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Librarians, Lincolnshire Knowledge and Resource Service
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Literature Search Results

Search request date: 31st December 2009
Search completion date: 8th January 2010
Search completed by: Alison Price

Enquiry Details

Evidence for interpreting the results of Doppler tests (in use with decisions relating to 4-
layer bandaging.

Basic circulation in the legs.
Opening Internet Links
The links to internet sites in this document are ‘live’ and can be opened by holding down the CTRL key on your keyboard while clicking on the web address with your mouse.

Full Text Papers
Links are given to full text resources where available. For some of the papers, you will need a free NHS Athens Account. If you do not have an account you can register by following the steps at: https://register.athensams.net/nhs/nhseng/ You can then access the papers by simply entering your username and password. If you do not have easy access to the internet to gain access, please let us know and we can download the papers for you.

Guidance on Searching within Online Documents
Links are provided to the full text of each of these documents. Relevant extracts have been copied and pasted into these Search Results. Rather than browse through often lengthy documents, you can search for specific words and phrases as follows:

Portable Document Format / pdf. / Adobe
Click on the Search button (illustrated with binoculars). This will open up a search window. Type in the term you need to find and links to all of the references to that term within the document will be displayed in the window. You can jump to each reference by clicking it. You can search for more terms by pressing ‘search again’.

Word documents
Select Edit from the menu, the Find and type in your term in the search box which is presented. The search function will locate the first use of the term in the document. By pressing 'next' you will jump to further references.

Guidelines

NHS Clinical Knowledge Summary: Interpreting Doppler Results - attached

Doppler assessment and ABPI: Interpretation in the management of leg ulceration

Key Points
1. A Doppler assessment is not diagnostic of venous ulceration but may be of value in defining a safe level of compression bandaging.
2. Although helpful in defining when compression bandaging is contraindicated, an ABPI is meaningless when used in isolation.
3. The majority of patients diagnosed with so-called 'mixed ulcers' in fact have ulcers of venous aetiology and develop arterial insufficiency over time.
4. All patients with an ABPI of less than 0.8 should be referred for specialist assessment.
5. In those patients for whom high compression bandaging is contraindicated, reduced compression may be appropriate in selected cases with further arterial investigations if the ulcer fails to respond to

Peter Vowden

Full Text Attached

Worcestershire PCT Guidelines – attached

Nottingham University Nursing Guidelines for the assessment of Ankle/Brachial Pressure Index (A.B.P.I.) using Doppler ultrasound – attached
How to Obtain the Resting ABPI in Leg Ulcer Management

Warboys, Fran. Wound Essentials • Volume 1 • 2006

Competency in carrying out an ankle brachial pressure index (ABPI) is important if reliable results are to be produced. Practitioner variables affecting the ABPI measurement are well documented and inexperience is noted as a key factor (Ray et al, 1994; Kaiser et al, 1999). This article will provide details of the correct procedure to be followed in order to obtain and calculate the ABPI.

Full text attached

Title: Community nurse use of Doppler ultrasound in leg ulcer assessment.
Citation: British Journal of Community Nursing, 02 September 2005, vol./is. 10/9(0-),
Author(s): French L

Abstract: Doppler ultrasound is used by community nurses to measure the ankle brachial pressure index (ABPI). This is required before applying compression therapy for patients with chronic venous insufficiency and venous leg ulcers. However, emphasis on the ABPI result has resulted in inappropriate referrals to the vascular department which led the author to survey current practice within one primary care trust. Results illustrated variations in how nurses obtain training and maintain their competency in using Doppler ultrasound. This has an impact on the accuracy of interpretation of the ABPI measurement and subsequent management of the patient. Practical issues also explained the difficulties nurses encountered in using the correct procedure within the community, which may result in unreliable measurements. There is a need to standardize training for all community nurses, and to review the structure of current clinical guidelines to enable a wider analysis of arterial assessment, in order to reduce the emphasis purely on the ABPI measurement.

Full text attached

Title: Doppler readings and leg ulceration.
Citation: Practice Nurse, 10 September 2004, vol./is. 28/4(16-), 09536612
Author(s): Benbow M

Abstract: Maureen Benbow describes how the Doppler principle is applied in clinical practice, how clinicians use it to differentiate between leg ulceration of differing aetiologies and how it influences the correct clinical management.

Full text attached

Title: Doppler assessment and ABPI calculation.
Citation: Doppler assessment and ABPI calculation., 2002, vol./is. /(0-),
Author(s): Vowden K, Vowden P
Publication Type: pamphlet
Title: Use of Doppler ultrasound in leg ulcer assessment.
Citation: Nursing Standard, 18 July 2001, vol./is. 15/44(72-74), 00296570
Author(s): Davies C
Abstract: Adequate patient assessment is the most important element of chronic wound management, and the use of holistic techniques enables practitioners to make informed clinical judgements. Doppler ultrasound is integral to the holistic assessment of leg ulcers. This article reviews the procedure for measuring ankle/brachial pressure indices using Doppler ultrasound and outlines various diagnostic tests that employ the Doppler principle.

Title: Doppler and the ABPI: how good is our understanding?
Citation: Journal of Wound Care, 01 June 2001, vol./is. 10/6(197-202), 09690700
Author(s): Vowden K, Vowden P
Abstract: This paper discusses the origins of the ABPI, examines a number of failings in how practitioners use Doppler and highlights the need for a deeper understanding of the procedures involved.

Title: Doppler assessment and ABPI: interpretation in the management of leg ulceration... including commentary by Carser D.
Citation: World Wide Wounds, 01 March 2001, vol./is. /(0-10), 13692607
Author(s): Vowden P, Vowden K
Abstract: An ankle brachial pressure index (ABPI) of 0.8 is seen by some as a definitive decision-making number and it has almost become the 'Holy Grail' of leg ulcer assessment. However, its pivotal position is not based on hard evidence and the time has perhaps come to question our reliance on 0.8 and to look again at the concept of the mixed ulcer.

Blood Flow in the Legs

Effect of compression on blood flow in lower limb wounds
Hakan Oduncu, Michael Clark, Robert J Williams
Blood flow is believed to be a key parameter in the formation and management of lower limb wounds. Patients with venous leg ulcers (VLUs) have high venous pressures, due to the partial or complete failure of calf muscle pump, which in turn disturbs the local blood flow within the lower limb. Compression has currently been the mainstay for treatment of VLUs and is thought to restore valvular competence and reduce or suppress superficial and deep venous reflux. Efficacy and assessment of compression therapy can be understood in a better way by measuring blood flow in lower limbs. Publications applicable to the effects of compression on lower limb blood flow parameters are summarised. However, they have shown varying results due to the different methodology and assessment techniques used. This article seeks to explore the methods of assessment of blood flow in the lower limb associated with wound management and compression in particular and provides suggestions for future explorations.
Full Text Attached