

A research roundup of recent papers relevant to wound care

This section brings together information found online and published in other journals about wound healing research. The aim of this roundup is to provide an overview, rather than a detailed summary and critique of the papers selected.

ENGAGING PATIENTS IN PRESSURE ULCER PREVENTION

Hudgell L, Dalphinis J, Blunt C et al (2015)
Nursing Standard 29(36): 64–70

This article seeks to explore whether patients have access to information to enable informed self-care. The article describes the development of an educational electronic application (app) designed for use by carers and patients at risk of pressure ulcers. 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. The app can be downloaded to Windows, Android or Apple smartphones or tablets. The authors hope the app will be used to help with educational conversations among patients, carers and healthcare professionals.

Implications for Practice

It remains to be seen if this application works in practice to help improve patients' outcomes and their quality of life. It is often those patients who do not have access to computers, tablets or smartphones that are most at risk of developing pressure ulcers. However, this app is a step in the right direction as some patients, family members and carers will be able to access relevant information about pressure ulcers, enabling them to seek the recommended care and to recognise and respond to early skin changes, seeking help sooner. Perhaps in the next phase of this app, users should be able to customise it at their local level, e.g. to access useful contact numbers.

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NON-CONTACT LOW-FREQUENCY ULTRASOUND THERAPY COMPARED WITH UK STANDARD OF CARE FOR VENOUS LEG ULCERS: A SINGLE-CENTRE, ASSESSOR-BLINDED, RANDOMISED CONTROLLED TRIAL

White J, Ivins N, Wilkes A, Carolan-Rees G, Harding KG (2015) *Int Wound J* doi: 10.1111/iwj.12389.

This prospective randomised controlled trial (RCT) compared non-contact low-frequency ultrasound therapy (NLFU) plus standard wound care (SOC) ($n=19$) to SOC alone ($n=17$) for participants with hard-to-heal venous leg ulcers that had persisted for at least 10 weeks. In this trial, SOC consisted of debridement, weekly wound cleansing and application of a non-adherent dressing and compression therapy. After 8 weeks of treatment there was no significant difference between groups for mean percentage change in wound area (NLFU+SOC) -46.6% versus SOC alone -39.2% , $P=0.565$. There were also no significant differences between groups for secondary wound healing outcome measures.

This study represents Level 1c evidence (RCT). Its findings correlate with results from 12 studies found in a literature review (one high-quality study and several studies with some limitations), which found that wounds treated with NLFU for at least three times per week for up to 16 weeks in conjunction with SOC (debridement and contemporary moist wound healing strategies) do not heal significantly faster than wounds receiving SOC alone.

Implications for Practice

Outcome measures favoured NLFU+SOC over SOC, but the differences were not statistically significant. A larger sample size and longer follow-up may reveal NLFU-related improvements not identified in this study. However, the results also demonstrated that hard-to-heal wounds require high-quality wound care and may warrant the use of advanced treatments.


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DRESSINGS FOR THE PREVENTION OF SURGICAL SITE INFECTION

Dumville J, Gray T, Walter C, Sharp C, Page T (2014)
Cochrane Database of Systematic Reviews
 doi: 10.1002/14651858.CD003091.pub3.

The objective of this review was to assess the effect of wound dressings for preventing surgical site infection (SSI) in people with surgical wounds healing by secondary intention. In Feb 2014, a literature search of all databases was performed with no restrictions on language or date of publication or study setting, using the search terms RCT and comparing alternative wound dressings or wound dressing with no dressing (wound exposure) for the post-operative management of surgical wounds healing by surgical intention. Twenty RCTs were included (3,623 participants). All trials were unclear or had a 'high risk of bias'. Twelve trials included people with wounds resulting from surgical procedures with a contamination status of 'clean', two trials included 'clean contaminated', and the remaining trials had patients from various surgical procedures with differing contamination status. Two trials compared using wound dressings with leaving wounds exposed. The remaining 18 compared two alternative dressing types.

Implications for Practice

No evidence was identified to suggest that any dressing significantly reduced the risk of developing an SSI compared with leaving the wound exposed. In addition, no one dressing was significantly better than another at reducing SSI. The authors also found no correlation between dressing type, scarring, pain control, patient acceptability or ease of removal. The authors concluded that decisions about post-operative dressings should be based on dressing cost and symptom management properties offered by each dressing type, e.g. exudate management. It is imperative for more research to be funded. 

PRESSURE ULCER REDUCTION: THE ROLE OF UNREGISTERED HEALTH CARE SUPPORT WORKERS IN VALIDATION AND PREVENTION

Ellis M, Price J (2015) Pressure ulcer reduction: The role of unregistered health care support workers in validation and prevention. *EWMA Journal* 15(1): 21-25

Pressure ulcer (PU) incidence is a key quality indicator of both patient safety and care quality, and has a variety of uses, including benchmarking, organisational comparison, measuring improvement and commissioning. The aim of this study was to investigate the impact of a specialist health care assistant (HCA) in tissue viability (TV) for PU surveillance and prevention within acute care.

It involved comparison of an 18-month pre-change incidence audit with PU incidence monitored monthly for 3 years. Pre-implementation results (2010) are reported as 228, category 2-4 PU; accuracy of category 1 PU data is also reported to be inconsistent. The ulcers were largely un-validated, accuracy was questioned; however, there was no capacity within the team to meet this need. Post-implementation 2013/14 data for the same 2 months category 2-4 PU totalled 71, a 69% reduction.

The authors concluded that TVHCAs are able to respond quickly to reports of new PUs at the early stage of development. In addition, the provision of primary validation ensures accurate data monitoring and allows for early specialist advice and guidance for PU prevention.

Implications for Practice

Using TVHCAs as part of the healthcare team allows for a cost-effective way of providing protocol-based advice and guidance to front-line clinical staff and has improved the validity and reliability of data collection. While the reduction cannot be wholly attributed to the TVHCA, it does demonstrate the importance of accurate data collection. 