Outcomes of a questionnaire to English Clinical Networks: standardising multidisciplinary footcare teams and service evaluations

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The English Diabetes Footcare Network (EDFN) aims to provide a focus for strategic developments, share best practice and advise relevant stakeholders on all matters relating to service delivery and improvements in England for diabetes-related foot disease. The EDFN wanted to establish if there is a common approach to multidisciplinary foot team (MDFT) service provision and service evaluation across England. A questionnaire was compiled by the EDFN and completed by 13 networks. From the findings, the EDFN have proposed principles for MDFTs that highlight the need for standardised, mandated and fully commissioned MDFT services, integrated foot care systems and service reviews.

As part of the NHS Long Term Plan (2019) "for those who periodically need secondary care support we will ensure that all hospitals in future provide access to multidisciplinary footcare teams". The English Diabetes Footcare Network (EDFN) produced a questionnaire relating to multidisciplinary footcare teams (MDFTs), peer reviews and root cause analysis for amputations within each network in England. There were responses from 13 networks. The basis for the questionnaire was to establish if there is a common approach to service provision and service evaluation across England.

Replies to the questionnaire were completed prior to the COVID-19 pandemic 'lockdown' in England. The description of the questionnaire included the phrase: "It is recognised that multidisciplinary footcare teams (MDFTs) may comprise different team members dependent on availability of specialist clinicians and surgeons."

Service provision

Question 1 (*Tables 1a & 1b*)

"If you were to set a benchmark to standardise your local MDFTs, which clinical professionals would you expect to be present and/or be readily available for the assessment and treatment of the patient together within Foot Clinics."

There is consensus from networks that a benchmark for a standardised MDFT should have a podiatrist and diabetologist (or 'physician') present together in foot clinics. There was a split between whether both vascular surgeons and orthotists should be present in the MDFT or whether they should be readily available.

Specialities noted by more than three networks (but not all), which they considered should be mostly readily available, were orthopaedic surgeon, tissue viability nurse, microbiologist, radiologist, dietician and diabetes specialist nurse.

Specialities noted by three networks or less in either group (present/readily available) were interventional radiologist, podiatric surgeon, dietician, plaster technician, plastic surgeon, pharmacist and outpatient parenteral antibiotic therapy, healthcare assistant and clinical psychologist.

There was variation between networks in the approach to what they considered a standardised MDFT. When comparing these responses to

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Article points

1. A questionnaire was sent to Clinical Networks in England to establish if there is a common approach to service provision and service evaluation across England.
2. The English Diabetes Footcare Network collated the results to determine commonalities and disparities of approach. The outcomes of this evaluation are discussed in the light of the COVID-19 pandemic.
3. The English Diabetes Footcare Network proposes principles for MDFTs from this discussion.

Key words

- COVID-19
- English networks
- MDFT
- Peer review
- Root cause analysis

Authors

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Table 1a. Comparing the outcomes from the MDFT questions with current guidance (NICE, 2019).

	Present															Readily Available													
Response	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9a**	**9b**	**10**	**11**	**12**	**13**	**Total**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9a**	**9b**	**10**	**11**	**12**	**13**	**Total**
Podiatrist															12															2
Diabetologist															10															3
Diabetes Inpatient Specialist Nurse															1															1
Diabetes Specialist Nurse															3															8
Vascular Surgeon															6															8
Vascular Nurse Specialist															0															3
Orthopaedic Surgeon															3															8
Podiatric Surgeon															1															0
Tissue Viablility Nurse															1															6
Microbiologist															1															7
Radiologist															0															4
Dietician															0															2
Orthotist															5															4
Physician															2															0
Interventional Radiologist															0															1
Plaster Technician															2															1
Plastic Surgeon															0															1
Pharmastist & OPAT															0															1
HCA (Obs, blood tests, dressings)															1															0
Clinical Psychologist															0															1
Comments		Respondent Skipped This Question			Diabeotlogist/Lead DSN/Vascular & Orthopaedic				Tertiary Hospital	Secondary Hub		Orthopaedics/Pod Surgeon		2 Lead Podiatrists.Diabetes Consultant or DSN	Figures for 9a and 9b counted once only		Respondent Skipped This Question	Vascular Surgeon or Vascular Specialist Nurse		Diabeteologist or Lead DSN. Some Vascular				Tertiary Hospital	Secondary Hub					Diabetologist if DSN in MDFT	Figures for 9a and 9b counted once only

current national guidance, it is noted there may be overlap in what skills specialists can provide and also that certain skills were not represented by the network's standardised MDFT models. This may be because NG19 (NICE, 2019) does not advise on all the individual specialities that should be present or readily available, but about available skill requirements within an MDFT, which leaves the guidance open to interpretation. More concerning are the gaps in both specialities and skill mix when measuring the network benchmarks against NICE guidance; there is no mention of rehabilitation and little mention of plastic surgery, psychological or nutritional

Table 1b. Comparing the outcomes from the MDFT Questions with current guidance (NICE, 2019).

NICE; NG19 1.2.3. The multidisciplinary foot care service should be lead by a named healthcare professional, and consisit of specialist with skill in the following areas:			
Area	**Present**	**Readily available**	**Comments**
Diabetology	10	3	Where networks had not marked diabetologist as 'present' they had included 'physician'. three networks had marked both 'readily available' and 'present'.
Podiatry	12	2	All networks marked podiatry as 'present'.
Diabetes specialist nursing	3	8	Two networks marked diabetes specialist nursing/diabetologist suggesting these roles may be considered interchangable. Inpatient diabetes specialist nurse was mentioned by one network.
Vascular surgery	6	8	All networks marked vascular surgery as 'present' or 'readily available'. The numbers were fairly evenly split.
Microbiology	1	7	The majority of networks marked 'microbiologist' as 'readily available'. One network mentioned OPAT services.
Orthopaedic surgery	3	8	Most networks marked orthopaedic surgery as 'readily available'. One network metioned 'podiatric surgeon'.
Biomechanics and orthoses	5	4	Orthotist' was mentioned by eight networks across both 'present' and 'readily available' groups.
Interventional radiology	0	1	Only one network mentioned interventional radiologist. However, this may overlap with vascular surgeons undertaking these procedures.
Casting	2	1	Plaster technician was only mentioned by one network. Podiatrists may be fulfilling this role; however, off the shelf devices may be the only option if casting not available.
Wound care	1	6	Tissue viability nursing was mentioned mostly as 'readily available'. It may be that networks considered that podiatrists are fulfilling this role.
NICE NG19 1.2.4 The multidisciplinary foot care service should have access to:			
Rehabilitation services	0	0	Rehabilitation services were not mentioned by any network.
Plastic surgery	0	1	Plastic surgery was mentioned by only one network.
Psychological services	0	1	Psychological services were mentioned by only one network.
Nutritional services	0	2	Dietician mentioned by two networks.

services, as outlined in NG19. Ready access to all specialities should be considered in reviewing service provision.

One network described MDFTs by tertiary hospitals and secondary hubs. This may follow the vascular and/or renal 'Hub and Spoke' model and suggests a variation in MDFT delivery, dependant on the hospital site requiring a 'hospital network', with mixed teams at different sites. Current guidance from NG19 does not specify any differences between hospitals or how an MDFT in a 'hospital network' should be developed. This will be essential in the process of commissioning integrated care services.

The responses may reflect what personnel are currently available within each network area and current working practice, rather than what the networks consider a standardised MDFT.

During the COVID-19 pandemic, NHS England and NHS Improvement London stated in their 'Diabetes COVID-19 Key Information' that "provision of outpatient (and inpatient) multidisciplinary foot service is an essential service" (NHS England and NHS Improvement London, 2020a). The organisation also stated that "some services should not be postponed/cancelled if at all possible, due to acuity and potential impacts, eg risk of amputation in the context of active diabetic foot disease" (NHS England and NHS Improvement London, 2020b). Anecdotally, many MDFT members were seconded to COVID-19 wards and visits to secondary care reduced, due to extending time between appointments and cancellations because of patient reluctance to visit a hospital. New ways of working 'virtually' seem to have developed rapidly in

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many trusts to support healthcare professionals and patients in community settings, and to link MDFT members who were unable to join the MDFT clinic. There is definitely potential to continue with virtual working, but it could have the effect of disrupting teams and consultants not being specifically 'job planned' into an MDFT, although in many areas this is a current issue where MDFTs only work due to the goodwill of the clinicians (*Table 8*). Implementation of virtual working long-term will need further guidance and careful consideration eg virtual foot assessments.

The unanimity of responses to having podiatrists at the centre of patient care undoubtedly reflects their essential and unique role as interventionists, gatekeepers and service co-ordinators. The support required to ensure availability of all other MDFT members (whether 'present' or 'readily available') in a timely fashion should form part of multidisciplinary foot service delivery planning, including 'hospital networks' where 'hub and spoke' hospitals exist. Podiatrists in community foot protection teams should play a major role in integrated care and form part of the multidisciplinary foot service, if there is increased patient care in the community. The process may change in light of the COVID-19 pandemic and implementation of 'new ways of working' will need to be evaluated and scrutinised, as part of ongoing service delivery.

Service evaluation – peer reviews

Question 2 (*Table 2*)

"Have you engaged in peer reviews for MDFTs?"

The majority of networks had engaged in peer review of MDFTs. Due to funding issues, some Networks had developed their own tools of assessment, such as 'Peer Lite'. A couple of networks had not engaged in this process.

Question 3 (*Table 3*)

"Do you intend to engage in Peer Reviews in the next 12 months?"

The majority of networks intend to engage in peer review of MDFTs or a local assessment in the next 12 months. Those who did not intend to engage had no future plans, just completed a peer review

Table 2. Have you engaged in peer reviews for MDFTs?

Respondent	Yes	No	Un-certain	Main comments
1	✔			Peer review of 11 out of 17 MDFTs completed over 2 years.
2	✔			One STP completed reviews in 2019. One ICS will carry out peer review in February 2020 and the remaining STP are planning for later in the year.
3			✔	No comments.
4			✔	Network funded peer support programme rather than formal peer review ['Peer Lite']. Teams visit each other and share best practice/open collaboration. Network not mandated to undertake a formal process or have the aurthoity to challenge CCGs & Trusts to implement changes. Gaps in service through self-reporting shared with CCG leads.
5	✔			Compelted comprehensive peer review in 2018 and published patient experience in *The Diabetic Foot Journal*. Currently a peer review is in progress.
6	✔			No comments.
7	✔			A round of peer reviews is just being completed.
8	✔			Currently being co-ordinated across the network.
9	✔			Developed a self assessment tool for each MDFT/CCG as no funding available. This has facilitated reflection and ownership of localities gaps. Each team presented outcomes to the network; peer feedback was used to create a formal document to support developement and a RAG rating for what is currently available and what could be improved.
10		✔		No comments.
11	✔			No comments.
12		✔		Completed for amputations but not for MDFTs.
13	✔			Led 36 peer reviews across five regions in the past 5 years.

Table 3. Do you intend to engage in peer reviews in the next 12 months?

Respondent	Yes	No	Uncertain	Main comments
1	✔			No comments.
2	✔			The STP/ICS are responsible for arranging these reviews in 2020.
3			✔	Not had much knowledge/exposure to these but would be happy to engage.
4			✔	'Peer lite' support programme will be completed Spring 2020.
5		✔		Peer reviews recently completed and none further planned. Key actions follwed up at 6 and 12 months. Best practice shared at Diabetes Clinical Forum.
6	✔			No comments.
7	✔			A round of external peer reviews is just being completed.
8	✔			First round of peer reviews for 30 providers being completed.
9	✔			During network meetings (every 6 months) we agenda 1 or 2 peer reviews. Feedback on progress in November 2020 meeting.
10			✔	No comments.
11	✔			No comments.
12			✔	Not aware of anything planned.
13	✔			We are building a team of clinicians and CCG/STP leads from areas where they have done good work.

Table 4. Have you identified funding to complete peer reviews?

Respondent	Yes	No	Uncertain	Main comments
1	✔			Network funds support peer review.
2	✔			NHSE.
3		✔		None.
4	✔			NHSE.
5	✔			NHSE.
6	✔			Cardiovascular network.
7	✔			NHSE.
8	✔			NHSE.
9			✔	Chairs not currently funded. Each locality completing peer review documentation and presentation in their own locality time. Small amount of NHSE funding used for RCA training at an additional network day.
10			✔	Uncertain.
11		✔		Completing peer review without funding.
12				Respondent skipped this question (not engaged in completing peer reviews for MDFTs.
13	✔			CCG.

or did not have knowledge of the process but were interested.

Question 4 (*Table 4*)

"Have you identified funding to complete peer reviews?"

The majority of networks had identified funding for peer reviews through NHSE. Those which had not were 'uncertain', completing peer reviews without funding or accessing funds via CCGs.

Service evaluation — root cause analysis for amputations

Question 5 (*Table 5*)

"Have you engaged in completing root cause analysis

Table 5. Have you engaged in completing root cause analysis (RCAs) for amputations?

Respondent	Yes	No	Un-certain	Main comments
1	✔			We encourage all systems to undertake RCAs.
2	✔			There have been various different levels and approaches to completing RCA in each STP.
3	✔			No comments.
4	✔			No comments.
5	✔			No comments.
6			✔	We undertake 'mini' RCA; Rapid review of records by a podiatrist and a timeline indepedently verified. Feeback goes to teams involved in patient's care.
7	✔			No comments.
8	✔			No comments.
9	✔			No comments.
10	✔			No comments.
11			✔	Only in some CCGs.
12	✔			No comments.
13	✔			No comments.

Table 6. Do you intend to engage in RCAs in the next 12 months?

Respondent	Yes	No	Un-certain	Main comments
1			✔	We will continue to encourage all systems to undertake RCAs.
2			✔	Each STP/ICS has indictaed that they will continue to engage in RCAs.
3	✔			No comments.
4	✔			We have undertaken a region wide RCA into major amputation rates. Data was submitted to an international conference in 2018 and possibly again in 2020.
5			✔	Providers may elect to do this.
6		✔		We do not have capacity to undertake formal RCA. We believe that 'mini' RCA and a comprehensive diabetic foot pathway is contributing to a reduction in major amputations and earlier referral to MDFT.
7	✔			Every Trust is doing this slightly differently, or not at all. We need some cohesion to help with shared learning and to make the most of it, as it is intensely time-consuming. Different models exist; it would be great to have one so that everyone can compare. Can EDFN help with this? This shoud be top priority.
8	✔			We will be reviewing our process to carry out RCAs.
9	✔			Asking teams to bring examples of RCAs to look for a Network trend of findings and identify the need for support. Major problems is a lack of time and access to primary care notes.
10	✔			No comments.
11	✔			No comments.
12			✔	Uncertain.
13			✔	Hope to contribute to RCA in post peer review follow up.

(RCAs) for amputations?"

All networks had engaged in some level of root cause analysis for amputations. One network has undertaken 'mini' RCAs, while one reported that this was only occurring in some of its CGGs and another that there has been various approaches to this in each STP.

Question 6 (*Table 6*)

"Do you intend to engage in RCAs in the next 12

Table 7. Have you identified funding to complete RCA?

Respondent	Yes	No	Uncertain	Main comments
1			✔	N/A.
2	✔			NHSE.
3		✔		Completing RCA without funding.
4		✔		Completing RCA without funding.
5	✔			NHSE.
6		✔		No comments.
7	✔			Local Trust.
8	✔			NHSE.
9		✔		Completing RCA without funding.
10	✔			Local Trust.
11		✔		Completing RCA without funding.
12				Respondent skipped question.
13	✔			STP.

Table 8. What barriers have you identified in provision of MDFTs, peer reviews and RCAs?

Respondent	Main comments
1	Limited funding from CCG is a barrier to establishing robust NICE-compliant MDFT. Peer review funding coming from clinical network. No manpower for RCAs — no locally identifiable source of funding.
2	Respondent skipped this question.
3	Access to secondary care expertise for community clinics.
4	Peer review requires a national mandate with guidance and structure of the process and recognition that the outcomes need to be adhered to. RCA — time a key factor for HCP to sit down with each set of notes, lead the discussion, collect data and feedback to CCG.
5	Respondent skipped this question.
6	Funding (NHSE/STP stopped 2 years ago). Capacity. Dedicated admin needed to organise RCA.
7	Awaiting final peer review reports to be able to draw conclusions. Already agreed goals and all stakeholders signed up, so it will be interesting to see where the barriers have been. Funding is usually the main issue historically.
8	Orthopaedic support. Lack of inpatient foot checks. SLAs out of date. Services provided on goodwill.
9	Funding/time. Services over stretched. Lack of STP approach and commissioner involvement in some areas. Challenges with availability of rooms in outpatients. Challenges work plan changes for consultants. Challenges for training community podiatry for succession management. Savings realised from amputation prevention across a lot of settings not easily observed. Low numbers of people training to be podiatrists/orthotists. Most services run by good will of enthusiastic professionals.
10	Three different providers and priorities not always aligned.
11	Funding and admin to complete this work.
12	Lack of awareness from management; deemed not important as 'not commissioned'. Cross-organisational boundaries. RCAs/peer reviews seen as blame culture; sometimes condescending attitude across professions.
13	Management focus on short-term finances can result in prevention of job planning of MDFTs. Savings from reduced amputations not always translated into continuing finance from CCG/Trusts as they think this is short term.

months?"

Most networks intend to engage in some level of RCA in the next 12 months. Comments included problems with time, difficulty accessing primary care records, various Trusts not participating and different models being used within a network. One network suggested the EDFN could provide a national model for RCAs.

Question 7 (*Table 7*)

"Have you identified funding to complete root cause analysis?"

Only half the networks have identified funding to complete RCAs from NHSE, local Trusts and STPs. Several networks are completing RCA with no funding or may not be engaging because of this.

Question 8 (*Table 8*)

"What barriers have you identified in provision of MDFTs, peer reviews and RCAs?"

Some themes regarding barriers to provision of MDFTs, peer reviews and RCAs were:

- Lack of funding/administrative support
- Capacity to complete this work
- Access across primary and secondary care
- No national mandate to ensure processes are commissioned
- Services provided on goodwill
- No job planning to MDFT
- Succession management
- Priorities of providers not aligned
- RCAs and peer reviews seen as blame culture
- Management awareness — processes not 'commissioned' and focus is on short-term finances
- Savings not realised from reduced amputations to reinvest in amputation prevention.

Discussion

The outcomes of the questionnaire show that there is variation in the perception of a standardised MDFT by different networks. Measuring these outcomes against NICE guidance (NG19) shows gaps in the perceived requirements of a fully functional MDFT, and whether clinical specialists should be present in clinic or readily available. Some interpretations of NG19 may allude to the guidance not specifying all the individual specialities, instead advising on the need for certain skills e.g. are the skills of a diabetes specialist nurse and diabetes consultant or a vascular surgeon and interventional radiologist always interchangeable? Other factors within the NHSE have produced variation in service provision including 'hub and spoke' models. These may work well if the hub and spoke hospitals along with community foot protection teams have an integrated plan for an MDFT service, but there is no guidance on how this should be achieved and there is no differentiation between hospitals given in NG19. New models of working during the COVID-19 pandemic may be advantageous, but also carry the risk of destabilising established MDFTs. Clear guidance is required in all these areas and would be highly beneficial in securing properly commissioned foot services.

The majority of English networks have completed peer reviews (or developed a less formal assessment tool) and all of them completed RCAs for amputation (or 'mini' RCAs). There is variation between and within Networks as to how these processes are achieved and different analysis being employed.

The main barriers to provision of MDFTs, peer reviews and RCAs were funding, capacity and no national mandate to ensure teams and processes are commissioned and established. Some networks felt services were run on the goodwill of clinical staff.

The EDFN proposes that standardisation of MDFT provision and evaluation is essential across England to achieve continuing improvement in amputation reduction. There would be benefits in ensuring the correct specialists were commissioned to attend MDFTs. Also, there would be benefits from shared learning from outcomes, which could be measured at national level. As these have not been achieved by current guidance a nationally mandated policy seems essential.

Principles from outcomes

A number of principles emerged from the outcomes of the questonnaire. These were:

- Review of services via peer review and RCA for amputations should be standardised to ensure shared learning and benchmarking across England
- Peer review and RCA should be mandatory and commissioned
- Podiatrists are essential as gatekeepers and co-ordinators in assessing, diagnosing and treating patients and also ensuring patients see the right MDFT specialists at the right time. They

should be central to planning and implementing multidisciplinary foot services

- MDFT should comprise a minimum of a podiatrist and diabetologist
- During COVID-19, provision of non-acute foot care has moved away from tertiary and secondary centres to community care. Where this is shown to be beneficial, it should remain
- Focus should be on service provision across all settings and fully integrated care. 'Hospital networks' for acute foot care should be provided where 'hub and spoke' hospitals exist and should integrate community foot protection teams to provide a fully functional multidisciplinary foot service
- Further guidance should be available to establish safe working practices within multidisciplinary foot services e.g. virtual working
- Community foot protection teams should be supported in clinical decision making by the MDFT.

Conclusion

This questionnaire has highlighted the need for standardised, mandated and fully commissioned MDFT services, integrated foot care systems and service reviews. New guidance in light of changes to practice during the COVID-19 pandemic is required to inform part of this process. ■

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