Do we know how good we all are at managing diabetic foot ulcers? A question for those who do not yet participate in the National Diabetes Foot Care Audit

William Jeffcoate

Clinical Lead, National Diabetes Foot Care Audit

Andrew Askey

Clinical Lead in Diabetes and Long-Term Conditions, NHS Walsall CCG

Alex Berry

National Diabetes Audit Engagement Manager, Diabetes UK

Jonathan R Boyle

Chair Audit Committee, The Vascular Society of Great Britain and Ireland and Consultant Vascular Surgeon and Consultant Vascular Surgeon, Cambridge University Hospitals Trust

Frances Game

Consultant Diabetologist, University Hospitals of Derby and Burton NHS Foundation Trust

Richard Leigh

Consultant Podiatrist, Royal Free NHS Foundation Trust and Chair, English Diabetes Foot Care Network, College of Podiatry

Julie Michalowski Clinical Audit Manager, NHS Digital, Leeds

Arun Pherwani

Consultant Vascular Surgeon, University Hospitals of North Midlands NHS Trust and member, Audit Committee, The Vascular Society of Great Britain and Ireland

Cliff Shearman Emeritus Professor of Vascular Surgery, University of Southampton

Bob Young Clinical Lead, National Diabetes Audit he management of diabetic foot disease is incredibly complex, arguably more complex than any other aspect of clinical medicine. It may, and often does, require the knowledge and integrated skills of multiple expert groups — including vascular surgeons, radiologists, diabetologists, primary care physicians, podiatrists, nurses, orthotists — not to mention the commitment of the users themselves and all those on whom they depend at home.

Less than perfect integration of different components of care

But in many ways the traditional structures of clinical practice and its ethos (or the way in which it tends to be delivered) seem to create barriers to the provision of all the multiple inputs which may be required. Communication between professional groups is often less than perfect – not least because effective communication requires thinking beyond the boundaries of your own particular interest and expertise. This can be a big ask, even for those with the best of intentions.

Just how good are we?

And so, the question is just how well does each of us — from all of the various types of clinician involved — manage foot disease in diabetes? Or, because care is inevitably multidisciplinary (or it should be), it would be better to ask just how well is foot disease managed in the communities that we each serve? Every clinician will feel that they work hard, most will respond quickly when they are asked to see someone, and they will nearly always get thanks from the patient for what they do. But just how well does their effort meet the overall requirements of all the cases that occur in their area? Is it enough just to work hard and be thanked? Does this necessarily mean that good care is being provided?

The need for data

The answer is that none of us know how good we are without evidence, and the evidence we need is data relating to clinical outcome. The usual aim of management of a foot ulcer is that it should heal relatively quickly (within 12 weeks, for example) and for the patient to stay alive and without a major amputation. There are all sorts of other outcomes but these are the ones which are uppermost (in our minds, as well as the patient's). Therefore, if we wish to know how good we are, we need to know exactly what are the outcomes: how many people actually get better and how quickly, and is this better or worse that other places?

Each service should know:

- 1. How many ulcers heal within 12 weeks (for example)
- 2. How many people with ulcers undergo a major amputation within an agreed time limit
- 3. How many people die.

Without such objective measures, we simply cannot know how good we are: we may be second to none, average or pretty awful. It's not enough to know that you work hard and people say 'thank you' to you.

Existing variation

The lack of firm data might not be a major problem if we knew that every service appeared more or less equally good. The trouble is that the available evidence from the UK (and from England, in particular) is that there is very considerable variation between different localities. Thus, it was shown 10 years ago that the chances of someone having a major amputation varied a staggering 10 times between localities (Holman et al, 2012), and a recent review suggested that it appeared to be only slightly less in more recent years (Jeffcoate et al, 2017). As there is no strong evidence that these differences are largely the result of factors such as age, sex and ethnicity, the only conclusion that can be drawn is that some services are not as good as they should be; and for many it is not a case of 'could do better' but 'must do better'. Which of us would want a relative of ours to be managed by a service that was known to be amongst the worst in the country? We would want to know just how good they are ---just as we should want to know how good we are ourselves.

How you can find out how well your service is performing?

It is easy. All you have to do is register as a contributor to the National Diabetes Foot Care Audit (NDFA) of England and Wales (https:// digital.nhs.uk/data-and-information/clinical-auditsand-registries/national-diabetes-foot-care-audit) and enter simple anonymised details which will mean you join more than 100 other services who are already involved. Data can be readily submitted online. Those who contribute will have access to regular summaries of their ulcer outcomes, as well as those across the whole of England and Wales. It's easy to do and the service is free. The audit has been running since 2014 and already has details on a total of almost 90,000 foot ulcer episodes, including some 22,000 each year from 2018-19 and 2019-20 - exceeding one third of the likely total number of new episodes.

This dataset not only gives services an indication of their own outcomes, but it has also made it possible to demonstrate statistically significant links between time to first expert assessment and ulcer severity and between both of these and healing by 12 weeks, incidence of major amputation and mortality within 6 months (NHS Digital, 2019).

The need for concerted action

To be documenting outcomes in over one third of new cases is an impressive achievement by foot care teams across England and Wales and is by far greater than any other systematic audit in the field. Nevertheless, it is still only a minority, and this increases the risk that the overall findings may not be fully representative of the whole. Added to which, the numbers registered will surely be far less in the present year as a result of the COVID-19 epidemic. It is for these reasons that we need to do everything we can to make sure that more and more services become, and stay, involved.

Disease of the diabetic foot is a very large problem. It is clear that all relevant professional groups must work together to achieve the common aim of improving the outcome of this literally crippling condition. It is for this reason that this call for action comes to you from representatives of multiple core clinical groups. This has to be a collaborative endeavour. The next target will be to define the key components interdisciplinary working in this very of challenging field. It is hoped that once these are agreed and implemented, we can expect to see a prompt fall in variation as well as an improvement in the overall outlook at - most likely - a very much reduced cost both to the NHS and to people with diabetic foot disease.

First things first

The priority is for all of us to work out just how good we are, and we can't do that unless we record and measure what we do. After that we can compare clinical outcomes with others: counting and then comparing. If it is found that the service in your area appears less than good, the next job will be to work out why. It is unlikely to be down to those in the front line. It is much more probable that existing pathways, communication and working arrangements require improvement, or even radical overhaul.

Join in. The more centres that participate, the greater the power of the information collected.

Jeffcoate W, Barron E, Lomas J (2017) Using data to tackle the burden of amputation in diabetes. *Lancet* 390(10105): e29–e30

Holman N, Young RJ, Jeffcoate WJ (2012) Variation in the recorded incidence of amputation of the lower limb in England. *Diabetologia* 55(7): 1919–25

NHS Digital (2019) *National Diabetes Foot Care Audit,* 2014–2018. NHS Digital, London. Available at: https://bit.ly/2FrQOU5 (accessed 16.09.2020)