Retrospective case series: Solventum™ Veraflo™ Therapy with Smart Instill™ Feature

CASE STUDIES SERIES 2026

WOUNDS | UK

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Introduction

Standard negative pressure wound therapy (NPWT), such as Solventum™ V.A.C.® Therapy, is widely used to support wound healing by removing exudate and infectious material, promoting continuous wound drainage, stabilising the wound bed, drawing wound edges together and stimulating granulation tissue formation.

NPWT with instillation and dwell time (NPWTi-d), such as Solventum™ Veraflo™ Therapy, represents a further advancement in wound care. It combines the benefits of standard NPWT with automated, controlled instillation of topical wound solutions. Veraflo Therapy is specifically designed to promote wound healing in complex and hard-to-heal wounds by cleansing the wound bed and stimulating the formation of healthy granulation tissue (Acosta et al, 2025).

Wound types suitable for Veraflo Therapy include:

- Traumatic wounds
- Diabetic foot ulcers
- Venous leg ulcers
- Pressure ulcers/injuries
- Surgical wounds, including dehisced wounds
- Wounds with exposed intact bone
- Wounds with treated underlying osteomyelitis
- Infected or contaminated wounds with orthopaedic fixation hardware
- Full-thickness burns following surgical excision
- Wounds post-evacuation of haematoma (once haemostasis is achieved)
- Wounds serving as a bridge in staged or delayed amputation.

Unlike standard NPWT, Veraflo Therapy delivers a topical solution (e.g. normal saline) directly into the wound bed, allows it to dwell for a set period and then removes the solution along with slough, debris and exudate using negative pressure. This process is especially useful in wounds where surgical debridement is delayed or not possible.

Dressing considerations

Veraflo Therapy uses dressings specifically designed for instillation therapy that provide improved fluid distribution within, and removal from, the wound bed. Dressing selection can be determined by wound type **[Table 1]**. Dressing changes three times weekly (every 48–72 hours) is recommended as a minimum.

Table 1. Dressing selection and description based on wound type (Wounds International, 2021; Wounds Asia, 2022)

Dressing	Description	Wound type
Veraflo™ Dressing 	To be used when the wound needs a combination of granulation tissue formation and cleansing	Open wounds, including wounds with shallow undermining or tunnel areas where the distal aspect is visible
Veraflo™ Cleanse™ Dressing 	To be used when granulation tissue formation is not a primary treatment goal	Cavity wounds or wounds with complex geometries, including explored tunnels or undermining where the distal aspect is not visible
Veraflo™ Cleanse Choice™ Dressing 	To be used to cleanse the wound, promote wound healing and facilitate the removal of infectious materials, particularly when complete surgical debridement of a large, complex wound is not possible	Contaminated wounds or wounds with thick fibrinous exudate, slough, infectious material and other wound bioburden

Solution considerations

There are a range of recommended compatible solutions to use for instillation, such as normal saline, hypochlorite-based solutions (e.g. hypochlorous acid solution or sodium hypochlorite solution [dilute Dakin's solution 0.125% or quarter strength]), acetic acid solution (0.25–1%) and polyhexamethylene biguanide (0.1%) and betaine (0.1%) (Kim et al, 2020; Wounds Asia, 2022).

Hypochlorite-based solutions, such as hypochlorous acid solution or sodium hypochlorite solution, are recommended as the initial topical solution for wounds showing clinical signs of infection, followed by saline instillation after 24 to 48 hours. This should be in conjunction with appropriate systemic antibiotic therapy, and the decision to switch to saline should be based on ongoing patient and wound assessments. Topical antiseptic solutions are also recommended for instillation in certain cases, such as the presence of acute infection, high levels of bacteria colonisation or when treating wounds with orthopaedic fixation hardware (Kim et al, 2020).

Therapy setting considerations

Commonly used therapy settings include a therapy time of 2 to 3 hours for Veraflo Dressing and 2 to 2.5 hours for Veraflo Cleanse Choice™ Dressing. An appropriate dwell time setting of 10 minutes with saline (or other compatible solutions) and a pressure setting of -125mmHg is also commonly used (Kim et al, 2020) with Veraflo Dressing, unless non-viable tissue is present. Veraflo Cleanse Choice™ Dressing may be used as a wound cleansing option before surgical debridement or if debridement is delayed or not possible. When clinical goals are met, it is advised to discontinue therapy.

Conclusion

The eight case studies **[Table 2]** are representative of clinicians' everyday use of Veraflo Therapy and may help to guide the appropriate use of this therapy in practice when managing complex wounds.

Table 2. Summary of case studies

Case	Clinician(s)	Case study title	Pages
1	• Jennifer O'Keeffe • Neasa Farrell	Managing a wound with cellulitis to the anterior abdominal wall and suspected necrotising fasciitis	5–6
2	• Zeadia Bruce • Deborah Ruff • Mandy Austin	Managing a dehisced above-knee amputation stump	7–9
3	• Carina Pimenta	Managing a thigh wound with necrotising fasciitis in a patient with uncontrolled diabetes	10–11
4	• Tracy Belcher	Managing a trauma wound of the tibia	12–13
5	• Usha Sharma • Mr Deepak Singh-Ranger	Managing a groin and leg wound with necrotising fasciitis	14–15
6	• Victoria Williams	Managing a post-operative surgical wound of an infected hip prosthesis	16–17
7	• Zeadia Bruce • Khadijah Nazir Salim • Deborah Ruff	Managing a complex diabetic foot ulcer with deep tissue involvement	18–19
8	• Chris Paton	Managing a chronic category 4 pressure ulcer	20–21

References

Acosta J, Galarza L, Marsh M et al (2025) Effectiveness of Negative Pressure Wound Therapy With Instillation and Dwell in Removing Nonviable Tissue, Promoting Granulation Tissue, and Reducing Surgical Debridements. *A Systematic Literature Review*

Harding KG, Alford L, Campbell-Fearron K et al (2019) Recommendations for use of Negative Pressure Wound Therapy Systems

Harding KG, Stang D, Alford L et al (2023) Recommendations for use of negative pressure wound therapy systems

Kim PJ, Attinger CE, Constantine T et al (2020) Negative pressure wound therapy with instillation: International consensus guidelines update. Int Wound J 17(1): 174–86

Wounds Asia (2022) Veraflo™ Therapy Product Showcase

Wounds International (2021) Using Veraflo™ Therapy Quick Guide

CASE 1: Managing a wound with cellulitis to the anterior abdominal wall and suspected necrotising fasciitis

Author details: Jennifer O'Keeffe; Neasa Farrell, Mercy University Hospital, Cork, Ireland

Patient presentation and history

- A 52-year-old male presented to the Accident and Emergency Department with fever, nausea and abdominal pain. He was diagnosed with cellulitis of the anterior abdominal wall and underwent surgical debridement in theatre **[Figure 1A–C]**. Following clinical deterioration, a second debridement was performed to exclude necrotising fasciitis, which was subsequently ruled out. Post-operatively, the patient was managed in the intensive care unit.
- **Wound findings:** Two anterior abdominal wall incisions were present: a superior incision (wound A) and an inferior incision (wound B). Both excision sites were explored down to the level of the fascia.
- **Mobility status:** Mobility was severely reduced, requiring assistance from six to seven staff members and specialised moving and handling equipment.
- **Medical history:** Type 2 diabetes, hypertension, high body mass index and a previous episode of abdominal cellulitis.

Wound presentation

- **Tissue composition:** 70% subcutaneous tissue, 10% necrotic tissue, 10% granulation tissue, 10% epithelialising tissue.
- **Clinical status following second debridement:** Both wounds appeared stable, with no visible signs of infection, slough, erythema, increased exudate or pain.

Treatment objectives

- Initiate Veraflo Therapy with the Smart Instill Feature (31ml saline, 10-minute dwell time every two hours at -125mmHg), with dressing changes scheduled every three days to remove infectious materials and promote granulation tissue formation.

Weeks 1–3

Initial wound care included povidone-iodine-soaked gauze and antimicrobial primary dressings. Standard wound care was continued per the surgeon's instructions.

Weeks 4–5

Bedside manual debridement was performed to remove necrotic tissue. Five days later, Veraflo Therapy with the Smart Instill Feature was initiated, with dressing changes every three days. Additional manual debridement was performed at the bedside by the surgeon during this period.

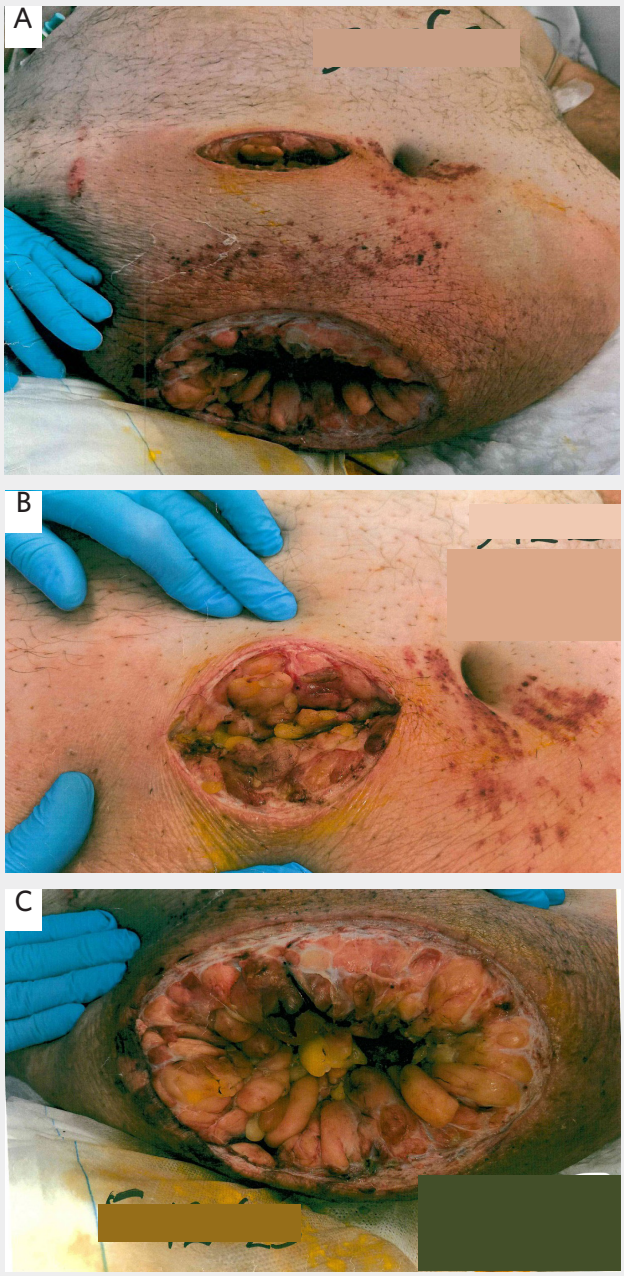

Figure 1. (A) View of both wounds; (B) wound A; and (C) wound B following the second debridement.

Weeks 6–7

Veraflo Therapy continued, and Veraflo Cleanse Choice™ Dressing was introduced. Wound measurements at this stage:

- Wound A: 4cm x 6cm x 6cm
- Wound B: 6cm x 13cm x 10cm.

CASE 1: *(Continued)*

Author details: Jennifer O'Keeffe; Neasa Farrell, Mercy University Hospital, Cork, Ireland

Weeks 8–9

Significant wound improvement was observed, with decreased necrotic tissue and increased granulation. Wound measurements:

- Wound A: 2cm x 5cm x 6cm
- Wound B: 6cm x 11cm x 10cm.

Swab cultures identified mixed gram-negative bacilli in wound A, and *Morganella morganii* and *Escherichia coli* in wound B. To minimise cross-contamination risk, ActiV.A.C.™ Therapy was initiated on wound A, while wound B continued on Veraflo Therapy with Veraflo Cleanse Choice™ Dressing. Both wounds remained free of visible infection, pain or increased exudate **[Figure 2A–B]**.

Weeks 10–12

Wound A was managed with the ActiV.A.C. Therapy System and V.A.C.® Granufoam™ Dressing. Wound measurements:

- Wound A: 2cm x 4cm x 2cm **[Figure 3]**
- Wound B: 4cm x 8cm x 9cm, remaining on Veraflo Cleanse Choice™ Dressing.

Weeks 13–14

Wound A progressed sufficiently to transition from ActiV.A.C. Therapy to single-use NPWT and a silver-containing wound dressing. Wound B continued on Veraflo Therapy before transitioning to the ActiV.A.C. Therapy System with V.A.C.® Granufoam™ Dressing as healing progression had plateaued. Wound measurements:

- Wound A: 2cm x 3.5cm x 1.5cm
- Wound B: 4cm x 7cm x 4cm.

Weeks 15–17

Wound A had fully healed and was transitioned to simple dressings. Clinical focus subsequently shifted to wound B, which continued treatment with the ActiV.A.C. Therapy System and steady progression towards healing.

Conclusion

Wound A showed progressive reduction in size and improvement in tissue quality, achieving complete closure by week 17. Wound B, which was larger and more complex, also demonstrated substantial and sustained improvement, and continued to be managed with the ActiV.A.C. Therapy System alongside advanced and standard-of-care dressings until week 31. At this point, the wound measured 1cm x 5cm x 0.4cm, and the patient was discharged to a rehabilitation facility.

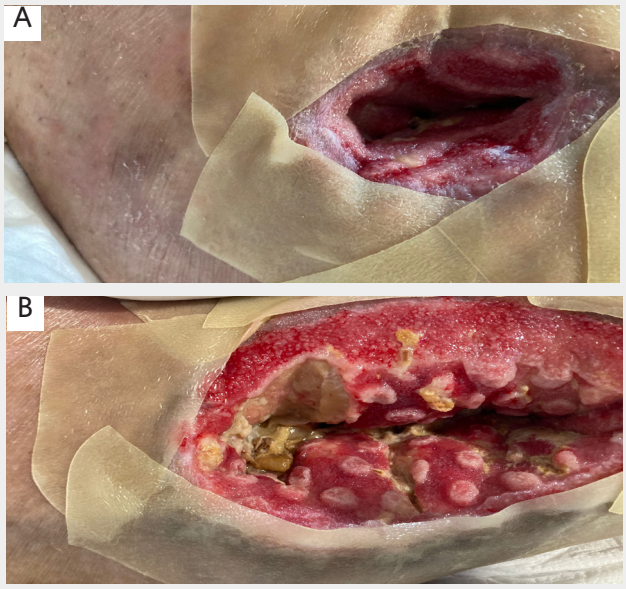

Figure 2. (A) Wound A and (B) wound B after 8–9 weeks of treatment, showing significant improvement with increased granulation.

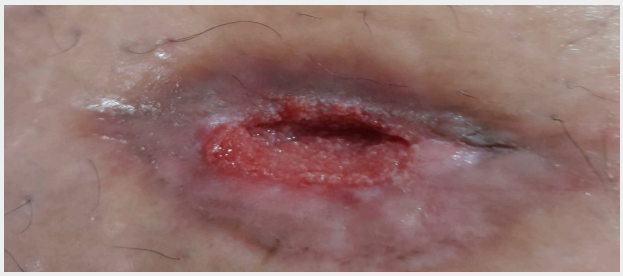

Figure 3. Wound A after 12 weeks of treatment, showing near-complete healing.

Veraflo Therapy with the Smart Instill Feature exceeded clinical expectations, particularly given its first use in such a complex case. The system was easy to apply and remove, and the patient reported improved comfort during therapy. Overall, the system was highly effective and would be a preferred option in similar complex cases to promote optimal wound healing.

CASE 2: Managing a dehisced above-knee amputation stump

Author details: Zeadia Bruce, Deborah Ruff, Mandy Austin, Northern Care Alliance NHS Foundation Trust, Oldham, Greater Manchester

Patient presentation and history

- A 70-year-old male was admitted with chronic limb-threatening ischaemia and tissue loss. The patient underwent several revascularisation attempts, including a left common femoral endarterectomy and iliac/superficial femoral angioplasty. Unfortunately, these interventions were unsuccessful, and the patient required an above-knee amputation due to an unsalvageable limb.
- Post-operatively, the left above-knee amputation stump **[Figure 1A]** subsequently became ischaemic, and the left groin wound **[Figure 1B]** dehisced, requiring surgical debridement and a sartorius flap.
- **Medical history:** Type 2 diabetes, peripheral arterial disease, lifelong smoker, anaemia and obesity.

Treatment objectives

- Initiate Veraflo Therapy with the Smart Instill Feature with dressing changes scheduled every three days to irrigate the dehisced left groin wound, remove infectious material and promote wound healing.

Wound presentation

- **Size of left groin wound:** 15.2cm (W) x 6.5cm (L) x 6.7cm (D), with 3cm undermining at 1–3 o'clock region and 2cm at 4 o'clock.
- **Tissue composition:** 15% necrosis, 35% slough, 10% granulation tissue, 40% healthy muscle.

Week 1

Prior to each dressing change, the left groin wound was cleansed using gauze soaked in a betaine/polyhexanide wound irrigation solution, left in situ for 15 minutes. The left above-knee amputation stump was closed and managed with conventional antimicrobial dressings.

The periwound skin was protected with barrier film. A silicone-impregnated atraumatic wound contact layer was applied beneath the Veraflo Therapy system (80ml 0.9% saline, 10-minute dwell time every 3.5 hours), with dressing changes scheduled every three days.

By day 3, the groin wound had reduced in size to 13.5cm x 6.9cm x 6cm, with undermining of 2.4cm from 1–5 o'clock. Tissue composition showed a reduction in necrosis (15%), slough (25%) and increased granulation (20%) alongside 40% healthy muscle. Veraflo Therapy was continued with no change to the settings.

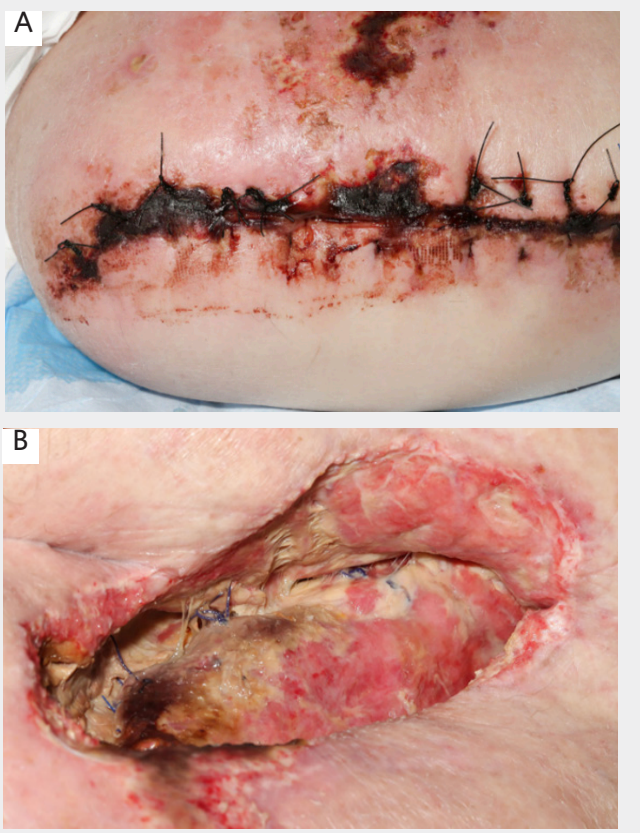

Figure 1B. Initial presentation of (A) above-knee amputation stump dehiscence and (B) left groin wound prior to initiation of therapy.

Week 2

The stump was still being managed with conventional antimicrobial dressings but appeared cold to the touch, with clinical signs of ischaemia **[Figure 2]**. Upon suture removal, brown serous exudate was noted.

Veraflo Therapy was continued for the groin wound. The patient underwent further debridement and wound refashioning.

The groin wound now measured 23cm x 4cm x 3cm, with exposed adipose tissue. Due to a risk of bleeding, Veraflo Therapy was discontinued and replaced with standard NPWT (V.A.C.® Therapy; -100 mmHg continuous pressure). A silicone-impregnated wound contact layer and black Granufoam™ Dressing were used.

CASE 2: *(Continued)*

Author details: Zeadia Bruce, Deborah Ruff, Mandy Austin, Northern Care Alliance NHS Foundation Trust, Oldham, Greater Manchester

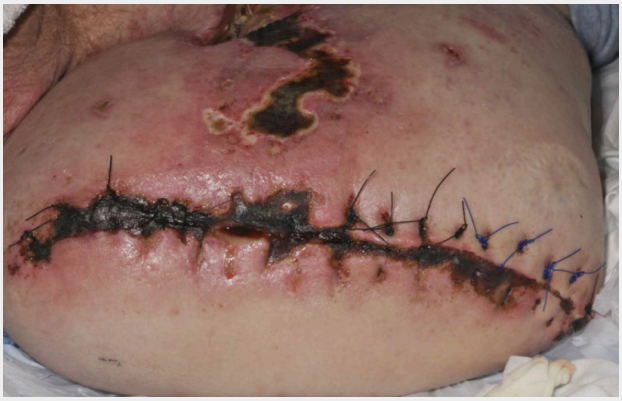

Figure 2. Week 2: Ischaemic tissue and brown serous exudate observed prior to suture removal.

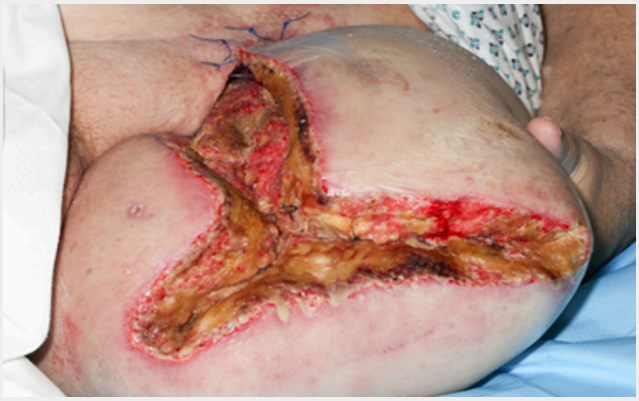

Figure 3. Week 3: Post-surgical appearance following combined debridement and refashioning of the groin and above-knee stump wounds, resulting in one larger wound. Tissue shows partial improvement with mixed composition, including dehydrated fat, muscle with granulation tissue and residual slough.

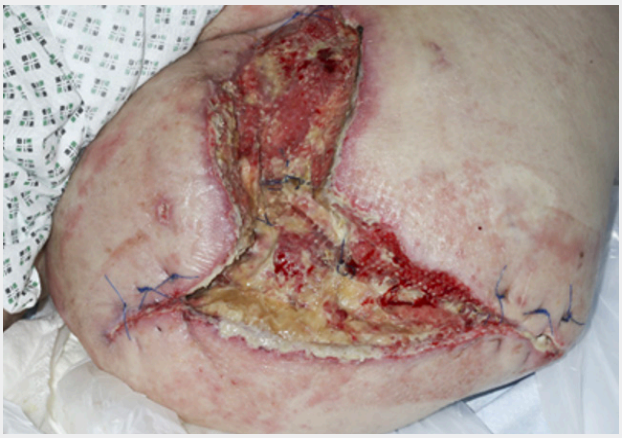

Figure 4. Week 5: Large central opening with undermining; moist fat and slough visible.

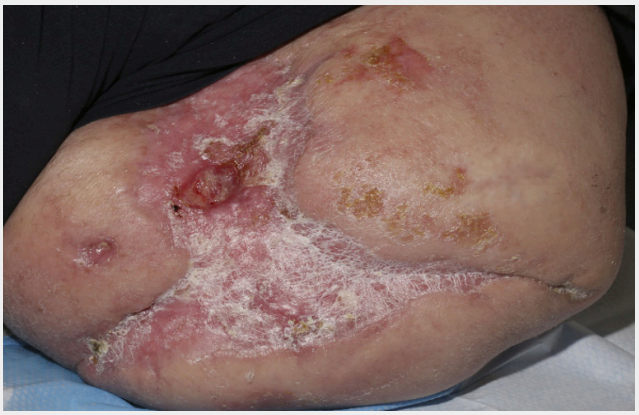

Figure 5. Week 30: Presence of two small ulcerations and signs of mild contact dermatitis.

Week 3

The patient returned to theatre, where both the groin and the left above-knee stump wounds were surgically debrided and refashioned, resulting in a single combined wound measuring 19.5cm x 23.1cm x 6.2cm **[Figure 3]**. Tissue composition consisted of 50% dehydrated fat, 40% muscle and granulation tissue, and 10% slough. The patient reported distal stump pain, and the stump remained cold on clinical examination.

V.A.C.® Therapy was discontinued, and Veraflo Therapy was reinitiated (40ml 0.9% saline, 10-minute dwell time every 3.5 hours at -125 mmHg), with dressing changes scheduled every three days. A silicone wound contact layer was again applied beneath the dressing.

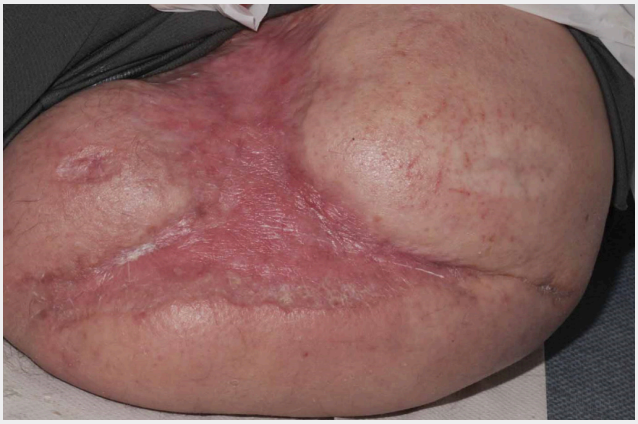

Figure 6. Week 66: Fully healed stump with healthy perfusion observed at outpatient review.

Week 5
The patient returned to theatre for further debridement and partial closure of the proximal stump. The wound measured 26cm x 21cm, with a central opening of 18cm x 15cm x 5cm. Undermining was present at multiple points: 6.5cm at 7 o'clock, 5.7cm at 3 o'clock, and 1.5cm at 12 o'clock. Tissue composition included 40% moist fat, 50% muscle and 10% slough [Figure 4].

V.A.C.® Therapy was reinstated at -125 mmHg continuous pressure, with a silicone contact layer and black Granufoam™ Dressing.

Outpatient follow-up

Week 14
The wound had reduced to 14.4cm x 15cm x 3cm, with 3cm undermining at 8 o'clock. Tissue was composed of 70% granulation tissue, 15% slough, and 15% epithelial edge. V.A.C.® Therapy was continued.

Week 25
NPWT was discontinued in the community. The patient was transitioned to conventional dressings, including hydrofibre and adhesive foam.

Week 30
Two small ulcerations were noted [Figure 5]. Mild contact dermatitis was present but improved with emollient and topical corticosteroids. Conventional dressings continued.

Week 66
At outpatient review, complete wound healing was observed. The wound appeared healthy and well perfused [Figure 6].

Conclusion
This case illustrates the successful long-term management of a complex patient with critical limb ischaemia and multiple comorbidities, who initially presented with two separate wounds, a dehisced left groin wound and a closed above-knee amputation stump. Veraflo Therapy was initiated for the groin wound, while the stump was managed with conventional antimicrobial dressings.

At week 3, both wounds were surgically debrided and refashioned in theatre, resulting in the formation of a single large composite wound incorporating the groin and stump sites. This turning point necessitated a dynamic shift in wound management strategy.

The combined use of Veraflo Therapy and V.A.C.® Therapy facilitated wound cleansing, removed infectious materials and promoted wound healing, culminating in full closure over a 66-week period.

Clinicians reported that the Veraflo system was easy to use following training, with simple application and removal. The patient remained comfortable throughout treatment and expressed high satisfaction with the overall care.

CASE 3: Managing a thigh wound with necrotising fasciitis in a patient with uncontrolled diabetes

Author details: Carina Pimenta, Tissue Viability Specialist Nurse, The Princess Alexandra Hospital NHS Trust, Harlow, England

Patient presentation and history

- A 52-year-old woman presented with infected, ruptured boils on the inner **[Figure 1]** and middle right thigh, present for two weeks. She was diagnosed with necrotising fasciitis on admission.
- **Medical history:** Uncontrolled type 2 diabetes.

Wound presentation

- **Wound size:** 10cm (L) x 20cm (W).
- **Tissue composition:** Extensive erythema and slough, with thick, heavy, dark brown exudate. Surrounding skin was 50% healthy, 20% macerated, 30% blistered.

Treatment objectives

- To manage exudate, promote granulation tissue and reduce the need for recurrent surgical debridement.

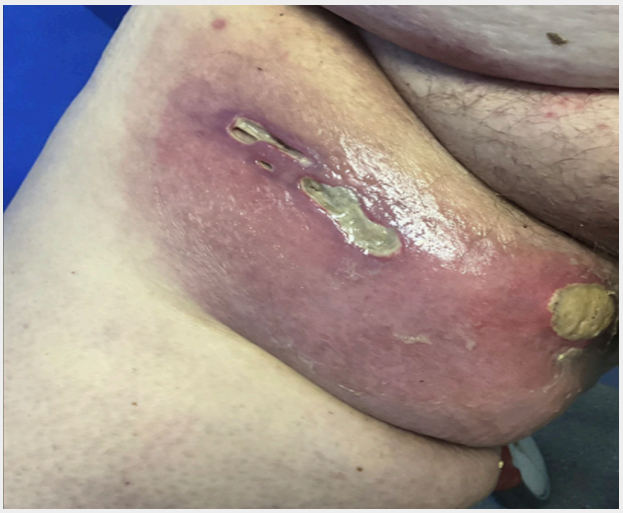

Figure 1. Initial presentation of ruptured boils on the inner right thigh.

Week 1

Extensive surgical debridement was performed. Post-debridement wound measurements:

- Inner thigh: 34cm x 20cm x 7cm
- Middle thigh: 10cm x 7cm x 5cm (8cm undermining)

V.A.C.® Ulta Therapy System (-125mmHg) was initiated using a silicone non-adherent contact layer placed directly over the wound bed to protect underlying structures such as exposed muscle, followed by the application of V.A.C.® Granufoam™ Dressing. The dressing was changed three days later, using multiple foam inserts, at which point a second debridement was carried out.

Week 2

A third debridement was performed **[Figure 2]**. A new smaller wound (3cm x 2cm x 3cm) developed on the inner thigh, though wound edges remained healthy. V.A.C.® Ulta Therapy System (-125mmHg) was reapplied; a full seal was achieved. The patient was stepped down from intensive care to the surgical ward.

Transition to Veraflo Therapy with Smart Instill Feature was considered to accelerate healing and reduce theatre visits.

Week 3

Minor maceration was noted and managed with Cavilon™ Advanced Skin Protectant before the next dressing change. Due to persistent slough and difficulty performing bedside dressing changes, the patient returned to theatre for wound irrigation and dressing application.

Week 4

Veraflo Therapy was initiated on the inner thigh (120ml saline, 10-minute dwell time every two hours at -125mmHg; **Figure 3A–B**). Veraflo Dressings were used, achieving a full seal.

Two days later, the dressing was changed, and Veraflo Therapy was reapplied with the same settings. Dressing changes were scheduled every three days. Wound beds appeared healthy, with 95% granulation tissue and 5% slough. Wound depth and size had reduced, and fewer foam inserts were needed.

Week 6

Minor maceration was managed with Cavilon™ No Sting Barrier Film. Veraflo Therapy (120ml saline, 10-minute dwell time every two hours at -125mmHg) was discontinued in preparation for rehabilitation. Both wounds were connected using a Y-connector and managed with V.A.C.® Ulta Therapy System (-125mmHg). Wounds continued to reduce in size **[Figure 4A–B]**.

Week 7

Delayed primary closure was performed on the middle thigh wound, with a drain inserted. The inner thigh wound remained open but continued to improve. V.A.C.® Ulta Therapy System

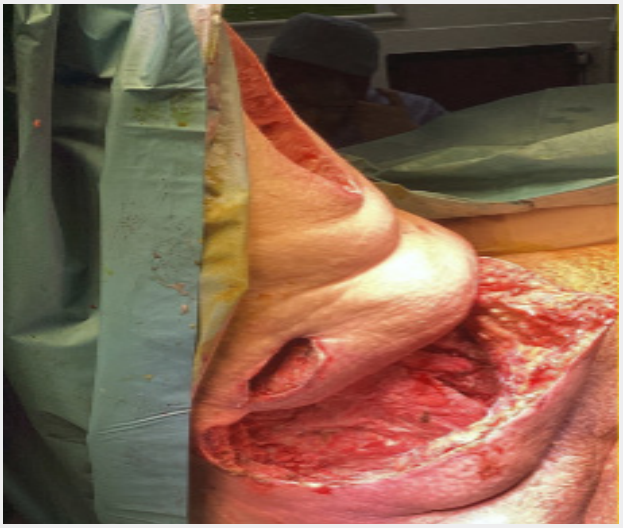

Figure 2. Week 2: Third debridement with onset of a new wound.

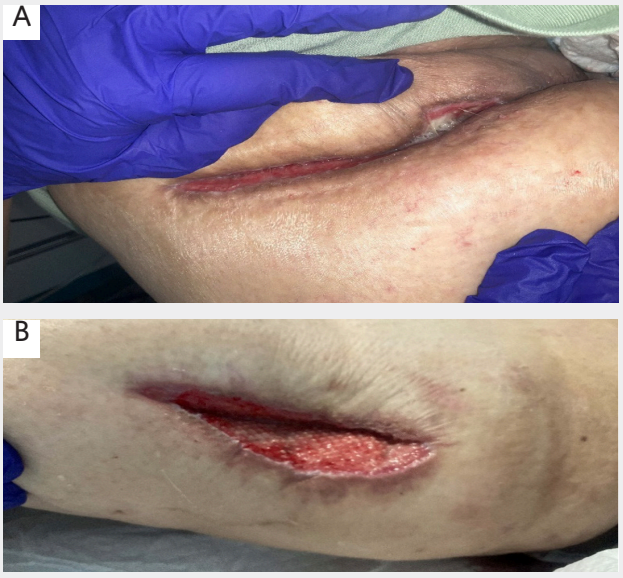

Figure 4. Week 6: (A) inner and (B) middle thigh wound.

was reapplied. The smaller third wound was sutured and covered with foam.

Week 9 review

The drain was removed, and the patient was medically fit for discharge but declined continued use of V.A.C.® Ulta Therapy System due to anxiety around managing the pump at home.

Conservative management was initiated with hydrofibre and foam dressings. Sutures were removed, and the patient was referred to district nursing services.

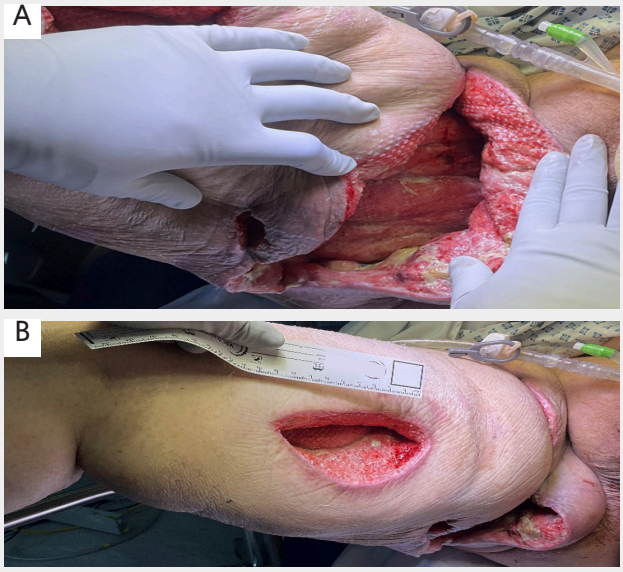

Figure 3. Week 4: (A) inner and (B) middle thigh wound.

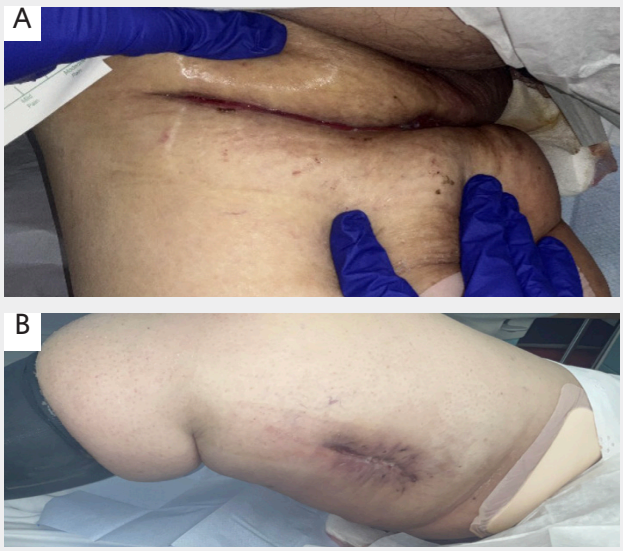

Figure 5. Week 9: (A) Inner thigh wound, reduced to 10cm x 4cm x 2cm and (B) middle thigh wound reduced to 10cm x 1cm.

- Inner thigh wound: 10cm x 4cm x 2cm **[Figure 5A]**
- Middle thigh wound: 10cm x 1cm **[Figure 5B]**

Conclusion

This case highlights the successful management of a wound with necrotising fasciitis in a patient with uncontrolled diabetes using surgical debridement and advanced NPWT. Veraflo Therapy with the Smart Instill Feature was reported to promote granulation tissue formation. Clinicians described the system as "excellent and easy to use."

CASE 4: Managing a trauma wound of the tibia

Author details: Tracy Belcher, Great Western Hospitals NHS Foundation Trust, Swindon, Wiltshire

Patient presentation and history

- A 79-year-old female presented with a post-operative traumatic wound to the left tibia [Figure 1].
- **Medical history:** Type 2 diabetes, kidney disease, atrial fibrillation and a history of three cerebrovascular accidents.

Wound presentation

- **Wound size:** 13cm (W) x 7cm (L) x 6cm (D).
- **Tissue composition:** 60% unhealthy granulation tissue, 20% haematoma, 20% exposed bone; moderate levels of haemoserous and serosanguineous fluid. Surrounding skin was 100% oedematous. Sutures and antibiotic beads were in situ.
- **Additional:** The patient was non-ambulatory, receiving intravenous antibiotics, and PURPOSE-T screening classified her as "at risk".

Treatment objectives

- Initiate Veraflo™ Therapy with the Smart Instill Feature with dressing changes scheduled every three days to promote granulation tissue over exposed tibial bone and manage exudate.

Week 1

Initiation of Veraflo Therapy was delayed due to a post-operative bleed that required vessel ligation. During this period, the wound was managed conservatively using medical-grade honey and Kerracel™ Gelling Fiber Dressing to debride the haematoma, while Adaptic Touch™ Dressing protected the exposed bone. Despite these measures, the haematoma darkened, bone exposure increased and unhealthy granulation tissue persisted. Conservative management continued until Veraflo Therapy could be safely initiated.

Week 2

The haematoma had decreased sufficiently to initiate Veraflo Therapy (26ml normal saline, 10-minute dwell time every two hours at -125mmHg; Figure 2) with Veraflo Cleanse Choice™ Dressing. Adaptic Touch™ Dressing was applied to protect the exposed tibial bone. Analgesia was administered prior to dressing changes.

Week 3

After one week of Veraflo Therapy (26ml normal saline, 10-minute dwell time every two hours at -125mmHg) with Veraflo Cleanse Choice™ Dressing, the wound reduced to 12cm x 7cm x 4cm. Granulation tissue had begun to form over the exposed tibial bone, and the haematoma was visibly breaking down. Dressing changes were scheduled every three days.

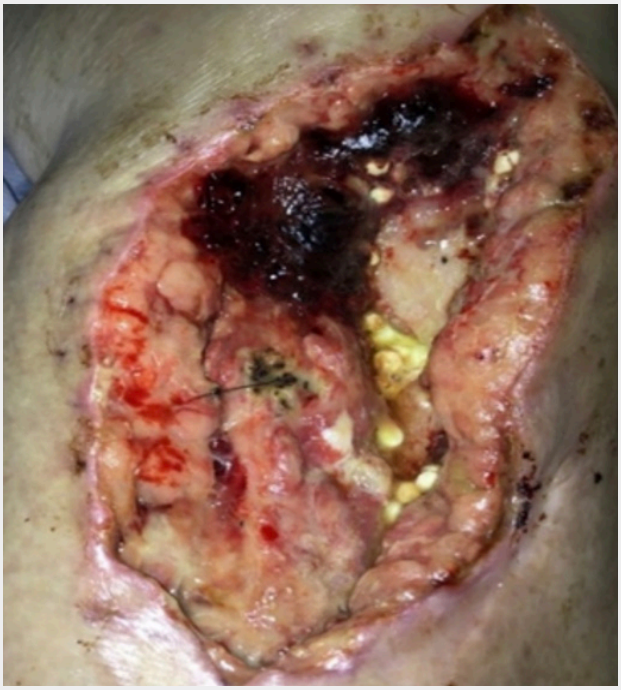

Figure 1. Initial wound presentation showing unhealthy granulation tissue, with exposed tibial bone, post-operative sutures, visible haematoma from surgical bleeding, and antibiotic-impregnated gentamicin beads present within the wound bed.

Week 4

At four weeks post-presentation (two weeks into Veraflo Therapy), the wound showed further improvement, measuring 11.5cm x 6.5cm x 3cm. Granulation tissue had formed over the previously exposed bone, which was no longer visible [Figure 3]. Dressing changes were scheduled every three days.

Week 5 review

By week five (three weeks into Veraflo Therapy), the wound had further reduced in size to 10cm x 5cm x 1cm. Healthy granulation tissue was present and the tibial bone was fully covered [Figure 4]. Veraflo Therapy was discontinued, and treatment transitioned to ActiV.A.C. Therapy System at -125mmHg with V.A.C.® Granufoam™ Dressing to support

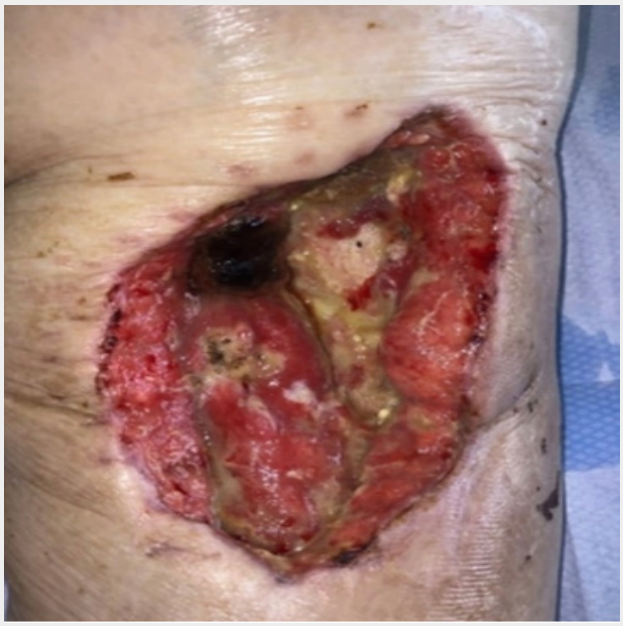

Figure 2. Week 2: Prior to initiation of Veraflo Therapy, showing minimal reduction in wound size.

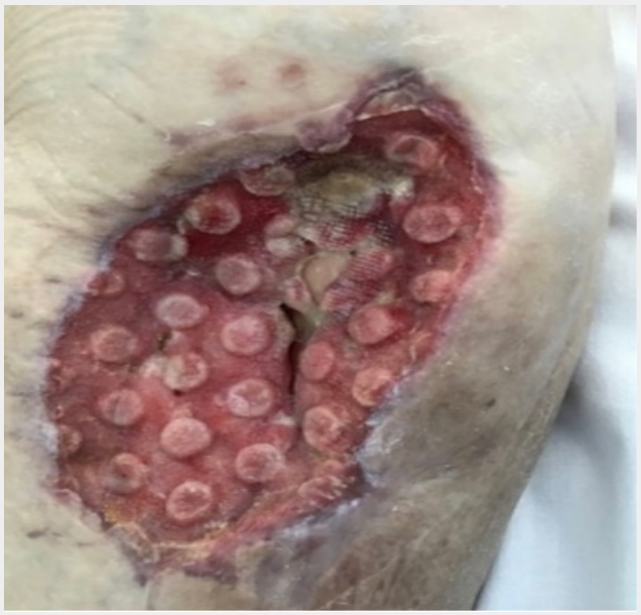

Figure 3. Week 4: two weeks of Veraflo Therapy, demonstrating granulation tissue formation over the previously exposed tibial bone with ongoing haematoma debridement.

tissue proliferation and wound closure. Dressing changes were scheduled every three days.

Conclusion

This case involved a complex post-operative wound with exposed bone, haematoma, oedema and moderate exudate in a patient with multiple comorbidities. Once initiated, Veraflo Therapy facilitated wound progression by promoting granulation, particularly over bone, and improving wound appearance.

The patient's condition steadily improved, enabling her to discontinue hoisting and begin rehabilitation. Both the patient and caregiver reported high satisfaction, describing the dressings as "extremely easy" to apply and remove. A 1L bag of normal saline was chosen to minimise bag changes. Normal saline was preferred over polyhexamethylene biguanide-containing solutions due to concerns regarding potential toxicity to bone and cartilage. The author noted that the Smart Instill Feature and 1-litre canisters were effective and straightforward to replace.

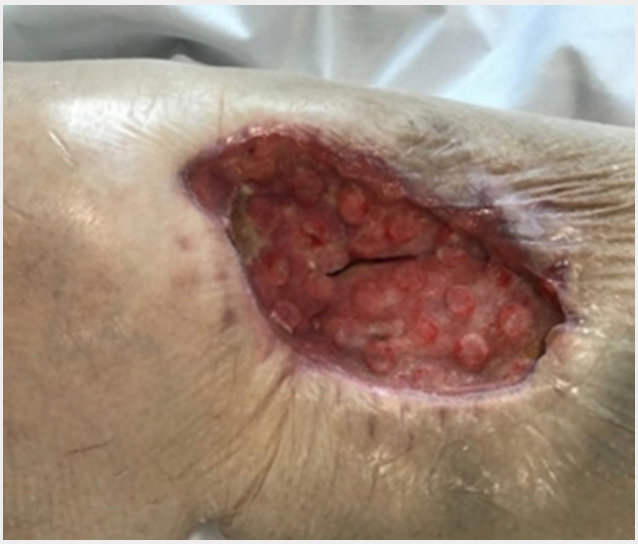

Figure 4. Week 5: three weeks of Veraflo Therapy, showing significant improvement with healthy granulation tissue now fully covering the tibial bone and marked reduction in wound depth and size.

CASE 5: Managing a groin and leg wound with necrotising fasciitis

Author details: Usha Sharma, Tissue Viability Specialist Nurse**; Mr Deepak Singh-Ranger,** Consultant Surgeon; Royal Wolverhampton NHS Trust, Wolverhampton

Patient presentation and history

- A 42-year-old male presented with right-sided groin pain. He was diagnosed with necrotising fasciitis extending from the groin to the thigh and leg [Figure 1A–B].
- **Medical history:** Insulin-dependent diabetes, elevated C-reactive protein (648mg/L), low albumin (12g/L).

Wound presentation

Urgent surgical intervention was required to preserve limb function. Within four days, the patient underwent three extensive debridement procedures, which exposed muscle, tendons and ligaments in the right groin and posterior knee. Between surgical interventions, initial wound care involved gelling fibre dressings, absorbent pads and bandages.

Treatment objectives

- Initiate Veraflo Therapy with the Smart Instill Feature to promote wound healing and help prevent further complications.

Week 1

Veraflo Therapy was initiated (250ml 0.9% saline, 12-minute dwell time every 4 hours at -125mmHg). Veraflo Cleanse Choice™ Dressing and Adaptic Touch™ Dressings were applied to protect exposed tendons and muscles. Dressing changes were scheduled every three days.

At the first dressing change, healthy granulation tissue was evident across all wound sites [Figure 2A–B]. Cavilon™ No Sting Barrier Film and hydrocolloid dressings were applied to the periwound area, and a stoma flange seal was fitted at the right groin. Dressing changes were carried out in theatre under patient-controlled analgesia. Adaptic Touch™ Dressing was used to protect exposed structures, with Veraflo Cleanse Choice™ Dressing layered on top.

By the end of the first week, further granulation tissue was observed. A single layer of Adaptic Touch™ Dressing was applied over exposed muscles and tendons, while a double layer was used over fully granulated areas to aid in the transition to standard NPWT.

Week 2

There was significant wound improvement. The lower leg wound had fully granulated to the surface, and the thigh/groin cavity continued to improve. Veraflo Therapy settings were adjusted to 200mL 0.9% saline, with the same dwell time and pressure.

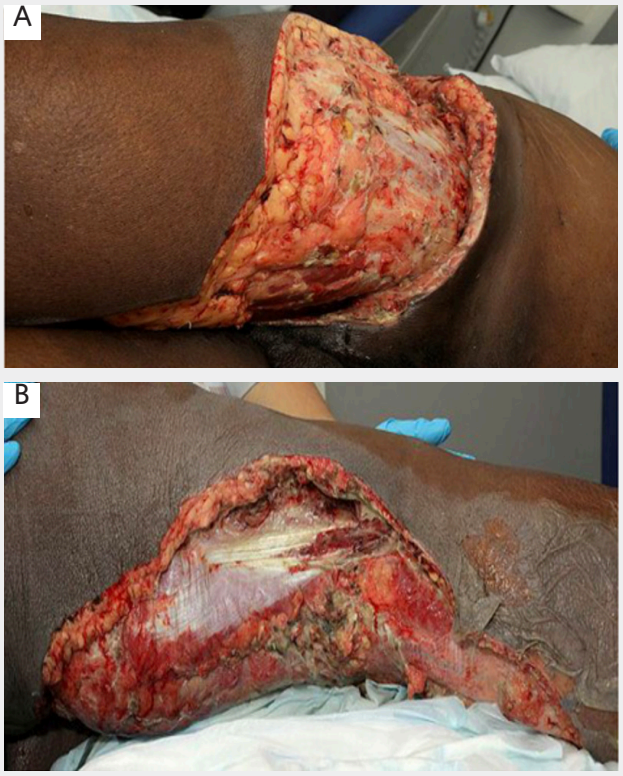

Figure 1. Post-second debridement of devitalised tissue at (A) right groin and (B) posterior knee.

Due to the large surface area, each dressing change took two hours and required a four-member clinical team.

Week 3

With continued granulation across both wounds [Figure 3A–B], the team transitioned from Veraflo Therapy to standard NPWT (V.A.C.® Therapy at -150mmHg). V.A.C.® Granufoam™ Dressing was applied over granulated areas, while Adaptic Touch™ Dressing protected any remaining exposed tendons.

The patient was referred to the plastics team for skin graft preparation. He was transferred to a specialist unit, where V.A.C.® Therapy was continued at -125mmHg with V.A.C.® Granufoam™ Dressing, and oxycodone was prescribed for ongoing pain management.

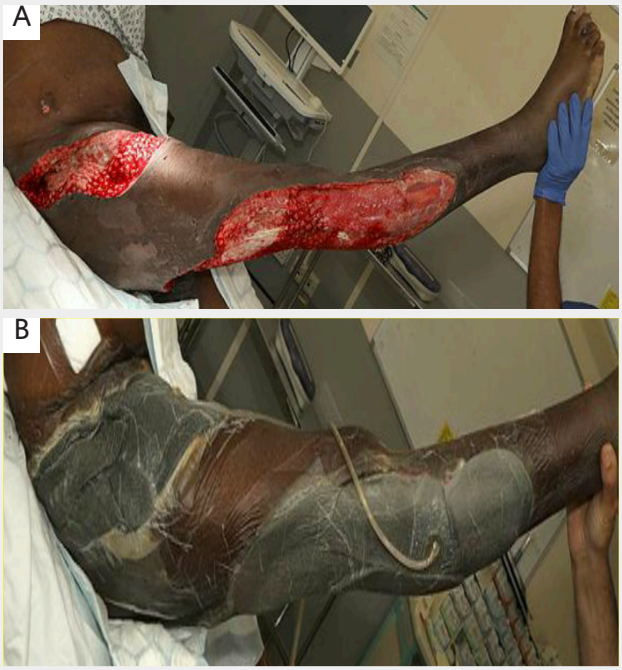

Figure 2. (A) Pre- and (B) post-application of Veraflo Cleanse Choice™ Dressing across the groin and leg regions.

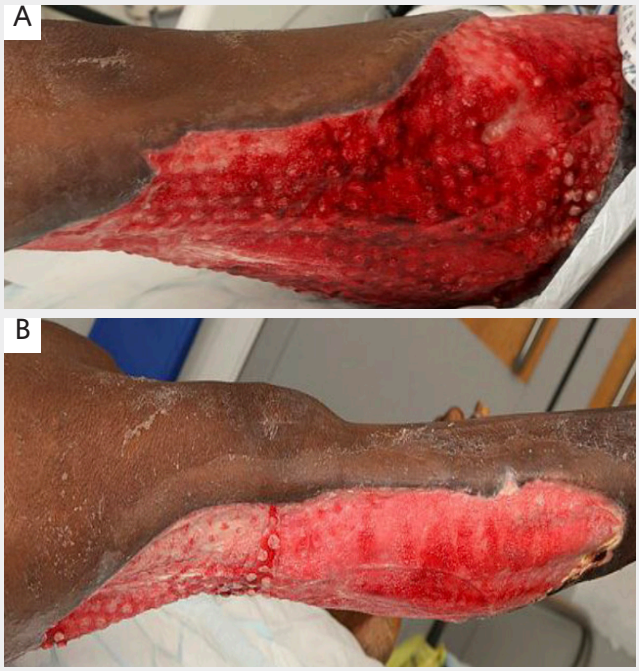

Figure 3. Week 3: (A) Right groin and (B) posterior knee demonstrating significant granulation tissue formation across all

Week 4

Skin grafting was completed with a 90% graft take. Areas near the groin and posterior knee required ongoing dressing support. The patient attended physiotherapy and regained mobility using a walking stick.

Week 45

At follow-up, all wounds had fully healed with successful graft take and good functional outcomes [Figure 4A–B].

Conclusion

This case highlights the use of Veraflo Therapy in the early phase of managing a wound with necrotising fasciitis in a patient with significant comorbidities. The clinicians reported that Veraflo Therapy and subsequent V.A.C.® Therapy were instrumental in helping to prevent limb amputation. No further surgical debridement was required after V.A.C.® Therapy. The patient was satisfied with the therapy and reported comfort throughout dressing application and removal, aided by adequate analgesia.

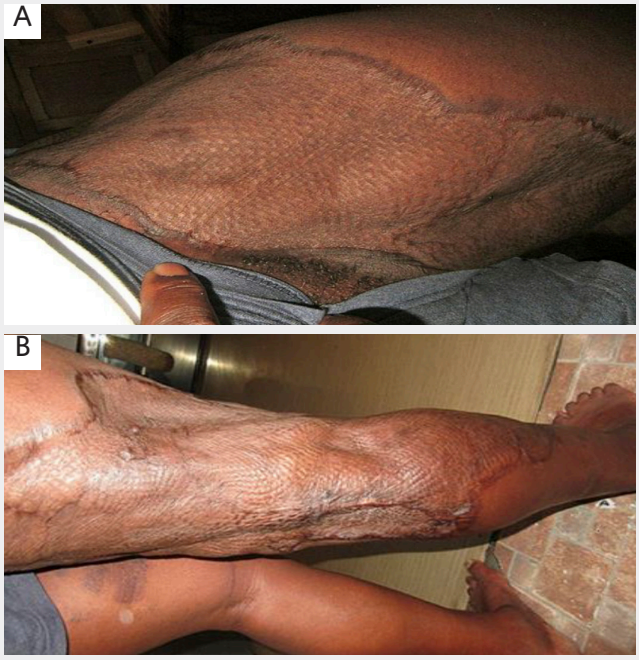

Figure 4. Week 45 follow-up: (A) Right groin and (B) posterior knee showing complete wound closure with healthy skin regeneration following skin grafting.

CASE 6: Managing a post-operative surgical wound of an infected hip prosthesis

Author details: Victoria Williams, Trainee Advanced Nurse Practitioner, Trauma and Orthopaedics, Morriston General Hospital, Swansea, Wales

Patient presentation and history

- A 53-year-old male presented with a four-day history of right hip pain, swelling and surrounding erythema, five weeks after a total hip replacement.
- The patient underwent five surgical procedures, including washouts, debridement, antibiotic therapy with implant retention and standard NPWT (V.A.C.® Therapy), in an attempt to control the confirmed prosthetic joint infection. Despite these interventions, the infection persisted.

Wound presentation (post-surgical opening)

- **Wound size:** 13cm (W) x 7cm (L) x 6cm (D).
- **Tissue composition:** 20% slough, 80% granulation tissue. Moderate to heavy serosanguinous, yellow/pale red purulent fluid.
- **Microbiology:** Confirmed polymicrobial periprosthetic joint infection including *Staphylococcus haemolyticus*, *Staphylococcus capitis*, *Enterococcus faecium* (VRE) and *Candida* species.
- **Antibiotics:** Broad and frequently adjusted antimicrobial therapy included vancomycin, meropenem, daptomycin, amphotericin B, caspofungin was administered for approximately 40 weeks.

Treatment objectives

- Initiate Veraflo Therapy with the Smart Instill Feature to promote wound healing.

Week 1 (13 weeks post-op)

At 13 weeks post-hip replacement, MRI revealed fluid collections in the right hip. The wound remained infected [Figure 1] and was surgically reopened that day. A washout revealed a large volume of brown fluid, necrotic tissue, pus and an old haematoma.

Day 1: V.A.C.® Therapy was applied postoperatively.

Day 5: The patient returned to theatre for further debridement due to ongoing drainage. V.A.C.® Therapy was discontinued and Veraflo Therapy (150ml betaine/polyhexanide solution, 15-minute dwell time every 4 hours at -125mmHg) was initiated. Two Veraflo Cleanse™ Dressings were applied to address undermining and tunnelling, with a large Veraflo black foam Dressing placed on top.

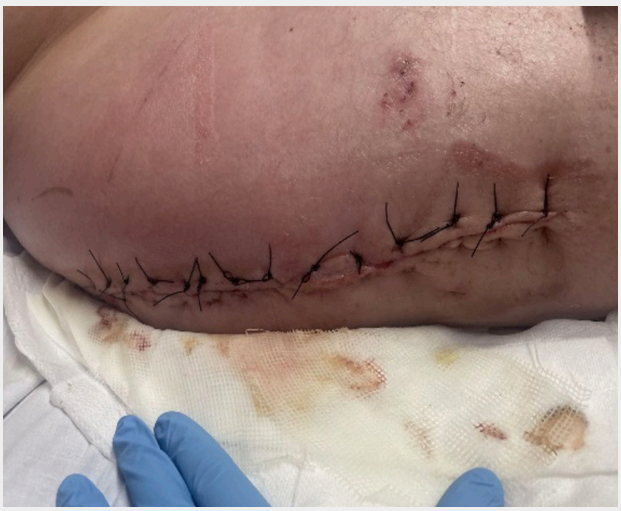

Figure 1. Infected surgical wound at the right hip, showing erythema 13 weeks post-hip replacement.

Week 2

Veraflo Therapy continued on the ward with two routine dressing changes. The wound showed progressive improvement with healthy granulation tissue. High exudate remained in the canister; the clinical team opted to continue Veraflo Therapy [Figure 2].

Day 9: Wound margins appeared healthier, and exudate levels were reducing [Figure 3]. Due to increased patient-reported pain, the negative pressure setting was lowered.

With continued improvement, the clinical team discontinued Veraflo Therapy in preparation for surgical closure. The patient subsequently underwent a final wound washout and closure, followed by the application of standard NPWT and foam bolstering over the closed incision.

Week 4

After one week of NPWT use post-closure, the patient was discharged with NPWT still in place. Clinic follow-up was arranged to monitor wound progression and modify therapy as needed, with dressing changed every 72 hours.

Week 7

The patient was readmitted with signs of sepsis due to

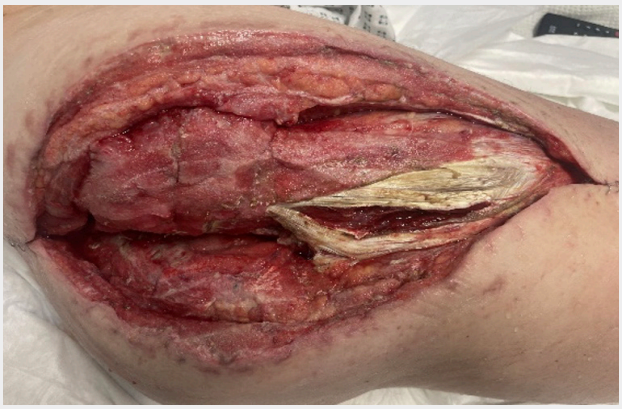

Figure 2. Wound condition showing a healthier wound bed with granulating tissue following application of Veraflo Therapy and recent washout and debridement.

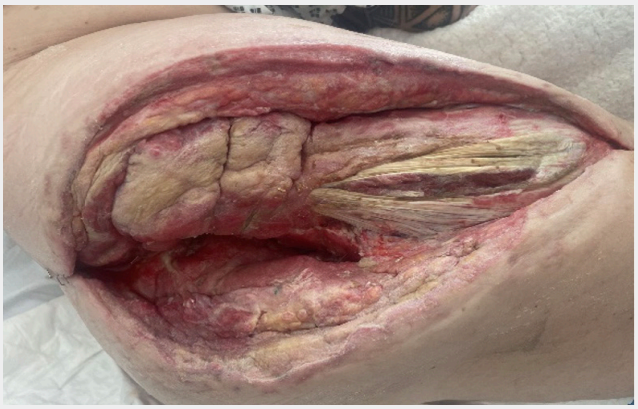

Figure 3. Day 9: Drier granulating tissue, improved wound margins, and healthier surrounding skin.

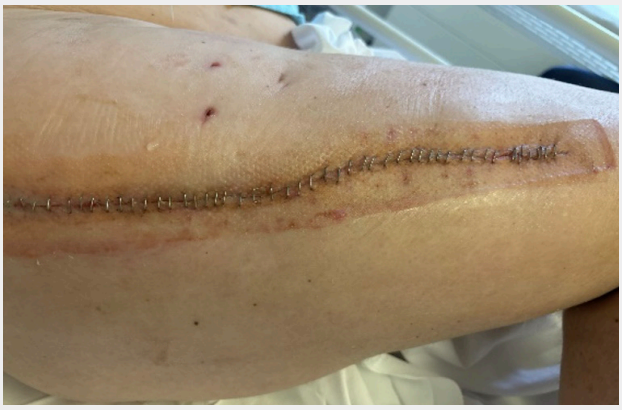

Figure 4. Week 7: Postoperative wound closure following radical debridement during readmission.

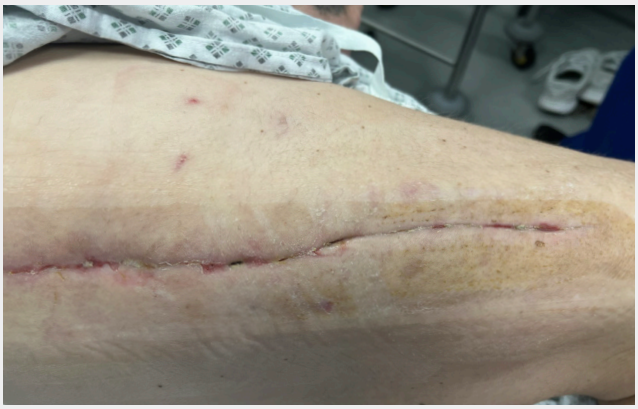

Figure 5. Final wound appearance post-discharge, showing intact skin and closure prior to standard adhesive dressing application.

wound reinfection. Theatre findings revealed a seroma and an infected membrane. Radical debridement was performed, the wound was reclosed **[Figure 4]** and standard NPWT was applied over the closed incision along with two surgical drains.

Week 10

The patient was discharged home with standard NPWT still in place and remained on antimicrobial therapy.

As the wound improved, with reduced depth and exudate, a structured step-down approach to dressings was introduced:

- Closed incision NPWT was used first to allow for extended wear (up to 7 days) and fewer dressing changes while maintaining a moist healing environment
- Single-use NPWT followed once the wound produced minimal exudate, offering portable support during the transition to ambulatory care
- Standard adhesive dressings were used once the wound was dry and intact. Surgical clips were removed at this point **[Figure 5]**.

Conclusion

Veraflo Therapy was effective in managing this complex, infected surgical wound by promoting granulation, reducing exudate, and enabling surgical closure. Despite the complexity of the case, including multiple interventions, multidisciplinary care and a structured wound management approach contributed to recovery.

CASE 7: Managing a complex diabetic foot ulcer with deep tissue involvement

Author details: Zeadia Bruce, Khadijah Nazir Salim, Deborah Ruff, Northern Care Alliance NHS Foundation Trust, Oldham, Greater Manchester

Patient presentation and history

- A 43-year-old male presented with sepsis secondary to a diabetic foot ulcer located on the dorsal and plantar surfaces [Figure 1A–B], three days post-surgical debridement
- **Medical history:** Type 2 diabetes, peripheral arterial disease, peripheral neuropathy and hyperglycaemia.
- The ulcer severely affected the patient's life, causing absence from work, income loss and anxiety about potential amputation.

Wound presentation

- **Wound size:** 15cm (W) x 3.5cm (L) x 8cm (D).
- **Tissue composition:** 40% granulation tissue, 30% adipose tissue, 20% tendon, 10% bone. The wound was heavily saturated with red/brown haemoserous fluid.
- **Microbiology:** A tissue sample taken pre-treatment indicated moderate growth of Group B haemolytic Streptococcus and mixed skin flora. The isolate was sensitive to erythromycin, penicillin, clindamycin and co-trimoxazole, but resistant to doxycycline.

Treatment objectives

- Initiate Veraflo Therapy with the Smart Instill Feature, with dressing changes scheduled every three days to irrigate wound, remove infectious materials and promote wound healing.

Week 1

V.A.C.® Ulta Therapy System was initiated (14ml 0.9% saline, 10-minute dwell time every 3.5 hours at -125mmHg) with Veraflo Dressing, with a silicone-impregnated atraumatic wound contact layer beneath to protect the exposed tendon/bone. The periwound area was protected with V.A.C.® Drape and Cavilon™ No Sting Barrier Film. A V.A.C.® Granufoam™ Dressing was placed beneath a dorsally positioned SensaT.R.A.C.™ Pad. The patient was advised to remain in bed during instillation cycles.

Three days later, the wound had reduced in depth: 14.5cm x 3.2cm (dorsal) x 3.7cm (plantar) x 0.4cm (depth). Tissue was composed of 50% granulation tissue, 30% slough, 20% tendon [Figure 2A–C]. A hydrofibre dressing was used to protect the macerated skin edges and facilitate an effective seal with the V.A.C.® Drape.

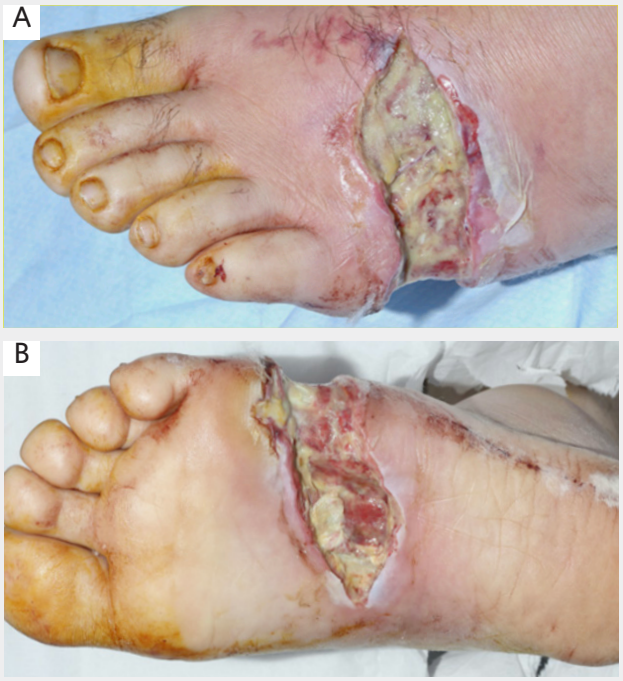

Figure 1. (A) dorsal and (B) plantar views of ulcer on presentation.

Week 2

The wound measured 14cm x 3.5cm x 0.2cm, with 60% granulation, 20% slough, 20% tendon [Figure 3A–C]. The periwound was again protected with Cavilon™ No Sting Barrier Film.

Veraflo Therapy was discontinued after two weeks, and standard NPWT (V.A.C.® Therapy; -125mmHg low continuous pressure) was commenced. The periwound area was again protected with Cavilon™ No Sting Barrier Film, with edges picture-framed with V.A.C.® Drape. The wound bed was lined with an atraumatic silicone wound contact layer, and a Granufoam™ Dressing was applied and bridged to the dorsum of the foot. Therapy was maintained at -125 mmHg, low continuous pressure.

Week 5

After four weeks of V.A.C.® Therapy, the wound measured 14cm x 2cm, with 70% granulation tissue and 30% slough. V.A.C.® Therapy was discontinued, and care was transferred to the community team. Management included cleansing with a betaine/polyhexanide solution, hydrofibre dressings with silver to reduce bacterial burden given the recent

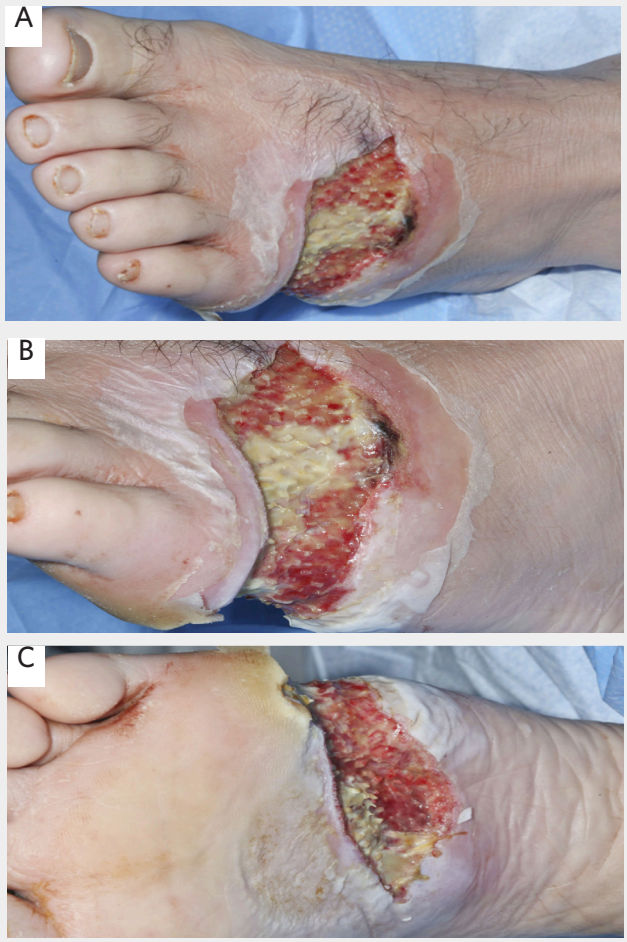

Figure 2. Three days after initiation of Veraflo Therapy: (A) and (B) dorsal views; (C) plantar view of the ulcer, showing a visible reduction in slough and increased granulation tissue.

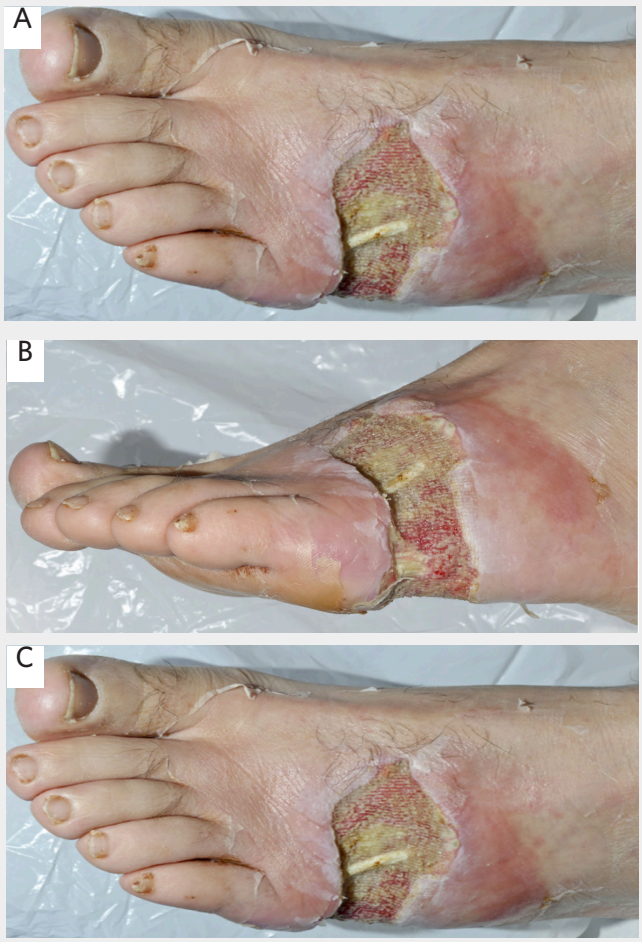

Figure 3. Week 2: (A) dorsal view; (B) and (C) plantar views of ulcer. The wound demonstrates 60% granulation tissue and reduced slough, indicating readiness for transition to V.A.C.® Therapy.

infection, and an absorbent dressing pad to manage exudate.

Conclusion

This complex diabetic foot ulcer involved deep tissue structures and heavy exudate but responded well to treatment. Veraflo Therapy provided effective wound cleansing and granulation stimulation, contributing to rapid reduction in depth and slough. The patient, who initially feared amputation, felt reassured by the secure dressing seal and visible progress. Clinicians reported high satisfaction, noting that in infected or complex wounds requiring enhanced cleansing, Veraflo Therapy provided additional wound bed preparation support when V.A.C.® Therapy alone was not sufficient, while systemic antibiotics addressed the underlying infection. See **Figure 4** for a follow-up image at 26 weeks, showing complete healing.

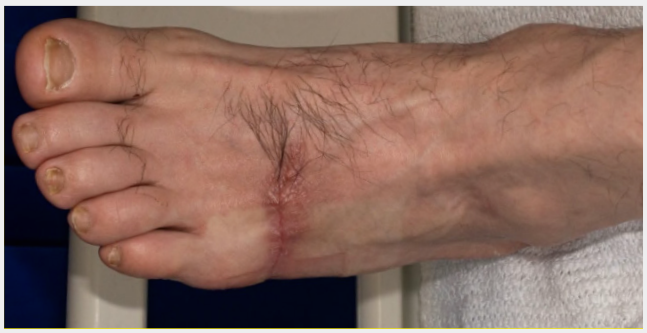

Figure 4. Week 26: Wound demonstrating complete healing.

CASE 8: Managing a chronic category 4 pressure ulcer

Author details: Chris Paton, Tissue Viability Clinical Nurse Specialist, Salisbury NHS Foundation Trust, England

Patient presentation and history

- A 52-year-old male initially developed a category 4 pressure ulcer over the pelvic region [Figure 1A]. A second ulcer formed nearby; the two eventually merged into a single, extensive chronic wound [Figure 1B].
- **Medical history:** Complete spinal cord injury at T8, type 2 diabetes, chronic osteomyelitis, hypoalbuminaemia. The patient was a permanent wheelchair user and had been on complete bed rest for 6–8 months.
- Prior to referral, multiple interventions, including conventional NPWT, larval therapy, silver-based dressings and debriding gels, had been unsuccessful.
- Following presentation, the patient was discharged to community care due to early COVID-19 restrictions. However, he was later re-admitted with sepsis, wound infection and further wound breakdown.

Wound presentation

- **Wound size:** 40cm (W) x 25cm (L) x 18cm (D).
- **Tissue composition:** 30% necrotic tissue, 10% granulation tissue, 5% slough and 55% exposed bone (pelvis and femur). Extensive tissue loss caused visible flattening of the buttock on lateral view. The periwound area was 30% healthy, 30% erythematous, 30% unhealthy and 10% macerated. The wound was heavily saturated with watery, serosanguineous fluid.
- **Additional:** Biofilm was suspected; MRI confirmed chronic osteomyelitis, which was managed with a 6-week-plus course of antibiotics.

Treatment objectives

- Initiate Veraflo Therapy with the Smart Instill Feature with dressing changes scheduled every three days to irrigate wound, remove infectious materials and promote wound healing.

Week 1

Approximately seven months after initial presentation, and following multiple unsuccessful interventions, active treatment was initiated with Veraflo Therapy (60ml 0.9% saline, 10-minute dwell time every 2 hours at -125mmHg) and two large Veraflo Cleanse Choice™ Dressings. Exudate containment improved markedly with no leakage. The patient was nursed on alternating sides to offload.

Weeks 2–3

Veraflo Therapy continued to promote wound healing with Adaptic Touch™ Dressing used as an interface over exposed bone and when the catheter was exposed to minimise trauma. Erythema and maceration in the periwound area decreased.

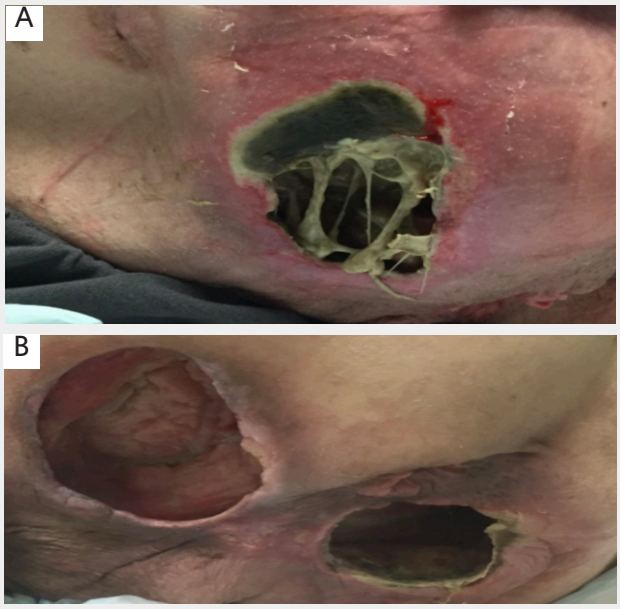

Figure 1. (A) Initial presentation of the category 4 pressure ulcer over the pelvic region, showing visible necrotic tissue; (B) subsequent development of a second ulcer nearby.

Week 4

Following systemic optimisation, the patient underwent surgical debridement of necrotic bone [Figure 2A–B].

Week 6

A suprapubic catheter was inserted to divert urinary flow away from the eroded urethral area. Veraflo Therapy continued post-procedure [Figure 3].

Week 8

Veraflo Therapy was discontinued, and treatment was transitioned to V.A.C.® Ulta Therapy System and V.A.C.® Granufoam™ Dressing at -125mmHg with Adaptic Touch™ Dressing to stabilise the surgical site. Healthy granulation tissue increased to 25% [Figure 4].

Week 27

V.A.C.® Ulta Therapy System was continued in the community. Significant reduction in wound size and tissue contraction was observed [Figure 5].

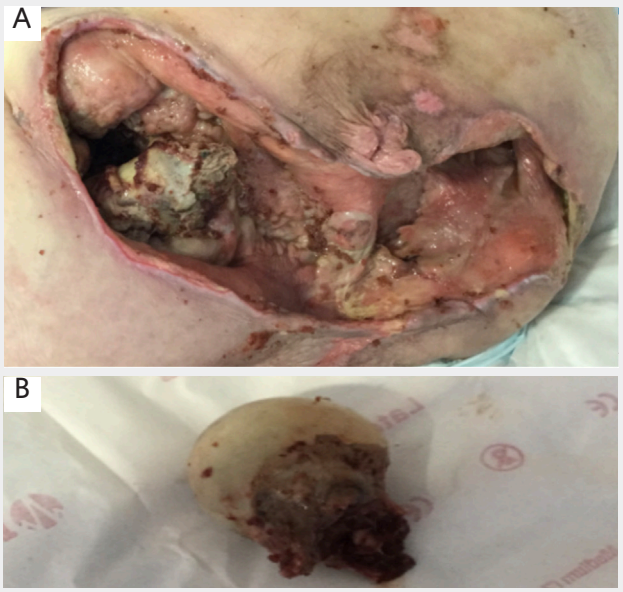

Figure 2. Week 4: The two ulcers had merged into a single extensive wound. (A) Post-surgical debridement showing removal of (B) necrotic bone.

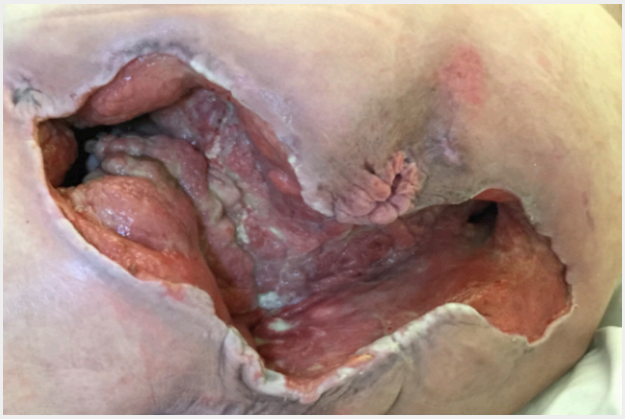

Figure 4. Week 8: Wound progression during V.A.C.® Ulta Therapy System. Granulation tissue increased to approximately 25%.

Week 31

The patient underwent a rotation flap procedure performed by the plastic surgery team to close the wound [Figure 6]. Postoperatively, the V.A.C. Therapy System was applied over the flap incision sites to stabilise the surgical site and reduce the risk of dehiscence.

Conclusion

Veraflo Therapy followed by V.A.C.® Ulta Therapy System supported wound healing of a category 4 pressure ulcer in a spinal cord injury patient. The therapies provided wound cleansing and wound management. The patient reported improved comfort, noting that the sealed system made him feel "protected." Dressing frequency was significantly reduced, from more than 10 changes per day to just three per week, improving patient experience and clinical efficiency.

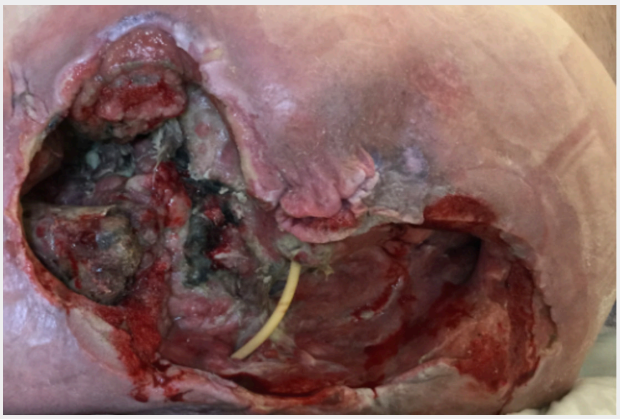

Figure 3. Week 6: Post-catheterisation wound appearance.

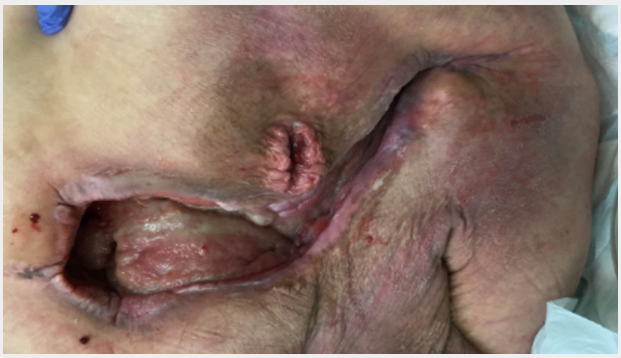

Figure 5. Week 27: Continued use of V.A.C.® Ulta Therapy System in the community. Significant reduction in wound dimensions observed, with sustained granulation and tissue contraction.

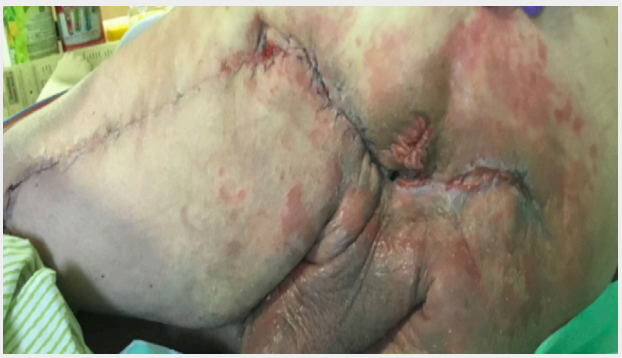

Figure 6. Week 31: Postoperative view following rotation flap closure.