

Wounds digest

In this section, we present brief synopses 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.

Decellularized dermis allograft for the treatment of venous leg ulceration: the DAVE RCT

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

- Small studies have suggested that decellularised dermis (DCD) allografts may be effective in improving the healing rates of venous leg ulcers (VLUs). The aim of this study was to evaluate whether DCD and standard care improved the outcomes for VLUs compared to standard care alone.
- This multicentre RCT enrolled 71 patients with VLUs in the UK. Patients were randomised to either the intervention (DCD graft and standard of care) or control arm (standard of care alone). The primary outcome was the proportion of patients whose ulcer had healed at 12 weeks. Secondary outcomes were percentage change in ulcer area, time to healing, recurrence rates and quality of life.
- VLUs healed in 5.7% of the intervention group and 15.2% of the control group. There were no significant differences in secondary outcomes. Notably, there were five serious adverse events attributed to DCD application. Early trial termination was advised due to a lower-than-expected primary outcome rate (11.3%).
- The authors concluded that DCD grafts did not improve healing rates of VLUs, although the trial was terminated early due to poor healing rates in both the intervention and control arms.

Onida S, Tan M, Balan V et al (2025) Decellularized dermis allograft for the treatment of venous leg ulceration: the DAVE RCT. *Br J Surg* 112(2): znae330

Effectiveness of an enhanced silver-containing dressing in hard-to-heal venous leg ulcers: a randomised controlled trial

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

- The authors aimed to assess the efficacy and safety of a carboxymethylcellulose dressing containing ionic silver, ethylenediaminetetraacetic acid and benzethonium chloride (CISEB) versus a dialkylcarbamoyl chloride-coated dressing (DACC) in hard-to-heal venous leg ulcers (VLUs). CISEB is a gelling fibre dressing with antimicrobial, metal-chelating and surfactant

components that may promote an optimal wound healing environment.

- In a multinational, randomised controlled trial, patients with hard-to-heal VLUs were randomised to receive CISEB (n=100) or DACC (n=103). VLUs that were not healed by week 4 were managed with standard of care for up to 12 weeks or until healed, whichever was sooner. The primary endpoint was complete wound closure at week 12. Additional endpoints included time to complete wound closure and incidence of adverse events.
- CISEB achieved a higher rate of complete wound closure by week 12 compared to DACC (74.8% versus 55.6%, respectively; $p < 0.0031$). Median time to complete wound closure was shorter in the CISEB arm (56 days) compared to the DACC arm (70 days). There were fewer adverse events with CISEB compared to DACC (5.0% versus 17.6%, respectively).
- The results suggest that CISEB was associated with improved healing outcomes for hard-to-heal VLUs compared to DACC, without additional safety concerns.

Beraldo S, Ljungqvist J, Rodger R et al (2025) Effectiveness of an enhanced silver-containing dressing in hard-to-heal venous leg ulcers: a randomised controlled trial. *J Wound Care* 34(3): 170–8

Results from a comparative study to evaluate the treatment effectiveness of a nonpneumatic compression device vs an advanced pneumatic compression device for lower extremity lymphedema swelling (TEAYS study)

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

- Advanced pneumatic compression devices (APCDs) are effective in treatment of lower extremity lymphoedema. However, adherence tends to be poor, and patients need to remain immobile during treatment. The authors evaluated the safety and efficacy of a novel non-pneumatic compression device (NPCD) versus an APCD for treating lower extremity lymphoedema.
- A randomised, crossover head-to-head study was performed at nine sites, with patients randomised to either the NPCD or a commercially available APCD. Patients used one device for 90 days, followed by a 4-week washout period, and then a 90-day use of the second device. A total of 71 patients with lower extremity lymphoedema (108 affected limbs) were enrolled.
- Compared with the APCD, the NPCD was associated with a greater mean decrease in limb oedema volume.

Significant improvement in quality of life was achieved for NPCD and but not for APCD. There was better adherence and patient satisfaction with the NPCD. No device-related adverse events were reported.

- The authors found that the novel NPCD was an effective treatment for decreasing limb volume in patients with lower extremity lymphoedema. The NPCD was more effective than an APCD and resulted in superior limb volume decrease, greater improved quality of life, adherence, mobility and patient satisfaction.

Barfield M, Winokur R, Berland T et al (2025) Results from a comparative study to evaluate the treatment effectiveness of a nonpneumatic compression device vs an advanced pneumatic compression device for lower extremity lymphedema swelling (TEAYS study). *J Vasc Surg Venous Lymphat Disord* 13(1): 101965

4 Improved wound healing by direct cold atmospheric plasma once or twice a week: a randomized controlled trial on chronic venous leg ulcers

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

- This study compared the effect of two frequencies of direct cold atmospheric plasma (direct-CAP) treatment with standard of care (SOC) alone on healing of chronic venous leg ulcers (VLUs).
- Treatment groups received direct-CAP once or twice a week at specialised wound care facilities and the patients' residences. All three groups received SOC for 12 weeks or until healing. The primary outcome was percentage of wounds healed, and secondary outcomes were wound area reduction and adverse events.
- Enrolled patients were randomly allocated to SOC only (n=15), SOC + direct-CAP once a week (n=17), or SOC + direct-CAP twice a week (n=14).
- More wounds healed within 12 weeks in the treatment groups, with 53.3% healed in the once-weekly CAP group and 61.5% in the twice-weekly group versus 25.0% (control). The largest wound area reduction was obtained with twice-weekly direct-CAP (95.2%), followed by once-weekly direct-CAP (63.9%), versus control (52.8%). Wound area reduced significantly in both treatment groups, but not in the control group. No device-related adverse events occurred.
- The authors conclude that these results support the integration of direct-CAP as therapy for complex wounds.

Bakker O, Smits P, van Weersch C et al (2025) Improved wound healing by direct cold atmospheric plasma once or twice a week: a randomized controlled trial on chronic venous leg ulcers. *Adv Wound Care (New Rochelle)* 14(1): 1-13

5 Relationship between perilesional skin condition and survival in terminally ill patients with pressure ulcers

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

- The skin reflects critical systemic changes in the terminal phase, so the authors explored how the state of the

perilesional tissue may influence the survival of terminally ill patients with pressure ulcers (PUs).

- A descriptive and observational study was conducted in two hospitals and included 100 terminally ill patients.
- The results showed that functional capacity, perilesional tissue epithelialisation and albumin levels were significant predictors of survival, while the number and location of PUs had no direct impact. Perilesional tissue epithelialisation was a critical indicator reflecting the systemic stability of the patient.
- The authors stated that the results highlight the importance of a comprehensive approach to palliative care that addresses the local aspects of the lesions and the patient's systemic and functional status. The findings support the implementation of therapeutic interventions based on a structured perilesional tissue assessment to improve quality of life and prolong survival in terminally ill patients.

Pastor-Orduña MI, Palomar-Llatas F, Palomar-Albert D et al (2025) Relationship between perilesional skin condition and survival in terminally ill patients with pressure ulcers. *Medicina (Kaunas)* 61(1): 147

6 Nonoperative management of pretibial lacerations in a nurse-led clinic: an observational study

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

- In the authors' tertiary plastic surgery centre, patients with wounds that will not be treated surgically, including complex pretibial wounds, are managed on an outpatient basis in a nurse-led pretibial laceration clinic.
- They conducted a study to investigate dressing usage and assess correlators with healing time or number of appointments.
- The records of 138 patients were reviewed. The number of appointments ranged from 1 to 19. The number of different types of dressings used was statistically correlated with time to discharge.
- In patients with conservatively managed pretibial lacerations, the total number of different dressings used (as a surrogate marker for wound complexity) was predictive of the time the patient spends in follow-up and the total number of hospital contacts.
- The author stated that these data may be used to help understand when conservatively managed pretibial lacerations may require more intensive intervention.

Kosasih S, Ramsay D, Corriero A et al (2025) Nonoperative management of pretibial lacerations in a nurse-led clinic: an observational study. *Plast Aesthet Nurs (Phila)* 45(1): 40-5