce duplication of e and gaps in e services. This can be achieved by commissioning outcomes of whole pathways of care rather than fragments of a service.

## **Components of an integrated diabetes service**

Figure 1 summarizes the key components of integration in diabetes (2). In particular, it highlights the need to have five essential pillars of integration in place in order to facilitate the provision of different elements of diabetes care. Integration of services around the patient and across the community becomes more robust and effective as more pillars are put in place.

*Integrated information technology (IT)*

A good IT infrastructure is essential for the efficient running of a geographically disparate service. The system should:

- allow timely communication between clinicians, both to seek advice and to communicate information
- provide data to support population health, looking at quality of care across a geographical area
- aid the clinical consultation rather than act just as a database. For example, if a patient has hypoglycaemic episodes ('hypos'), the system should ask how severe they are; if the hypos are severe, does the patient drive? If they drive, an information sheet should be able to be printed out to act as a focus of discussion around the legal issues of driving and hypoglycaemia
- allow patients to access relevant information (results, care plans, appointment details).

#### *Aligned financial incentives and responsibilities*

This involves moving beyond a payment system that is based on activity to a system that incentivizes providers to deliver care centred around the patient. To achieve this, whole pathways of care need to be commissioned; components of diabetes care should not be commissioned individually because this leads to fragmentation of care and each provider fully using their budget with no incentive to save money to reinvest in other parts of the pathway.

#### *Care planning*

Care planning is a process that allows people with diabetes to have active involvement in deciding, agreeing on and owning how their diabetes is managed. Care planning recognizes that although healthcare professionals might have knowledge and expertise about diabetes in general, it is only the person with the condition who knows how it impacts on their life. Both the person with diabetes and the healthcare team will then jointly agree the priorities or goals and the actions to take in response to this. Year of Care is an excellent example of implementation of a care planning process (3).

#### *Clinical engagement and partnership*

All successful integrated models of care have involved clinicians and service users at an early stage. Local diabetes networks are in a unique position to work across natural diabetes communities, which can bring together and facilitate a range of stakeholders from different disciplines with a mix of expertise, knowledge and competencies to deliver high-quality, cost-effective care through the effective commissioning, organization and delivery of services.

In diabetes, networks exist in different formats and have different priorities, but they should all involve the principle of working in collaboration across a patient pathway to improve outcomes for people with diabetes. If networks do not exist, there can be a lack of transparency of the diabetes service, and poor communication and engagement between the pathway stakeholders, especially with people with diabetes. In addition, the service is unlikely to be integrated, and there is minimal opportunity to deliver improvement.

#### *Robust shared clinical governance*

Clinical governance in the context of integrated diabetes care involves the whole diabetes healthcare community being responsible for outcomes locally. Good communication, reporting and benchmarking enable the provider organizations to review variation in outcomes and target

resources as appropriate. This allows the whole diabetes community to both be responsible for the outcomes locally and have the financial ability to address local priorities.

### **Data and outcomes**

The local diabetes community should agree a variety of relevant outcomes such as those described in the 'House of outcomes' (Figure 2).

Diabetes is rich in data, including nationally benchmarked data such as the National Diabetes Audit (NDA) suite of audits (4). (Table 2) and data captured at primary care level. The Improvement and Assessment Framework for clinical commissioning groups also contains metrics for diabetes around submission to the NDA, care processes and structured education. Such data can be used to drive down unwarranted variation and to improve care using methodology described by the Right Care programme (5).

### **Specific challenges**

The major challenge remains the alteration of a current mind-set that is geared up to providing health services in silos. This requires a wholesale adoption of the five key elements of integration: integrated IT; alignment of finances and responsibilities; care planning; clinical engagement and partnership, with the aligning of agendas and incentives to focus on patient-centred care; and shared governance. Changes in policy-making, regulation, financing and organization of healthcare systems need to take place if meaningful outcomes are to be achieved.

### **Useful Websites**

More information regarding integrated care can be found at the following places:

Royal College of Physicians: <https://www.rcplondon.ac.uk/projects/integrated-care>

King's Fund: <https://www.kingsfund.org.uk/topics/integrated-care> Nuffield Health: <https://www.nuffieldtrust.org.uk/ourpriorities/new-models-of-health-care-delivery/>

Royal College of Psychiatrists: <https://www.rcpsych.ac.uk/healthadvice/physicalandmentalhealth/longtermconditions.aspx>

Diabetes UK: <https://www.diabetes.org.uk/professionals/position-statements-reports/integrated-diabetes-care>.

Goodwin N, Smith J, Davies A, Perry C, Rosen R, Dixon A, Dixon J, Ham C. A report to the Department of Health and NHS Future Forum. Integrated care for patients and populations: improving outcomes by working together. The King's Fund and Nuffield Trust, 2012.

### **KEY REFERENCES**

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2 NHS Diabetes. Best practice for commissioning diabetes services. An integrated care framework. 2013. NHS Diabetes, <https://diabetes-resources-production.s3-eu-west-1.amazonaws.com/diabetes-storage/migration/pdf/best-practice-commissioningdiabetes-services-integrated-care-framework-0313.pdf> (accessed 12 Dec 2018).

3 Year of Care <https://www.yearofcare.co.uk/> (accessed 12 Dec 2018).

4 NHS Digital. National Diabetes Audit. <https://digital.nhs.uk/dataand-information/clinical-audits-and-registries/national-diabetesaudit> (accessed 12 Dec 2018).

5 NHS England. Right Care. <https://www.england.nhs.uk/rightcare/> (accessed 12 Dec 2018)

### TEST YOURSELF

To test your knowledge based on the article you have just read, please complete the questions below.

Question 1 Care for patients with diabetes can be improved by integrating care providers. Which of the following best describes integrated care for these patients? A Services coordinated around their needs B Merging of organizations providing their care C Use of agreed protocols for diabetes management D Improving the IT systems connecting different providers E Common agreed training packages for all care staff

Question 2 Audit of diabetes care in a region has shown a high incidence of people with diabetes requiring premature renal dialysis. Which of the following is likely to be the most important factor in developing a successful integrated care programme for people with diabetes to address this problem? A Clinical engagement B New sources of finance C Development of postgraduate training programmes D A pan-national programme E A single patient record system

Question 3 Which data sources provide information regarding diabetes care at a GP level? A Public Health England Profiles B Diabetes versus Outcomes (DOVE) tool C National Diabetes Inpatient Audit (NaDIA) D National Diabetes Core Audit (NDA core audit) E National Paediatric Diabetes Audit (NPDA)

Table 1

<p>Integrated care</p> <p>Integrated care is 'an approach that seeks to improve the quality of care for individual patients, service users and carers by ensuring that services are well co-ordinated around their needs.' (The King's Fund and Nuffield Trust 2012)</p>
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Table 2

<p>The National Diabetes Audit suite</p> <p>Core diabetes audit (audits the care processes and outcomes of all people with diabetes treated in primary care and secondary care)</p> <p>National Diabetes in Pregnancy Audit (NPID)</p> <p>National Diabetes Foot Care Audit (NDFA)</p> <p>National Diabetes Inpatient Audit (NaDIA)</p> <p>Transition audit (a joint enterprise with the National Paediatric Diabetes Audit)</p>
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Figure 1

The five essential pillars of integration

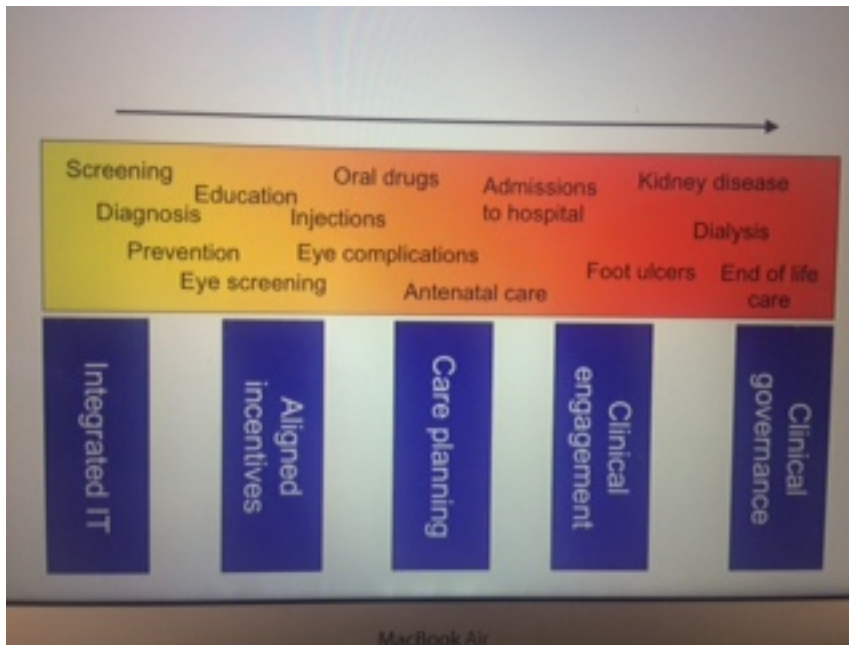


Figure 2

