

Assessing the Economic Impact of a Podiatrist - Analysis of Clinic Activity after Temporary Loss of 50% of the Podiatrists from a Tertiary Specialist Foot Clinic

C Gooday, R Murchison, K Dhatariya

Diabetic Foot Clinic, Elsie Bertram Diabetes Centre, Norfolk and Norwich University Hospital NHS Foundation Trust, Norwich, UK

Background: In the UK, around 6,000 people with diabetes undergo a major or minor amputation each year.¹ The risk of a person with diabetes undergoing a major amputation is 23 times higher than a person without diabetes.² It has been estimated that a large proportion of amputations are potentially preventable.³

Treating diabetes and its complications accounts for a little under 10% of the entire budget of the UK National Health Service. The cost for managing 'the diabetic foot' accounts for £1 in every £150 pounds spent in the NHS, with foot problems remaining the most frequent cause for a diabetes specific acute hospital admission.⁴ Thus education and prevention of diabetes related foot complications remain paramount.

In the UK specialist podiatry services play an integral role in the multidisciplinary diabetic foot team. Our tertiary foot clinic sees approximately 4500 people per annum and is staffed with 3.8 Whole Time Equivalent podiatrists. In 2010, within a 3 week period we lost 50% of our podiatrists for 7 months due to unforeseen circumstances.

We wanted to assess the economic impact of this loss in workforce

Results: Clinic activity between 2005 and 2012 showed that despite the reduction in number of patients seen, there was a jump in the number of hospital admissions from the foot clinic and also an increase in the overall length of stay

| Year | Clinic Activity | No of Admissions | % of Total Activity | Total Bed Days | Mean Length of Hospital Stay (\pm SD) |
|------|-----------------|------------------|---------------------|----------------|--|
| 2005 | 2835 | 30 | 1 | 515 | 17.2 (9.2) |
| 2006 | 2921 | 43 | 1.5 | 775 | 17.2 (19.2) |
| 2007 | 3325 | 39 | 1.1 | 570 | 14.6 (11.3) |
| 2008 | 4197 | 50 | 1.2 | 919 | 18.4 (16.8) |
| 2009 | 4799 | 58 | 1.2 | 867 | 14.7 (11.3) |
| 2010 | 4058 | 72 | 1.8 | 1194 | 16.5 (12.3) |
| 2011 | 4294 | 41 | 0.95 | 838 | 20.4 (16.6) |
| 2012 | 5270 | 45 | 0.89 | 733 | 16.2 (15.1) |

Discussion: The coordinated actions of a multidisciplinary team during the management of the diabetic foot is a classic exemplar of how the complications of long term conditions should be managed. Each of the different professions have their important roles. Within the foot team, the podiatrists play a central role. To our knowledge, no previous work has been done quantifying this.

We have shown that the loss of 2 experienced podiatrists from our service was associated with a 18% reduction in clinical activity, a 50% increase in admission rates and 12% increase in mean length of hospital stay.

At our Institution, a 'hospital bed day' costs £275 (\$420) – thus this increase in admissions and length of stay equated to 327 extra bed days compared to the 12 months prior to the service interruption – accounting for an estimated increased expenditure of £89,925 (\$138,000) – without considering costs of treatment. There was also a loss of clinical activity, thus less income generated by the clinic. Whilst there was a modest rise in patients being seen (and income) from 'complex' feet seen in our specialist vascular, orthopaedic, casting and medical foot clinics, there was a substantial reduction in the number of patients with 'simple' feet seen in the podiatry led clinics, hence the overall drop in clinic activity and income. However, the simultaneous rise in admissions led to a significant rise in overall costs.

In 2010 in the UK, the annual salary of a senior podiatrist pay was £35,184 (\$54,000)

Year of service Interruption


Conclusion: Podiatrists play an essential and key role within the multidisciplinary foot team, often acting as 'gatekeepers' preventing hospital admission by providing skilled care in an outpatient setting. Our data show that they more than pay for themselves by reducing admission rates, and also reducing the overall length of hospital stay.

1. Kerr M, Foot Care for People with Diabetes: The Economic Case for Change. NHS Diabetes 2012 2. Holman N, Young RJ, Jeffcoate WJ. Variation in the incidence of amputation of the lower limb in England *Diabetologia* 2012;55(7):1919-1925 3. CG10 Type 2 diabetes - footcare: full guideline. NICE 2004. <http://www.nice.org.uk/nicemedia/live/10934/29242/29242.pdf>. Last accessed 12th June 2013 4. National Diabetes Inpatient Audit: 2012 results. www.hscic.gov.uk/catalogue/PUB10506. Last accessed 12th June 2013

ketan.dhatariya@nnuh.nhs.uk

www.norfolkdiabetes.com