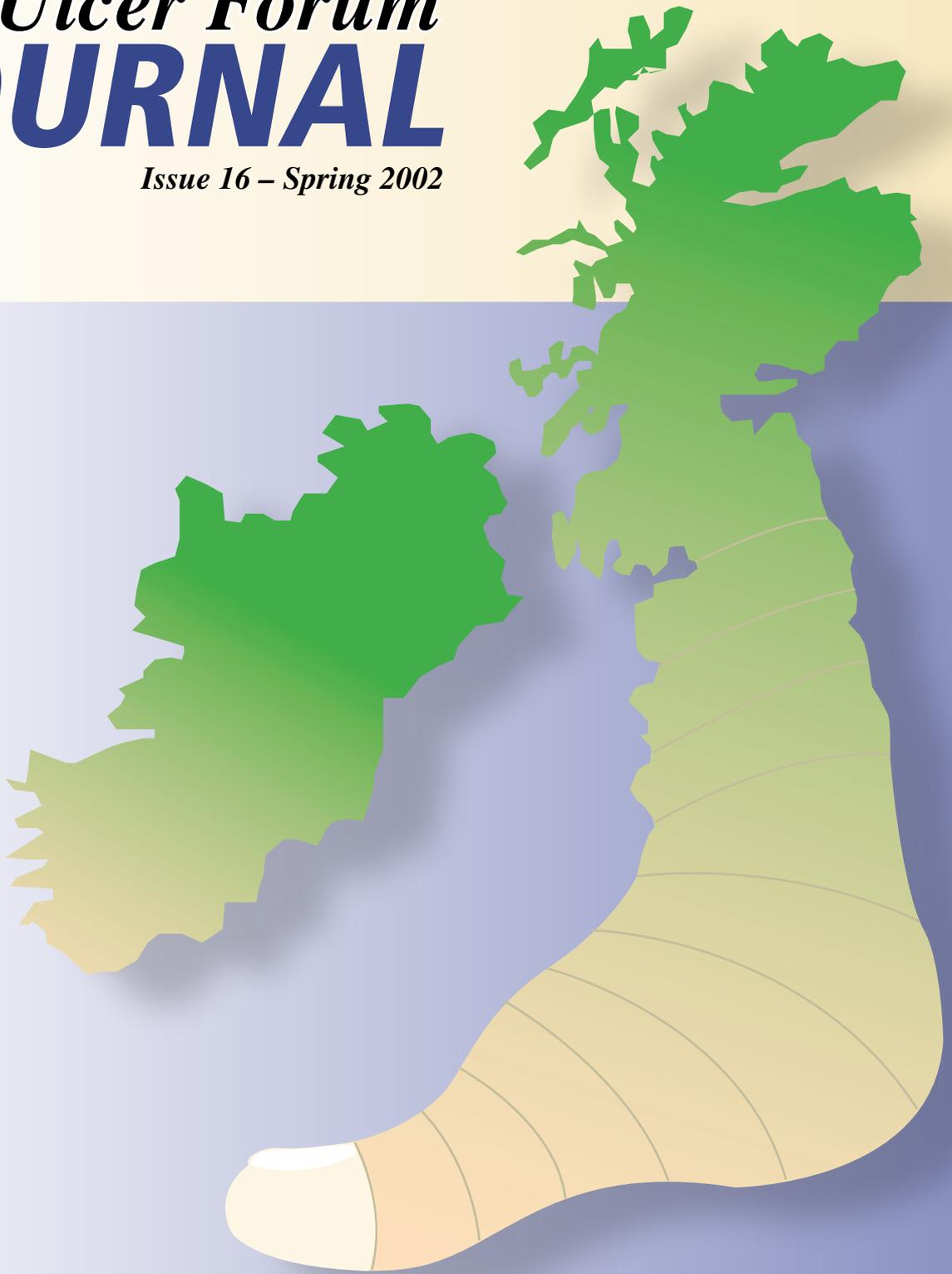


**THE**  
*Leg Ulcer Forum*  
**JOURNAL**

*Issue 16 – Spring 2002*



- Conference reports
- Advances in Vascular Nursing for Individuals with Leg Ulceration
- Involving the Health Care Assistant in Leg Ulcer Management
- Integrated Care Pathways
- Clinical Governance: The Implications for Venous Leg Ulcer Management
- Intermittent Pneumatic Compression Therapy



President: Prof.C.Moffatt

**Irene Anderson**

Bsc(Hons), DPSN, RGN  
EXECUTIVE MEMBER

**Lilian Bradley**

PGdip, ONC, SRN  
Tissue Viability Nurse  
IRISH AFFILIATION

**Mark Collier**

BA(Hons), RNT, RCNT, ONC, RGN  
Lead Nurse Tissue Viability  
CHAIRMAN

**Merry Collinson**

BSc(Hons), DN, Cert ed, SRN,  
Tissue Viability Nurse  
EDUCATIONAL FACILITATOR

**Caroline Dowsett**

MSc, BSc(Hons), DN, RGN  
Nurse Consultant Tissue Viability  
ASSISTANT JOURNAL EDITOR

**Lynfa Edwards**

MSc, RGN, NDN, CertEd  
Tissue Viability Specialist Nurse  
JOURNAL EDITOR

**Judy Harker**

PGdip, BN(Hons), NDN, RGN  
Nurse Consultant Tissue Viability  
EXECUTIVE MEMBER

**Gill Henn**

OND, RGN, NDN  
Tissue Viability Nurse  
EXECUTIVE MEMBER

**Brenda King**

BSc(Hons), DN, ONC, RGN  
Tissue Viability Nurse  
EDUCATIONAL FACILITATOR

**Christine Moffatt**

MA, DN, RGN  
Professor of Nursing,  
Co-Director CRICP  
PRESIDENT

**Penny Musson**

RGN  
Vascular Leg Ulcer Specialist  
BLS LINK

**Victoria Quioc**

MSc, BSc(Hons), PGdip, DN, RGN  
Lecturer  
SECRETARY/WEB LINK

**Julie Stevens**

BSc(Hons), NDN, DN, FETC, RGN,  
Tissue Viability Nurse  
TREASURER

# Contents

## The Leg Ulcer Forum Journal Issue 16 – Spring 2002

### Introduction and reports

- 3 Editorial
- 4 Sheffield conference report
- 6 London conference report

### Clinical articles

- 8 Advances in Vascular Nursing for Individuals with Leg Ulceration
- 10 Involving the Health Care Assistant in Leg Ulcer Management
- 13 Integrated Care Pathways
- 16 Clinical Governance: The Implications for Venous Leg Ulcer Management
- 20 The Use of Intermittent Pneumatic Compression Therapy in Venous Leg Ulcer Management

### Support section

- 22 Wound Management CD ROM:  
A Study Guide on Pressure Ulcers and Leg Ulcers
- 23 Guidelines for authors

This journal is kindly  
sponsored by

**Smith+Nephew**

First Choice in Wound Management

We are also grateful to the following companies for their kind sponsorship towards the leg ulcer forum:

**ACTIVA**  
HEALTHCARE

*Johnson & Johnson*  
ADVANCED WOUND CARE  
a division of ETHICON

## Welcome to the 16th edition of the Leg Ulcer Forum Journal

The main focus of this issue is to report back from our two very successful Leg Ulcer Forum Conferences in London and Sheffield.

It was great to see so many of you at these events which were not just informative but stimulated interesting debate and encouraged us to consider new ways of service delivery for leg ulcer patients. For those of you who were unable to attend the journal includes some of the conference presentations such as *'Integrated care pathways'* and *'The role of the health care assistant in leg ulcer care'*, as well as a conference report from both venues.

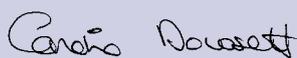
The executive committee are already planning another two conferences for later this year, taking into consideration your feedback and suggestions for future themes. Please continue to send in your ideas for what you would like to see included in the Leg Ulcer Forum Journal.

We hope you like the new format of this journal

Kind regards



**Lynfa Edwards**  
Editor



**Caroline Dowsett**  
Assistant Editor

# Sheffield Conference Report

Brenda King

**The Sheffield Leg Ulcer Forum annual conference was held at the Grosvenor Hotel on 23rd November 2001. This was the first time the Leg Ulcer Forum had organised one conference with two venues, which aimed to cover both the north and the south of the country. Sheffield was hosting the first conference and any worries that running the same agenda may not attract sufficient interest were unwarranted; the Sheffield venue enjoyed an exceptional attendance of over 130 delegates, which exceeded our expectations.**

The topic for the conference was *Pro-active Leg Ulcer Management – Utilising the Whole Team*, which was obviously a topic that raised significant interest. At the planning stage of the conferences it was suggested that leg ulcer prevention and management had moved on over the years and there had been significant changes to the care delivery. It was important to explore these changes and the health care professionals involved. Therefore, the focus was not just on managing leg ulcers, but encompassed the whole aspect of vascular disease, prevention and management. With this in mind the speakers were chosen specifically and represented different members of the multidisciplinary team involved.

As local organiser, I had the pleasures and traumas of chairing the morning session. The pleasures were meeting and being able to introduce some very eminent speakers; the traumas were the gremlins in the audio equipment. As a result of microphone failure the second speaker offered to give his presentation first without the microphone. This was **Jonathan Michaels**, Consultant Vascular Surgeon from the Northern General Hospital who must be commended for his patience throughout his presentation whilst the technician endeavoured to restore the sound. Mr. Michaels provided an interesting overview

of the need for evidenced-based health care and how the evidence is assessed. He highlighted how long this process takes, and then continued to enlighten the audience on the advances in arterial and venous surgery. **Lynda Herbert**, vascular nurse specialist followed, thankfully with the microphone fully operational, with a presentation that complemented the previous speaker titled *Advances in Vascular Nursing*. Again commendations must go to Lynda who experienced problems with her computer and had to rewrite her presentation on the train journey to Sheffield. However, Lynda still managed to provide a very interesting insight into the development of the vascular nurse role, and how this role varies within different vascular units (see page 8).

The third speaker of the morning introduced a different professional involvement in leg ulcer management, that of microbiology. **Phil Bowler** microbiologist and head of ConVatec's research and development unit at Deeside provided an excellent review of the bacterial flora found in leg ulcers and their significance in clinical practice in his presentation *The Implications of Bacterial Flora in the Non-Healing Leg Ulcer*. This was obviously a very interesting topic and I am sure everyone would agree we all face the dilemma of clinical decision-making when assessing and managing wound infection, subsequently Phil's talk evaluated well with a high score of 86.2%.

Sheffield was also very fortunate to have an additional speaker, Professor **Elizabeth Anionwu**. Elizabeth, although limited by time, provided an outstanding presentation on sickle cell anaemia and ulceration. This included a very thought provoking personal account from a patient of their experience of living with ulceration resulting from sickle cell. This session, although scoring lower on relevance, evaluated extremely well on interest with a score of 93.3%. Furthermore, there were many comments on the evaluation forms suggesting more time is devoted to this subject and expressing a desire to see it covered again at future conferences.

**Brenda King**  
Tissue Viability Nurse

A very late lunch followed Elizabeth's presentation, together with the opportunity for viewing the exhibition. Companies supporting the conference and exhibiting included; Smith & Nephew, ConVatec, Activa, Parema, SSL, Coloplast, 3M, Biosurgical Research Unit, Advantis, Cook Medical, Medi UK, Johnson & Johnson, Maersk Medical and Molnlycke. Although the exhibitors had been busy before the conference started, the delegates showed their interest and kept them active during the lunch break. Most of the company representatives passed comments on how successful the day had been for them and also how much they had enjoyed the day. One representative rang following the event expressing gratitude for being invited and said she wished she had taken a colleague with her, as she was so busy.

The afternoon session was chaired by fellow committee member **Merry Collinson** and started with a free paper session. The topic of the free papers was *Involving the Team*. Unfortunately, only one paper was presented at the conference, which was an interesting talk on the team approach to leg ulcer management. **Jane Hampton**, Tissue Viability Nurse from London followed and discussed how the Health Care Assistant role can facilitate care of patients presenting with leg ulceration. Many controversial aspects of assessing their competence was reviewed (see page 10).

The final guest speaker, **Margaret Kitching**, Tissue Viability Nurse for Barnsley, had a difficult slot at the end of the afternoon to deliver her presentation highlighting the benefits and drawbacks of *Integrated Care Pathways* for leg ulcer management. Margaret has provided an overview of this presentation for inclusion in this journal on page 13.

The afternoon session concluded with a question and answer debate with two members of the leg ulcer forum committee and two of the day's speakers on the panel. This was followed by a prize draw of the individual numbers on the delegates' invitations to the conference. The prizes included free attendance at next year's conference.

Overall, apart from a few minor hitches, the day went extremely well with a very positive evaluation. A staggering 78% of delegates completed the evaluation forms and provided some encouraging comments and also some useful suggestions for future events.

The comments included: "Interesting and thought provoking", "Enjoyable day with valuable and interesting information", and "Good value for money". Suggestions made from delegates regarding content for future conferences generally related to clinical issues such as: 'Sickle cell management', 'Non healing leg ulcers to include slides and interaction' and 'Other aetiologies'. **BK**

An enjoyable day with  
valuable and interesting  
information

# London Conference Report

Irene Anderson

**The second venue for the Leg Ulcer Forum Conference was the Robens Suite in Guy's hospital, London; the date 30th November 2001. The capacity audience of 100 delegates were treated to spectacular views over London from the 29th floor of Guy's Tower. The conference room was a hive of activity as the delegates registered and the company sponsors set up their stands and prepared for a busy day.**

The conference was introduced by the Leg Ulcer Forum Chairman, Mark Collier who then handed over to Irene Anderson who chaired the morning session. This began with a presentation entitled *Advances in Vascular Nursing in the Assistance of Individuals with Leg Ulceration*, by **Lynda Herbert** (see page 8), in a repeat of the presentation at the Sheffield venue. She paid tribute to the pioneering work and leadership of Christine Moffat whom she identified as a role model.

Mr **Neil Browning**, Consultant Vascular Surgeon at Ashford and St Peter's Hospital in Surrey, presented the second session. Mr Browning raised a smile by confirming what we all suspected – that general practitioners largely have little leg ulcer management knowledge. He described vascular assessment techniques, reminding delegates that the purpose of the ABPI is only to confirm a clinical diagnosis. Vascular assessment by arteriogram involves admission and a day in hospital, which is becoming more difficult due to bed pressures. An increasingly viable alternative is the MRI scan as the software available is becoming very useful for diagnostic purposes. The second part of Mr Browning's talk described surgical techniques for arterial and venous disease. This section was enhanced by very graphic slides, which clarified the techniques he described.

By 11.30 the delegates were undistracted by the panoramic views and, amazingly, not one mobile

telephone had rung! Dr **Phil Bowler**, Director of the Global development Centre at Convatec Ltd, spoke on the *Implications of Bacterial Flora in the Non-Healing Leg Ulcer*. He considered the polymicrobial nature of wounds where aerobic and anaerobic synergy occurs. He considered the bio burden of wounds and discussed critical colonisation hypothesising that it might be at this point when topical antiseptics may be useful providing consideration is given to antiseptics differ in their nature and action.



Delegates visiting the exhibition stands

Before lunch Mark Collier hosted the Annual General Meeting of the Leg Ulcer Forum (see AGM report). The lunch break gave delegates the opportunity to take in the view and ask further questions of the morning speakers and to network with colleagues and meet new people, always an important part of conference. The representatives from the commercial companies were kept busy as delegates updated their product knowledge. Members of the Leg Ulcer Forum committee were on hand to answer queries from new and existing members. Several delegates registered as new members and administrator Hazel was kept busy with the resulting paperwork in her usual friendly and efficient way.

In the afternoon Lynfa Edwards assumed the chair. The free paper session comprised a presentation describing the running of a nurse-led leg ulcer clinic within Southwark PCG, by Kings College lecturer **Jenny Bentley** and Health Care Assistant (HCA) **Edith Hawkins**. The session centred around pressures on an existing leg

**Irene Anderson**  
Bsc(Hons), DPSN, RGN  
LUF Executive Member

ulcer clinic, which meant that the clinics were always full leaving a limited capacity to deal with new patients. The team therefore set up a healed leg ulcer clinic. The healed ulcer service has facilitated more time spent on patients in the active leg ulcer clinic, increased healing rates and job satisfaction. Edith Hawking then took the floor to describe her role in patient care and clinic administration. Her vital role was a timely reminder of the theme of the conference, which was utilising the whole team in the care of people with leg ulcers.

The second speaker of the afternoon was community TVN **Jane Hampton**, who considered the role of the health care assistant and whether registered nurses were using them to best advantage. She outlined the NVQ structure and the role of the HCA in the leg ulcer clinic. She identified the NVQ level 2 HCA as being under the constant supervision of the registered nurse in the clinic, able to carry out 'simple' dressings if assessed competent and supervised. A level 3 HCA is expected to be self-motivated and competent to carry out dressings. Jane told the conference that there are currently no guidelines on what the HCA can and cannot do. There were many questions from the floor and the whole afternoon (and more) could have been taken up by the ensuing debate. Jane counselled against the danger of falling into allocation of tasks rather than holistic care and stated that the HCA was not set to take over the role of the nurse (a discussion of Janes presentation is given on page 10).

The final presentation of the day was **Margaret Kitching**, Tissue Viability Nurse, Barnsley, who presented a paper on *Integrated Care Pathways*. She used the analogy of the patient being on a journey and described the history of the development of care pathways. The structure of the pathway describes who does what, when and where, and considers cost and the reasons why things are not done such as: resources issues and physiological reasons. The care pathway acts as a record of care and has many benefits such as streamlined documentation, reduced duplication, facilitating audit and enhancement of professional practice and quality of care. Margaret cautioned that there are concerns such as fear of litigation and threats to professional judgement. She outlined the 'toolkit' required for integrated care pathways including; education and training, audit, leadership and the inclusion of the



multidisciplinary team (for a detailed account of Margaret's presentation see page 13).

The afternoon concluded with a question and answer debate and prize draw. The delegates completed their evaluation forms and prepared for their journey into the London afternoon traffic, hopefully to reflect on the day and consider their enthusiastic response to the speakers and participation in events by asking questions and discussing issues raised, throughout the day, with fellow delegates.

From the delegates evaluation of the day the following comments were made:

"Excellent day – speakers excellent and topics relevant to practice"; "Good to come together with so many experienced practitioners"; "Superb presentations – I have had a marvellous day out".

On the negative side: "No fruit available at lunchtime" and "Longer breaks in the morning please" (conversely "Lunch break too long"). We will take your thoughts on board when organising future conferences. **IA**

*Members of the LUF Executive Committee: Back row (left to right) – Julie Stevens, Mark Collier, Gill Henn, Irene Anderson; Front row – Lynfa Edwards, Caroline Dowsett, Judy Harker, Brenda King.*

“It was good to come together with so many experienced practitioners”

# Advances in Vascular Nursing for Individuals with Leg Ulceration

Lynda Herbert

**This abstract summarises the presentation given at the annual conference of the National Leg Ulcer Forum held in Sheffield and repeated in London, having been invited by the Forum to speak about ‘Advances in Vascular Nursing in context with the Management of Patients with leg ulceration’.**

In the majority of cases the presentation of leg ulceration is related to a peripheral vascular disorder. As such, at some stage in their episode of care, patients with leg ulceration may come into contact with vascular nurses, given the collaboration they have with vascular surgeons to whom patients may be referred. However, unlike nurses working in specialist leg ulcer clinics or in the community, this is an area of practice in which the ‘majority’ of vascular nurses may not always be competent to assist patients through the implementation of best practice that results in clinically effective outcomes and an enhanced sense of well being for patients. This subjective opinion is based on clinical experience, networking with Vascular Nurse colleagues and on the paucity of literature published by those working in the specialist field of vascular nursing. I therefore propose that greater research is required with regard to advances in vascular nursing in relation to the management of patients with leg ulceration. However recognition is given to the fact that the roles and responsibilities of nurses are often service driven and that indeed there are pockets of good practice in the UK provided by vascular nurses for patients with leg ulceration.

During the presentation, consideration was given to the historical perspective of leg ulceration, from early Egyptian times through to current day. It was recognised that up until the early 1980’s, medical clinicians led most research resulting in advances in practice. (Thomas 1990). However, over the last twenty years, nurses, especially those working in the community, have

demonstrated through research and systematic reviews the clinical effectiveness of specific interventions. As well as undertaking quantitative studies, qualitative nursing research has focused on the impact of living with leg ulceration and individuals sense of well being. Peplau’s (1982) theory of nursing identified that the nurse is ideally placed to optimise a patient’s sense of well being by securing an effective ‘interpersonal therapeutic relationship’. Accordingly vascular nurses are ideally placed to facilitate the process of identifying with the lived experiences of patients and their associated needs. Accordingly, philosophies that may underpin practice were considered. The mechanistic philosophy of Cartesian Duality (Leonard 1989) may be considered by some as reductionistic given the main focus of attention is on the leg ulceration. As such, contrasts were made between Cartesian Duality and the benefits of philosophies that underpin nursing practice such as humanism (Paterson and Zedard, 1982; Watson 1988).

Furthermore the importance of meeting the needs of patients as ‘Unified Whole Beings’, as advocated by Parse (1992 and May and Flemming (1996) was addressed. It was argued therefore that given that the majority of leg ulceration is related to an underlying vascular pathology, nurses working in the field of vascular nursing should be competent to identify with the needs of this patient group. By identifying with patients as individuals and by providing them with evidence based information relating to best practice and the optimisation of clinically effective outcomes, vascular nurses are well placed to promote concordance and advocacy. Accordingly, they should be able to draw on Carper’s (1978) ‘Fundamental Patterns of Knowing in Nursing’ and utilise aesthetic, ethical, personal and empirical knowledge to assess, diagnose, plan care and implement this, plus monitor the progress of patients, evaluating the outcomes of practice.

In line with the ‘Scope of Professional Practice’ (UKCC 1992) nurses have a responsibility to

**Lynda Herbert**

MBE, MSc, RN

Associate Lecturer, CRICP

identify any deficit in their competency to meet the needs of those in their care and rectify this. As such, if there is a perceived deficit of competency in the field of vascular nursing with regard to optimising clinically effective outcomes for those with leg ulceration, then arguably there is a responsibility to rectify this. In so doing there will be a reduction in risk and uncertainty related to interventions and the provision of care.

During the presentation, reference was made to areas in which vascular nurses are contributing to advances made by members of other professional bodies that are resulting in the promotion of clinically effective outcomes for this patient group. Suggestions were made regarding interventions vascular nurses can implement to reduce the risks of leg ulceration in terms of addressing life-style issues and monitoring the progress of patients post surgical intervention. An overview of an unpublished audit in which vascular nurses have advanced their competency was used to demonstrate the benefits to patients, society and the NHS.

In conclusion, I propose that whilst there are pockets of good practice, in which vascular nurses have made advances in the assistance of those with leg ulceration, further research is needed to justify the claim, that the majority of vascular nurses have yet to advance their competency. If this claim is found to be valid, then in line with Scope of Professional Practice (UKCC 1992) and 'A First Class Service; Quality in the NHS (DoH 1998) the 'challenge' is set for vascular nurses to advance their competency. By doing so they will be contributing to 'Making a Difference' (DoH 1999) and ideally positioned to enhance the sense of well being for those in their care, who present with ulceration on the lower limb(s). Furthermore, there is the opportunity for vascular nurses to meet the challenge of demonstrating advances in practice that promote clinically effective outcomes based on evidence of best practice for this patient group. **LH**

## References

Carper, B. (1978) Fundamental ways of knowing in nursing. *Advances in Nursing Science* 1 (1) pp 13 - 23  
 Department of Health (1998) *A First Class Service: Quality in the new NHS* London, HMSO  
 Department of Health (1999) *Making a Difference* London HMSO  
 Leonard, V.W. A (1989) Heideggerian phenomenologic perspective on the concept of the person *Journal of Advanced Nursing* 4 pp 40 - 55  
 May, C. Fleming, C. (1996) The professional imagination: narrative and the symbolic boundaries between medicine and nursing *Journal of Advanced Nursing* 25 pp 1094 -1100  
 Parse, R. R. (1992) Human becoming: Parse's theory of nursing; *Nursing Science Quarterly* 5 pp 35 - 42  
 Paterson, J. and Zderad, L. (1988) *Humanistic Nursing*. New York, League of Nursing.  
 Peplau, H.E. (1988) *Interpersonal Relations in Nursing*, London, Macmillan Education Ltd.  
 Thomas, S. (1990) *Wound Management and Dressings* London, Pharmaceutical Press  
 United Kingdom Central Council (1992) *Scope of Professional Practice*, London UKCC  
 Watson, J. (1988) *Nursing: Human Science and Human Care - A Theory of Nursing* New York, National League for Nursing.

## Recommended Reading

Beard, J. Gaines, P. (2001) *Vascular and Endovascular Surgery* (2nd Ed) London. W B Saunders  
 Benner, P. (1982) From Novice to Expert. *American Jn of Nursing* 8 (3), pp 404-407  
 Blair, S.D, Wright, D.D., Backhouse, C.M., Riddle, E., McCollum, C.N. (1988) Sustained Compression and the healing of chronic venous ulcers *BMJ* 297 (6657) pp 1599 - 156  
 Boore, J. (1994) *Prescription for Recovery*, London, Scutari Press  
 Browse, N. L. and Burnard, K. G. (1982) The cause of venous ulceration. *Lancet* ii pp 243 - 245  
 Callum, M. (1985) Chronic Ulceration of the leg: extent of the problem and provision of care. *BMJ* 290 pp186 - 186  
 Cullum, N. and Roe, B. (1995) *Leg Ulcer Nursing Management* London, Scutari Press  
 Department of Health (1999) *Saving Lives: Our Healthier Nation* London HMSO  
 Ernschaw, J.J. and Murie, J.A. (1999) *The Evidence for Vascular Surgery*, Shropshire, TFM Publishing.  
 Ertl, P (1992) Looking beyond the ulcer itself. *Assessment of Leg Ulcers, Professional Nurse* 4, pp 258 - 262.  
 Franks, P.J., Moffatt, C.J., Connolly, M., Bosanquet, N., Oldroyd, M., Greenhalgh, R.M. and McCollum, C.N. (1994) Community leg ulcer clinics: Effect on quality of life *Phlebology* 9 pp 83-86  
 Gentzkrow, GD et al (1996) Use of Dermagraft a cultured human dermis, to treat diabetic foot ulcers. *Diabetes Care* 19 pp 350 -354  
 Gliviczki, P. Bergan, J.J. Menawat, S.S. (1997) Safety, feasibility and early efficacy of subfascial endoscopic perforator surgery: a preliminary report from the North American Registry *Journal of Vascular Surgery* 25  
 Greenhalgh, C. Roberts, J. Hill I. (1994) *The interface Between Junior Doctors and Nurses: A research Study for the Department of health*. Macclesfield Cheshire Greenhalgh and Co.  
 Harbison, J. (1991) Clinical decision making in nursing *Journal of Advanced Nursing* 16, 404 - 407  
 Leng, G.C. Fowler, B. Ernst, E. (1997) Exercise for intermittent claudication *The Cochrane Library Issue 2* pp 1 - 11  
 General European Consensus Statement For Venous Dysfunction (1996) *European Journal of Vascular & Endovascular Surgery* Vol 12 p 487 - 492  
 Herbert, L.M. (1997) *Caring for the Vascular Patient* London, Churchill Livingstone  
 Hunt, G. and Wainwright, P. (Eds) (1996) *Expanding the Role of the Nurse*, Oxford, Blackwell Science.  
 Lister, S. (1997) *Nursing Diagnosis, Categorised According to Gordon* 1995 London, Chelsea and Westminster Hospital Trust (Unpublished)  
 Moffatt C. Stubbings N. (1990) The Charing Cross approach to venous ulcers. *Nursing Standard*, 5 (12 Tissue Viability (Suppl)):6, 8-9  
 Moffatt, C. and Morison, (1995) *M. A Colour Guide to the Assessment and Management of Leg Ulcers* (2nd Ed) London, Mosby  
 Murray, S. (2001) *Vascular Disease; Nursing Management* London; Whurr Publishers  
 May, C. (1995) Patient autonomy and the politics of professional relationships *Journal of Advanced Nursing* 21, pp 83 - 87  
 Negus, D. (1991) *Leg ulcers a practical approach to management* London Butterworth-Heinemann pp 117 - 119  
 Orme, L. and Maggs, C. (1993) Decision-making in clinical practice: how do expert nurses, midwives and health visitors make decisions. *Nurse Education Today* 13, pp 270 - 276  
 Peredina D. A. and Allen, A. (1995) Telemedicine Technological and Clinical Application *JAMA* 273 (6) PP 483 - 488  
 Poskitt, K.R. James, A.H. Lloyd-Davies, E.R. Walton. J. McCollum, C. (1987) Pinch skin grafting for porcine derm in enous ulcers: a randomised clinical trial. *Br Med Jn* 294 (67) pp 674 - 675  
 Schultz, P. and Meleis, A. I. (1988) Nursing Epistemology, Traditions and Insights, *Questions Image: Journal of Nursing Scholarship* 20 (4) pp 217 - 221  
 Stemmer, R. (1969) On the conservative treatment of primary varicosis *Therapeutische Umschau* (German) 26, 940 pp 202 -211  
 UKCC (2001) *Consultation Document: Code of Professional Practice* London UKCC  
 Vowden K. (1995) Common problems in wound care: wound and ulcer measurement. *British Journal of Nursing* 4 (13):775-6, 778-9  
 Vowden K. Vowden P. (1997a) Vascular assessment in compression therapy. *Professional Nurse*, 12 (7 Suppl):S3-6  
 Vowden K. (1997b) Diabetic foot complications *Journal of Wound Care*, 6 (1):4-8, 1997  
 Vowden K. (1997c) Readers' questions. Allergies in leg ulcer patients. *Journal of Wound Care*, 6 (4): p 172  
 Vowden K. (1997d) Readers' questions. Topical analgesics in leg ulcer patients. *Journal of Wound Care*, 6 (5):239

# Involving the Health Care Assistant in Leg Ulcer Management

Jane Hampton

**O**n a typical day in the NHS there are 150,000 health care assistants (HCAs) at work (DoH, 2000). This number is likely to rise in the future and, as many more HCAs will have National Vocational Qualifications (NVQ), their skills need to be used effectively and safely. This article outlines the structure of NVQ and discusses available guidance about the role of HCAs and nurses in relation to competence and accountability. Examples of activities that HCAs could be involved in related to leg ulcer management are provided along with issues to be considered.

## NVQ Care Level 3

National Vocational Qualifications are competency-based qualifications awarded at specified levels. The NVQ Care qualification, which focuses on patient related activities, consists of 12 Units, and takes two years to complete. Five Units are compulsory and the candidate selects a further seven that are relevant to their area of work. For example, HCAs working in leg ulcer management settings would do Unit X13: 'Undertake agreed clinical activities with clients whose health is stable in non-acute care settings'. This Unit consists of 5 Elements of competence, each one containing Performance Criteria that the HCA must achieve. For example, the Element 'Undertake clinical procedures, treatments and dressings' contains 9 Performance Criteria, including infection control issues; carrying out a dressing correctly; recognising unexpected outcomes and seeking advice appropriately. Performance Criteria are converted into Knowledge Specification statements of which Unit X13 has 61 that must be accomplished in order to pass the whole Unit. Competence, in skills and knowledge, is assessed by both an external and internal assessor, through direct observation of real work activities, through

questioning, and through written assignments. The amount of work required to complete all 12 Units demonstrates that HCAs who have accomplished a Qualification should have a sound knowledge base to support the work they are doing.

## Delegation

HCAs undertake Units related to their area of work, consequently HCAs with identical qualifications will have different competencies. Therefore any work delegated must be based on the individual competencies of each HCA. This is identified by the UKCC (1992) who state that HCAs "must not be allowed to work beyond their level of competence" (23.3) and that they "must work under the direction and supervision of ... registered practitioners" (23.1). The level of supervision required will depend on the qualification level of the HCA and what the activity is they have been delegated. At Level 3 HCAs are expected to work independently, and be able to make appropriate decisions in relation to the clients that they are seeing. Level 2 qualified HCAs may have similar roles but are expected to be constantly under the direct supervision of a registered nurse and are not required to make independent decisions. Regardless of the HCA's qualification responsibility for assessing and planning patient care remains with the nurse as highlighted by the statement that nurses "must remain accountable for assessment, planning and standards of care and for determining the activity of their support staff" (UKCC, 1992: 23.2).

## Accountability

Concerns about accountability are frequently raised when discussing the role of HCAs (Murray, 2001). The fundamentals of accountability are the same for all staff members whether they are employed as HCAs or as registered nurses. Each individual health care provider is morally accountable for his or her own actions. All staff members are accountable to their employer through their employment contract, which

**Jane Hampton**

Tissue Viability Specialist  
Riverside Community  
Healthcare Trust, London

requires employees to provide care that reflects their Trust's policies and guidelines. Working within a health organisation all employees have a duty of care to patients and are therefore accountable through civil law (Glover, 1999). The only difference in accountability is that nurses have professional accountability, through their regulatory professional body, currently the UKCC.

The UKCC provides guidance on the accountability of nurses. They state that "If you delegate to someone who is not registered with the UKCC, your accountability is to make sure that the person who does the work is able to do it and that appropriate levels of supervision or support are in place" (UKCC 1996; p.9). This indicates that the nurse is accountable for the action of delegating a care activity to a HCA but is not accountable for the subsequent actions of the HCA. But the nurse may be held to account for not providing appropriate supervision or for not ensuring that the HCA has the competence to undertake the delegated activities.

### Routine Care

Making a Difference (DoH, 1999) identifies that it is appropriate for HCAs to undertake activities or interventions that are considered basic and routine to the care setting in which they are working, and reinforces the responsibility of the registered nurse for supervising those activities. Generally, the care given to patients with leg ulcers is routine as treatment is standardised as recommended by the National Guidelines. There are, therefore, a number of activities that HCAs could be involved in.

**Table 1. Organisational Activities**

|                              |
|------------------------------|
| Setting up trolleys          |
| Re-stocking                  |
| Making up new nursing notes  |
| Filling and emptying buckets |
| Cleaning instruments         |
| Ordering supplies            |
| Answering the telephone      |
| Booking appointments         |

### Organisational activities

Many clinic-based organizational activities are vital for a Clinic to run smoothly and efficiently (Table 1). If the HCA can undertake these routine activities then the nurses can concentrate on patient related activities that require more advanced skills and knowledge (Fletcher and Rush, 2001). Although many of these activities are taken for granted there are risks involved and the HCA delegated these activities needs to have the appropriate competencies. These will include skills and knowledge about personal health and safety, manual handling, infection control issues, and effective communication.

### Patient - related activities

The NVQ Care qualification enables HCAs to provide routine interventions to patients such as those in Table 2. As always each of these activities requires specific competencies. Helping with clothing requires patient communication skills and manual handling knowledge. Washing legs requires infection control knowledge, and the ability to recognise problems such as cellulitis, and to know when to refer back to the nurse. Some of these activities require professional considerations. If the HCA is cutting off the bandages in order to wash the leg who is monitoring the quantity and colour of the exudate? As it is the nurse who is accountable for making treatment decisions he or she needs to have a mechanism for observing the exudate.

In principle the HCA can undertake the same activities in a patient's home as in a clinic setting, but as they are working alone, and not

**Table 2. Patient related Activities**

|   |
|---|
| Directing patients in and out of the clinic |
| Helping with shoes and socks                |
| Cutting off bandages                        |
| Applying moisturiser                        |
| Applying a primary dressing                 |
| Applying bandages                           |

being directly supervised by a nurse, they are likely to have a Level 3 NVQ qualification. They can provide routine leg care for patients, whose ulcers have healed, moisturising legs, reapplying stockings, monitoring skin for breaks and reporting any problems back to the Team. These patients may be seen predominantly by the HCA, with the nurse visiting on an ad hoc basis to monitor that the patient's health needs can still be met appropriately by the HCA. If the patient has a wound requiring a simple dressing, such as the application of a single product, perhaps with a retention bandage, then the HCA may provide the intervention. In this situation the patient's care will be shared between the HCA and other team members, with a nurse visiting regularly to monitor the patients needs.

### Compression Bandaging

If, after the application of the primary dressing, compression bandages are required, should the HCA be allowed to apply them? The Clinical Practice Guidelines on the Management of patients with venous leg ulcers (RCN, 1998) suggests they can. Reflecting other documents the Guidelines state that patient assessments should be undertaken by a 'health care professional' trained in leg ulcer management. In relation to the application of compression therapy, the Guidelines recommend that this should be applied 'by a trained practitioner'. It does not stipulate a trained health professional. It is recognised that the application of compression is a learnt skill, which implies that HCAs can be taught to apply compression bandaging. The Guidelines are open to interpretation and different Trusts will have different opinions about what activities a HCA can do, and in what circumstances. Therefore this issue needs to be made clear in local guidelines. It may be deemed safe for a HCA to apply compression bandages within a clinic setting because there is a nurse present to directly supervise and monitor their care. But it might not be considered appropriate for the same HCA to apply compression unsupervised in a patient's home. This is a very contentious issue for which more guidance is required

As with all care activities not all HCAs will develop compression bandaging skills to the required standard, but some will. If a HCA, at Level 3, has been assessed by the team to have competence in the application of compression bandages there is no reason why they should

not apply them. The HCA must be expected to demonstrate the same competency level as the nurse in the practical skill of bandaging. They would not be expected to have the same level of knowledge about the physiology behind what they are doing but they should be required to have a basic understanding and be aware of the possible adverse effects of using compression. They will not be making a clinical decision about the use of compression therapy but will be providing care under the direction of, and as prescribed by, the registered nurse.

### Conclusion

All the documents referred to reinforce the continued responsibility of the registered nurse for assessing patient's needs and determining the plan of care. HCAs are not expected to make clinical decisions but to undertake delegated activities. Nurses are accountable for the delegation decisions they make. They are therefore accountable for determining that the HCA knows how to undertake the activity they are being delegated and for determining the level of support the HCA may need. There is no national guidance on what a HCA can and cannot do but the purpose of the NVQ qualification is to determine, and demonstrate, that a HCA has the ability to safely participate in patient care. Under the guidance provided by the UKCC, the Department of Health, and the National Guidelines Health Care Assistants can undertake any activity in relation to leg ulcer management if they have demonstrated the required competencies to do the activity safely, and if the Team has agreed it. Any decision to delegate must be based on the skill and competencies of the individual Health Care Assistant. **JH**

### References

- DOH (1999) Making a Difference, London: Department of Health
- DOH (2000) The NHS Plan, London: Department of Health
- Fletcher, D. and Rush, D. (2001) The role, responsibilities and educational needs of the non-nurse carer, *British Journal of Community Nursing*, 6(9) 452- 458
- Glover, D. (1999) *Accountability*, London: Emap Healthcare Ltd
- Murray, K. (2001) Invaluable assistance. *Nursing Standard*, 16(7) 12
- RCN (1998) *Clinical Practice Guidelines. The management of patients with venous leg ulcers*, London: Royal College of Nursing
- UKCC (1992) *The Scope of Professional Practice*. London: UKCC
- UKCC (1996) *Guidelines for professional practice*. London: UKCC

# Integrated Care Pathways

Margaret Kitching

**Integrated Care Pathways (ICPs) are increasingly used as a tool for managing clinical processes and outcomes and as such they are being adopted in many healthcare settings. The ‘carte blanche’ adoption of this American tool has many obvious advantages; however with little research and evidence to prove their effectiveness, do we really know if they are beneficial in all areas of healthcare?**

A historical perspective gives some information relating to benefits and concerns that are attributed to this approach, specifically considering patient and staff perspectives. Lessons have been learnt in terms of identifying some critical success measures in developing integrated care pathways and some practical tips on how to achieve this. The relevance of pathway developments in relation to leg ulcer management should be of particular interest to Leg Ulcer Forum members, and therefore this paper has been written to stimulate further development and debate.

An Integrated Care Pathway is defined as: *‘A multi-disciplinary outline of anticipated care, placed in an appropriate timeframe, to help a patient with a specific condition or set of symptoms move progressively through a clinical experience to positive outcomes’* (Middleton and Roberts 2000).

ICPs were first developed in the early 1980s in the USA and as a result a number of terminologies evolved; for example: critical path, variance analysis, intermediate goals and care-maps. The overall aim of ICPs is to improve the quality of patient care by reducing inequalities in care and providing a standardised tool in which to implement best practice.

UK developments were driven by a number of key initiatives where there was an emphasis on cost effectiveness, efficiency and evidence-based medicine. The first UK pathway evolved in

1989 and in 1994 the UK saw the formation of the National Pathway Association. More recent initiatives driving ICP developments are founded within the clinical governance agenda. There is a national drive to raise standards and reduce unacceptable variations in practice. This is clearly evident by the birth of certain national institutes such as the Commission for Health Improvement, the National Institute of Clinical Excellence and National Service Frameworks.

## Patient Perspective

From a patients perspective an ICP tells the patient who does what, when it is done, where it is done and why was it not done (Beaumont 2000). Therefore the ICP clearly identifies what should happen to patients during treatment and their rights and responsibilities during that episode of care.

## Staff Perspective

From a staff perspective the ICP guides clinical care because it is based on best evidence and the notion of ‘one best way’. It acts as a multidisciplinary record of care and it facilitates integration of care. Any deviations from the pathway are also recorded as a variance, which in turn is used to feed into future ICP plans.

## Benefits

An ICP is an effective mechanism for streamlining health care documentation therefore reducing duplication of paperwork. This multi-disciplinary sharing of information and documentation is a great benefit, not only to the health professionals, but it removes the arduous task of patients being faced by numerous practitioners asking the same type of repetitive questions. This level of multi-disciplinary working ensures that care is continuous and consistent across boundaries and agencies thereby decreasing variations in practice and ensuring effective use of resources (Evans 2001). As a tool it is easy to use because it is developed by all the practitioners within the team thereby creating

**Margaret Kitching**  
*Tissue Viability Nurse,  
Barnsley Community and  
Priority Services NHS Trust*

ownership and increasing the chance of it being adopted and used by all.

It facilitates patient empowerment because patients are involved at each stage of the decision making process. The documentation is patient-focussed, clearly stating the procedures, responsibilities and timeframe of the clinical experience. Patients are encouraged to be autonomous in their decisions to accept the ICP as the best way forward and they can equally request to deviate from the pathway at any time.

Potentially an ICP enhances professional practice and the quality of care that is provided because it is based on the best available evidence at that time. For example pathways that relate to caring for patients with Venous Leg Ulceration will be guided by evidence from the RCN and SIGN guidelines to name just two types of evidence that is currently available. Similarly, pathway development, for patients suffering from Ischaemic Heart Disease will inevitably be guided by the (NSF-CHD) guidelines.

ICPs facilitates audit in the form of variance monitoring. It is an effective tool to identify variances from the treatment goal and therefore it provides valuable data to support continuous change. Variance monitoring identifies both positive and negative variances, for example the goal may have been achieved more quickly than anticipated, conversely the goal may not have been achieved on time. Variance monitoring enables the reasons behind variances to be analysed and this experience can be used to enhance future pathway developments.

## Concerns

Legal implications of ICPs have been identified as a concern (Brugh 1998). The major concerns relate to issues pertaining to documentation and also when expected clinical outcomes are not achieved, specifically when the variance occurs due to organisational issues or lack of resources. Conversely Tingle (1997) argues that health care professionals are better protected when they can demonstrate that their care is based on best evidence using a tool that encourages reflective clinical practice.

There are growing anxieties related to threats to professional judgement. Nurses have expressed concern that such a standardised approach is at risk of threatening intuitive nursing practice (Currie 1998). Both medical and nursing staff

have questioned the role of expert practitioners and how they fit into ICP developments (Gibb and Banfield 1996). Expert nurses challenge professional boundaries in order to develop and progress nursing care. They need autonomy to do this and it is suggested that an ICP approach is thought to stifle innovative practice. However, ICP should be used as a tool to inform practice but equally it will allow for individual deviations as the need arises.

## Critical Success Measures

In order to be effective in implementing and managing ICP developments, strong leadership and project management is an essential criteria. Particular emphasis is placed on organisational support in order to provide the resources needed to bring about and facilitate change.

Care pathway development is more successful when powerful champions are involved in the process. Lack of authority will be a major inhibitory factor and therefore it is essential that influential nursing and medical colleagues support the initiative in order to provide the necessary impetus for change (Currie 1998).

A further success measure relates to the multi-disciplinary team approach to pathway development. In some cases, relationships between individual professional groups are not always well established and therefore this can be a failure point to pathway development. The need to have an ICP co-ordinator in order to facilitate team building type activities, education and training is a key element.

Clinical audit support has a crucial role to play in order to assist in variance analysis. This process ensures that future care pathway development is a continuous developmental process driven by best evidence and quality improvement.

An ICP can only be effective if it is built on evidence based medicine; for example, NSF's are a prime example of how evidence directs pathway development. It could be problematic to develop ICP's in areas where evidence is not available, which leads to conflicting professional views on how clinical care is provided. A clear contrasting example of this can actually be demonstrated if we consider leg ulcer management. The evidence is strong in relation to venous leg ulcer management, there is 'one best way' which is compression therapy. Conversely the evidence to support the treatment of ischaemic and mixed

aetiology leg ulcers is less conclusive leading to diverse and inconsistent treatment practices.

Prior to considering developing an ICP it is fundamental that a process mapping exercise is carried out in order to identify the sequence of steps to be taken. The process map will identify specific responsibilities for each step, the relationships between individual groups, potential problem areas and failure points. Most importantly the mapping exercise will consider opportunities for improved practice.

## Conclusion

Integrated Care Pathways are potentially a valuable tool in which to improve the quality of care for patients by ensuring that care is evidenced based and consistent therefore reducing inequalities. The pathway describes the patient's journey through a clinical experience within a given timeframe and clearly stating individual professional responsibilities during the episode of care.

ICPs are developed by a multi-disciplinary team in order that the care can be truly integrated. ICPs are evidence based promoting consistent care that decreases variations in practice. Variance tracking is a distinguishing feature of ICPs which is an effective exception reporting tool, which facilitates continuous quality improvements. It is essential that appropriate topics are chosen on the basis that quality improvements can be achieved and the evidence suggests that there is "one best way". **MK**

## References

- Beaumont, R. (2000) Introduction to Integrated Carepathways: Lecture notes. <http://www.robinbt2.free-online.co.uk/virtualclassroom/contents.htm>.
- Brugh, L.A. (1998) Automated clinical pathways in the patient record - legal implications. *Nurse Case Management*. 3: (3) 131-137.
- Currie, L. (1998) Carepathways development and implementation. *Nursing Standard*. 12: (30) 35-38.
- Evans, T. (2001) Integrated carepathways for leg ulcer management. *Nursing Times Plus*. 97: (3) 1-3.
- Gibb, H. Banfield M. (1996) The issue of critical paths in Australia: where are they taking us? *Nursing Inquiry*. 3: (1) 36-44.
- Middleton, S. and Roberts, A. (2000) *Integrated Care Pathway: A practical approach to Implementation*. Butterworth-Heinemann, Oxford.
- Tingle, J. (1997) Clinical guidelines and the law. In Wilson J (Ed) *Integrated Care Management: The Path to Success?* Oxford, Butterworth Heinemann.

An Integrated Care  
Pathway can only be  
effective if it is built on  
evidence-based medicine

# Clinical governance: the implications for venous leg ulcer management

Liz Scanlon and Caroline Dowsett

**This article describes the concept of clinical governance and applies it to the practice of compression bandaging for venous leg ulcer management. It considers areas such as clinical evidence, clinical audit, clinical risk management, quality assurance and professional development, and relates this to everyday practice in the management of venous leg ulcers using compression bandaging.**

## Leg Ulceration

Approximately 59-70% of leg ulcers are primarily the result of chronic venous hypertension, and research has demonstrated that sustained graduated external compression therapy is the most effective treatment for these ulcers (Blair et al 1988). Given the extent of the problem and the fact that leg ulceration is such a debilitating common condition, how can practitioners ensure that they are doing the right thing, at the right time, for the right patient? Bringing together the elements of Clinical Governance, research-based evidence for compression bandaging, and the patients concerns, should ensure that this agenda is met. It is essential that all patients with leg ulceration receive high quality, evidence based care irrespective of where they live in the country. Wide variations in practice are no longer an acceptable option for practitioners, and their organisations.

## Clinical Governance

Clinical governance is a quality initiative introduced through the White Papers published by the current government. It is defined as 'a framework through which NHS organisations are accountable for continuously improving the quality of their services and safeguarding high standards of care by creating an environment in

which excellence in clinical care will flourish' (DOH 1998). Clinical governance is supported at a national level by structures such as the National Centre for Clinical Excellence (NICE), National Service Frameworks (NSF), the Commission for Health Improvement (CHI) and National Patient User Surveys.

Clinical governance provides a framework for improving quality of service provision and includes

- Clinical effectiveness
- Clinical Audit
- Clinical Risk management
- Quality assurance and performance management
- Education, training and continuing professional development

## Clinical Effectiveness

The fundamental principle of quality is based on the use of effective interventions. For interventions to be effective they need to be evidence based. The evidence base for the management of venous leg ulcers is regularly reviewed and summarised in the publication 'Clinical Evidence' (2001). Compression therapy has been shown to be the most effective treatment. However there is a variety of compression bandages available for use and considerable literature regarding the subject, and this for some practitioners can create confusion over what is 'best practice'.

Compression bandages are subdivided according to the amount of pressure they produce as outlined in Table 1. To achieve the pressures shown there are a variety of compression bandage options.

In order to reduce venous hypertension the pressure achieved by the bandage needs to be greatest at the ankle 30-40mmHg, reducing to 15-20mmHg at the calf (Alexander House Group 1992). This is usually achieved by the natural shape of the leg, which is narrower at the ankle

### Liz Scanlon

MSc, RGN, RM, Cert DN  
Nurse Consultant Tissue  
Viability, Leeds Community &  
Mental Health Services Trust

### Caroline Dowsett

MSc, BSc(Hons), DipN, RGN  
Nurse Consultant Tissue  
Viability, Newham Primary  
Care Trust, London

than the calf, if the bandage is applied at the same tension from ankle to knee according to Laplace's Law (Moffat and Harper 1997).

### Laplace's Law

P is proportional to  $N \times T$   
 $C \times W$

- P = pressure exerted by the bandage
- N = the number of layers of bandage
- T = the bandage tension
- C = circumference of the limb
- W = bandage width

For this reason measurement of the patient's ankle circumference is essential throughout the patient's treatment. The larger the ankle circumference, the higher the pressure needed to reverse venous hypertension and achieve healing. Table 2 outlines the various four layer bandage regimes according to the patient's ankle circumference. With other bandage systems it is important to follow the manufacturer's instructions. For patients who have abnormal leg shape, extra wool padding should be used to modify the leg shape, so that the correct pressures can be achieved.

### Compression bandage options

There are a variety of bandages available that will provide compression in venous leg ulcer management, and these include

- **Multi-layer bandage systems**
- **Short stretch bandages**
- **Long stretch bandages**
- **Cotton crepe bandage - usually combined with paste impregnated bandages**
- **Shaped elasticated tubular bandages**

The type of bandage selected will depend on the magnitude, distribution and pressure to be achieved and will take into consideration

- **the clinical evidence available**
- **the patient's ankle brachial pressure index**
- **national and local guidelines**
- **patients choice and details such as leg shape, allergies**
- **the cost effectiveness of the bandage**
- **concurrent diseases such as diabetes, heart failure**

**Table 1. Compression bandage options**

| Class                     | Pressures    | Indications  |
|---------------------------|--------------|--|
| 3a light compression      | 14-17mmHg    | Management of superficial varices  |
| 3b moderate compression   | 18-24mmHg    | Management of mild oedema and venous leg ulcers  |
| 3c high compression       | 24-35mmHg    | Control of gross varices, gross oedema and venous leg ulcers                           |
| 3d extra high compression | Up to 60mmHg | Sustains pressures in excess of 50mmHg on oedematous legs for extended periods of time |

(Cullum and Roe 1995, Nelson et al 1996 Thomas 1990)

**Table 2. Four layer bandages to accommodate ankle size**

| Ankle circumference | Bandage regimen  |
|---------------------|--|
| Up to 18cm          | 2 or more wool padding<br>1 light stretch bandage (crepe)<br>1 light elastic bandage 3a(elset/litepress)<br>1 cohesive bandage 3b(coban/co-plus) |
| 18-25 cm            | 1 wool padding<br>1 light stretch bandage<br>1 light elastic bandage 3a<br>1 cohesive bandage 3b   |
| 25cm - 30cm         | 1 wool padding<br>1 high elastic bandage 3c (tensopress)<br>1 cohesive bandage 3b  |
| Greater than 30 cm  | 1 wool padding<br>1 light elastic bandage 3a<br>1 high elastic bandage 3c<br>1 cohesive bandage 3b   |

(Morrison and Moffat 1994)

## Clinical Audit

The purpose of clinical audit is to improve the quality of care to patients locally. Widespread variations in practice have been identified and evidence of unnecessary suffering and high costs due to inadequate management of venous leg ulcers in the community have been shown (Effective Health Care Bulletin 1997). Clinical Audit is a useful tool to measure how well the evidence is being utilised in practice, to commend practitioners on areas of good practice, and identify areas for practice development. The use of nationally developed audit protocols such as the RCN protocol (RCN 2000) can assist with this process. Using a recognised tool for audit and national standards also allows for greater comparison across care settings, and across neighbouring organisations. Where audit demonstrates gaps in practice, it is essential that an educational programme is developed to address these. Re-audit is an important element of the audit cycle to demonstrate how practice has changed and improved.

## Clinical Risk Management

Clinical governance acknowledges that clinical decision making is a risk management process. Within venous leg ulcer management there are many decisions that are made by weighing up the clinical risks. These include

- **The risk of reducing the oedema by transferring the fluid into another area of the body. Where there is evidence of heart failure the patient should have a medical referral prior to application of compression;**
- **The risk of inadequate protection over bony prominences leading to tissue damage, or the risk of inappropriate bandage tension leading to tissue damage or ineffective compression;**
- **The risk of the patient not being able to get their shoes on due to the bandages and the possible effects this will have, eg. force their footwear so that excess pressure occurs to the foot and the bandage is disturbed, footwear being unsafe, and the patient removing the bandage;**
- **The risk of infection going undetected when compression bandaging remains in place for a week. Where infection has**

**been identified the frequency of bandage change will need to increase and systemic antibiotics will be required.**

There are also risks to the practitioner, as clinical governance is closely linked to litigation. Whilst the practitioner may have ensured that their practice is evidence based and that the risks have been reduced for the patient, unless all of this has been documented, there is no evidence to support the practice.

## Quality assurance and performance management

Quality assurance involves regular monitoring of quality measures such as critical incidences, patient involvement and satisfaction, clinic waiting times and attendance. When critical incidences do happen, it is essential that lessons be learnt in an open and non-blame culture. Reviewing incidences should occur at clinical supervision level where staff should be encouraged to reflect on their own practice, the occurrence of minor incidences and the 'near miss' incidence. For example, the patient who unexpectedly removes their bandages or who finds the odour distressing. Serious incidences should be shared with as many staff as possible as a learning exercise to identify the cause of the incidence and to address support and training issues. Where necessary, guidelines and competencies should be reviewed, both for the individuals involved and for the organisation.

Patient and user involvement is an essential component of clinical governance and quality assurance. Having non-professional membership of clinical governance councils is important when developing patient services and clinical guidelines in leg ulcer management. Particularly relevant to leg ulcer management are issues such as pain, odour control, and impact of the leg ulcer on quality of life and body image. Patient involvement is also key to the success of any treatment plan. If the patient wishes to wear certain shoes or wishes to shower every day, and bandages prevent them carrying out these activities, then concordance will not be achieved. From this a negotiated care package can be developed and tailored to meet individual patient's needs.

## Education, Training & Continuing professional development

Clinical governance relies on the theoretical knowledge base and clinical skills of practitioners. It is recognised that as practice changes in light of new evidence, that there is a need to update staff. The management of venous leg ulcers with compression requires a knowledge base, which includes:

- **Detailed knowledge of anatomy and physiology of the leg**
- **The principals of vascular assessment**
- **The principals of wound assessment**
- **The assessment of the limb**
- **The principals of compression therapy**
- **The impact of compression therapy on the patient both physically and psychologically.**

These key areas need to be part of any educational programme and from this knowledge base clinical skills should be developed. The development of a competency framework can be useful to demonstrate continuing professional development and to ensure all practitioners are achieving the same standards in clinical care.

## Conclusion

The framework offered by clinical governance is a powerful tool that supports the practitioner in doing the right thing, at the right time, in the right way, for each individual patient.

It is the individual's responsibility and the responsibility of our organisations to ensure that each practitioner has the knowledge and skills to provide a high quality, evidence based service for those patients who suffer from leg ulceration. If we do not, the price to pay will be high: for the patient in terms of suffering, and for the individual and the organisation in terms of costs of ineffective management and potential litigation costs. **LS/CD**

## References

- Alexander House Group (1992) Consensus Paper on Venous Leg Ulcers. *Phlebology*. 7, 48-58.
- Blair S et al (1988) Sustained compression and healing chronic venous ulcers. *British Medical Journal*, 297, 6657, 1159-1161.
- Clinical Evidence (2001) Issue 5, June. British Medical Journal Publishing Group, England
- Cullum N., Roe B (Eds) (1995) *Leg Ulcers. Nursing Management. A research based guide.* London. Suctari Press.
- Department of Health (1998) *A First Class Service: Quality in the New NHS.* London, The Stationary Office.
- Effective Health Care Bulletin (1997) Compression Therapy for venous ulcers. NHS Centre for reviews and dissemination. 3,4. 1-12. University of York.
- Moffat C., Harper P (1997) *Leg Ulcers.* Edinburgh. Churchill Livingstone.
- Morrison M., Moffat C. (1994) *A Colour Guide to the assessment and Management of leg ulcers.* Second Edition. London. Mosby.
- Nelson et al (1996) The Management of leg ulcers. *Journal of Wound Care*. 5,2. 73-76.
- Thomas S (1990) Bandages and bandaging: the science behind the art. *Care Science and practice*. 8, 56-60.

“It is the individual’s responsibility and the responsibility of our organisations to ensure that each practitioner has the knowledge and skills to provide a high quality, evidence based service”

# The Use of Intermittent Pneumatic Compression Therapy in Venous Leg Ulcer Management

Alison Hopkins

**S**ome people have very difficult ulcers. Whilst the majority of venous leg ulcers should heal within six months (Moffatt et al 1992, Hopkins et al 2000), others, despite all the best efforts of both the client and the practitioner, fail to heal with standard compression therapy. Some of these ulcers will be irritatingly static, but others will be causing misery to the recipient due to recurrent infection. This article will discuss the use of intermittent compression therapy and its role within the management of difficult to heal and infected venous leg ulcers.



## What is Intermittent Compression?

The intermittent pneumatic compression (IPC) device provides compression (mmHg) through an inflated garment from an electric pump. (It is also known as sequential intermittent compression or even sequential intermittent pneumatic compression!) As its title suggests, the device applies pressures intermittently at pre-set intervals. The pump provides variable pressure settings of 20 -120mmHg, for average intervals of 70 seconds. The lower limb garments come in a half-leg length (to the knee) and a variety of full-leg lengths. For those with extra wide limbs, inserts can be used. In addition, the garments are either single or multi-chambered. This distinction is important; unlike the single chamber, the multi-

chambered garment applies the compression sequentially. These commonly have 3 chambers with inflation commencing at the toes and working up the leg thereby providing a massaging effect on the limb.

## Evidence for its use within Compression Therapy

The readers of this journal do not need to be persuaded of the benefits of compression bandaging in the management of chronic venous insufficiency or venous leg ulcers. Compression therapy aids in the reversal of venous hypertension by increasing venous velocity, reducing interstitial oedema and valvular incompetence. In the review of compression therapy, the Effective Health Care Bulletin (1997) found that compression was effective in the management of venous leg ulcers. Intermittent compression was also found to be useful if used in addition to compression bandage therapy. (Colleridge Smith et al 1990, McCulloch et al 1994, Mulder et al 1990) yet these have been criticised for their inadequate sampling methods and sample size which may have contributed to over generalisation of their findings (Vowden 2001).

Vowden's (2001) recent review of this therapy found evidence that IPC, increases venous velocity, reduces oedema, enhances fibrinolytic activity and reduces the damaging effect of white-cell activity. Yet it is clear that, as with compression bandaging, exactly how IPC exerts its beneficial effects is not known. However, the design of the chamber may be significant. A single chamber may compress the calf in the same way as if we squeezed a tube of toothpaste in the middle (Allsup 1994), thus reversing venous flow (Kamm et al 1986) whilst the massaging effect of the multi-chambered garment encourages the drainage of the venous and lymphatic system. The recommended pressure cycle is 50mmHg for 50 seconds over a daily 2 hour period (Vowden 2001).

**Alison Hopkins**  
*Clinical Nurse Specialist*  
*(Tissue Viability)*

## The experience of the East London Wound Healing Centre

Any compression therapy can be a hazard to the limb thus the client must be fully assessed. This will include ascertaining the clients' ankle pressure ratio. Generally, if it is above 0.8 and the ulcer is diagnosed as having a venous component, then compression therapy is required. In addition to ischaemia the practitioner needs to be alert to other compression hazards such as smaller or abnormally shaped limbs and cardiac oedema. Vowden (2001) asserts that there are few contraindications to the use of IPC except the presence of deep vein thrombosis and cellulitis.

Within the East London Wound Healing Centre we have a number of IPC devices that are used within the in-patient wound-care beds and the community and they have been positively evaluated (Hopkins and Worboys 1999). They are a limited resource and as such, need to be provided for those in greatest need. The most common criterion for provision is that the driving force of the ulceration is venous hypertension and that they are having compression bandage therapy. In addition the ulcer has one or more of the following:

- **Non-healing**
- **Excessive oedema**
- **Has persistent infection**
- **Mixed venous/arterial disease.**

The presence of persistent infection, such as painful episodes of Strep G, has proved to be the area where we see the most benefit of IPC therapy. Our experience has been that intermittent compression therapy immediately stops the cycle of recurrent infection, enabling the wound to recover and commence healing. Pain reduces thereby enabling the toleration of effective compression bandaging. In the presence of arterial disease IPC usage must be approached with care and specialist advice. However, where there is associated venous disease or oedema, we have found the intermittent application of increased compression, over reduced compression bandaging can be effective. Regular assessment and evaluation is essential if hazard to limb is to be prevented.

For clients with lymphovenous disease, IPC may have a long-term role. In these circumstances we have had clients purchase their own device. This has enabled them to continue with compression hosiery without allowing the oedema to have excessive episodes, and IPC appears to prevent the acute episodes of lipodermatosclerosis. IPC also enables the toleration of compression bandage therapy by reducing acute oedema and its associated pain and disability.

### Is IPC practical?

Most definitely. The typical client would be elderly with some impaired mobility but our experience

is that they have rarely had difficulty using the device. An important feature of this therapy is the client participation. It cannot be done without their full co-operation and understanding. Thus this treatment is something they can be involved in and fosters partnership. This feature was echoed in Vowden's review (2001).

|  |
|--|
| <b>Ease of Use</b>   |
| Simple to set up   |
| Easy to clean  |
| Few mechanical problems                                    |
| Comfortable and relaxing                                   |
| Used simultaneously on both legs if necessary              |
| Inserts for extra-wide legs                                |
| <b>Partnership</b>   |
| Client is active partner in ulcer management               |
| Client is in control of the device, how long and when used |
| Enhances education regarding aetiology and management      |

As with any compression therapy, the practitioner and client need to be alert for compression damage. If the client has any increase in pain during therapy, and/or tingling, numbness or discolouration of the toes, then IPC must be discontinued and advice sought.

This paper has discussed the use of intermittent pneumatic compression therapy within venous ulceration and reported on one teams experience of its use with clients for whom compression bandaging alone was ineffective. Our evaluation has found IPC to be beneficial when used within certain criteria. Whilst certainly not research, it does concur with Vowden's (2001) conclusion that the available research evidence, though not conclusive, suggests a trend in favour of IPC therapy. For example, the Flowtron-Plus (Huntleigh Healthcare – see insert) offers a pressure range of 30-80mmHg with 90 seconds inflation and 90 seconds deflation. **AH**

### References

- Allsup DJ (1994) use of the intermittent pneumatic compression device in venous ulcer disease. *J Vasc Nurs* 7 (4) 106-111.
- Colleridge-Smith P, Sarin S, Hasty J, et al (1990) Sequential gradient pneumatic compression enhances venous ulcer healing: a randomised trial. *Surgery* 108: 871-5
- Hopkins A, Kondel R, Worboys F, Edwards J (2000) An Audit of the Leg Ulcer Healing Rates. Tower Hamlets Healthcare Trust. Unpublished
- Hopkins A and Worboys F (1999) When Compression Therapy is not enough. *Clinical poster. 3rd Meeting ETRS/Wound Healing Society*
- Kamm R et al (1986) Optimisation of indices of external pneumatic compression for prophylaxis against deep venous thrombosis: radionuclide gated imaging studies. *Cardiovasc Res* 20, 8:588-96
- McCulloch J, Marler K, Neal M et al (1994) Intermittent pneumatic compression improves venous ulcer healing. *Advances in Wound Care* 7: 22-26
- Moffatt C, et al (1992) Community clinics for leg ulcers and impact on healing. *BMJ* 305:1389-92
- Mulder G, Robinson J, Steeley J (1990) Study of sequential compression therapy in the treatment of non-healing chronic venous ulcers. *Wounds* 2:111-5
- Vowden K (2001) The use of intermittent pneumatic compression in venous ulceration. *Br J Nurs* 10, 8: 491-509



# Wound Management CD-ROM: A Study Guide on Pressure Ulcers and Leg Ulcers

**T**he East London Wound Healing Centre has launched a *Wound Management* CD-ROM. The CD has two sections:

1. A study guide on Pressure Ulcers and Leg Ulcers. In addition to in-depth information on all aspects of management, it contains links to case studies, literature guides and web sites;
2. Additional sections on Infection Control, Nutrition, Wound Management and Educational Resources.

### Who is it for?

It is aimed at medical and nursing staff, both undergraduate and graduate. The Study Guide has two levels, enabling undergraduate students to go into more depth if desired. For specialist practitioners it is useful as part of a training programme for individuals and groups, since the CD is in PowerPoint format.

### System Requirements:

The CD requires Windows 95 or above plus PowerPoint software (however it is not compatible with PowerPoint XP).

To purchase the Wound Management CD ROM please send a cheque for £22 (£23.50 non-EU) made payable to:

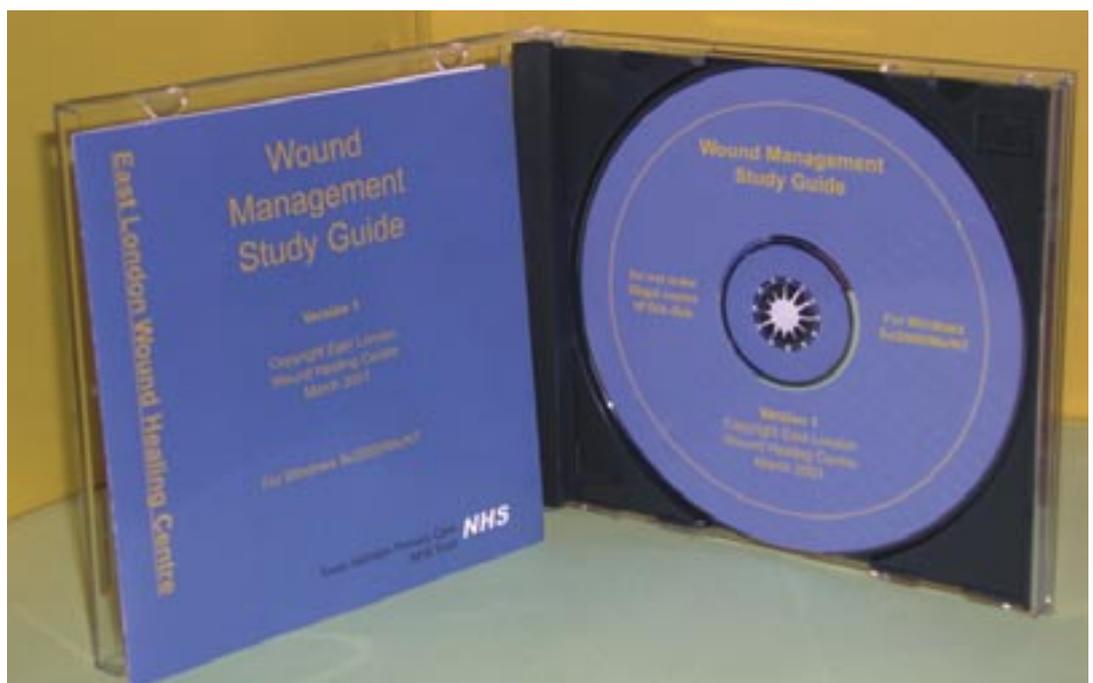
### QMW College – CD-ROM Project

Send to:

CD-ROM Project  
Academic Office  
1st Floor, Alderney Building  
Mile End Hospital  
Bancroft Road  
London E1 4DG

For more information, or if you would preferred to be invoiced, please contact:

**Alison Hopkins**, Clinical Nurse Specialist  
(Tissue Viability).  
Tel: 0207 377 7873  
E-mail: [alison.hopkins@thpct.nhs.uk](mailto:alison.hopkins@thpct.nhs.uk)



# Guidelines for Submitting Articles for Publication in the Leg Ulcer Forum Journal

Once you have decided to write an article for the leg ulcer forum journal, make sure the content is appropriate for the readers. The following gives guidelines for authors.

## Format

### • Front page

Title of article

State author's name/s, qualifications, position, and place of work. Name, address and contact telephone number of the author responsible for correspondence.

### • Introduction

This should be approximately 30 words in length. It should introduce the reader to the areas covered in the article.

### • Headings

Headings are useful to break up the text; they also help to organize the main points of the article.

### • Conclusion

Should summarize the article, identify gaps in knowledge and suggest recommendations for future practice.

Please send a hard copy printed on one-side only on A4 paper, double-spaced with wide margins. Please type in upper and lower case – don't use 'all capitals' anywhere. Don't forget to keep a spare copy. Also, a copy of the article should be sent on a floppy disc, saved in 'Text Only' format. Clearly state on the disc label the file name and format saved.

The journal welcomes articles of interest. This could include a literature review, research project that you have been a part of, any innovations you feel would benefit our readers. Care studies are an invaluable source to practitioners, particularly when complex situations have successfully been addressed, colour photographs and tables can be

included to complement the text (the client must give written permission before publication of photographs).

All manuscripts should be between 1,000 to 2,000 words. However if you wish to submit a short report then 500 words would be acceptable.

## References

Please reference the manuscripts using the Harvard system. If you need further details of this, contact the editor.

Articles should be sent to the Editor:

**Lynfa Edwards**  
**Tissue Viability Nurse Specialist**  
**Mattock Lane Health Centre**  
**78 Mattock Lane**  
**LONDON W13 9NZ**

Care studies are an invaluable source to practitioners, particularly when complex situations have successfully been addressed



President: Prof.C.Moffatt

# Supporting the professionals

Providing a forum for nurses working within the field of leg ulcer management and wound care



Facilitating discussion, debate and reflective practice in which all members are encouraged to participate



Disseminating new research and identifying and supporting areas of good practice



Providing support to specialist nurses involved in establishing leg ulcer services



Encouraging continuous professional development

**THE LEG ULCER FORUM**

**PO Box 337 Huntingdon PE28 2WH**

**Tel: 01480 494842 email: [legulcer.forum@btopenworld.com](mailto:legulcer.forum@btopenworld.com)**

**web: [www.legulcerforum.org](http://www.legulcerforum.org)**