# Woundsuk

Summer ball E Hwards 2010

The 2010 Wounds UK Awards Ceremony and Summer Ball took place on 11th June, 2010 at The National Motorcycle Museum, Solihull, Birmingham. The event was hosted by Phil Hammond, GP and comedian, who injected a sense of fun into proceedings while handing out the many well-deserved awards. Several hundred guests gathered to congratulate the winners and celebrate the achievements of all those working in wound care in the UK.

The 2010 Wounds UK awards offered the wound healing community the opportunity to recognise and celebrate those attempting to advance practice. With hundreds of high-quality entries, the panel of judges, led by Pam Cooper, Clinical Manager, Wounds UK, had a difficult task singling out finalists for each category. All the entries demonstrated that the field of wound care is making excellent progress and continuing to improve the lives of patients, despite the continued pressure on clinical services and cuts to resources.

The evening began with guests having their photographs taken on arrival and being led through to a champagne reception. Entertainment included comedy from Phil Hammond before guests were served an excellent three-course dinner. The award ceremony itself included 10 categories, each of which had three winners. Trophies were presented to the overall winners and the ceremony culminated with the Major Contribution to Wound Healing Award, which was presented to Kathryn Vowden, Nurse Consultant in Tissue Viability based within the Wound Healing Unit, Bradford Teaching Hospitals NHS Foundation Trust, for her contribution to the field of wound care and for encouraging and developing, the speciality both nationally and internationally. Visitors to the Wounds UK website voted for this award and a big thank you goes out to them. All in all it was a successful evening, which culminated as usual in some entertaining dancing!

Wounds UK would like to take this opportunity to thank all the clinicians who submitted an entry for their contribution, and the sponsors of the awards. Without this commitment to the evening, the important work of the wound care field in the UK could not be recognised and celebrated.

Entry forms for the 2011 awards will soon be available on the Wounds UK website and we encourage all clinicians active in practice development, research and audit to enter and share their accomplishments with colleagues.

We look forward to welcoming you to the Wounds UK Awards in 2011!



















## Innovations in Lymphoedema and Chronic Oedema

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Advancis

Presented by Julie Carr



Jackie Stephen-Haynes An audit to establish factors that influence hosiery selection

**Gudrun Collins** From despair to elation. Study exploring the perceptions of stakeholders when interacting with a teledermatology service WINNER

Joy Tickle Same puzzle, different solutions.



# Working with Industry

Presented by **Mark Allatt** HIGHLY COMMENDED

**Sian Fumerola** Early risk assessment and intervention to improve patient outcomes in abdominal wound breakdown

**Valerie Henderson** Negative pressure wound therapy clinical outcomes tracking looking for emerging themes to inform practice WINNER

**Heather Hodgson** Working in partnership with the industry to improve patient outcomes and reduce spend on inappropriate dressing regimes: a preand post-intervention study

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Innovations in Leg Ulcers	Sponsored by			
Presented by <b>Ian Grant</b>				
HIGHLY COMMENDED	mea			
<b>Dr John Lantiss II</b> A prospective, non-comparative clinical evaluation to determine the effect of an absorbent dressing				
Kirsten Mahoney Expanding the role of health care support workers in				
hosiery clinics				

WINNER

Adrian Smith North East Lincolnshire Skin Health Programme



# Innovations in Diabetic Foot Ulcers

Presented by **Jarrod Partridge** HIGHLY COMMENDED BSN<sub>medical</sub>

Sponsored by

**Paul Chadwick** A prospective multi-centre clinical evaluation of gauze-based negative pressure wound therapy: results from 131 patients

**Anna C hristine Taylor** A retrospective audit of baseline characteristics with the University of Texas Wound Classification system in the prediction of wound healing in diabetic foot ulcerations

WINNER

Tania Woodrow Casts and V.A.C. Therapy



## **Quality of Life**

Presented by **Vi Guyan** HIGHLY COMMENDED



Sam Bedford Quality of Life

**Lt Colonel Steven Jeffery** The use of gauze-based negative pressure wound therapy in a land mine injury WINNER

Ally Lister The benefits of the social setting in wound care management



# Innovations in Exudate Management Presented by Karen Hand

HIGHLY COMMENDED

Sponsored by

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CAROLON

**Grace Ama** How the use of an appropriate dressing with patient-centred care affected the compliance with therapy

**Rosalyn Thomas** The management of a diabetic foot ulcer utilising debridement. Aquacel AG and Versiva XC

<u>WINNER</u>

Linda Haynes First-line dressing in care home



# Innovations in a Reduction in Wound Infection

Presented by **Paul Mussert** HIGHLY COMMENDED

**Joanna Swan** A clinical case study of a venous leg ulcer using Suprasorb X+PHMB

**Kathleen Leak** An easy guide to the appropriate use of topical antibacterial dressings

WINNER

**Dr John Lantis II** A prospective, non-comparative, clinical evaluation to determine the effect of an absorbent dressing



# Innovations in Compression Therapy Sponsored by

Presented by **Mike Hoskins** HIGHLY COMMENDED

**Gail Powell** Leg ulceration with arterial disease. A case report of a patient with bilateral leg ulceration

**Kate Bennett** Providing the most suitable compression system for an active working patient with a recurrent venous ulcer WINNERS

**Jackie Stephen-Haynes** Development of a strategic plan for the implementation of Coban 2 across a uk primary care trust



# Debridement

Presented by **Gill Davies** HIGHLY COMMENDED



**Manas Kumur Dube** Management of a complex necrotising fasciitis wound in a district general hospital

**Angela Rodgers** A case study on the use of maggot therapy for the management of a purpura fulminans following meningococcal septicemia in an infant

WINNER

**Paul Chadwick** Debridement — the preparation stage of a dynamic care pathway for the management of complex foot ulcers



# Major Contribution Award Presented by Christoffer Melchior

Sponsored by

WINNER

**Kathyrn Vowden** received the Wounds UK Key Contribution Award sponsored by Coloplast Ltd for her outstanding contribution to clinical care, education and research. The award recognised her achievement in developing wound care services in Bradford and her ongoing work to develop wound care as a national and international specialty. Kath is committed to providing a high standard of clinical care to her patients. She continuously drives the field of tissue viability forward through research and audit, and is involved in the development and support of national and international guidelines to enhance clinical practice.

The Wounds UK awards programme continues to recognise annually the outstanding achievements of practitioners who are improving standards in wound prevention and management, via research, clinical audit and practice development in the UK.

Full details on how to submit an entry to Wounds UK awards 2011 will shortly be available online at: <u>www.wounds-uk.com</u>.

Wounds UK would like to thank all those who submitted entries to this year's awards and the following companies for their continued support:







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>smith&nephew



# 2010 Award winning abstracts

# Innovations in Lymphoedema and Chronic Oedema

sponsored by Activa Healthcare

#### Same puzzle, different solution

Joy Tickle, Tissue Viability Nurse Specialist, Telford

#### Introduction

Chronic oedema and lymphoedema of the lower limb is a painful and debilitating condition, frequently encountered and managed in the community. It has varying aetiologies and is often an unspoken condition due to patient embarrassment and clinicians' frustration.

Shropshire's tissue viability audit (2009) showed that there was an increased number of referrals to community practitioners with what was described as 'wet, weeping limbs', which were often misdiagnosed and inappropriately treated. The audit highlighted a high prevalence in the elderly and identified that it was also an increasing problem in younger adults, particularly those experiencing obesity problems.

Due to the aforementioned and the withdrawal of the community lymphoedema service, one had to address ways and means of effectively treating this grey area of practice by adapting services and the resources available. This is in line with current NHS legislation such as QIPPP and CQUIN, which emphasises both quality and innovation in practice.

#### **Development of practice**

It was evident that there was a high demand for clinicians to manage patients with chronic limb oedema/lymphoedema. The tissue viability nurse specialist had to ensure that these patients received appropriate and timely care, alongside the speedy delivery of an effective training programme for staff. A training programme was developed and implemented which incorporated evidence-based management of chronic limb oedema including skin care, wound care, aftercare and the psychosocial implications for the patient. Also included was a practical workshop encompassing full limb compression bandaging and compression garments. In order to support the training, a competency framework for the management of chronic limb oedema was implemented.

The choice of sustainable compression bandages for the treatment of chronic limb oedema is limited. For this reason, resources available to us were adapted. We utilised a short-stretch bandage that we currently used for the treatment of leg ulcers. The Actico short-stretch bandage enabled us to safely apply accurate compression therapy to limbs of varying sizes and shapes. Its cohesive properties also ensured less bandage slippage which can lead to limb trauma and also for its ease of application by staff. Overall the bandage ensured individualised patient compression therapy.

Due to the reduction in community staffing levels and increased workloads, the training programme was delivered both in the evening and during the day. The training was also attended and supported by the clinical advisors from within the bandage company in order to complement the accuracy and delivery of training.

#### **Outcomes observed**

The restructuring of service delivery within Shropshire to manage patients with chronic oedema and lymphoedema has been successful.

It has been identified since the delivery of the training programme that the incidence of patients with chronic limb oedema within the community has increased. This was anticipated, as staff are now better equipped in the early identification and management of this condition, thus reducing the incidence of misdiagnosis.

Following the training programme staff evaluations were recorded, which showed a 99% attendance rate. The overall evaluation comments and scores reflected a 'highly recommended and worthy training programme'. One particular area of success highlighted was the delivery of training during the evening.

From a patient satisfaction questionnaire patients reported improvements in their quality of life, ranging from the reduction in their limb swelling, a decrease in pain, less fluid leaking, increased mobility, and increased social activity as one patient reported: 'Its great I can wear proper shoes and do my own shopping now!'This woman was only 42 years old!

Initially information from our data capture sheets identified an increase in workload and patient visits, both to the tissue viability service and to community practitioners. However since the implementation of the effective assessment and management of this condition nurses found that this reduced gradually and the number of long-term patients on their caseload with unmanageable wet weeping legs was no longer a problem.

#### Discussion

One may argue that changing practice as we have done will lead to increased work demands. This, initially, I cannot argue with, however the positive outcomes for both the patient and the healthcare professionals far outweigh this. It has also been highlighted that this initial increase is short term.

It is vitally important that any clinician caring for patients has the ability to identify chronic oedema, understand its differing causes and presentations and initiate early interventions to avoid both complications and to improve outcomes and quality of life for the patient. Also, the engagement of the patient by the staff in a concordant relationship has proven vital for the success of this care, and the empowerment of the patients has been crucial for treatment success.

Practically, the use of the short-stretch bandage has proven extremely beneficial for the management of this problem and assisted greatly with patient concordance and comfort.

Failure to deliver this level of training for staff and the effective care of patients leaves not only the patient open to the development of complications.

#### Conclusion

By addressing the high prevalence of chronic oedema/ lymphoedema and by adapting resources and methods of working, our patients' quality of life has been dramatically improved. This, too, has coincided with a long-term reduction in the expenditure of clinician's valuable time and resources.

What we have implemented and achieved has not impacted on increased expenditure or proven highly complicated to implement. It has greatly enhanced clinical practice and patient care.

I hope that such successful changes to care and service delivery within Shropshire will help practitioners when caring for patients who are facing this chronic, debilitating and challenging condition.

#### Working with Industry

sponsored by Advancis medical

## Working in partnership with the industry to improve patient outcomes and reduce spend on inappropriate dressing regimes: a pre- and post-intervention study

Heather Hodgson, Tissue Viability Clinical Nurse Specialist

#### Introduction

Wound management is an integral part of most nurses' responsibilities. Some nurses are required to assess and dress wounds on a daily basis, while others less frequently (Gray and Cooper, 2001). It is widely recognised that wound management has undergone immense change in the past decade (Hollinsworth, 2002) resulting in changes to the way wounds are assessed and treated with wound dressings.

Wound dressings have also changed dramatically over the past decade, with dressings being developed to interact with the wound bed to produce changes in the microenvironment; they have a major influence on the wound healing process (Thomas, 1990). The wound dressing industry is worth billions of pounds, with vast amounts of money being spent on the scientific development of these products (Young, 1997). In Britain it is estimated that the NHS spends £3.1 billion pounds on wound management products (Vowden, Vowden and Posnett, 2009). Although Hamilton (2008) argues that the true cost of wound care is unknown, he indicated that there is a significant potential to reduce the cost of wound management by selecting effective treatments and preventing complications.

Today there are approximately 600 wound management products to choose from, with 72 companies in their development and manufacture (MA Healthcare, 2009). However, the variety of dressings available can actually make appropriate dressing selection a confusing experience (Miller, 1994), and, if the most appropriate dressing is not selected, it can lead to delayed wound healing and all-round waste of resources, including nurses' time and dressing costs (King, 2000; Keen and James, 2004). According to Smithdale (2008), it is understandable that many nurses find the process of dressing selection 'baffling' because the choice is 'overwhelming', and this may lead to nurses choosing a dressing that they feel familiar with and not make their decision based on what is required for the wound. Nazarko (2005) advised that all dressings have advantages and disadvantages and the most important aspect of caring for a wound is choosing the right dressing for the stage of wound healing. To date, there has been only one study published which identified inappropriate use of dressings for the stage of wound healing.

In 1996 an audit was carried out in an NHS trust to identify the degree to which wound management products were being selected and used appropriately. The correct choice and use were identified in just 20% of wounds. As a result of the audit, new guidelines on dressing choice were produced and the formulary amended (Bux and Malhi, 1996). This paper reported the planned change in practice, but it did not report what happened after the changes were implemented.

#### Method

Every wound (n=15) in a unit was assessed and details of cause, dimensions, tissue type, exudate level and current wound management regimen were recorded.

To reduce the risk of bias an evaluation team was set up to determine whether or not the wound management for each wound was appropriate or not. A novel approach for selecting team members was used. Members were invited from the wound care industry and five people representing the major companies with a previous nursing or clinical background agreed to participate. This is considered a novel approach because it has never been done before and all these companies are in direct competition with one another for business.

This proved to be a worthwhile and interesting exercise, as the team members all acted in a professional and ethical manner and readily identified where their company's products should not have been used and gave suggestions for more appropriate products. The results were unanimous and revealed that wound management was considered appropriate in 33% (n=5) cases.

#### Results

To measure time spent on wound care, a time and motion exercise was carried out for the five most common regimens and the more appropriate regimen, this revealed that nurses were wasting 200 minutes per day. Extrapolated, this means that the average time wasted per year was equivalent to 0.62 W.T.E (band 5) which equates to  $\pounds$ 13K. A costing exercise was also undertaken to ascertain what the differences were in product costs between the two regimens. Spend on wound care products accounted for £77 per day, equating to £28K per annum. Therefore, there was the potential to spend £41K per annum on inappropriate wound care. The audit will be repeated in October, six months after implementation and the findings of the audit will be presented at conference.

#### Discussion

200 staff have been educated and staff are acknowledging that lymphoedema/chronic oedema needs to be managed in a different way. This has led to an increased continuity of care within the PCT with patients now being assessed by tissue viability/ lymphoedema specialists and being referred to local staff for appropriate re-assessment, application of full-leg compression hosiery using a cohesive short-stretch bandage, as well as provision of appropriate skin care.

Staff are receiving an extension to their previously developed leg ulcer skills which allows for more comprehensive treatment of patients with leg ulceration/chronic oedema. A data base of competent staff has been developed and is provided to the PCT directors.

While it is difficult to estimate the number of individual patients who may have developed a leg ulcer following untreated chronic oedema, the individual care studies indicate that this would be hundreds of patients. Maintaining the ongoing audit database will assist in determining the impact over several years.

#### Conclusion

The audit data suggests that care for patients with chronic oedema has improved and will have long-term health benefits. There is strong communication and collaboration across tissue viability and lymphoedema services in the PCT, and while to date this has been successful, it is recognised that there is scope for further development, particularly in relation to patient involvement. A patient questionnaire is under development exploring the patient experience. This will be used to develop future practice in relation to chronic oedema care. Other healthcare professionals such as GPs and physiotherapists are also recognising their role in contributing to a positive outcome for the patient and cost benefit analysis is being undertaken.

#### **Innovations in Leg Ulcers**

sponsored by medi

#### North East Lincolnshire Skin Health Programme

Adrian Smith, Consultant, Liverpool, Merseyside

#### Introduction

North East Lincolnshire's Skin Health programme is an innovative community-led social marketing approach to raise awareness and support earlier presentation into services.

The belief that 'people are not the problem, they are the solution' drives the approach. The project supports teams of local people working with services to create a range of solutions and approaches. Insight is gathered and used to develop key messages which are targeted to audiences in ways and places most likely to influence behaviours.

#### Aims

- 1. To raise awareness of leg ulcer and skin health across professional and community networks.
- 2. To promote earlier presentation of leg ulcers and wounds.
- Support communities and agencies to work together to improve skin health (specifically leg ulcers but also broader wound issues).
- 4. Work with broader approaches to inform service development.

#### **Development of practice**

The programme is a fast-paced approach that uses small incremental change cycles to achieve rapid progress. In the space of a few months, a social marketing project has been developed and teams of local people acting as social movement advocating for skin health.

The Skin Health Programme was developed alongside a broader range of audit, metrics, service development and programme activity. As a result, the programme has been able to engage local people, staff and commissioners across the whole system. The learning from each activity has been shared at board level and across programme delivery to inform approaches. Although more common in other health improvement topics, the specific Skin Health Programme approach is brand new to local tissue viability services. It has allowed us to develop our practice in a number of ways such as:

- Understanding the behaviours of target audiences: what moves/motivates them and what stops them to seek help
- What messages and approaches are most likely to engage people with leg ulcers and at risk of leg ulcers
- How communities and services can work together in co-production approaches.

Community insight has led dedicated scoping and mapping exercises to identify who target audiences are, and how they can be reached. Examples include community events plotted across service and community calendars — pension day, dates of newsletter deadlines, church fetes and local football match fixtures, gathering of detailed insight such as popular bus routes, which are the best days to catch people at supermarkets.

#### **Outcomes observed**

A robust measurement framework uses community and clinical measures to demonstrate impact. We draw on a range of sources and use data in a way that is useful and which directs the work of the teams. Monthly measures are compared against baseline data and pre/post measures including:

- Comparison of Read codes at general practice against baseline information (monthly)
- ▶ Number of community events (monthly)
- Number of people engaged in significant conversations about symptoms and services (monthly)
- Pre and post 1:1 interviews with local people (questionnaire tool to measure reported behaviours, awareness and knowledge).

We acknowledge that we are at the beginning of our journey and much is still to be achieved; however, there are already demonstrable outcomes after a few months:

- ✤ By constructing conditions for staff and communities to learn and work together, partnerships have developed that provide a model for service/patient collaboration
- ➤ A team of 30 local people and services meet every few weeks to plan activity
- Community members have supported tissue services to outreach into communities and have engaged 'hard-toreach' groups
- ➤ A greater number of staff are involved in activity to raise awareness of symptoms and support people into services
- Production of innovative campaign and new resources to galvanise local people
- In one month, three hundred 1:1 interviews have taken place, as well as awareness events in local supermarkets and surgeries, media placements and publicity.

#### Discussion

It is difficult to convey the strength of this approach by words alone when the pictures, voices and stories of local people do it better. They show local older people with 'speak out for skin' placards, sandwich boards and posters. They show local service users using their own creativity to pass messages onto others. They show how they have acted as 'passports' and have used a range of networks to reach people at risk; many of which are closed to professionals. They show approaches which are more likely to be trusted and are effective at engaging people in in-depth symptom recognition conversations. Use of personal stories and press release of activity has helped media placement, further raising the profile.

At the same time as developing the Skin Health programme, we have carried out a local audit across general practice and developing local metrics as clinical standards and benchmarks. This has contributed to a developed understanding of local needs, and the community work has helped to contribute to planning a business case for a locality-based specialist skin tissue service.

This community-led social marketing is a radically different way of approaching skin health to what we are used. It involves a move towards a model where patients and local people are in charge of the process of generating solutions. Key features involve:

- Developing shared ownership and a move from service instigated change
- ➤ A move from a service articulation of health and wellbeing to a community articulation
- Supporting communities not just to understand needs, but how to create solutions
- An acknowledgement of the importance of local experience and local knowledge
- Co-production approaches that support a move from awareness into action — getting people into the right services at the right time.

#### Conclusion

The way we have approached how we engage with our service

users and people at risk of leg ulcers and poor skin health has been changed forever. Locally, our tissue viability services are working in true partnership and co-production. Consequently we have been able to link local people with care home staff, clinical staff, local people, health promotion workers, supermarket managers and so on. The work offers incredible value for money by drawing on the skills and energy of local communities. Outcomes have been considerable in a small space of time and learning is transferable to other areas and services.

#### **Innovations in Diabetic Foot Ulcers**

sponsored by BSN medical

#### A new strategy to fight infection

Tania Woodrow, Specialist Podiatrist, Foot Clinic, Truro, Cornwall

#### Introduction

Acute Charcot arthropathy is managed within a non weightbearing total contact cast, the cast changed weekly until the foot has cooled sufficiently to allow the individual to be managed within a removable cast walker. The cast walker allows the individual the freedom to remove the device in order to bathe and sleep in comfort, but does also allow the individual the opportunity to be non-compliant with the offloading aspect of their care.

Eight weeks previously, patient C had presented with a hot, swollen and painful foot with no history of trauma noted. Temperature readings had shown a difference with the contralateral limb of >4 degrees and X-ray reported disruption in the Lis franc region of the foot. A diagnosis of stage I Charcot arthropathy was made and the patient was immobilised within a total contact cast for a six-week period. After this time the foot had cooled sufficiently to allow the patient to be managed within a removable cast walker.

Wanting to attend a family event and dress smartly, patient C made the decision to wear his prescription footwear for a period of eight hours. The medial collapse that had developed during the acute stage of Charcot, meant that the foot no longer fitted into the shoe and a large ulcer developed over the plantar aspect of the first metatarsophalangeal joint.

This case report outlines the subsequent challenges faced in the management of the wound using V.A.C. Therapy<sup>®</sup> (KCI) in conjunction with a diabetic pneumatic aircast walker:

#### **Patient description**

Patient C is a 55-year-old insulin-dependent diabetic of 30 years duration. A dense peripheral neuropathy developed quickly following diagnosis, but with careful foot care and prescription footwear, his feet had not posed too much of a problem to him before this time.

#### **Clinical challenges**

With a large, highly exuding wound, we were eager to minimise the disruption to his life with daily dressings, therefore, V.A.C. Therapy was initiated. Our challenge was to combine V.A.C. Therapy with a cast walker in such a way as to avoid damage to, or pressure damage from, the tubing.

#### **Clinical management**

The cast walker has air cells inflated by the patient to provide intimate contact and stability for the leg. When using V.A.C. Therapy there is the potential for pressure damage from the tubing if it lies beneath the walker. At initial application the granufoam was bridged to the level of the lateral malleolus and the tubing fed through the walker, thus avoiding the potential for pressure damage to the leg.

At first dressing change it was noted that the SensaTRAC pad was exerting pressure on the underlying tissue, leading to an area of blistering and discoloration. Following discussion with our KCI locality manager we were provided with the new GranuFoam<sup>®</sup> bridge dressing. This allowed us to bridge the GranuFoam to the level of the knee and place the SensaTRAC pad above the walker, thus avoiding the pressure area previously created beneath the TRAC pad.

#### Discussion

In the presence of a subacute Charcot foot, it was imperative to combine wound management with a cast walker. The bridge dressing placed the sensor pad and tubing above the level of the walker, thus avoiding the potential for tissue damage previously observed on this neuropathic lower limb.

#### Conclusion

This innovative dressing allows the clinician to combine treatment modalities while providing a safe environment for the insensate foot.V.A.C.Therapy can now be used confidently in conjunction with total contact casting or removable cast, the bridge dressing decreasing the potential for pressure damage from the SensaTRAC pad and tubing.

#### **Quality of Life**

sponsored by Wounds UK

# Early tissue viability team involvement reduces hospital stay in patients with dehisced or open abdominal wounds

Ally Lister, District Nurse, Aberlour Health Centre, Aberlour, Moray

#### Introduction

Each team of community nurses face a unique set of circumstances and challenges, which vary according to the geography and demography of their own area. While it is every practitioner's objective to deliver care that is of the highest standard, their ability to do so can sometimes be inhibited by a variety of different factors. It is therefore the practitioner's responsibility to develop alternative ways to facilitate the delivery of such care.

#### **Development of practice**

The author recognised diversity in the provision of care in leg ulcer management within her area and addressed this by opening a Leg Club four years ago. One of the principles of the Leg Club Model is to provide care in a non-medical setting. This not only benefits the members by providing a relaxed environment where they will more readily learn how to become active in their own treatment, it also rebuilds their self-esteem which in turn builds confidence and also helps to achieves two of the essential goals for nurses; continuing education and empowerment for their client group. The Club enables the member to be a partner in their treatment. By having a greater understanding of their condition and treatment, the patient gains confidence and has the option to deliver and manage their own care. This, in turn, opens up patient choice and independence, as often they can self-treat at times and days convenient to them. Control of their care becomes their own and not the nurses, which is paramount within empowerment. One of the outcomes for the member will ultimately be an improvement in their quality of life.

Each individual's guality of life issues are unique and where some may feel that the healing of their wound is of most importance, others may identify with the need to be in normal foot wear. The practitioner therefore faces different challenges which can be addressed within the Leg Club Model. It is not only clinical advice from the practitioner that enables treatment choice for the member, but of equal importance and support is the information which the members gain from fellow sufferers. Despite advancements in science and the development of wound care products, without a holistic assessment of the patient, education, appropriate treatment and patient concordance, the outcome for some patients may not be favourable. Patient concordance is a vital component within the holistic care of any patient and this can only be achieved if there is a close partnership between the nurse and patient (Taylor, 2002). Lack of social support can at times be a factor which affects concordance, but the social interaction from members at the Leg Club and the peer support from those who have experienced leg ulceration, can help members to become empowered and take responsibility and ownership for their own health (Lindsay, 2005).

#### **Outcomes observed**

Not only do the Leg Club members become empowered and gain a greater understanding of their condition, but they also have the opportunity to become involved in the running of the Club. This involvement, on a social level, can help to rebuild self-esteem and confidence which in turn can have a positive influence on their management of their leg ulcer. Some of the members have taken on educational challenges to develop and enhance the service to the Leg Club members, GPs and primary care trust. Their general role has also expanded and has seen the pastoral support to bereaved members and the wider community.

The winter of 2009/10 was a challenging time for many, and due to the severe road conditions it was, at times, necessary to cancel the weekly meetings of the Leg Club. The community team worked hard to meet the members' needs by arranging to treat them at alternative venues. However, three of the patients felt confident in both their knowledge and ability that they did not wish to be seen by a member of the team and were able to deliver their own care, in the knowledge that support and advice was available if required. All of these patients continued with their own leg ulcer management for four weeks with the support of a weekly telephone call from a member of the community nursing team. The outcome for all of them was very satisfying and immensely rewarding as their ulcers healed during this time.

Since the inception of the Leg Club, the knowledge and skill level of all healthcare professionals has increased immeasurably. This has been evident in not only the quality of care they have been able to provide, but also demonstrated in the confidence with which they treat members and network with other healthcare professionals to develop the best care plan options for each individual. While the practitioners always provided the care and assessment that is recommended within the SIGN Guidelines (1998), their referral of patients onto other specialities was not as timely as it is now. This improved referral system ensures that patients are assessed by the appropriate specialist and that professionals can coordinate the care to facilitate the best outcome and ultimately aim to improve quality of life for all the members.

#### Discussion

The improvement in the level of service that the author has implemented, addresses all of the seven core elements identified within the 'Visible, Accessible and Integrated Care Report of The Review of Nursing in The Community in Scotland' (2006). This model of care addresses both prevention and treatment of patients that suffer from leg ulceration.

#### Conclusion

The introduction of a Leg Club into this rural area has benefited the patients enormously. It has ensured that they have access to a service that will provide specialist assessment and treatment in a friendly environment. There is evidence of improved healing rates, as concordance to treatment is greater. This could be associated to the education from the nurses, peer support and a better understanding of their condition.

The benefits associated with socialising with people who suffer from similar conditions cannot be understated, as patients learn that they are not unique in their circumstances. There is an opportunity within the Leg Club for members to improve their quality of life on a social level, as many of the patients live in geographic isolation and gain a positive lift purely from getting out and meeting people on a regular basis.

#### References

Lindsay E (2005) Leg clubs: personal reflections on implementing change. *J Community Nurs* **19(8)**: 16–21

Scottish Executive (2006) Visible, Accessible and Integrated Care — Report of the Review of Nursing. In: The Community in Scotland

Taylor B (2002) Nurse-patient partnership: rhetoric or reality? *J Community Nurs* **16(3)**: 16–18

Lindsay E, Hawkins J (2003) Care study. 'The Leg Club Model and the Sharing of Knowledge'. Br J Nurs **12(13)**: 784–90

#### **Innovations in Exudate Management**

sponsored by ConvaTec

#### First line dressing in care home

Linda Haynes, Registered Nurse, Coloma Court Care Home, West Wickham, Kent

#### Introduction

Resources are not usually readily and promptly accessible in a care home than in hospital setting. For example to have an assessment fro the Tissue Viability Nurse [TVN], there is a protocol for referral to follow before the resident can be assessed by the team. It is therefore, important for staff working in a care home to be able to recognise and use appropriate dressing to prevent further breakdown of the skin before being seen by the experts. Chronic wounds such venous leg ulcer, pressure and diabetic ulcers are common among the elderly. These wounds usually produce excessive volume of exudates which inhabit healing and cause misery to their lives. Great care should be taken as aging skin becomes vulnerable and delicate. Exudates can macerate and excoriate the skin surrounding the wound which increase the risk of infection and cause great pain and distress.

#### **Development of practice**

The World Union of Wound Healing Societies [2007] stated that 'An important aim of exudates management is to minimise the detrimental effect and maximise the positive effect of exudates.'It is vital to recognise that dressing is part of a holistic approach to patient care and the importance of treating any underlying conditions in relation with chronic exuding wounds. A flow chart was devised to help staff to assess and eliminate the causes that might contribute to the wound. If it is a pressure ulcer, pressure relieving devices are implemented, blood test for anaemia, diet for nutritional needs are met. Staff should be able to distinguish between white epithelial tissue and maceration. At our home, a foam gel dressing with Hydrofiber techonology for exuding chronic wound was introduced. This proved to be useful in the sense that the dressing absorbs fluid to form a cohesive gel to the areas where fluid is absorbed and areas where there is no fluid remains dry (Beldon, 2009). If there is a high level of exudate or cavity, Aquacel, Hydrofibre is used on the wound bed or packed in the wound as primary dressing for more absorbency. To protect the periwound further, barrier film is applied before covering up the wound.

#### **Outcomes observed**

Staff at the home follow the flow chart and able to act accordingly without having to wait for General Practitioner (GP) or TVN team. Staff is confident in choosing and using first-line dressing. There had been no report of any pain or discomfort on application or removal of dressing. Maceration to periwound was greatly reduced. We managed to cut down on number of referrals. While the dressing helps to manage exudates and promote wound healing, staff knowledge regarding the assessment of wound exudates and complication is important.

#### Results

The median time to healing in the honey group was 100 days compared to 140 days in the control group. The healing rate at

12 weeks was equal to 46.2% in the honey group compared to 34.0% in the conventional group, and the difference in the healing rates (95% confidence interval, Cl) at 12 weeks between the two groups was equal to 12.2% (-13.6%, 37.9%). The unadjusted hazard ratio (95% Cl) from the Cox regression was equal to 1.30 (0.77, 2.19), p=0.321. When the treatment effect was adjusted for confounding factors (gender, wound type, age and wound area at start of treatment), the hazard ratio increased to 1.51 but was again not significant. Wound area at start of treatment and gender are both highly significant predictors of time to healing.

#### Discussion

In order to manage exudate effectively and to optimise the use of the dressing, staff should have the ability, knowledge and understanding of the products selected for the purpose. Staff should ensure the type of dressing is suitable to the location of the wound. It would be beneficial to use Adhesive Heel for heel wound as it conforms to the contour of the wound. The size of the pad of the dressing should be large enough to cover the wound. Accurate assessment and documentation are needed to determine the nature of exudates to provide baseline for treatment and long term management. Staff should have knowledge of the complications arising from an exudating wound.For example, early detection of signs of infection will lead to change of treatment or a presence of medium or high exudate volume may lead to maceration and excoriation. The presence of macerated tissue should be quickly identified and appropriate intervention taken to limit potential tissue damage. Individual care plan of initial assessment, review and ongoing management and frequency if change of dressing are recorded. For more serious complications, seek specialist referrals.

#### Conclusion

Being in a care home as earlier mentioned, referral to TVN team takes time, therefore staff at the home need education and knowledge to be able to provide first line dressing to manage exudates in chronic wounds. At our care home, we have an in house training program for all the staff on identifying stages and phases of wound healing, different aspects of wound care and their complications and management. In this way, staff are able to identify and deliver care and treatment without delay.

#### References

Molan PC (1998) A brief review of honey as a clinical dressing. *Beldon P, Cooper P, Barrett S, Russell F, Gray D (2009), 'Best Practice Statement: Optimising The Use of Versiva XC Dressing'* 

World Union Wound Healing Societies (WUWHS) (2007) 'Principles of Best Practice: Wound Exudate and the Role of Dressings. A Consensus Document' MEP Ltd, London.

# Innovations in a Reduction in Wound Infection

sponsored by Smith and Nephew

A prospective, non-comparative clinical evaluation to determine the effect of an absorbent dressing John Lantiss II, Chief of Division, Endovascular-Vascular Surgery, Director of Clinical Research, Department of Surgery, St Lukes-Roosevelt Hospital Center, New York; Cyndia Gendics, Clinical Research Coordinator, St Lukes-Roosevelt Hospital Center; Samantha Hartwell, Clinical Project Manager, Smith and Nephew Wound Management, UK; Gary Smith, Statistician, Smith and Nephew Wound Management, UK

#### Introduction

This is a clinical study conducted on an absorbent 3-layer antimicrobial hydrocellular dressing containing SSD\*. The dressings are available in adhesive bordered and non-adhesive format and provide exudate management and antimicrobial properties for chronic wounds that are at risk of infection, showing early signs of local infection or where increased bacterial bioburden is suspected to be delaying healing.

This poster describes the interim results from a clinical evaluation which is being conducted on the non-adhesive absorbent 3-layer antimicrobial hydrocellular dressings containing SSD\* in conjunction with 4-layer compression therapy\*\* in patients with bacterially colonised venous leg ulcers and defines the clinical outcomes observed over a 12 week period.

The primary objective is to assess the percentage of patients that achieve a reduction in total bioburden from  $\geq$ 105 colony forming units (cfu) / gram of tissue to <105 cfu/g of tissue. Secondary objectives include assessments of the changes in bioburden within the wounds over the 12 week dressing period and changes to some of the wound characteristics.

#### Methods

This is a single centre, institution approved study. 25 Male and female patients, >18 years old with a >4cm<sup>2</sup>, >4 week old venous leg ulcer, with low to moderate levels of exudate, at least one clinical sign of infection and a quantitative tissue biopsy of the ulcer  $\geq$ 105 cfu/g tissue were consented into the study. Ulcers were managed with non-adhesive absorbent 3-layer antimicrobial hydrocellular dressings containing SSD\* and 4-layer compression therapy for 12 weeks and weekly wound assessments conducted. Biopsies were taken of the ulcer at the initial assessment and patients with >105 cfu/g of tissue were enrolled into the study and had their wounds assessed weekly for 12 weeks and had tissue biopsies conducted at weeks 2, 4 & 8.

#### Results

Twelve evaluable patients recruited for interim results.

- ▶ Demographics
  - ~ Age (mean = 63.2 years, range 45-82 years)
  - ~ Gender (10 Male, 2 Female)
  - ~ Ankle Brachial Index (mean=1.2, range 0.8 1.4)
- ▶ Baseline ulcer details
  - ~ Duration of current ulcer (median=52 days, range 13–208 days)
  - ~ Ulcer area (median = 14.3 cm<sup>2</sup>, range 4.8-128.3 cm<sup>2</sup>)
  - Level of bioburden (mean/median count = 5.5 log 10 cfu/g of tissue, range 5.1–5.7 log10cfu/g of tissue )
  - ~ Number of clinical signs of infection (median=5, range 3–8)

- >> Reduction in bioburden levels
  - 9/12 (75%) patients achieved <105 cfu/g tissue after 8 weeks (95% CI-45.0% to 92.5%)
  - Significant evidence of a reduction in bacterial load after 8 weeks (p<0.001, median reduction=5.3</li>
     log 10 cfu/g of tissue, mean reduction=3.4 log 10
     cfu/g of tissue, range 0.4 to 5.7 log 10 cfu/g of tissue)
- Significant evidence of a reduction in ulcer area at study discontinuation (p<0.001)</li>
- ▶ 8/12 (66.7%) patients achieved ulcer closure.
- Significant evidence of a reduction in the percentage of patients showing any clinical signs of infection after 4 weeks (p=0.026)
- Significant evidence of a reduction in the number of clinical signs of infection present after 2 weeks (p=0.002).

#### Discussion

These interim results show that chronic venous leg ulcers showing clinical signs of infection and high level of wound bioburden can be successfully managed using absorbent 3-layer antimicrobial hydrocellular dressings containing SSD\* in conjunction with 4-Layer compression therapy\*\*

In all wounds a positive association between the rate of closure and reduction in bacterial bioburden per week was observed.

#### Conclusion

This combination of non-adhesive absorbent 3-layer antimicrobial hydrocellular dressings containing SSD\* in conjunction with 4-Layer compression therapy\*\* was shown as effective in reducing the level of bacterial load in bacterially colonised venous leg ulcers.

\* ALLEVYN<sup>™</sup> Ag Non Adhesive, Smith & Nephew Wound Management Ltd, Hull, UK \*\* PROFORE<sup>™</sup>, Smith & Nephew Wound Management Ltd, Hull, UK

#### **Innovations in Compression Therapy**

sponsored by Carolon

#### Development of a strategic plan for the implementation of Coban 2 across a UK primary care trust

Jackie Stephen-Haynes, Consultant Nurse and Senior Lecturer in Tissue Viability, Stourport Health Centre, Stourport-on-Severn and Worcester University; Nicky Holylee, Compression Specialist, 3M, Loughborough

#### Introduction

Significant advances have been made over the past two decades in the delivery of effective services for patients with leg ulceration with the application of compression therapy being considered best practice (RCN 2006). An audit of compression and the delivery of clinical leg ulcer services within the Primary care Trust (PCT) identified a group of patients who were unable to wear compression due to slippage. Following the availability of Coban 2 on prescription the PCT undertook an evaluation and developed a strategic approach in partnership with 3M for the implementation of Coban 2 across PCT health care staff.

#### Method

The PCT has taken a proactive approach to education in leg ulcer services for the past nine years and has supported staff across Worcestershire to undertake an accredited leg ulcer course at University of Worcester to enable staff to deliver high quality services. The existing knowledge of the staff provided a sound base for the further development of clinical skills using Coban 2.

Agreement for:

- Education to be provided by a member of staff who had undertaken an accredited leg ulcer course
- Cascade/ongoing training throughout the community, community hospitals, nursing homes, county tissue viability team, multidisciplinary team, continence specialist team, leg ulcer clinics and leg club
- >> The development of bespoke educational support supplied to all staff who receive training
- >> The development of patient information leaflets
- the development and monitoring of competency while maintaining database of all staff trained and competent
- >> Audit to demonstrate patient outcomes cost efficacy
- >> On-line resources via dedicated website.

An audit has been undertaken across the PCT evaluating leg ulcer healing, non-slippage of bandage, bandage wear time and cost-effectiveness.

#### Results

100 staff have undertaken training and 60 staff have completed clinical competencies.

The audit of the use of Coban 2 has identified 30 patients who are now able to tolerate compression.

#### Discussion

A partnership agreement between the PCT and manufacturer for a strategy for education, including bespoke educational tools, bespoke presentation, clinical demonstrations and an audit of competence across the PCT has been agreed and implemented. The clinical benefits of the Coban 2, patient outcomes and financial considerations contribute to this decision-making.

#### Reference

Royal College of Nursing (2006) Clinical practice guidelines. The nursing management of patients with venous leg ulcers. 2nd ed. RCN, London

#### Debridement

sponsored by Zoobiotic

#### **Ethnicity: influence on wound prevalence as revealed by a district-wide audit** *Paul Chadwick*

#### Introduction

The prevention and care of diabetic foot ulcers is being recognised as a major priority by a growing number of global healthcare providers. There is a need to understand the negative impact of such chronic wounds on patient health and well being and the substantial burden wound care places on cost, institutions providers and carers. Effective and sustainable solutions must be put in place and there is a rapidly developing interest based in developing a pathway for these complex wounds in clinical practice. Such pathways include strategies for wound bed preparation, promotion of granulation tissue and wound coverings to aid infection control and subsequently to facilitate wound closure. This submission concentrates on one of the core components of care-debridement and describes the preparation stage of the dynamic care pathway (Chadwick et al, 2009). The submission focuses on advanced debridement methods such as larval therapy and hydrosurgery to prepare the wound for advanced wound therapies.

#### Method

Patients were selected for treatment if they had previously failed to respond to cyclical sharp debridement, offloading and other advanced wound care technologies and treatment was also dictated by the patient's acceptance to and suitability for the use of hydrosurgery/larval therapy in a clinic setting A further consideration for choice of debridement method was suitability and necessity (if the person had neuropathy) of the patient for local anaesthesia. Hydrosurgery or larval therapy was used as a single intervention in all but two patients.

#### **Hydrosurgical debridement**

Hydrosurgery system offers an alternative method of wound debridement utilising water/saline. It uses pressurised saline in a sterile circuit that is forced into a nozzle. The water executes an 180° turn and is forced out of a miniscule nozzle which is less than 5/1,000 inches in diameter, forming a focused water jet. The water jet is directed parallel to the wound. The resultant venturi effect creates a local vacuum on the surface of the debriding area and therefore carries the water, ablated tissue and debris into the evacuator port without the need for a separate suction mechanism. Hydrosurgery allows the user to sequentially debride, irrigate and evacuate tissue sequentially. This allowed for precise visualisation and removal of all devitalised tissue to a punctate bleeding wound bed thereby removing the local barriers to healing including infective tissue and initiation of the acute healing cascade in the previously chronic wounds.

#### Larval debridement.

Larvae feed on necrotic tissue, cellular debris and exudate within the wound, thus debriding it of devitalised tissue. The basic mechanism of larval debridement relates to the digestive juices secreted by larvae during the feeding process which have been found to contain a variety of proteolytic enzymes, including trypsin-like and chymotrypsin-like enzymes and collagenase. The enzymes selectively debride necrotic tissue, leaving viable tissue unharmed.

Diabetic foot ulcers are frequently colonised and infected with a variety of wound flora, including *Staphylococcus* and *Streptococcus* species, *Pseudomonas aeruginosa* and *Escherichia coli*. Increased bacterial load may impair healing, particularly if a wound becomes infected with antimicrobial resistant bacteria. Disinfection is therefore a critical component of wound healing.

#### Results

All wounds were debrided of the necrotic tissue within two applications of either the Versajet or larvae. The wounds all had a 100% granulation tissue at completion. The wounds were then ready to go on to the next stage of the dynamic care pathway as described by Chadwick et al (2009) with the application of negative pressure wound therapy (NPWT).

When combining the results for all three phases of the pathway, the mean change in wound area was a reduction of 18 cm<sup>2</sup> (an 86% reduction). The overall mean duration of treatment was 194 days. with 10 patients achieving complete healing and one patient lost to follow-up.

#### Discussion

The wounds treated were extremely complex with all patients having significant comorbidities including renal disease, severe peripheral vascular disease, complex neuropathy and morbid obesity. The wounds themselves were extensive in terms of area and depth, with many involving the underlying structures such as bone and tendon. In this instance, the approach of rapid and selective methods of debridement was used as limb salvage for people with the most complex and challenging limb-threatening wounds. It prepared the wound for NPWT in line with the TUSCON guidance (Armstrong et al, 2004), which suggests that NPWT be deployed in:

- ▶ Larger wounds
- ▶ Deeper wounds
- ▹ Post-surgical debridement
- >> Partial foot amputation.

NPWT should not be applied to any wound before debridement. These debridement techniques should therefore be considered prior to using NPWT in complex wounds.

In terms of a patient's perspective, the use of the rapid debridement techniques gave a viable wound bed with lower risk of infection and an opportunity to achieve wound healing.

#### Conclusion

The structured and strategic application of advanced wound management technologies such as hydrosurgery and larval therapy in the treatment of complex diabetic foot ulceration can help provide optimal outcomes. Most significantly for the proportion of patients with the most complex wounds, advanced interventions may achieve an outcome that would be far more difficult and time-consuming to achieve via conventional therapy.

#### References

Armstrong DG, et al (2004) Guidelines regarding negative pressure wound therapy in the diabetic foot: results of the Tucson Expert Consensus Conference. *Ostomy Wound Management* **50**: 3S–27S

Chadwick P, Haycocks S, Beilby A, Milne J (2009) A Dynamic Care Pathway to coordinate the use of advanced therapy in diabetic foot ulceration. *J Wound Care* **18**(**10**): 433–37