

Wounds digest

In this section, a brief synopsis is presented of a range of recently published articles that may be of interest to healthcare professionals working in the wound care setting. The aim of this round-up is to provide an overview, rather than a detailed summary and critique, of the research papers selected. Full references are provided should you wish to look at any of the papers in more detail.

1 Validity and reliability of the Turkish version of the pressure injury knowledge assessment tool 2.0

Readability	✓	✓	✓	✓	
Relevance to daily practice	✓	✓	✓		
Novelty factor	✓	✓	✓		

- The authors aimed to develop a Turkish version of the Pressure Ulcer Knowledge Assessment Tool 2.0 (PUKAT 2.0) by employing cross-cultural adaptation and validation study and then to use this to determine its validity and reliability.
- A total of 451 participants were included in the study, which comprised 232 nurses and 219 nursing students. The validity of PUKAT 2.0 — the Turkish version — was assessed using linguistic validity, content validity, item validity (item difficulty, discriminating index), and construct validity (known-groups technique) analyses. In addition, a test-retest analysis was carried out to evaluate the reliability of the tool.
- In terms of results, content validity index (CVI) for the items (Item-CVI) ranged from 0.83 to 1.00 and the CVI for the scale (Scale-CVI) was 0.95. Meanwhile, the difficulty index for 21 items ranged between 0.10 and 0.63.
- In conclusion, the Turkish version of PIKAT 2.0 can be used to evaluate the knowledge of nurses and nursing students in Turkey regarding the prevention of pressure ulcers.

Ursavas FE, Bavrak D (2021) Validity and reliability of the Turkish version of the pressure injury knowledge assessment tool 2.0. *J Tissue Viability* 50965-206X(21)00061-9 [Online ahead of print]

2 The use of human acellular dermal matrices in advanced wound healing and surgical procedures: state of the art

Readability	✓	✓	✓	✓	
Relevance to daily practice	✓	✓	✓	✓	
Novelty factor	✓	✓	✓		

- After post-traumatic injuries and/or localised at peculiar body sites occur, these can be particularly challenging in terms of wound closure, which can also be delayed owing to local and systemic factors.
- The grafting of dermal acellular matrices (ADM) is often needed when it comes to deep wounds. Viable human dermis is considered the most physiological alternative to replace the loss of autologous dermis; it does so by acting as a physiological scaffold, supporting soft tissues.
- Human ADMs (hADM) have been used for the reconstruction

of skin defects on almost all body sites and the authors aimed to undertake this review to investigate the use of hADM at different body sites and their peculiar advantages. A literature search used the search terms “acellular dermal matrices”, “dermal regeneration”, “advances wound healing”, “human acellular dermal matrices surgery”.

- Fifty out of 150 papers were included in the study and, based on the current literature, hADMs seem to offer numerous advantages, including: protection of deep structures (e.g. tendons, bones, cartilage and nerves); stimulation of a functional new dermis (rather than a scar); wound closure time reduction; pain control and exudate.
- To conclude, the authors state that hADMs may offer an effective treatment option for hard-to-heal wounds. This study found that hADMs can provide opportunities in terms of efficacy and patient satisfaction.

Tognetti L, Pianigiani E, Ierardi F et al (2021) The use of human acellular dermal matrices in advanced wound healing and surgical procedures: state of the art. *Dermatol Ther* e14987 [Online ahead of print]

3 Multidimensional pain characteristics in older adults with chronic venous leg ulcers

Readability	✓	✓	✓	✓	
Relevance to daily practice	✓	✓	✓		
Novelty factor	✓	✓	✓	✓	

- Pain is a significant consequence of wounds and can affect quality of life, healing and treatment. Although more than half of patients with chronic venous leg ulcer (CVLU) experience mild to moderate pain, the multidimensional characteristics of CVLU pain are not well represented in the literature.
- The authors set out to define the multidimensional pain characteristics of patients in their study, including the sensory, affective, cognitive and behavioral aspects of CVLU prior to debridement. This study is the first in the literature to describe the multidimensional pain characteristics of patients with CVLU, measured with PAINReportIt.
- In total, 40 participants took part in the study and a descriptive analysis of clinical data including demographic characteristics, pain and the wound, which were collected at the first visit. Twenty-two (55%) participants were female and 35 (87.5%) were white, while the mean age of participants was 70.8 ± 9.1 years.
- Past pain treatments were found to provide some pain relief for the participants (65%, n=25) and almost all had a tendency not to tell others about their pain (95%, n=38). Participants reported mean current pain intensity (2.9 ± 2.7), least (1.2 ± 2.2) and worst (4.8 ± 3.4) pain intensity within a 24-hour period. Tolerable pain level (4.9 ±

2.64) on a 0-10 scale. Participants described pain as periodic (66.7%, $n=26$) with multiple pain quality descriptors (5.4 ± 2.9).

- It was found that patients with CVLU reported an inclination to tolerate a relatively high level of pain. PAINReportIt will assist clinicians to select bespoke therapies relating to pain management and, therefore, improve QoL for these patients.

Kim J, Wilkie D, Weaver M et al (2021) Multidimensional pain characteristics in older adults with chronic venous leg ulcers. *Adv Wound Care (New Rochelle)* doi: 10.1089/wound.2020.1355 [Online ahead of print]

4 A pragmatic randomised controlled clinical study to evaluate the use of silicone dressings for the treatment of skin tears

Readability	✓	✓	✓	✓	
Relevance to daily practice	✓	✓	✓		
Novelty factor	✓	✓	✓	✓	

- Skin tears is one of the most common types of skin breakdown in ageing populations. The authors, both of which are International Skin Tear Advisory Panel (ISTAP) expert group co-chairs, is currently advocating for special attention to be paid to dressing selection related to the management of skin tears.
- ISTAP endorses a dressing selection aimed at promoting numerous factors: the maintenance of moisture balance; bearing in mind the local wound environment, protecting periwound skin, controlling/managing exudate and infection, while optimising caregiver time.
- This study was a pragmatic randomised controlled prospective study to compare the effectiveness of soft silicone dressings (a contact layer and/or foam) for the healing of skin tears that do not include soft silicone dressings.
- One hundred and twenty-six individuals who presented with skin tears at two long-term care facilities in Ontario, Canada, were recruited for the study. Ninety-six percent ($n = 63$) of skin tears in the treatment group healed within 3 weeks, compared with 34.4% ($n = 21$) in the control group.
- In the treatment group, 89.2% ($n = 58$) healed within 2 weeks, compared with 27.9% ($n = 17$) in the control group. Meanwhile, skin tears in the treatment group healed 50% faster (11 days), compared with the control group (22 days).
- The results from the study infer that silicone dressings expedite wound healing and wound closure when compared with non-silicone dressings in the treatment of skin tears.

LeBlanc K, Woo K (2021) A pragmatic randomised controlled clinical study to evaluate the use of silicone dressings for the treatment of skin tears. *Int Wound J* doi: 10.1111/iwj.13604 [Online ahead of print]

5 Expanded negative pressure wound therapy in healing foot ulcers: a prospective randomised study

Readability	✓	✓	✓	✓	
Relevance to daily practice	✓	✓	✓	✓	
Novelty factor	✓	✓	✓		

- The researchers set out to evaluate the benefits of treating diabetic foot ulcers (DFU) by negative pressure wound therapy

(NPWT), in order to achieve reduced and more evenly distributed lateral tension lines across the wound.

- Patients were randomly assigned into either the NPWT control group or the NPWT+ group. In terms of the former, patients were treated in a traditional manner, while in the NPWT+ group, foams were shaped to fit the wound exactly and then an additional foam was then wrapped around the foot.
- Fifty-nine individuals were randomised into the two groups: 29 in the NPWT+ group and 30 in the NPWT group. Median healing time was the primary objective (NPWT+ 19 days, interquartile ratio (IQR) 7.5; NPWT 33 days, IQR 16; $P < 0.00001$) and complete wound healing at 3 weeks (NPWT+ 55.20% NPWT 26.70% $P = 0.02$). Secondary endpoints were the number of major amputations and the number of infections.
- In conclusion, NPWT significantly reduced wound closure times and accelerated healing in the DFUs under observation.

Campitiello F, Mancone M, Della Corte A et al (2021) Expanded negative pressure wound therapy in healing foot ulcers: a prospective randomised study. *J Wound Care* 30(2): 121–9

6 Acupuncture in diabetic neuropathy — protocol for the randomised, multicentre ACUDPN trial

Readability	✓	✓	✓	✓	
Relevance to daily practice	✓	✓	✓		
Novelty factor	✓	✓	✓	✓	✓

- Evidence in the literature is unclear about acupuncture's use when treating patients with diabetic peripheral neuropathy. The ACUpuncture in Diabetic Peripheral Neuropathy (ACUDPN) trial aimed to investigate the effectiveness of acupuncture for the treatment of diabetic peripheral neuropathy (DPN) symptoms.
- A total of 110 type II patients will be treated with acupuncture treatment by clinicians in outpatient units in Germany, all of which had clinical symptoms of DPN in the feet and legs. Patients are to be randomised in a 1:1 ratio to receive either semi-standardised acupuncture plus routine care or just routine care alone. Twelve acupuncture treatments will take place per patient over the course of 8 weeks.
- The primary outcome studied will be the overall DPN-related complaints in the extremities after 8 weeks as measured by the Visual Analog Scale (VAS). Other outcome measures include DPN-related pain, the Neuropathic Pain Symptom Inventory (NPSI) and Diabetic Peripheral Neuropathic Pain Impact (DPNPI) scores.
- The results of this trial will be available in 2021 and it is hoped that they will help determine whether or not acupuncture can be considered effective for the treatment of DPN.

Dietzel J, Hörder S, Habermann IV et al (2021) Acupuncture in diabetic neuropathy -protocol for the randomised, multicentre ACUDPN trial. *Trials* 22(1): 164