Wounds UK

Summer ball & Awards 2011

The 2011 Wounds UK Awards Ceremony took place on Wednesday 29th July, 2011 at The National Motorcycle Museum, Solihull, Birmingham. The event was hosted by Will Greenwood, former England and Lions centre and a World-Cup winner in 2003, who gave a fascinating and entertaining insight into professional rugby before 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 2011 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 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, followed by an excellent three-course dinner. The award ceremony itself included eight 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 Steven Jeffery, Consultant Burns and Plastic Surgeon, Royal Centre for Defence Medicine, The Queen Elizabeth Hospital, Birmingham, for his contribution to the field of wound care, especially in the management of dynamic and challenging injuries sustained through conflict in Afghanistan. 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 2012 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 2012!


AWARDS 2011


AWARDS 2011
AWARDS 2011
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Innovations in Lymphoedema and Chronic Oedema

Sponsored by ACTIVA HEALTHCARE an ER Company

Presented by ***Mark Courtenay***

HIGHLY COMMENDED

Lol Pidcock *Lymphovenous disease: a condition for life but not suffering for life*

Sandra Stringfellow *Safe effective management of soft pitting lower limb cardiac oedema*

WINNER

Barbara Pritchard *A multidisciplinary approach to education in the management of lower limb conditions*

Working with Industry

Sponsored by AdVancis Medical

Presented by ***Rob Nyland***

HIGHLY COMMENDED

Zena Moore *An economic analysis of repositioning for the prevention of pressure ulcers*

Elizabeth Pillay *The use of hydrogel sheet dressing in the management of pruritus and scarring*

WINNER

Carol Little *A non-inferiority study of the clinical-effectiveness of anaesthesia obtained via application of topical anaesthetic gel compared to infiltration of lidocaine for the treatment of lacerations in the emergency department. As Carol was unable to attend, Jacqui Fletcher collected the award on her behalf*

Innovations in Leg Ulcers

Sponsored by medi

Presented by ***Ian Grant***

HIGHLY COMMENDED

Catherine Milne *Serendipity: the effect of a novel powder wound dressing on pain in lower extremity venous wounds*

Margaret Armitage *Can a patient's leg care in an acute care setting be improved by 'going back to basics'?*

WINNER

Caroline McIntosh *Peripheral neural function improved using subsensory electrical stimulation. As Caroline was unable to attend, Paul Breen collected the award on her behalf*

Innovations in Diabetic Foot Ulcers

Sponsored by BSN medical

Presented by ***Paul Goodman***

HIGHLY COMMENDED

Paul Chadwick *Diabetic foot complications are the commonest cause of non-traumatic lower limb amputation in the UK*

Kshitij Shankhdhar *Offloading the diabetic foot ulcer*

WINNER

Sarah Bradbury *Diabetic foot ulcer pain: the hidden burden*

Innovations in Chronic Wounds

Sponsored by CARDIFF UNIVERSITY / PRIFYSGOL CAERDYDD

Presented by ***Keith Harding***

HIGHLY COMMENDED

Lindsey Bullough *Reducing hospital-acquired pressure ulcers in the acute care setting*

Elizabeth Farnworth *Audit: the tetanus of patients with chronic wounds*

WINNER

Pam Cooper *Provision of a tissue viability telemedicine service*

Innovations in Exudate Management

Sponsored by UNIVERSITY OF BIRMINGHAM

Presented by ***David Gray***

HIGHLY COMMENDED

Sarah Masterson *The effective management of the open abdomen with isolation of an enteric fistula*

Ellie Lindsay *Entrepreneurial clinicians and industry: a collaborative approach to exudate management*

WINNER

Jackie Stephen-Haynes *Improving outcomes in exudate management — an online survey of staff within a UK primary care trust*

Innovations in a Reduction in Wound Infection

Sponsored by smith&nephew

Presented by ***Simon Mangan***

HIGHLY COMMENDED

Lynn Davis *Reducing antimicrobial expenditure and usage in primary care*

Jackie Stephen-Haynes *Clinical outcomes of a PHMB dressing across a UK Primary care organisation*

Fiona Russell *Early intervention of negative pressure wound therapy in abdominal compartment syndrome*

WINNER

Anna Christine Taylor *A series of case studies evaluating the use of Acticoat® flex 3 and 7 with challenging wounds*

Innovations in Compression Therapy

Sponsored by CAROLON graduated compression

Presented by ***Larry Reid***

HIGHLY COMMENDED

Gillian O'Sullivan *Evaluation of a 2-layer compression bandage system on six patients to assess ease of application and patient comfort and concordance*

Gail Powell *Promoting concordance in compression hosiery*

WINNER

Jackie Stephen-Haynes *An audit of nurses' use of compression hosiery within two NHS trusts*

Major Contribution Award

Sponsored by Wounds UK

Presented by ***Edward Rusling***

WINNER

Lt Col Steven Jeffery *received the Wounds UK Key Contribution Award for his outstanding contribution to wound care, in particular for his groundbreaking management of patients injured from improvised explosive devices (IEDs), mines and rocket-propelled grenades (PRGs). Such wounds present very different medical and surgical challenges to those previously encountered on the battlefield and to those seen in the civilian population. Through his work both in Birmingham and at Camp Bastion, Afghanistan, Steven Jeffery has helped to transform and radically improve the care of those patients suffering from catastrophic trauma injuries. As Steven Jeffery was in Afghanistan at the time of the awards ceremony,* Claire Stephens *collected the award on his behalf.*

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 2012 will shortly be available online at: www.wounds-uk.com.

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

ACTIVA HEALTHCARE an ER Company

BSN medical

smith&nephew

CARDIFF UNIVERSITY PRIFYSGOL CAERDYDD

Advancis Medical

CAROLON graduated compression

medi

UNIVERSITY OF BIRMINGHAM

Innovations in Lymphoedema and Chronic Oedema

sponsored by Activa Healthcare

A multidisciplinary approach to education in the management of lower limb conditions

Barbara Pritchard, Tissue Viability Nurse, Maelor Hospital, Wrexham

Project reasons

Prior to this initiative, the treatment for lower leg oedema was not based on a multidisciplinary approach, e.g the lymphoedema team was linked with cancer services. My aim was to provide an ongoing educational programme that would incorporate all concerned in the treatment and management of lower limb oedema.

Project negotiations

To ensure a successful educational programme, support from the relevant clinical nurse specialists had to be obtained. Following this, the community nurse manager was approached to highlight the need for improved nurse education and practical skills in lower limb oedema to meet the needs of the community.

Project support

To allow enough time to deliver the education and practical sessions, the course had to be extended to three days. There was also a time constraint on the educators. We needed support from the community nurse manager to allow study leave, and we approached industry to assist with educational needs.

Project impact

The project has enhanced the working relationship between the specialist and clinical nurses and improved the nurses' knowledge and practical skills. The patients now benefit from holistic assessment with prompt and correct referral and treatment, and in some cases community nurses managing the conditions themselves in the patients' homes.

Project evaluation

The success of this project has been evaluated through increased patient treatment referral and documentation audits. The continuation of the educational programme has shown the need for this to continue, and discussions with the community nurse manager has shown an improved educational outcome identified through the nurses' PDR process.

Introduction

Doherty (2006) highlighted that lymphoedema was a poorly recognised problem. I became aware of this during my development of a two-day course to promote the knowledge and skills of nurses in the management of leg ulcers. A study by Moffatt et al (2003) identified lymphoedema as a problem in the community, as well as the lack of care the patients received. Given that this was still a problem in north-east Wales, the aim was to educate all the community nurses in chronic lower limb conditions.

To ensure that my project was successful, I enrolled the assistance of the lymphoedema, dermatology and pain specialist team. We put together an extended three-day course and involved company clinical advisors to assist us with our education.

The plan was to evaluate the course over twelve months to assess if there was any improvement in nurses' knowledge and patient care.

Development of practice

To ensure that my project was successful I needed the support of the lymphoedema nurse, dermatology and pain specialist nurses, representative from industry and the community nurse manager. Although the lymphoedema team fully appreciated the need to improve education, they predominately managed cancer-related lymphoedema and recognised that by improving the nurses' knowledge, it would lead to increased referral rates, and this would have an impact on their resources. However, they agreed to discuss this with their manager and develop their service as needs demanded. As the educators as well as clinical nurses, we were also aware of our own time constraints. To enable the nurses to gain practical skill in bandaging techniques and to complement our education, I approached industry representatives. They proved to be invaluable to our project, as they were able to provide further evidence of how beneficial this educational programme would be. During the development of the training programme, it became evident that we could not deliver all necessary information over two days. I approached the community nurse manager with my revised training programme and the evidence to support such training, and she supported the extended three-day course. The course was to run three times a year and after the first year we would evaluate it through participant evaluation and referral outcomes. After the first year it was evident that we had developed a programme that was much needed, evaluations were excellent and referrals to the lymphoedema team began to increase.

Outcomes observed

Initially the course highlighted the nurses' limited knowledge of chronic limb oedema, which has been identified by Morgan et al (2005). As more nurses attended the course, their awareness of chronic limb oedema increased and they developed a better understanding of the role of the lymphoedema team. An improved working relationship developed between all specialities and this improved patient

care, with patients being referred directly to the teams, ensuring quicker assessment and treatment.
Feedback from the participants was excellent, causing demand from others to attend. With visible improved patient outcomes, the community nurse manager made the course compulsory for all community nurses.

The referral to the lymphoedema team increased, and within two years non-cancer related referrals became greater than cancer-related lymphoedema referrals.

The community nurses grew in confidence in managing these chronic conditions and they began to diagnose and treat the early stages of chronic oedema. This ensured that more patients could now be treated in their own homes without travelling to a specialist clinic. This had a major impact on patients, especially those living in rural parts of north Wales. The success of this course created an increased workload for the lymphoedema team. However, this training has now been extended to the whole of north Wales. With extra demand on the lymphoedema team, plus the launch of the Lymphoedema Strategy for Wales (2010), monies have now been released to enlarge the lymphoedema team across north Wales.

Discussion

Lymphoedema can have a devastating effect on a person's life (Hardy, 2006) and, therefore, it is important that early signs of the disease are detected quickly to ensure correct treatment and management. Honor (2008) suggested that improving nurses' knowledge in this field would greatly help the situation. McCann (2008) implied that lymphoedema and chronic venous insufficiency were often viewed completely separately, although in truth they had similarities. In my role as a tissue viability nurse, this is what I was identifying, and mismanagement of care by the community nurses was leading to further problems.

My aim was to improve the nurses' knowledge and skills by providing a multidisciplinary course. This would enable the community nurse to identify the problem, make the correct diagnosis and treatment plan, which was identified in the Strategy for Lymphoedema in Wales (2010), recognising that early detection of chronic oedema and correct referral would minimise the effect of severe lymphoedema.

With increased demand on the lymphoedema team, it was decided to have key nurses in each clinic. Competencies were developed and introduced on the course. The key workers were deemed competent through practical sessions in the lymphoedema clinics, enabling them to assess their colleagues following completion of the course.

The management of chronic lower leg oedema and lymphoedema has greatly improved in the community. However, there are areas which still need to be addressed, mainly nursing homes. This is the next challenge for me. Study leave for these nurses can be problematic and maintaining their skills and knowledge is another challenge. However, I am sure that we can develop such education to meet the needs of both the staff and the residents.

Conclusion

The project has highlighted how successful a multidisciplinary approach in education can be. My initial aim was identification of the chronic conditions and know who to refer on to. However, the nurses embraced this new knowledge and became confident to initiate treatment. In the nursing homes, my aim is for early identification, correct referral to a specialist nurse, and for the nurses to have the confidence and skills to maintain treatment competently. This will have a strain on all our resources, but with the help of industry, I am confident that we can achieve some improvements in this client group.

Working with Industry

sponsored by Advancis medical

A non-inferiority study of the clinical-effectiveness of anaesthesia obtained via application of topical anaesthetic gel compared to infiltration of lidocaine for the treatment of lacerations in the emergency department

Carol Little, A&E Clinical Sister, Antrim Area Hospital, Ireland

Background

The standard treatment for lacerations in the emergency department is to use local anaesthetic to aid cleaning, analgesia and wound repair. The use of topical anaesthesia has not been widely accepted within clinical practice in the UK due to lack of an appropriate delivery system. A gel composed of poly (vinyl alcohol) (PVA) may overcome many of the problems associated with some topical anaesthetics.

Aim

We aimed to assess the safety and efficacy of topical anaesthetic gel in anaesthetising lacerations compared with standard lidocaine injection, comparing level of wound infection and dehiscence between the two groups. We propose that there would be no difference in the analgesia achieved, wound infection and dehiscence between the two groups.

Methods

This study was a non-inferiority randomised controlled trial comparing the anaesthesia obtained following application of topical anaesthetic gel to a laceration for 30 minutes, compared with that obtained 10–15 minutes after infiltration with 1% w/v lidocaine into the wound edges. Pain scores were assessed for the wound repair. Seven–ten-day follow-up collected information regarding infection or dehiscence. Prior to discharge following treatment, patients were given verbal instruction and a written handout instructing them to call the hospital if any skin reaction developed after treatment.

This trial was conducted in a busy urban emergency medicine (EM) department. All adult patients that presented to the EM department with a laceration were invited to enrol in the study. The study population consisted of 44 adults, greater than 18 years old, who had a laceration which required anaesthesia prior to repair.

Results

Of the 44 patients recruited, 22 were in the study group (lidocaine gel) and 22 in the control group (lidocaine infiltration). Pain scores in the study group (range 0–7) and control group (range 0–-5) showed no significant difference. One patient in the control group required rescue anaesthesia and three patients in the study group required rescue anaesthesia. On the 7–10-day follow-up, there were nine patients who did not attend. Two patients in the control group developed wound infection and one patient in the control group had wound dehiscence. In the study group, there were no participants who developed wound infection or dehiscence. No patients described symptoms of skin reaction in either group.

Conclusion

The results indicate that the use of topical anaesthetic gel composed of PVA is as effective for analgesia and wound repair as infiltration with 1% lidocaine. Follow-up shows that there is no link with the anaesthetic gel and wound infection or dehiscence.

Innovations in Leg Ulcers

sponsored by medi

Peripheral neural function improved using subsensory electrical stimulation

Caroline McIntosh, Head of Podiatry/Senior Lecturer, School of Health Sciences, Galway, Ireland

Introduction

Individuals with diabetes commonly present with autonomic, sensory or motor neuropathy or a combination of the three, collectively known as peripheral polyneuropathy. Peripheral neuropathy is a well established contributory factor to the pathogenesis of diabetic foot ulceration. Indeed, it is reported that 45–60% of all diabetic ulcerations are purely neuropathic, while up to 45% are neuroischaemic. Sensory neuropathy is a significant causal factor to the development of foot ulceration. Reduced sensation can significantly impair the patient's ability to detect stimuli such as touch, pressure, temperature and proprioception. Resultantly, the patient is unable to feel inadvertent trauma or repetitive mechanical forces during gait. With the inability to detect pain, the insensate foot is at high risk of tissue damage, foot ulceration and lower extremity amputation. Currently, there is no treatment to restore feeling in the foot. Reversing this sensory loss could greatly improve quality of life and prognosis for individuals with sensory neuropathy. Stochastic resonance has previously been shown to improve neural function. In the past, this has been shown to be effective when applied to the sensory end organ. We proposed to use subsensory stochastic resonance electrical stimulation over the conduit nerve instead to determine whether peripheral sensation could be enhanced. This preliminary work was undertaken on 10 healthy participants.

Method

Our hypothesis was that neural traffic through the conduit nerve could be improved using this type of stimulation. Both feet of 10 subjects were tested. Electrodes were placed proximally to the medial and lateral malleoli, such that the tibial nerve was innervated by the signal. We evaluated the vibration sensitivity of the foot using a neurosthesiometer placed at the hallux. Stimulation was randomly applied in two control conditions (zero noise) and four stimulation conditions at different amplitudes (15μA, 30μA, 45μA, 60μA RMS).

Results

A significant reduction in the vibration perception threshold was found between the control and stimulated conditions, 6.12 ± 2.03 vs. 5.19 ± 2.07, $p=0.002$. This represented an increase in vibration perception of more than 15%.

Discussion

These results are the first to demonstrate that peripheral sensation may be improved using subsensory electrical stimulation applied to a conduit nerve. The finding that peripheral sensation may be improved using this low level stimulation is encouraging; especially when you consider that the healthy subjects had no underlying sensory deficit. We are currently investigating the effect of stochastic resonance on peripheral sensation in a healthy older population. Future work will be required to evaluate the usefulness of this particular treatment in patients with diabetic neuropathy.

Conclusion

Peripheral sensation may be improved using subsensory electrical stimulation in a healthy population. Further studies are required to determine whether the application of stochastic resonance could improve sensory function in individuals with diabetes-related sensory neuropathy.

Innovations in Diabetic Foot Ulcers

sponsored by BSN medical

Diabetic foot ulcer pain: the hidden burden

Sarah Bradbury, Research Nurse, Department of Dermatology and Wound Healing, Cardiff University

Introduction

Diabetic foot ulcers (DFU) are often considered painless due to sensory peripheral neuropathy, with pain only occurring with infection or other complications (Sibbald et al, 2006). However, recent research suggests that DFU pain is more prevalent than expected and severely impacts on quality of life (QoL) (Ribu et al, 2006; Bengtsson et al, 2007). This study explored the presence and characteristics of DFU pain and any relationship between ulcer pain, aetiology and DFU-related complications before investigating the effect of specific DFU pain on life quality from the patient's perspective.

Method

The study was conducted in two phases due to the need to collect quantitative and qualitative data. Phase one involved a cross-sectional audit of consecutive patients attending a

specialist diabetic foot ulcer (DFU) clinic over eight weeks. Patients with diabetes and foot ulcers below the malleolus were included and data were collected on clinical history, diagnosis and wound status. DFU pain was assessed using a modified Short-Form McGill Pain questionnaire.

Phase two incorporated a qualitative design using semi-structured interviews. Purposive sampling identified three patients from the same specialist clinic who were interviewed individually about the impact of DFU pain on their life quality. Interviews were analysed using thematic content analysis.

Results

Phase one: 28 patients were recruited aged 43–92 years (mean 67.5, sd 13.56). Eighteen patients had one or more DFU-related complications (infection, osteomyelitis and Charcot arthropathy). Sixteen patients were taking regular oral analgesia, although not always for DFU pain alone.

Eighty-six percent of patients (n=24) reported some degree of DFU pain. The mean visual analogue scale (VAS) score was 26.36 (sd 24.29). Patients with neuroischaemic ulceration reported a higher mean VAS score than neuropathic ulceration (32.15 v 21.57). Mean VAS scores for patients with DFU complications was 26.01 (sd 24.4) versus 26.9 (sd 25.4) without complications.

Aching was the most common sensory pain (n=14) followed by hot-burning (n=11), tender (n=11) and sharp (n=10). Tiring/exhausting was the most common affective descriptor (n=10).

Phase two: Four themes emerged from the qualitative data:

- Experience of pain
- Physical effects of pain
- Coping, support and social impact
- Psychological impact.

Results indicated DFU pain affected patients physically and psychologically, especially with regards to sleep, mobility and social roles. Feelings of depression, isolation and loss of independence were also expressed. Pressure from footwear and dressing changes caused or worsened DFU pain. Oral analgesia was the main form of pain management but with varying efficacy.

Discussion

The study results support other findings that specific DFU pain occurs more frequently than previously anticipated in patients with neuropathic and neuro-ischaemic aetiology.

Phase one results suggest ischaemia could contribute to the sensation of specific ulcer pain. DFUs are often only associated with neuropathic pain, yet pain descriptors also identified elements common to nociceptive pain. Contrary to previous opinion, the presence of DFU pain was not limited to patients experiencing infection or other complications. Concomitant analgesic use may actually lead to underestimation of DFU pain.

In terms of intensity, 46% (n=13) recorded pain levels of over 40mm on the VAS, previously identified as moderate to severe levels requiring immediate review and intervention (World Union of Wound Healing Societies [WUWHS], 2004).

With regards to phase two, there are no other qualitative studies available which have dealt specifically with the impact of DFU pain on QoL from a patient's perspective. However, results do concur with quantitative and qualitative studies on DFU generally and QoL, where pain is often raised as an issue and can significantly impact on life quality. Results here also suggest specific DFU pain can negatively impact on QoL, similar to other types of chronic wound. The causes of pain were similar to that reported by qualitative studies relating to DFU as a whole (Ashford et al, 2000; Ribu and Wahl, 2004), with the issue of pressure from footwear, lying on the ulcer in bed or pressure from bedclothes being recurrent themes. One patient stated amputation would be preferable to continuing in such pain from the ulcer, highlighting the requirement for clinicians to be aware of and manage pain more effectively.

Conclusion

DFU pain is an under-recognised phenomenon which can be severe, debilitating and negatively impact on life quality across physical and psychosocial domains. Further research is required to explore this phenomenon in clinical practice, such as a large-scale prevalence study to truly determine the extent of the problem. Results also demonstrate the need for further qualitative work into the patients' lived experiences of DFU pain, to help clinicians understand the relevance to holistic diabetic foot care and to increase provision of quality care.

Innovations in chronic wounds

sponsored by Cardiff University

Provision of a tissue viability telemedicine service

Pam Cooper, Clinical Nurse Specialist, Tissue Viability, NHS Grampian, Aberdeen

Project reasons

There was an inequity in the provision of tissue viability services due to the size of the region and its remoteness. Our aim was to ensure an equitable and timely service for all and to prevent admissions to hospital, or the development of complications such as infection.

Project negotiations

Prior to launch of the post pilot system, we dealt with senior management across the region and with the IT department to secure server space and access for all NHS users in the region.

Project support

We received support from the software developer who provided the system for free and had to overcome scepticism and concern on the part of staff unfamiliar with IT. Also, we had to develop a new set of clinical skills based upon not being able to examine patients in person.

Project impact

Many hundreds of patients and thousands in the future will be able to receive specialist tissue viability input without having to attend a clinic or be admitted to hospital. We have promptly been able to facilitate early discharge and identify life-threatening infections and serious ischaemia, thereby ensuring appropriate treatment.

Project evaluation

We initially conducted a 100-patient pilot study and then used questionnaires to evaluate the user experience. We also had the first 200 patients reviewed blindly in a peer review process top check for clinical efficacy. Patient/family feedback has been universally positive.

Project innovations

Currently the system is being rolled out to new areas with neighbouring regions keen to participate and a series of publications are under development. The systems and the data collected have been presented at various events across the UK and Ireland.

Introduction

In our area there is a population of 500,000 spread across 3,000 square miles with half of the population living in the city area. Travel between the hospital and outlying areas usually involves a 30–90-minute car journey. As the tissue viability department developed in its secondary care location based in the city, demands from primary care colleagues grew. This resulted in clinical advice being given via the telephone, based on information the specialist could not verify. Emailed images helped, but often failed to elicit the information required from the referrer. A decision was taken to develop a telemedicine system which guarantees quality information and images with an auditable exchange of information ensuring safe and effective delivery of care. The system also allows for the provision of just in time education relating to the wound and tissue type of the referred patient.

Development of practice

Working in conjunction with a software developer, we were able to establish the basic level of information we would require for clinical decision-making. This allowed them access only to the patients they referred. The referrer was required to complete various fields of information which are in drop down or simple entry format and then to upload a maximum of four images. When this process was finished, the specialist team received an email advising them of the referral. On logging on, the specialist was able to review the information provided and type a response. The specialist could also choose from a drop-down menu, identifying the tissue type, anatomical location and wound type. For example, necrotic tissue, location heel and a pressure ulcer. This ensured that in the response the referrer received a paragraph of information relating to these topics and direction to further educational resources were provided. Once the review was complete, the referrer received an email alerting them and they were able to download the two-page documents which included all the original referral information, the clinical response and the educational information. This was printed off and placed in the patient's notes. This system allowed for any patient in the region to receive a specialist review within 72 hours, and either be followed up via the e-clinic or be admitted for further treatment.

Outcomes observed

During the pilot phase we were able to treat 100 patients, all of whom were managed remotely, in a safe and effective manner confirmed by peer review of the cases. We were able to prevent admission to hospital from primary care and care home settings, while also facilitating early discharge form hospital. Where a patient had, for example, an open abdominal wound which required negative pressure wound therapy, the primary care staff visited the hospital for training and clinical reviews were performed via the e-clinic. In one case, a lady who had made monthly visits to a dermatology clinic in the city for two years was managed by her district nursing team for the next two years via the tissue viability e-clinic, without ever making the trip to the city. The trip she made for the two years previously required a member of her family to take a day off work to accompany her. She eventually healed, but her quality of life was greatly enhanced, offering an example of the benefits felt by hundreds of patients. Another key benefit was to develop relationships between the tissue viability service and our colleagues in other clinical areas, as the e-clinic promoted interprofessional working and also supported education. The e-clinic system allows every patient in the region equitable access to a specialist tissue viability review, which promotes safe and effective care regardless of location. It also supports interprofessional working and promotes just in time education.

Discussion

As the elderly population continues to grow and more people live for longer with chronic illnesses, so the demand for tissue viability services increases along with a desire for patients to be managed outside of secondary care settings. We have witnessed these changes over the last decade and our e-clinic is a response to the challenges of managing complex cases at arm's length. In doing so, we have had to develop a new skill set which requires close communication with colleagues and an ability to reach a diagnosis without being able conduct a hands-on examination of the patient. We have been able to ensure equitable access while building relationships and, most importantly, ensuring that the patient receives the highest quality service in their own home. The idea that patients should be herded into clinical waiting rooms to have their wounds reviewed by a middle grade member of staff should be a thing of the past. This system ensures that a specialist can conduct a review in around 15 minutes without leaving their desk. On average, our e-clinic session lasts half a day and provides care for 12 patients who it would take four days to visit in their own locations. We are now rolling the system out to the secondary care wards so that we are able to review all of the new referrals from the wards and to triage effectively all new referrals, which number 10–15 per day. There is no substitute for specialist hands-on care. This system allows the specialist team to provide care remotely, which, in turn, creates more time for complex cases which require a significant amount of time,

such as open abdomens in theatre or complex debridement.

Conclusion

At first glance the use of technology to support the provision of tissue viability care could be seen as a backward step, creating a distance between the specialist and the patient. However, in our experience, we have been able to work in partnership with our colleagues across the region, the care delivered has not been compromised, it is a patient-friendly approach and has released extra time for the most challenging and complex cases on our case load. We believe that this is an example of technology working in favour of the patient.

Innovations in Exudate Management

sponsored by Birmingham City University

Improving outcomes in exudate management

Jackie Stephen-Haynes, Professor in Tissue Viability, Professional Development Unit, Birmingham City University and Consultant Nurse, Worcestershire Health Care NHS Trust

Introduction

Since the work of Winter (1963) and Hinman and Maibach (1963), the maintenance of a moist wound environment for optimal wound healing has become increasingly important and has resulted in advances in modern wound technology and dressings. This has led to the development of the World Union of Wound Healing Societies (WUWHS, 2007) document *Wound Exudate and the role of dressings*.

An important aspect of moisture balance is exudate management, and a previous audit of staff across the primary care trust (PCT) has highlighted that this is a challenge for staff and accounts for a significant financial spend within the PCT.

Method

The appointment of an honorary contract tissue viability nurse within the PCT allowed the opportunity to undertake an in-depth audit of healthcare professionals' knowledge and the challenges of managing exudate.

Approval was given from PCT clinical governance for:

- An audit to be undertaken across the PCT, including using an online survey tool, as well as paper copies for staff with no internet access, at their request
- Involvement from all areas of the PCT — community hospitals, nursing homes, county tissue viability team, podiatrists, lymphoedema team, district nursing teams
- The development of bespoke educational support supplied to all staff that requested ongoing, up to date, best practice information
- The development of patient information leaflets
- The development of postcards/bookmarks for all staff, with condensed information from the best practice document (WUWHS, 2007)
- Audit to demonstrate staff knowledge post implementation of the WUWHS (2007) best practice document
- On-line resources via PCT dedicated website.

Results

133 took part, 13 were spoilt = 120 completed data

- 55% of staff are district/community staff (n=66)
- 21.7% practice nurses (n=26)
- 10.8% care home staff (n=13)
- 3.3% podiatry (n=4)
- 3.3% tissue viability nurses (n=4)
- 5.8% lymphoedema nurses (n=7).

Staff expected to see high levels of exudate at the following stages of wound healing:

- Inflammatory stage 78.2% (n=104)
- Proliferative stage 9.8% (n=13)
- Maturation stage 12.0% (n=16).

In your clinical experience, what would be the most common reason behind changing a dressing on a wound more than once per week?

- Malodour 0.8%
- Patient request 0.0%
- Leakage of exudate 79.2%
- Monitoring of wound 12.5%
- Pain 1.7%
- Dressings fall off 1.7%
- Other 4%.

When would you use an antimicrobial dressing?

- Contaminated wound 35.8% (n=43)
- Colonised wound 36.7% (n=44)
- Critically colonised 58.3% (n=70)
- Clinically infected wound 79.2% (n=95).
- Prophylactic use on high risk patients 31.7% (n=38).

Staff recognised that in an infected wound, the exudate would:

- Increase 91.7% (n=110)
- Decrease 2.5% (n=3)
- Stay the same 5.8% (n=7).

Staff used the following types of dressing to manage exudate:

- Absorbent pads 75% (n=90)
- Alginates 71.7% (n=86)
- Films 3.3% (n=4)
- Gauze 19.2% (n=23)
- Hydrocolloids 14.2 (n=17)
- Hydrogels 5% (n=6)
- Hydrofiber 43.3% (n=52
- Other 4.

The optimum wear time was:

- 1 day 0.0% (n=0)
- 2–3 days 11.7% (n=14)
- 4–5 days 40.8% (n=49)
- 6–7 days 45.8% (n=55)
- 8+ days 1.7% (n=2).

Discussion

There is a lack of evidence in the published literature regarding the clinical challenge of managing exudate and the knowledge and views of clinical staff. This audit indicates that staff have a high level of knowledge concerning exudate, but that its management poses significant challenges.

The application of appropriate dressings could lead to better healing rates and potentially deliver financial savings. Antimicrobial dressings may be being used inappropriately to manage exudate, and the relationship between infection and exudate may be being viewed as inter-related concepts, requiring further education, training and support.

Further education and training is needed to fully implement the WUWHS document *Wound Exudate and the role of dressings*.(WUWHS, 2007).

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Innovations in a Reduction in Wound Infection

sponsored by Smith and Nephew

A series of case studies evaluating the use of Acticoat® flex 3 and 7 with challenging wounds

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Introduction

To evaluate the use of Acticoat® Flex 3 and 7 via a series of case studies in the management of challenging wound types.

Methods

A total of seven patients were included in a series of case studies to evaluate both Acticoat Flex 3 and Acticoat Flex 7. Wound types included four venous leg ulcerations; a mixed aetiology leg ulcer; one pressure ulcer and one surgical wound. All seven patients presented with static wounds and had previous experience of recurrent wound infections requiring topical treatment and systemic antibiotic therapy. Standardised clinical assessments were performed weekly, whereby consent for wound photography was obtained and wound measurement was performed via wound tracings to assess changes in wound size. The condition of the wound bed, surrounding skin and assessment of exudate levels, odour and presence of wound infection were also recorded. The patient's experience of wound-related pain during dressing changes and background pain was captured at each assessment using a visual analogue scale (VAS). The decision to use either Acticoat Flex 3 or 7 was based upon the frequency of dressing changes required, depending on wound exudate levels and condition of surrounding skin.

Results

The evaluation period varied from four to fifteen weeks. This was dependent upon the clinical need for a topical antimicrobial. During this time, 42% of wounds healed with a further 42% reducing in size. Significantly, in this patient group there were no episodes of wound infection. It was noted that when using Acticoat Flex underneath multilayer compression bandages, wound exudate levels were managed effectively with no evidence of maceration to the surrounding skin. With the exception of two patients, the VAS scores demonstrated an overall reduction in wound-related pain. It could be argued that this pain reduction was related to the low adherent feature of Acticoat Flex 3 and 7, which aimed to prevent trauma upon removal, thereby reducing pain at dressing changes.

Discussion

The sustained (three or seven days) antimicrobial activity of the nanocrystalline silver delivered from Acticoat Flex to the wound bed helped to promote an optimum wound healing environment. This is demonstrated with 42% of the wounds achieving 100% epithelialisation and no episodes of infection diagnosed in any of the wound types. Acticoat Flex 3 and 7 were found to be flexible and easy to handle, cut and apply to the wound bed. With the exception of one wound, no adherence to the wound bed was experienced, thus preventing painful and traumatic dressing changes.

Conclusion

Overall, no patients developed a wound infection requiring antibiotic therapy, or needed a different antimicrobial dressing; a reduction in wound-related pain was experienced; minimal adherence to the wound bed was found; wound exudate was managed effectively especially underneath multilayer compression bandages and clinicians found Acticoat Flex easy to use.

Innovations in Compression Therapy

sponsored by Carolon

An audit of nurses' use of compression hosiery within two NHS trusts

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Introduction

Compression therapy is considered to be one of the most significant advancements in relation to wound care in the last 50 years (Hampton, 2002), and now plays an important role in the treatment and prevention of venous and lymphovenous disorders (Lymphoedema Framework, 2006; World Union of Wound Healing Societies [WUWHS], 2008; Wounds UK, 2007).

Use of compression hosiery is common practice for many healthcare professionals, particularly nurses. While manufacturers offer guidance for appropriate selection, there is limited research on the decision-making by nurses when selecting hosiery. An audit of 40 nurses from Worcestershire

Primary Care Trust and Worcestershire Acute Trust has been undertaken to identify the factors influencing decision-making when selecting hosiery for patients.

Method

Audit forms were distributed in 2010 among community and hospital nurses who attended two annual trust-led study sessions. 100 audit forms were distributed, yielding a valid 42% return rate.

Results

The findings from the audit are multifaceted and give valuable insight into the use of compression therapy, the compression therapy selected and the decision-making that underpins choice. This has implications for trusts, in terms of formulary, education and clinical-effectiveness.

Reasons for hosiery use:

- 83% use hosiery to prevent ulcer recurrence
- 72% use hosiery for the management of chronic oedema
- 56% use hosiery for prevention of venous leg ulceration
- 50% use hosiery to actively treat leg ulceration
- 31% use hosiery for the management of varicose veins.

Hosiery used:

- 97% use British standard off-the-shelf hosiery
- 39% use custom-made British standard hosiery
- 28% use European Union standard off-the-shelf compression hosiery
- 8% use hosiery treatment kits.

Several factors influence practitioners' choice of hosiery, namely:

- 92% concordance
- 86% level of compression
- 83% sizing/fit
- 64% formulary listing.

Discussion

It is not surprising that prevention of ulcer recurrence is the most common use for compression hosiery within the trust. Consensus indicates that not wearing hosiery was strongly associated with ulcer recurrence (Nelson et al, 2010). Importantly, management of venous leg ulceration was cited as costing the National Health Service £230–400 million in 1991 (Bentley, 2001). Appropriate selection of hosiery would therefore present considerable cost minimisation and, more importantly, improve quality of life for individuals.

The results also indicate that chronic oedema management is clearly a common issue for staff within the trusts. The findings also suggest that hosiery may be used for more than one reason at any one time. An example of this would be the significant number of patients who suffer from venous leg ulceration and chronic oedema (lymphovenous disease). While it is acknowledged that the presence of chronic oedema impacts on the healing and prevention of ulcer recurrence (Williams, 2009), the audit highlights that staff may not be selecting the most appropriate hosiery for those with chronic oedema. European Union (EU) standard garments, particularly those with a higher stiffness index, are commonly accepted as the most suitable hosiery choice for oedema management (Lymphoedema Framework, 2006; Lawrence, 2006). Making appropriate use of such hosiery, as on formulary, will offer benefits in terms of economic cost and quality of life.

While Actilymph EU standard hosiery is listed on the trust's formulary as the first choice for patients with chronic oedema, it was only used by 28% of staff. This contrasts with the fact that 64% of respondents stated that they were influenced by formulary when selecting hosiery. This highlights further training needs within the trust, particularly as such garments have only been available on FP10 for 18 months.

Steps have been taken to develop training in relation to the safe use of compression, particularly for those with chronic oedema. Training involves partnership between tissue viability, lymphoedema and industry specialists. This will also be carried out with extensive chronic oedema bandage training that is ongoing and positively received. Measures have also been taken to adapt training delivered by the University of Worcester's leg ulcer course.

Guidelines for hosiery selection already exist within the trusts and are now supported by guidelines for the management of chronic oedema, which aim to facilitate appropriate compression choices.

To facilitate appropriate hosiery use, an honorary tissue viability nurse is offering specialist clinical support to nurses managing patients who require compression, on a twice-monthly basis. Re-audit in 12 months' time will evaluate effectiveness.

Conclusion

The audit has highlighted the trust's current practice in relation to the use of hosiery and scope for future development to ensure best practice, cost minimisation and improved quality of life for patients.

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