# Challenges and opportunities: integrated diabetes foot care pathway

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### Article points

1. It is vital that patients who are at risk of diabetic foot ulceration are given timely treatment to avoid the development of life-changing complications.
2. A model of integrated care was introduced by a clinical commissioning group to try to reduce amputation rates and reduce costs for the borough's Trusts.
3. Commissioning a single pathway can create financial incentives for the entire team to ensure that prevention is at the heart of care strategies.

### Key words

- Diabetic foot commissioning
- Service redesign
- Single pathway
- Value-based commissioning

### Authors

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**This article describes the development of an integrated diabetes foot care pathway across four NHS Trusts in one London borough. It describes how the pathway was developed in order to improve care for patients, as well as making cost savings to the NHS. It used amputation rates as a key performance indicator as the reduction in amputation rates would show that patients with diabetic foot problems were receiving timely treatment and that prevention strategies were in place and were correctly targeting at-risk patients. The strategies and implementation of the pathway are described, and advice is offered for anyone setting up a similar system for any other chronic illness.**

The National Institute for Health and Care Excellence (NICE) has been producing national guidance on diabetic foot problems since 2004. The message has always been consistent throughout various revisions that services and pathways need to ensure that foot assessment and the treatment of people with diabetes occurs at the right time and in the right place. Diabetes UK's 'Putting Feet First' (2012) campaign also highlights how important it is to follow the guidelines and prevent complications. The Atlas of Variation (NHS Right Care, 2012) is "an interrogation of routinely available data that relate investment, activity and outcome to the whole population in need", which showed a 10-fold difference in amputation rates across England with rates continuing to rise.

While average amputation rates in London remained below the national average, there was still variation in amputation rates from Trust to Trust. This author has previously been shocked by a manager's comment that hospital Trusts can save money by opting for amputation as treating a diabetic foot ulcer can require many costly hospital visits.

Clinicians have been told to work across boundaries between community, primary and secondary care for some time. There has not been a joined-up financial strategy, however, as many acute Trusts do not see the effect of poor outcomes from poor DFU management leading to amputation on the budgets of clinical commissioning groups (CCGs), while CGGs are not currently commissioning foot protection services that could reduce costs by preventing people needing hospital treatment.

This article examines the process of commissioning the whole diabetic foot pathway as a single service, ensuring it is fit for purpose, and integrating care and expenditure. There are also comments about how this model could be developed for other conditions.

## The strategy

In 2013, Camden CCG in central London appointed a programme lead to implement integrated care as a new approach in the delivery of diabetes care. This role was essential in ensuring delivery of a robust service against a strict timeline. Models of integrated care were reviewed and the Harvard Business Review's (HBR) "strategy that will fix healthcare" (Porter and Lee, 2013) was chosen to inform how to develop the service alongside the Diabetes Guide For London (Healthcare for London, 2011) and the current national guidance from NICE. The HBR strategy comprised:

- Organisation into integrated practice units (IPUs)
- Measuring outcomes and costs for every patient

- A move to bundled payments for care cycles. Bundled payments are a way of setting a single price for all the care required to treat a patient's particular medical condition
- Integrate care delivered across separate facilities
- Expanding excellent services to include community, primary and secondary care practice
- Building a suitable IT system to support care delivery.

One pot of money was provided for the whole of diabetes care across Camden CCG. This amount was defined by calculating the average cost of medical care per person with diabetes in Camden.

The strategy involved multiple providers to act as one team in the provision of diabetes care. There were three podiatry providers across four Trusts, but these providers were commissioned as a single service delivering a single pathway.

The outcomes from integrated practice would be assessed as part of a value-based commissioning process with a 'risk and reward' contract with key performance indicators (KPIs). In this method of commissioning, value is placed on outcomes rather than clinical activity and volume, and there is joint accountability for outcomes and costs by all providers. The amputation rate was considered the main KPI for the podiatry pathway.

If new models of care are being considered, the setting of KPIs is an important step if risk and reward is being implemented. It should be agreed what is measurable and achievable over time — therefore, the KPI for year one may be an easier target to achieve than year two and three of the contract. This ensures ongoing improvement in the standard of care.

## The vision for an Integrated Practice Unit in Camden:

- Delivers outcomes that matter to patients
- Works across organisational boundaries
- Considers a whole population — by including prevention strategies, as well as treatment strategies
- Patients lead their own care by using up-to-date information to agree goals to work towards, eg improving fitness or losing weight
- Provides the best value for Camden taxpayers.

## Patient involvement

An NHS listening event was held involving patients and healthcare professionals from Camden. The patients' key priorities were:

- Patient education
- Coordinated care
- Minimising complications
- Having one-stop visits
- Achieving a better quality of life.

When considering a new commissioning model, it was found that patient involvement was essential in defining some of the key priorities for the IPU, not just clinical KPIs. The patient priorities also helped to shape some of the service structure, such as having integrated clinics for a one-stop shop.

## Podiatry

A review of the diabetes services in Camden showed that podiatry did not have a dedicated community clinic for high-risk patients and that there was inadequate staffing to run such a clinic. The new commissioning strategy enabled funding of a new post to enable high-risk podiatry care as part of the IPU.

Before making changes to any service, it is advisable to map the processes to be implemented against those that are already in place so that weaknesses in the current system can be identified that may cause issues in the new model.

## Tiered risk

The Diabetes Guide for London (Healthcare for London, 2011) signposts patients to tiers of care with tier 1 being essential care in a community setting and tier 4 being hospital-based care (*Figure 1*). Podiatry patients in Camden with diabetes were reviewed and stratified to their correct tier. This enabled high-risk patients to be moved into the IPU and enabled discharge of non-essential care patients to GPs for annual foot review. This was a large piece of work undertaken by the community podiatry team, which reduced the number of patients being seen in podiatry who only required annual review and ensured those who needed a higher tier of podiatry treatment were seen in the appropriate setting with an appropriate review time. Open access to high-risk and acute podiatry care from any healthcare provider was implemented to remove the requirement for tertiary referral. Referral processes and criteria for referral were agreed across the entire pathway. This has also enabled shared care between hospital and IPU settings for patients whose ulceration was no longer acute.

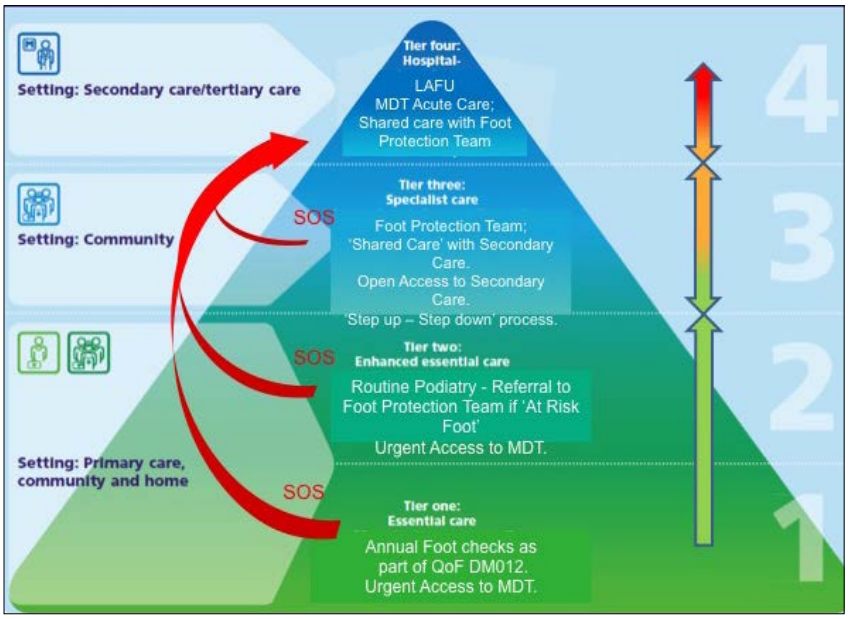


Figure 1. Settings of care (adapted from Healthcare for London, 2011).

Defining the risk category of the patient group was made easier by NICE and other guidance. If using this model for a different patient group where such guidance does not exist, it would be necessary to decide on a grading system for that patient group and apply it to the care pathway. This would inform how many patients are at each tier of care and what staffing, competencies and equipment would be needed to deliver the service.

## Aligning services

Dressing formularies were reviewed and an agreed formulary has been adopted to ensure that patients referred between sites can continue with the same care plan. The formulary has also reduced dressing costs.

Patient leaflets and documentation were standardised so that patients received the same information no matter which part of the pathway or service they encountered.

Dressings are one of the major components of wound care; however, if considering this model for another patient group, it would be important to understand common devices that are needed across the pathway and whether they are available to all service providers.

## Training

Training in foot checking for district and practice nurses was given as part of a package of training in diabetes care. This ensured that staff competency was assessed across the service. The training package continues to be given to all new staff who join the nursing teams. The podiatry team completed update training in diabetic foot assessment and treatment. Competencies were assessed so that podiatrists working with patients in different tiers had the correct knowledge to do so.

When considering a new patient pathway, the competency of the staff to deliver care at the right level needs to be considered. This will identify training needs across the team. Different specialities can often deliver training to each other to ensure robust care provision.

## Community care

District nurse support is provided by the IPU team. Housebound patients who need enhanced diabetes care are visited at home by a team of healthcare professionals who agree a plan for the patient's diabetes care. Podiatry for high-risk patients requiring assessment and care at home has also been introduced so that there is parity of service provision for all patients with diabetes.

When redesigning a service, areas of variability in care provision should be identified. These can often be challenging, as was found when providing services to patients who were housebound, but should be included in the commissioning process to ensure all patients have equal access to treatment.

## IT

Electronic patient records were a considerable issue because at least six different systems were being used, none of which linked to each other. There was a plan to develop an 'integration platform' so that information could flow across all these systems, but this did not come to fruition and a formal shared patient record was not possible. In podiatry, the EMIS health system has been adopted as 'read only' in secondary care to enable clinicians to access primary care records and secure email is being used for rapid transfer of information. Work is ongoing to improve IT integration.

A website for the IPU was set up to ensure patients and healthcare professionals had all the information available so that patients could access services in a timely fashion (Haverstock Healthcare — online).

This is one area that is known to be a sticking point throughout the UK. IT systems were not integrated when computers were first used in the NHS and the legacy remains that there is a lot of patient information that is not accessible to the clinicians who need it. IT is a major consideration when developing a new model of care as it also affects the gathering of statistical information. If IT cannot be integrated, a robust mechanism to share this information will be needed.

## Hospital care

The national diabetes inpatient audit in 2013 showed that documented inpatient foot checks for people admitted to hospital with diabetes in both the Royal Free Hospital and University College Hospital were below national average (NHS Digital, 2016). New strategies, including foot check stickers as part of the diabetes pro forma in A&E, to increase foot checks and documentation were made at both sites.

Instead of commissioning individual clinical providers in different locations to provide foot care depending on the patient's need, a pathway for diabetic foot care was commissioned in its entirety involving all providers and locations. This method of funding enabled joint working in which annual rewards for meeting KPI outcomes would be fed back into the service. This encouraged podiatrists to think of working within a pathway as a joint service rather than working in separate teams. It has also removed the issue of the hospital Trusts not being aware of the financial effects of preventing amputations that are seen in primary care, with the overall costs of DFUs and amputations being £650m a year (Kerr, 2012).

The Camden Diabetes IPU was opened in 2014 and won a Quality in Care award 2015 for the best initiative to reduce variation in diabetes care: 'Camden CCG invested in value-based commissioning with one pooled programme budget across all sectors: the team is paid from a common budget, allowing savings in high-cost areas such as amputations to be reinvested in prevention by having more podiatrists and better-trained staff doing diabetes foot checks' (Quality in Care Programme, 2015).

## Conclusion

Commissioning a single pathway provided by a single service for long-term conditions, such as diabetes, has distinct advantages. Commissioning a single team and pathway gives financial groups from different trusts an incentive to ensure that prevention is at the heart of care and that patients will receive care at the level they require. Financial incentives for KPIs can further incentivise improvements. In terms of the wider use of the model, joining up the finance in a single pathway for any condition makes as much sense as joining up the clinical teams.

The process to achieve this service among several providers highlighted gaps in the old system. The funding process enabled an increase in staffing to address some of these issues. However, a lot of work was involved in risk stratifying and moving patients to the correct clinics, teaching, agreeing pathways, formularies and electronic records. The implementation of a similar model for other conditions will undoubtedly take time and effort, but the outcomes make it worthwhile.

It is essential to have a programme lead who has an overview of the entire process of commissioning a new model of care and ensures that objectives are met against strict timelines.

The current system at Camden IPU ensures that patients are being seen in the right place at the right time in line with national guidance. It has also enabled patient objectives to be met in coordinated care, minimising complications, one-stop visits and a better quality of life. ■


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