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### Guidelines

**National Institute for Health and Care Excellence (NICE)**

**Pressure ulcers**

NICE quality standard [QS89] Published date: June 2015

### New and Updated Cochrane Systematic Reviews

**Updated Reviews – April 2015**

- Preoperative skin antiseptics for preventing surgical wound infections after clean surgery
- Use of plastic adhesive drapes during surgery for preventing surgical site infection

**New Reviews – May 2015**

- Alginate dressings for treating pressure ulcers
- Negative pressure wound therapy for treating pressure ulcers

**New Reviews – June 2015**

- Devices and dressings to secure peripheral venous catheters to prevent complications
- Negative pressure wound therapy for treating surgical wounds healing by secondary intention

### Journals – Latest Issues with Full Text Access

- **Wounds UK**
  - WUK EWMA Special 2015
- **Journal of Wound Care**
  - Current issue – to access full text sign in with your Athens username and password

### Journal Articles
A 9-year retrospective evaluation of 102 pressure ulcer reconstructions

Citation: Journal of Wound Care, Apr 2015, vol. 24, no. 4, p. S12., 0969-0700 (April 2015)

Author(s): Kenneweg, K.A., Welch, M.C., Welch, P.J.

Abstract: Objective: Several pressure ulcer (PU) risk factors including paralysis and age greater than 70 have been identified, while others such as nutrition are debated. The object of this study is to identify perioperative risk factors.
that may predict improved outcomes and reduced complications in primary and recurrent PU reconstructions. Method: A retrospective chart review of patients treated surgically for PUs from 2004 to 2013 at the University of Toledo Medical Center, Toledo, Ohio, US, was completed. Data collected included ulcer and medical history, as well as risk factors, complications and postoperative outcome. Data were statistically analysed for perioperative variances between primary and recurrent ulcers and closure status. Results: A total of 49 patients with 102 reconstructions were reviewed. Spinal cord injured patients accounted for 90% receiving flap coverage of ulcers. Numerous differences between primary and recurrent ulcers were identified, including ulcer location, patient nutritional status, wound infection, postoperative course and recurrence. Multivariate analysis revealed a flap reconstruction prediction model using creatinine, haematocrit, haemoglobin, and prealbumin that is able to successfully predict closure outcome in 83.6% of cases. Conclusion: Many factors play a role in the development, course and treatment of PUs. It is vital to understand the role of patient risk factors in the development of PUs, to direct subsequent management and reconstruction, and to prevent future recurrences. [PUBLICATION] 18 references

Full text: Available Mark Allen Group at Journal of Wound Care

2.Title: A cross-sectional pilot study to examine food sufficiency and assess nutrition among low-income patients with injection-related venous ulcers

Citation: Ostomy - Wound Management, Apr 2015, vol. 61, no. 4, p. 32-42, 0889-5899 (April 2015)

Author(s): Pieper, Barbara, Templin, Thomas N

Abstract: Adequate nutrition has long been considered a critical component for wound healing, but literature regarding the relationship between nutrition and venous ulcer (VU) healing is limited. A person’s nutrition is affected by the availability of food as well as his/her overall health. Food sufficiency and nutrition are important concerns in the care of persons of low income with injection-related VUs, which tend to be large and slow to heal. A cross-sectional pilot study was conducted to explore the relationship between food sufficiency/security and nutrition with regard to demographic, wound, quality-of-life, physical activity, falls, and fall risk variables. Nutrition was examined using 2 well-developed instruments that measure food sufficiency/security and assess nutrition -- the United States Department of Agriculture’s Adult Food Sufficiency Questionnaire (FSQ) and the Nestle Mini Nutritional Assessment (MNA). All participants (N = 31, 54% men, mean age 56.1 ± 3.6 years, all African American) were recruited from an outpatient clinic. All had injection-related VUs from a history of injecting illicit substances. In terms of food sufficiency/security, most participants (26, 84%) reported having enough food in the house, but 10 (32%) worried about running out of food. From 16% to 22.6% of participants expressed concern with food sufficiency/security in terms of terms of cutting meal size, eating less, hunger, and weight loss. Food sufficiency/security was high for 19 (61.3%), but 12 (39%) had marginal or lower food sufficiency/security. MNA scores showed 16 participants (52%) were at risk of malnutrition or malnourished. Low food sufficiency/security was significantly (P = 0.05) associated with less motivation for activity (r = -0.40) and less walking (r = -0.36). Better nutrition assessment scores were significantly associated (P = 0.01) with fewer comorbidities (r = -0.57) and falls (r = -0.46) and with higher quality of life (r = 0.50), motivation for physical activity (r = 0.59), and balance confidence (r = 0.60). Both food security and nutrition assessment are important to assess in low-income persons with injection-related VUs. A number of significant relationships of the FSQ and MNA to other variables was found but needs further investigation with a larger sample. [Publication] 48 references

Source: BNI

3.Title: A Two-Arm Cluster Randomized Control Trial to Determine the Effectiveness of a Pressure Ulcer Prevention Bundle for Critically Ill Patients


Author(s): Tayyib, Nahla, Coyer, Fiona, Lewis, Peter A

Abstract: Purpose: This study tested the effectiveness of a pressure ulcer (PU) prevention bundle in reducing the incidence of PUs in critically ill patients in two Saudi intensive care units (ICUs). Design: A two-arm cluster randomized experimental control trial. Methods: Participants in the intervention group received the PU prevention bundle, while the control group received standard skin care as per the local ICU policies. Data collected included demographic variables (age, diagnosis, comorbidities, admission trajectory, length of stay) and clinical variables (Bradan Scale score, severity of organ function score, mechanical ventilation, PU presence, and staging). All patients were followed every two days from admission through to discharge, death, or up to a maximum of 28 days. Data were analyzed with descriptive correlation statistics, Kaplan-Meier survival analysis, and Poisson regression. Findings: The total number of participants recruited was 140: 70 control participants (with a total of 728 days of observation) and 70 intervention participants (784 days of observation). PU cumulative incidence was significantly lower in the intervention group (7.14%) compared to the control group (32.86%). Poisson regression revealed the likelihood of PU development was 70% lower in the intervention group. The intervention group had significantly less Stage I (p = .002)
and Stage II PU development (p = .026). Conclusions: Significant improvements were observed in PU-related outcomes with the implementation of the PU prevention bundle in the ICU; PU incidence, severity, and total number of PUs per patient were reduced. Clinical Relevance: Utilizing a bundle approach and standardized nursing language through skin assessment and translation of the knowledge to practice has the potential to impact positively on the quality of care and patient outcome. [Publication] 28 references

Source: BNI

Full text: Available EBSCOhost at Journal of Nursing Scholarship

4. Title: An evaluation of properties related to wear time of four dressings during a five-day period

Citation: Wounds U K, Mar 2015, vol. 11, no. 1, p. 45-54, 1746-6814 (March 2015)

Author(s): Rippon, Mark, Waring, Mike, Bielfeldt, Stephan

Abstract: This study evaluated skin tolerance and other properties relating to wear time, such as conformability and comfort, pain on dressing removal, adhesion and premature detachment, of four advanced hydrated dressings applied to the knees and elbows of 22 healthy volunteers over a fixed five-day period. The dressings all incorporate silicone-based adhesives and are designed to provide a moist wound environment while managing exudate. Skin tolerance was good for all four dressings but there was variation in regards to wear time and fluid-handling properties. Conflict of interest: this work was supported by a grant from Mölnlycke Health Care, Sweden [PUBLICATION] 33 references

Source: BNI

5. Title: Clinical evaluation of a silver-impregnated foam dressing in paediatric partial-thickness burns

Citation: Journal of Wound Care, Apr 2015, vol. 24, no. 4, p. S4., 0969-0700 (April 2015)

Author(s): Glat, P.M., Zhang, S-H., Burkey, B.A., Davis, W.J.

Abstract: Objective: Mepilex Ag, a silver-impregnated foam dressing, was introduced to our institution in 2007 and our outcomes in the treatment of paediatric burns were observed to improve significantly. In order to confirm these observations, we wanted to evaluate the results of using the silver-impregnated foam dressing in partial-thickness paediatric burns. Method: In this retrospective study, the St. Christopher's Hospital burn registry was used to identify subjects, who were otherwise in excellent health at baseline, over an 18-month period. Outcomes included length of stay, intravenous narcotic use, and time to healing. No direct comparative studies were performed. This was followed by a non-comparative prospective study involving 22 paediatric patients, aged 1-4 years, with partial-thickness burns. This was a sub-study of a larger randomised controlled trial involving adults with partial-thickness burns, comparing the silver-impregnated foam dressing with Silvadene. Results: In the retrospective part of the study, the silver-impregnated foam dressing was used successfully for the treatment of partial-thickness paediatric burns, with few complications and infections, allowing a shorter hospital stay, fewer dressings, and less pain medication than for historical controls. In the non-comparative prospective study, of 22 paediatric patients 50% healed completely within 1 week of treatment. The mean length of stay was 3.77 days and the mean number of dressings used was 1.64. Although narcotic usage was not assessed, patient surveys showed stinging or burning to be recorded as 'never' in 13 patients, 'rarely' in 8 patients, and 'sometimes' in 1 patient. Conclusion: The silver-impregnated foam dressing is effective and safe for use in partial-thickness paediatric burns, eliminating the need for daily dressings. [PUBLICATION] 19 references

Source: BNI

Full text: Available Mark Allen Group at Journal of Wound Care

6. Title: Differentiating between a pressure ulcer or foot ulcer

Citation: Wounds U K, Mar 2015, vol. 11, no. 1, p. 27-31, 1746-6814 (March 2015)

Author(s): Walker, Angela, Mitchell, Louise, Martin, Rebecca

Abstract: With the reporting of pressure ulcers high on the agenda for NHS Trusts, it became apparent within Birmingham Community Healthcare Trust there were discrepancies when reporting ulcerations on the foot, and clinicians were finding it difficult differentiating between a foot ulcer and a pressure ulcer. Collaborative working between Podiatry and Tissue Viability resulted in the creation of a poster and pathway to aid the decision-making process for what was considered a foot ulcer and what constituted a pressure ulcer. The poster has images and lists of possible causes to aid assessment and diagnosis, along with direction on appropriate referral for further management. [PUBLICATION] 14 references

Source: BNI

7. Title: Documentation and record-keeping in pressure ulcer management

Citation: Nursing Standard, May 2015, vol. 29, no. 36, p. 56-63, 0029-6570 (May 6, 2015)
8. Title: Early intervention in thyroidectomy scars: demographics, symptoms, and prevention
Citation: Journal of Wound Care, Apr 2015, vol. 24, no. 4, p. 163-171, 0969-0700 (April 2015)
Abstract: Objective: Although hypertrophic scars are cosmetically problematic for patients following thyroidectomy, the associated risk factors are not well defined. Our objective was to determine the factors associated with hypertrophic scar development following thyroidectomy. Method: A retrospective chart review was performed collecting data on sex, age, body mass index (BMI), operation site, skin characteristics (pigmentation, erythema, elasticity, and hydration), and clinical scar characteristics (itching, tightening, induration, adhesion, and oedema). It was also noted if the patient had early scar intervention with intralosomal steroid injection or non-ablative fractional laser irradiation, and preventive topical treatment agents. The effects of these factors were analysed using univariate and multivariate analyses. Results: Data from 1141 patients showed the incidence of hypertrophic scars was 13.9%. Significant variables in univariate analysis were combined for multivariate analysis. Young age, high BMI, itching, tightening, induration, and adhesion were associated with hypertrophic scar formation. Early scar intervention, as well as the use of preventive topical agents, were associated with decreased hypertrophic scar formation.
Conclusion: Based on our results, we suggest that dermatologists consider using non-ablative fractional laser, intralosomal steroid injection, and topical preventive agents to lower the incidence of hypertrophic scars, especially in young patients or those with high BMI and/or clinical symptoms such as itching, tightening, induration, and adhesion. [PUBLICATION] 50 references
Source: BNI
Full text: Available Mark Allen Group at Journal of Wound Care

9. Title: Engaging patients in pressure ulcer prevention
Citation: Nursing Standard, May 2015, vol. 29, no. 36, p. 64-70, 0029-6570 (May 6, 2015)
Author(s): Hudgell, Lynne, Dalphinis, Julie, Blunt, Chris
Abstract: As patients increasingly care for themselves at home, they require accessible information to enable informed self-care. This article describes the development of an educational electronic application (app) designed for use by patients at risk of pressure ulcers, and their carers. The app can be downloaded to Windows, Android or Apple smartphones or tablets. The app is based on the current pressure ulcer prevention and management guidelines from the National Pressure Ulcer Advisory Panel and the National Institute for Health and Care Excellence, and is designed to educate patients and carers about how to prevent a pressure ulcer, how to recognise a pressure ulcer, and what to do if they suspect they are developing a pressure ulcer. We hope the app will be used to help with educational conversations among patients, carers and healthcare professionals. [PUBLICATION] 10 references
Source: BNI

10. Title: Evidence is building to support using a DACC-coated antimicrobial wound contact layer with NPWT
Citation: Wounds U K, Mar 2015, vol. 11, no. 1, p. 82-86, 1746-6814 (March 2015)
Author(s): Bateman, Sharon D
Abstract: Heavily exuding, infected cavity wounds requiring negative pressure wound therapy (NPWT) can become chronically inert over time, resulting in complex clinical, financial and personal challenges to healthcare workers and patients. This evaluation explored the benefits of utilising a DACC-coated antimicrobial wound contact layer in conjunction with NPWT in 10 patients with heavily exuding, infected wounds. The results demonstrated positive outcomes in regards to non-adherence, atraumatic application and removal, reduction in bacterial burden and exudate levels and timely downgrading from NPWT to conventional dressing therapies. [PUBLICATION] 15 references
11. **Title:** Foam dressings: a review of the literature and evaluation of fluid-handling capacity of four leading foam dressings  
**Citation:** Wounds U K, Mar 2015, vol. 11, no. 1, p. 75-81, 1746-6814 (March 2015)  
**Author(s):** Atkin, Leanne, Stephenson, John, Bateman, Sharon D  
**Abstract:** Posnett and Franks (2008) have calculated that 200,000 people in the UK have a chronic wound, with an estimated treatment cost of between £2.3 billion and £3.1 billion per year. With an ever-increasing ageing population, it can be assumed that costs associated with the management and treatment of wounds will also continue to rise. The Business Service Authority (2014) reported that in 2013 between £160 and £185 million was spent on wound care dressings within primary care services in England, of which foam dressings accounted for £22.6 million of the overall spend. Foam dressings are frequently used in wound care to assist with the management of wound exudate, helping to prevent maceration of the wound bed, protect the surrounding skin and prevent cross-infection caused by strikethrough. The aim of dressings is to provide an optimum environment at the interface with the wound bed to promote wound healing. With limited financial resources within health care, the cost-effectiveness of each type of wound dressing is high on the agenda. It is, however, important that costs are not considered in isolation; the outcomes (general health benefits) associated with interventions (e.g. wound healing and reduction in wound pain) must also be taken into account alongside close collaboration with the patient, and in some cases the carer (Rippon et al, 2008). This article provides a summary of the published literature relating to foam dressings, investigating their impact on healing rates, pain on dressing removal, fluid-handling capacity and their costeffectiveness. It focuses on the independent assessment of the fluid-handling capacity of eight commonly-prescribed foam dressings: four bordered (Cutimed(R) Siltec B, Mepilex(R) Border, Allevyn(R) Life and Tegaderm(TM) foam adhesive) and four non-bordered (Cutimed(R) Siltec/Cutimed(R) SiltecPLUS, Mepilex(R), Allevyn(R) Non-Adhesive, and Tegaderm(TM) foam). [PUBLICATION] 16 references

Source: BNI

12. **Title:** Health professionals' decision-making in wound management: a grounded theory  
**Citation:** Journal of Advanced Nursing, Jun 2015, vol. 71, no. 6, p. 1238-1248, 0309-2402 (June 2015)  
**Author(s):** Gillespie, Brigid M., Chaboyer, Wendy, John, Winsome St, Morley, Nicola, Nieuwenhoven, Paul  
**Abstract:** Aim. To develop a conceptual understanding of the decision-making processes used by healthcare professionals in wound care practice. Background. With the global move towards using an evidence-base in standardizing wound care practices and the need to reduce hospital wound care costs, it is important to understand health professionals’ decision-making in this important yet under-researched area. Design. A grounded theory approach was used to explore clinical decisionmaking of healthcare professionals in wound care practice. Methods. Interviews were conducted with 20 multi-disciplinary participants from nursing, surgery, infection control and wound care who worked at a metropolitan hospital in Australia. Data were collected during 2012-2013. Constant comparative analysis underpinned by Strauss and Corbin’s framework was used to identify clinical decision-making processes. Findings. The core category was 'balancing practice-based knowledge with evidence-based knowledge'. Participants' clinical practice and actions embedded the following processes: 'utilizing the best available information', 'using a consistent approach in wound assessment' and 'using a multidisciplinary approach'. The substantive theory explains how practice and evidence knowledge was balanced and the variation in use of intuitive practice-based knowledge versus evidence-based knowledge. Participants considered patients' needs and preferences, costs, outcomes, technologies, others' expertise and established practices. Participants' decision-making tended to be more heavily weighted towards intuitive practice-based processes. Conclusion. These findings offer a better understanding of the processes used by health professionals' in their decision-making in wound care. Such an understanding may inform the development of evidence-based interventions that lead to better patient outcomes. [PUBLICATION] 26 references

Source: BNI

13. **Title:** Incisional negative pressure wound therapy for high-risk wounds  
**Citation:** Journal of Wound Care, Apr 2015, vol. 24, no. 4, p. 21-28, 0969-0700 (April 2015)  
**Author(s):** Horch, Raymund E.  
**Abstract:** With an ageing population and a growing number of people with obesity and/or undergoing advanced cancer therapies, there is an increasing risk of surgical site complications including surgical site infections (SSIs). Postoperative shifting of large mobilised tissue flaps, such as in abdominoplasties, remains a dreaded complication, particularly following massive weight loss. Besides negative implications for the patient, surgical site complications result in an economic burden due to prolonged and repeated wound treatments. Preventative tools to reduce SSIs
are needed. In selected patients at high risk of SSI and/or wound breakdown, use of incisional NPWT has been shown to actively manage clean, closed surgical incisions. This article contains a review of scientific and clinical research relevant to incisional NPWT use over surgical incisions, with particular emphasis on the common problem of wound breakdown and SSI following body-contouring surgery in post-bariatric patients. Although there are a growing number of studies describing use of incisional NPWT in a variety of applications, including vascular, cardiac and orthopaedic, a literature search revealed few studies regarding incisional NPWT use post body-contouring surgery. In a clinical study of seroma formation, less seroma and haematoma formation was reported in post-bariatric patients who received incisional NPWT, versus the control, following body-contouring surgery. In another study of widely applied external NPWT wound dressings over the ventral and lateral trunk following post-bariatric abdominal dermolipectomy, results showed a significant reduction in exudate formation, earlier drain removal, and decreased length of hospitalisation, compared with conventional treatment. Additional controlled studies are needed to validate the clinical impact of incisional NPWT following body-contouring surgery, and to determine proper recommendations for its use. [PUBLICATION] 40 references

Source: BNI
Full text: Available Mark Allen Group at Journal of Wound Care

14.Title: Innovation and wound healing
Citation: Journal of Wound Care, Apr 2015, vol. 24, no. 4, p. 7-13, 0969-0700 (April 2015)
Author(s): Harding, Keith
Abstract: Innovation in medicine requires unique partnerships between academic research, biotech or pharmaceutical companies, and health-care providers. While innovation in medicine has greatly increased over the past 100 years, innovation in wound care has been slow, despite the fact that chronic wounds are a global health challenge where there is a need for technical, process and social innovation. While novel partnerships between research and the health-care system have been created, we still have much to learn about wound care and the wound-healing processes. [PUBLICATION] 44 references
Source: BNI
Full text: Available Mark Allen Group at Journal of Wound Care

15.Title: 'M' is for Moisture: friend or foe? How developing a better understanding of exudate can prevent moisture-related complications
Citation: Dermatological Nursing, Mar 2015, vol. 14, no. 1, p. 40-47, 1477-3368 (March 2015)
Author(s): Gardner, Sarah
Abstract: The third article in our series exploring the TIME framework of wound bed preparation discusses M for moisture. In wound care, exudate is perceived as a problem, commonly associated with clinical challenges such as frequent dressing changes and high costs. Although exudate plays an important role in normal wound healing, in chronic wounds it can be detrimental, leading to complex exudate-related problems and delayed healing. For the patient, living with a leaky wound is profoundly distressing, with it impacting significantly on quality of life. Clinicians involved in wound care should have good skills in the holistic assessment and management of exudate if they are to optimise the potential for healing. [PUBLICATION] 27 references
Source: BNI
Full text: Available Mark Allen Group at Journal of Wound Care

16.Title: Managing high viscosity exudate
Citation: Wounds U K, Mar 2015, vol. 11, no. 1, p. 56-60, 1746-6814 (March 2015)
Author(s): Vowden, Peter, Bond, Emma, Meuleneire, Frans
Abstract: Wound pain, odour and exudate have a major impact on patient quality of life. Understanding the management of these core components of wound healing is essential if patient outcomes are to be optimised. This paper discusses the role and types of exudate, the impact of high viscosity exudate on management and what to consider when selecting an appropriate dressing with the aim of restoring a satisfactory moist wound environment for healing. [PUBLICATION] 21 references
Source: BNI

17.Title: Modalities of Soft-Tissue Coverage in Diabetic Foot Ulcers
Citation: Advances in Skin and Wound Care, Apr 2015, vol. 28, no. 4, p. 157-162, 1527-7941 (April 2015)
Author(s): Akhtar, Sohaib, Ahmad, Imran, Khan, AH, Khurram, M Fahud
Abstract: The objective of this study was to establish an algorithm for surgical reconstruction of diabetic foot ulcers (DFUs). In this series, 75 patients with diabetic foot ulceration were treated at the Jawaharlal Nehru Medical College from Oct 2008 to Aug 2013, and were retrospectively reviewed. All patients in the study underwent surgical
reconstruction of the foot in the form of a skin graft, local flaps, or free flaps, depending upon the characteristic of the defect, general condition of the patient, and vascular status of the limb. The medical notes of the patients were retrospectively analyzed according to age, gender, ankle-brachial pressure index, and comorbidities. Twenty-eight patients (37%) underwent skin grafting, 39 (52%) underwent local pedicled flaps, and 8 (11%) underwent free flap transfers. Sixty-eight patients (91%) achieved complete healing, and amputation of the lower extremity could be avoided. With the exception of 1 patient who experienced ulcer recurrence within the following year and 6 patients in whom amputation of the lower extremity was performed, all patients healed completely. The mean hospital stay was 4.0 ± 1 week. From the results of this study, the authors conclude that radical debridement and soft-tissue cover in the form of a skin graft/ flap is an effective method of managing DFUs. [PUBLICATION] 47 references

Source: BNI

18.Title: Non-healing foot ulcers in diabetic patients: general and local interfering conditions and management options with advanced wound dressings
Citation: Journal of Wound Care, Apr 2015, vol. 24, no. 4, p. 35-42, 0969-0700 (April 2015)
Author(s): Ucciolì, Luigi, Izzo, Valentina, Meloni, Marco, Vainieri, Erika, Ruotolo, Valeria, Giurato, Laura
Abstract: Medical knowledge about wound management has improved as recent studies have investigated the healing process and its biochemical background. Despite this, foot ulcers remain an important clinical problem, often resulting in costly, prolonged treatment. A non-healing ulcer is also a strong risk factor for major amputation. Many factors can interfere with wound healing, including the patient's general health status (i.e., nutritional condition indicated by albumin levels) or drugs such as steroids that can interfere with normal healing. Diabetic complications (i.e., renal insufficiency) may delay healing and account for higher amputation rates observed in diabetic patients under dialysis treatment. Wound environment (e.g., presence of neuropathy, ischaemia, and infection) may significantly influence healing by interfering with the physiological healing cascade and adding local release of factors that may worsen the wound. The timely and well-orchestrated release of factors regulating the healing process, observed in acute wounds, is impaired in non-healing wounds that are blocked in a chronic inflammatory phase without progressing to healing. This chronic phase is characterised by elevated protease activity (EPA) of metalloproteinases (MMPs) and serine proteases (e.g., human neutrophil elastase) that interfere with collagen synthesis, as well as growth factor release and action. EPA (mainly MMP 9, MMP-8 and elastase) and inflammatory factors present in the wound bed (such as IL-1, IL-6, and TNFa) account for the catabolic state of non-healing ulcers. The availability of wound dressings that modulate EPA has added new therapeutic options for treating non-healing ulcers. The literature confirms advantages obtained by reducing protease activity in the wound bed, with better outcomes achieved by using these dressings compared with traditional ones. New technologies also allow a physician to know the status of the wound bed environment, particularly EPA, in a clinical setting. These may be helpful in guiding a clinician's options in treating very difficult-to-heal ulcers. [PUBLICATION] 85 references
Source: BNI
Full text: Available Mark Allen Group at Journal of Wound Care

19.Title: Nursing students' knowledge and attitude on pressure ulcer prevention evidence-based guidelines: A multicenter cross-sectional study
Citation: Nurse Education Today, Apr 2015, vol. 35, no. 4, p. 573-579, 0260-6917 (April 2015)
Author(s): Simonetti, Valentina, Comparcini, Dania, Flacco, Maria Elena, Di Giovanni, Pamela, Cicolini, Giancarlo
Abstract: Pressure ulcers still remain a significant problem in many healthcare settings. Poor knowledge and negative attitudes toward pressure ulcer prevention could undesirably affect preventive care strategies. To assess both knowledge and attitudes among nursing students on Pressure Ulcer Prevention Evidence-Based Guidelines. A multicenter cross-sectional survey was carried out from December 2012 to August 2013. The study was carried out in seven Italian nursing schools. We involved a convenience sample of nursing students (n = 742) Data were collected using two validated questionnaires to assess students' knowledge and attitudes on pressure ulcer prevention. The overall Knowledge and Attitude scores were 51.1% (13.3/26) and 76.7% (39.9/52), respectively. We found a weak correlation between total Knowledge scores and total Attitude scores (rho = 0.13, p 0.001). We also observed that nursing students' year of education, training experience and number of department frequented during their clinical placement were significantly related to both the Knowledge and the Attitude total scores (p 0.05). Nursing students' knowledge on pressure ulcer prevention was relatively low. However, we observed an association between a high level of education/training experience and higher knowledge scores. Most of the participants showed high attitude scores. These results suggest that positive attitudes toward pressure ulcer prevention may contribute to the compliance with the guidelines in clinical practice. [PUBLICATION] 63 references
Source: BNI
20. Title: Postoperative sternal wound infection
Citation: Nursing Critical Care, Mar 2015, vol. 10, no. 2, p. 31-36, 1558-447X (March 2015)
Author(s): Flick, Sarah
Abstract: Risk factors, prophylaxis, and management of surgical site infections (SSIs) are major concerns in many healthcare facilities, but standardization of care varies widely. SWIs after open cardiac surgery are life-threatening complications and are associated with mortality as high as 40%. Early identification and prompt treatment of SWIs are necessary in order to improve patient outcomes. The purpose of this article is to introduce the healthcare professional to the relevance, clinical manifestations, preventive measures, and current treatment of SWIs. [PUBLICATION] 18 references
Source: BNI

21. Title: Pressure ulcer prevention algorithm content validation: a mixed-methods, quantitative study
Citation: Ostomy - Wound Management, Apr 2015, vol. 61, no. 4, p. 48-57, 0889-5899 (April 2015)
Author(s): van Rijswijk, Lia, Beitz, Janice M
Abstract: Translating pressure ulcer prevention (PUP) evidence-based recommendations into practice remains challenging for a variety of reasons, including the perceived quality, validity, and usability of the research or the guideline itself. Following the development and face validation testing of an evidence-based PUP algorithm, additional stakeholder input and testing were needed. Using convenience sampling methods, wound care experts attending a national wound care conference and a regional wound ostomy continence nursing (WOCN) conference and/or graduates of a WOCN program were invited to participate in an Internal Review Board-approved, mixed-methods quantitative survey with qualitative components to examine algorithm content validity. After participants provided written informed consent, demographic variables were collected and participants were asked to comment on and rate the relevance and appropriateness of each of the 26 algorithm decision points/steps using standard content validation study procedures. All responses were anonymous. Descriptive summary statistics, mean relevance/appropriateness scores, and the content validity index (CVI) were calculated. Qualitative comments were transcribed and thematically analyzed. Of the 553 wound care experts invited, 79 (average age 52.9 years, SD 10.1; range 23-73) consented to participate and completed the study (a response rate of 14%). Most (67, 85%) were female, registered (49, 62%) or advanced practice (12, 15%) nurses, and had 10 years of health care experience (88, 92%). Other health disciplines included medical doctors, physical therapists, nurse practitioners, and certified nurse specialists. Almost all had received formal wound care education (75, 95%). On a Likert-type scale of 1 (not relevant/appropriate) to 4 (very relevant and appropriate), the average score for the entire algorithm/all decision points (N = 1,912) was 3.72 with an overall CVI of 0.94 (out of 1). The only decision point/step recommendation with a CVI of 0.70 was the recommendation to provide medical-grade sheepskin for patients at high risk for friction/shear. Many positive and substantive suggestions for minor modifications including color, flow, and algorithm orientation were received. The high overall and individual item rating scores and CVI further support the validity and appropriateness of the PUP algorithm with the addition of the minor modifications. The generic recommendations facilitate individualization, and future research should focus on construct validation testing. [Publication] 25 references
Source: BNI

22. Title: Reducing Pressure Injuries in Critically Ill Patients by Using a Patient Skin Integrity Care Bundle (Inspire)
Author(s): Coyer, Fiona, Gardner, Anne, Doubrovsky, Anna, Cole, Rae, Ryan, Frances Mary, Allen, Craig, McNamara, Greg
Abstract: Purpose To test an interventional patient skin integrity bundle, the InSPIRE protocol, for reducing pressure injuries in critically ill patients in an Australian adult intensive care unit. Methods Before and after design: patients receiving the intervention (InSPIRE protocol) were compared with a similar control group who received standard care. Data collected included demographic and clinical variables, skin assessment, presence and stage of pressure injuries, and score on the Sequential Organ Failure Assessment (SOFA). Results Overall, 207 patients were enrolled, 105 in the intervention group and 102 in the control group. Most patients were men (mean age, 55 years). The groups were similar on major demographic variables (age, SOFA scores, intensive care unit stay). Cumulative incidence of pressure injuries was significantly lower in the intervention group (18.1%) than in the control group (30.4%) for skin injuries (Formula, P = .04) and mucous injuries (t = 3.27, P = .001). Significantly fewer pressure injuries developed over time in the intervention group (log rank = 11.842, df = 1, P = .001) and intervention patients had fewer skin injuries (> 3 pressure injuries/patient = 1/105) than did control patients (> 3 pressure injuries/patient = 10/102; P = .02). Conclusion The intervention group, receiving the InSPIRE protocol, had a lower cumulative incidence of pressure injuries, and fewer and less severe pressure injuries that developed over time. Systematic and
ongoing assessment of the patient's skin and risk for pressure injuries as well as implementation of tailored prevention measures are central to preventing pressure injuries. [PUBLICATION]

**Source:** BNI

**Full text:** Available *American journal of critical care : an official publication, American Association of Critical-Care Nurses* at [American Journal of Critical Care](http://www.jcritcare.org/)

**23. Title:** Seating and cushions for preventing pressure damage among patients in the community

**Citation:** Wounds U K, Mar 2015, vol. 11, no. 1, p. 32-44, 1746-6814 (March 2015)

**Author(s):** Berry, Lesley

**Abstract:** Prevention of pressure damage remains a hot topic that is never out of headlines. While the cushion is one of many tools that can support patients in an armchair or sofa, a number of issues surround its use. As clinicians, we want the use of equipment such as cushions to be supported by plentiful research and clinical evidence. However, both clinicians and manufacturers often appear to neglect the cushion in comparison with the mattress; this is particularly the case as people use cushions in a different way to mattresses. This article highlights current limitations and assessment observations regarding pressure damage prevention and posture correction with cushions.

[PUBLICATION] 30 references

**Source:** BNI

**24. Title:** Supporting patients with leg ulcers and targeting loneliness

**Citation:** Wounds U K, Mar 2015, vol. 11, no. 1, p. 92, 1746-6814 (March 2015)

**Author(s):** Brookes, Amanda

**Abstract:** Community teams are a crucial part of healthcare provision in West Wiltshire, supporting people to stay in their own homes and live as independently as possible. The teams link closely with GPs and the acute sector to support discharge as soon as it is safe to do so.

[PUBLICATION] 0 references

**Source:** BNI

**25. Title:** The Effectiveness of a Pressure Ulcer Intervention Program on the Prevalence of Hospital Acquired Pressure Ulcers: Controlled Before and After Study

**Citation:** Applied Nursing Research, May 2015, vol. 28, no. 2, p. 106-113, 0897-1897 (May 2015)

**Author(s):** Mallah, Zeinab, Nassar, Nada, Badr, Lina Kurdahi

**Abstract:** Pressure Ulcers (PUs) are associated with high mortality, morbidity, and health care costs. In addition to being costly, PrUs cause pain, suffering, infection, a lower quality of life, extended hospital stay and even death. Although several nursing interventions have been advocated in the literature, there is a paucity of research on what constitutes the most effective nursing intervention. To determine the efficacy of multidisciplinary intervention and to assess which component of the intervention was most predictive of decreasing the prevalence of Hospital acquired pressure ulcers (HAPU) in a tertiary setting in Lebanon. An evaluation prospective research design was utilized with data before and after the intervention. The sample consisted of 468 patients admitted to the hospital from January 2012 to April 2013. The prevalence of HAPU was significantly reduced from 6.63% in 2012 to 2.47. Sensitivity of the Braden scale in predicting a HAPU was 92.30% and specificity was 60.04%. A logistic multiple regression equation found that two factors significantly predicted the development of a HAPU; skin care and Braden scores. The multidisciplinary approach was effective in decreasing the prevalence of HAPUs. Skin care management which was a significant predictor of PUs should alert nurses to the cost effectiveness of this intervention. Lower Braden scores also were predictive of HAPUs.

[PUBLICATION] 79 references

**Source:** BNI

**26. Title:** The evolution of negative pressure wound therapy: negative pressure wound therapy with instillation

**Citation:** Journal of Wound Care, Apr 2015, vol. 24, no. 4, p. 15-20, 0969-0700 (April 2015)

**Author(s):** Wolvos, Tom

**Abstract:** Complex wounds pose a considerable burden to patients and the health-care system. The development of negative pressure wound therapy (NPWT) has revolutionised the treatment of these wounds. NPWT helps create a favourable wound healing environment by removing infectious material, decreasing oedema and promoting perfusion and granulation tissue formation. Additionally, NPWT has been reported to help reduce time to wound closure and length of hospital stay. Modifications of this foundation of wound care have added intermittent instillation with a dwell time to NPWT (NPWTi-d). This new system offers more comprehensive wound care through automated wound irrigation, allowing more control over the wound environment and the opportunity to deliver topical wound solutions directly to the affected tissues. A comparison between the two therapies, NPWT and NPWTi-d, is described, and two real-world applications of NPWTi-d are presented.

[PUBLICATION] 21 references
27. Title: The experience of self-management following venous leg ulcer healing

Citation: Journal of Clinical Nursing, May 2015, vol. 24, no. 9-10, p. 1300-1309, 0962-1067 (May 2015)

Author(s): Kapp, Suzanne, Miller, Charne

Abstract: The aim of the study was to explore the experiences of older people as they self-managed following venous leg ulcer healing. The objectives were to describe the beliefs, attitudes, actions, enablers and barriers to self-management and to consider the impact of an e-learning client education package on how people approach recurrence prevention. Venous leg ulcers affect 1% of people worldwide and more than 3% of older people. Up to 70% of ulcers reoccur. Appreciation of the experience of self-management following healing can equip health services to more effectively prepare people for self-management in the longer term. A descriptive exploratory design was used. Older people who had received an e-learning education programme while their venous ulcer was active were interviewed after healing from July-September 2010. Interviews were recorded, transcribed and thematically analysed. Participants believed in the efficacy of compression therapy, skin care, activity and exercise and healthy eating to prevent recurrence, and engage in activities that reflect recommendations of the education. As beliefs and conduct of self-management activities can change over time, regular professional monitoring and support would assist people to refine health goals, plan self-management activities and prevent recurrence. Participation in a standardised education programme completed prior to healing informed successful self-management strategies among people who seek to prevent venous leg ulcer recurrence. Further research should consider the benefits of regular, ongoing professional monitoring and support among this group. Clinicians have a role in supporting their clients to know about, perform and believe in the importance of self-management strategies for healing and recurrence prevention. Clinicians require the capacity to support clients which standardised client education tools can facilitate. [PUBLICATION] 22 references

Source: BNI

28. Title: The prevention and management of pressure ulcers: summary of updated NICE guidance

Citation: Journal of Wound Care, Apr 2015, vol. 24, no. 4, p. 179-184, 0969-0700 (April 2015)

Author(s): Cooper, L., Vellodi, C., Stansby, G., Avital, L.

Abstract: What are pressure ulcers? Pressure ulcers (PUs) are formed as a result of pressure compromising local tissue blood supply and most commonly occur over bony prominences. Patient factors, extrinsic factors and a combination of both may increase the risk of pressure damage. Patient factors include neurological conditions, impaired nutrition, impaired mobility and poor posture or deformity. Factors extrinsic to the patient include the use of equipment such as beds or chairs, which do not provide adequate pressure relief. Why are pressure ulcers important? PUs are common in all settings where health care is provided, and represent a significant clinical and financial burden. Incidences vary, but tend to be highest in acute and hospice care, and lower in the community. PUs have an associated inpatient mortality of 25-33%, and are an independent predictor of length of hospital stay. The development of a PU is usually avoidable; the morbidity, economic implications and potential for preventing development have made PUs the focus of an indicator of effective practice in the NHS Outcomes Framework 2014/15. [PUBLICATION] 12 references

Source: BNI

29. Title: The psychology of self-harm and self-injury: does the wound management differ?

Citation: Wounds U K, Mar 2015, vol. 11, no. 1, p. 16-26, 1746-6814 (March 2015)

Author(s): Kilroy-Findley, Anita

Abstract: Background: The discovery that a person is deliberately hurting themselves is often met by a mixture of revulsion and fear, especially by those with a limited understanding of why a person may do it. Content: This article seeks to elucidate the drivers of deliberate self-harm (DSH) and deliberate self-injury (DSI), to dispel some common myths about it, and differentiate where mental ill health is a factor and affects wound management. This article also provides pointers for supporting wound management. The acronym HEIDI (history, examination, investigation, diagnosis, intervention) is used as a framework for explaining wound assessment and how to identify the care needed. Conclusion: Health professionals must understand the different approaches for patients who harm or injure themselves, and only then can empathic and holistic plans be agreed. [PUBLICATION] 41 references

Source: BNI

30. Title: The role of emollients in maintaining skin integrity
Abstract: Patients with wounds may have compromised skin healing ability, and many will be older people; therefore, assessing and caring for surrounding skin is extremely important. The article will discuss the importance of skin health and skin barrier repair to prevent dry skin. It will provide practical guidance on understanding emollient use in wound care patients with vulnerable skin and discuss the evidence base for complete emollient therapy (CET). Information will be given on different types of emollients and guidance on good prescribing practice. [PUBLICATION] 23 references
Source: BNI

31. Title: The Role of Nutrition for Pressure Ulcer Management: National Pressure Ulcer Advisory Panel, European Pressure Ulcer Advisory Panel, and Pan Pacific Pressure Injury Alliance White Paper
Citation: Advances in Skin and Wound Care, Apr 2015, vol. 28, no. 4, p. 175-188, 1527-7941 (April 2015)
Author(s): Posthauer, Mary Ellen, Banks, Merrilyn, Dorner, Becky, Schols, Jos M G A
Abstract: Nutrition and hydration play an important role in preserving skin anti tissue viability and in supporting tissue repair for pressure ulcer (PrU) healing. The majority of research investigating the relationship between nutrition and wounds focuses on PrUs. This white paper reviews the 2014 National Pressure Ulcer Advisory Panel, European Pressure Ulcer Advisory Panel, and Pan Pacific Pressure Injury Alliance Nutrition Guidelines and discusses nutrition strategies for PrU management. [PUBLICATION] 77 references
Source: BNI

32. Title: Treatment Options for Venous Leg Ulcers: Effectiveness of Vascular Surgery, Bioengineered Tissue, and Electrical Stimulation
Citation: Advances in Skin and Wound Care, Apr 2015, vol. 28, no. 4, p. 164-172, 1527-7941 (April 2015)
Author(s): Thakral, Gaurav, La Fontaine, Javier, Kim, Paul, Najafi, Bijan, Nichols, Adam, Lavery, Lawrence A
Abstract: Thakral et al evaluate the peer-reviewed literature that compares advanced venous leg ulcer therapies to standard care with compression dressings. A MEDLINE search for venous ulcer treatment with electrical stimulation, surgical vein correction, and bioengineered tissues was conducted. Randomized clinical trials comparing advanced treatment with standard care using compression dressing were included. A total of 7 bioengineered tissue, 4 surgical treatment, and 4 electrical stimulation randomized clinical trials were identified. Compared with nonstandard treatments, electrical stimulation demonstrated improved wound healing, fewer adverse events, and shorter duration of healing. Healing rates at the end of the study were greater for surgical intervention, followed by similar outcomes for electrical stimulation and bioengineered tissues. Studies involving bioengineered tissues and surgical venous ablation demonstrated inconsistent/inconclusive results. Utilization of electrical stimulation in venous ulcer management has not been fully explored. Further studies of dosing electrical stimulation therapy may reveal therapeutic and preventive benefits for managing venous ulcers not yet elucidated. [PUBLICATION] 68 references
Source: BNI

33. Title: Use of an autologous leucocyte and platelet-rich fibrin patch on hard-to-heal DFUs: a pilot study
Citation: Journal of Wound Care, Apr 2015, vol. 24, no. 4, p. 172-178, 0969-0700 (April 2015)
Author(s): Löndahl, M., Tarnow, L., Karlsmark, T., Lundquist, R., Nielsen, A.M., Michelsen, M., Nilsson, A., Zakrzewski, M., Jörgensen, B.
Abstract: Objective: Leucopatch is a leukocyte and platelet-rich fibrin patch that provides concentrated blood cells and signal substances to the surface of an ulcer. It is produced by centrifugation of the patient’s own venous blood. The aim of this pilot multicentre cohort study was to evaluate effects of the leucocyte patch in patients with hard-to-heal diabetic foot ulcers (DFUs). Method: Non-ischaemic Wagner grade 1 or 2 DFUs with a duration of more than 6 weeks and a maximal area of 10cm2 were included. Patients with >40% ulcer area change during a two-week run-in period were excluded. The treatment was applied once a week for up to 19 treatments or until the foot ulcer was completely epithelialised. The primary endpoint was healing within 20 weeks. Results: Of the 60 patients who gave consent 16 were excluded during run-in period, 44 patients initiated study treatment and 39 were included in the per-protocol analysis. Complete epithelisation was achieved in 34% (per-protocol analysis 36%) at 12 weeks and 52% (59%) at 20 weeks. In patients with ulcer duration less than 6 months, 73% of ulcers healed within 20 weeks. Patients with healed ulcers had larger ulcer area reduction during the first two treatment weeks compared to non-healers. Adverse events were mild and rare. Conclusion: The leucocyte patch is well-tolerated, easy to use and has potential in the armamentarium of the DFU treatment, provided this outcome is confirmed in an appropriately powered randomised clinical trial. [PUBLICATION] 16 references
34. Title: Use of epidermal grafts in wounds: a review of an automated epidermal harvesting system  
Citation: Journal of Wound Care, Apr 2015, vol. 24, no. 4, p. 30-34, 0969-0700 (April 2015)  
Author(s): Serena, Thomas E.  
Abstract: Chronic wounds continue to present a significant challenge to health-care providers across the globe. Unlike acute wounds, chronic wounds do not proceed through an orderly process of repair. In recent years, a number of wound healing treatments, such as dermal replacement scaffolds and negative pressure wound therapy, have promoted wound healing by stimulating the formation of granulation tissue. However, until recently there were few modalities designed to promote epithelialisation of a fully granulated wound. Split-thickness skin grafts (STSGs) have long been the gold standard for the management of acute wounds, but have not gained favour in the treatment of chronic wounds for several reasons: discomfort associated with the donor site, the creation of a second wound (donor site) in a patient with poor wound-healing potential, and a lack of documented efficacy for the procedure. Epidermal grafting does not have some of the limitations encountered with STSG; however, it has not gained wide acceptance, as previous harvesting techniques were cumbersome and time-consuming. A novel automated epidermal harvesting system, CelluTome Epidermal Harvesting System (KCI, an Acelity company, San Antonio, TX, USA), was commercially introduced in 2013. The system yields up to 128 epidermal micrografts that can be easily harvested at the bedside without anaesthesia and transferred to the recipient site. The harvesting technique and the use of epidermal grafts in wounds are reviewed here. [PUBLICATION] 20 references

Source: BNI  
Full text: Available Mark Allen Group at Journal of Wound Care

35. Title: Using active Leptospermum honey in the debridement process: 6 challenging cases from the inner city  
Citation: Ostomy - Wound Management, Apr 2015, vol. 61, no. 4, p. 63-66, 0889-5899 (April 2015)  
Author(s): Gray, Cecilia, Ishii, Fatima  
Abstract: The use of honey-based dressings has been documented for thousands of years. Recent studies suggest their effectiveness may be, in part, related to their ability to facilitate autolytic debridement. Six patients who presented with multiple comorbidities and risk factors for delayed healing whose wounds required debridement were managed with active Leptospermum honey (ALH) to evaluate the safety and effectiveness of this treatment modality. The 6 patients ranged in age from 39 to 81 years. The ALH was covered with a foam dressing; both dressings were changed approximately every 3 days. After 9 to 20 days of use, wounds were completely, or almost completely, debrided, and a 75% concomitant average increase in the amount of granulation tissue in the wound bed was observed. No adverse events were noted. The use of ALH in this case series was effective, and no surgical debridement was needed. Research to compare the efficacy of ALH to other debridement methods is warranted. [Publication] 13 references

Source: BNI

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