

PRIZE PRESENTATION | 3

A community Peripheral Arterial Disease Service: Observations and early outcomes

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Introduction:

Peripheral Arterial Disease (PAD) is a significant issue in the UK. Under diagnosis and management results in preventable heart attacks, strokes and amputations. Our NHS organisation has commissioned a new multidisciplinary, community based PAD service. It is focussed on stimulating early identification, diagnosis and management of peripheral arterial disease, as part of a proactive approach to address poor local cardiovascular disease outcomes in deprived wards of Manchester. The value of our service compared to the traditional approach to PAD will be presented, along with recommendations for further improvements of this innovative model.

Methods:

Our service specification requires us to deliver a cost effective, close to home, quality clinical service for all people with suspected PAD. An overview of our service model will be

presented, along with outcomes around diagnosis, and management – medicines, lifestyle and surgical referrals.

Results:

Results on outcomes of the service will be revealed, including rates of PAD diagnosed, treatment choices, surgical referrals and patient satisfaction.

Discussion:

The role of the vascular nurse specialist within this service model has wider implications for future service design across the country. Acting as a gatekeeper to secondary care and providing prompt assessment at the front end of the referral pathway ensures focused management, time and resources are not wasted. Furthermore, helping to reduce unnecessary referrals to secondary care ensures that our service demonstrates clinical and cost effectiveness and highlights the value of the vascular nurse specialist within the community setting.

PRIZE PRESENTATION | 4

Old Habits Die Hard

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Introduction

Pseudomonas is a gram negative bacteria that delays wound healing by colonising the wound bed and creating a bio film that is difficult to eradicate. Advances in science have led to better understanding of gram negative bacteria, and has facilitated the emergence of Prontosan. However, the re-emergence of old wound cleansing agents has identified acetic acid that was previously used to eradicate *Pseudomonas*. This prompted a systematic review of the treatment of *pseudomonas*.

Method

A literature review was performed in April 2011 using Medline, Embase, CINAHL, AMED, and Pubmed. The search was limited to a date range of 1990 to 2011 and search terms included were acetic acid, *pseudomonas* and Prontosan.

Results

The literature search produced 16 papers. Three papers advocated the use of acetic acid, 2 papers were over 10 years old and all had small sample sizes. They had heterogeneous results with some wounds remaining colonised even after 28 days of treatment. Interestingly, 3 papers discouraged the use of acetic acid and found it delayed wound healing. There were 10 papers supporting the use of Prontosan as an effective method of treating *pseudomonas*. They all had significant sample sizes making the results more reliable. There were no papers with evidence against using Prontosan.

Conclusion

Prontosan is known to be effective in the treatment of *pseudomonas*, and acetic acid was thought to be effective when there was no other suitable alternative. This evidence has been used in practice by our nurse- led wound ward round.

PRIZE PRESENTATION | 5

An accurate measurement of ABPI accessible to healthcare professionals

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Introduction

For a number of years ankle brachial pressure index (ABPI) has been measured in patients attending vascular departments as a marker of peripheral arterial disease and an indication of cardiovascular risk. Traditionally ABPI has been obtained using a handheld Doppler probe and sphygmomanometer cuff; recently automated oscillometry machines have become available. Manual ABPI is time consuming, skilled operators are required for consistent and accurate results and there is no standard protocol.

We undertook this study to validate automated ABPI measurements using the Vicorder compared with the Doppler method.

Methods

Seventy subjects were recruited from the vascular out-patient department; of these 33 had an established abdominal

aortic aneurysm (>3cm diameter on ultrasound) and 37 were controls. For each subject, ABPI was measured by two observers using both the Vicorder and the Doppler methods.

Results

With training, the Vicorder was simple to use and was well tolerated by patients. The time taken to obtain a measurement was similar in each case. The median (IQR) ABPI was 0.993 (0.89-1.08) and 0.964 (0.855-1.056) with the Vicorder and manual device respectively. On statistical analysis the two methods were reproducible and there was good interobserver agreement.

Discussion

The Vicorder produces accurate ABPI measurements which are in agreement with the manual Doppler method. Therefore standardization of the measurement is possible and accurate measurement of ABPI accessible to healthcare professionals using the Vicorder method. Further work is required in subjects with a low ABPI (<0.8), diabetics and patients with end stage renal failure.

PRIZE PRESENTATION | 6

Evaluation of Inner North East London (INEL) PCT variation in lower limb amputation rates in patients with diabetes

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Background

Diabetes mellitus is one of the most serious and prevalent chronic diseases worldwide. One of the most common complications of diabetes in the lower extremity is the diabetic foot ulcer which is the precursor to nearly 85 % of lower extremity amputations (LEA) in persons with diabetes¹. Health-care systems need actionable information on amputation rates in order to improve foot-care delivery.

Objective

To evaluate INEL variation in LEA rates using individual level data.

Methods

This was a retrospective study of number of LEA undertaken during the period of two years (2009 – 2010) using our local vascular database.

Results

848,800 is the total population across the 3 INEL PCT and has incurred a total of 172 patients who have undergone from incision and drainage of diabetic foot ulcers to minor and major LEA. Diabetes mellitus were found in 65 % of patients having surgery. The mean age was 63.5 years and more prevalent in male than female. Further detailed analysis will be presented of each 3 PCTs.

Conclusion

Simultaneous evaluation of major and minor amputations rates identifies different pathways and models of care which exist. Standardisation of health-care processes, structures and pathways may improve foot-care delivery.

References

1. Wrobel, J.S., Mayfield, J.A., Reiber, G.E. Geographic variation of lower-extremity major amputation in individuals with and without diabetes in the Medicare population. *Diabetes Care*, 2001; 24: 860-864