solventum

Solventum™ Veraflo™ Therapy

Discover how early initiation of Veraflo Therapy can support your patients' wound healing journey

Delayed healing and wound complications are a significant care and cost burden

40%
of all wounds are infected or critically colonized.[1]

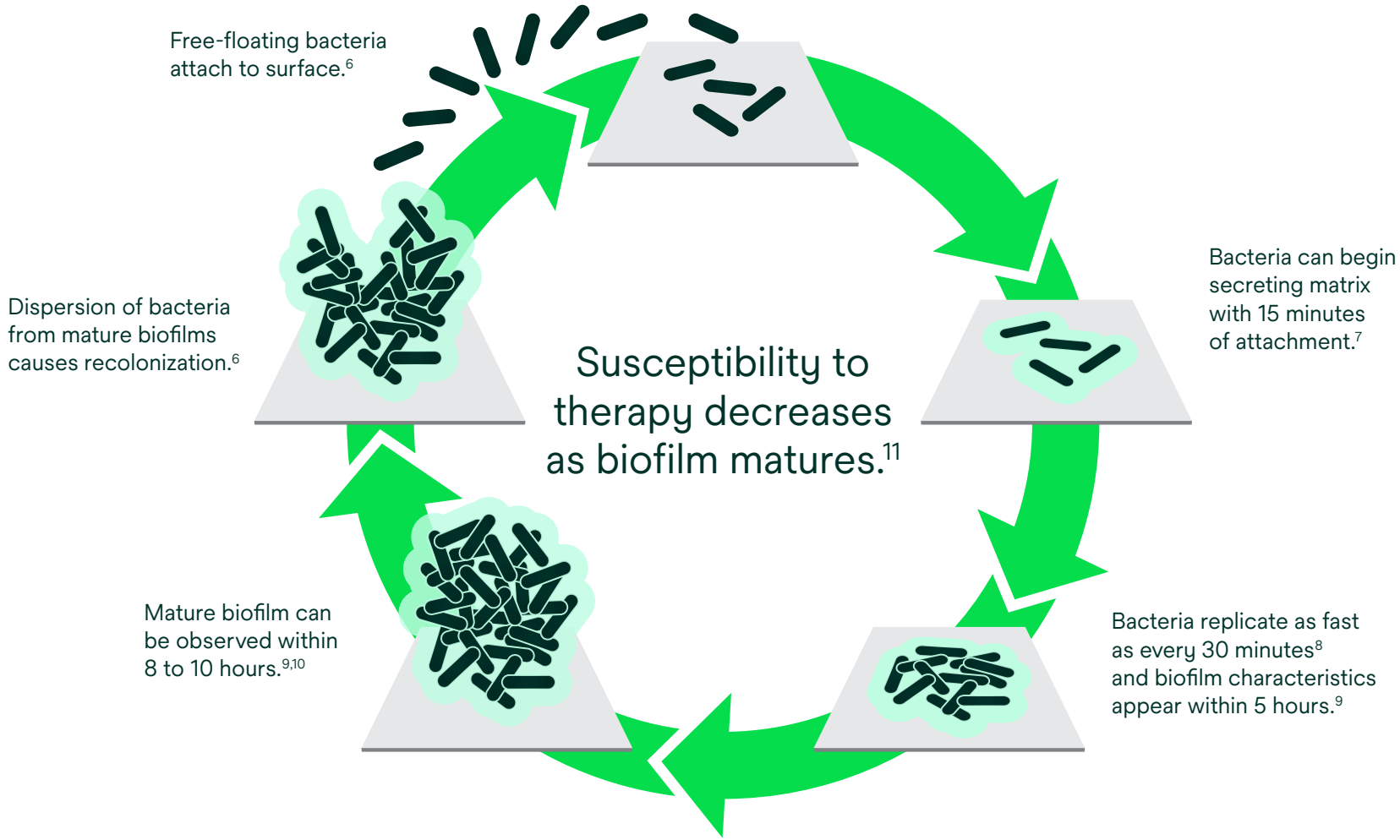
In the average 500-bed hospital, infected wounds can add 9.58 days in excess length of stay and $38,656 in excess charges.[2]

Costs are expected to increase even more as the population ages and the incidence of comorbid conditions that give rise to wounds increases.[3]

A smart start to managing bioburden

The number of microorganisms with which an object is contaminated is referred to as the bioburden.[4]

Bioburden formation is commonly considered to occur in five main stages:[5]



Veraflo Therapy helps manage bioburden through repeated cleansing cycles

Cleanse

Delivers topical wound solutions that dwell in the wound to help dilute and solubilize infectious material.[12]

Remove

Removes solubilized wound debris and infectious materials under negative pressure to lower bioburden.[13]

Promote

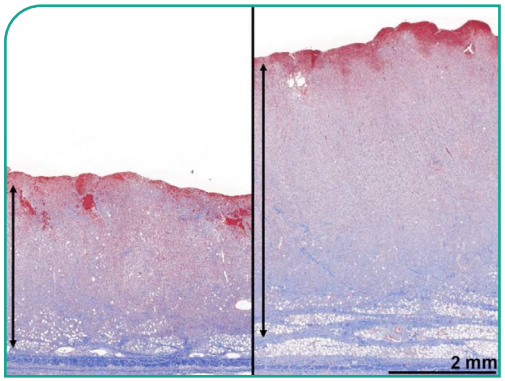
Promotes granulation tissue formation and perfusion to prepare the wound for closure.[14]

Veraflo Therapy: Shown to promote granulation tissue formation in a porcine model

A significant increase in granulation thickness

43%*

(p=0.05)



Histological images from a porcine study showed a 43% increase in granulation tissue thickness between Solventum™ V.A.C.® Therapy with the Solventum™ V.A.C.® Granufoam™ Dressing (left) and Veraflo Therapy with the Solventum™ Veraflo™ Dressing (right) after 7 days of therapy.[15]

*Shown to promote granulation tissue formation in porcine studies.

Veraflo Therapy mechanism of action

Veraflo Therapy provides automated topical wound solution instillation, dwell and removal to repetitively cleanse wounds while providing the benefits of negative pressure wound therapy. It facilitates the removal of wound exudate and infectious material.

Instillation and dwell phases

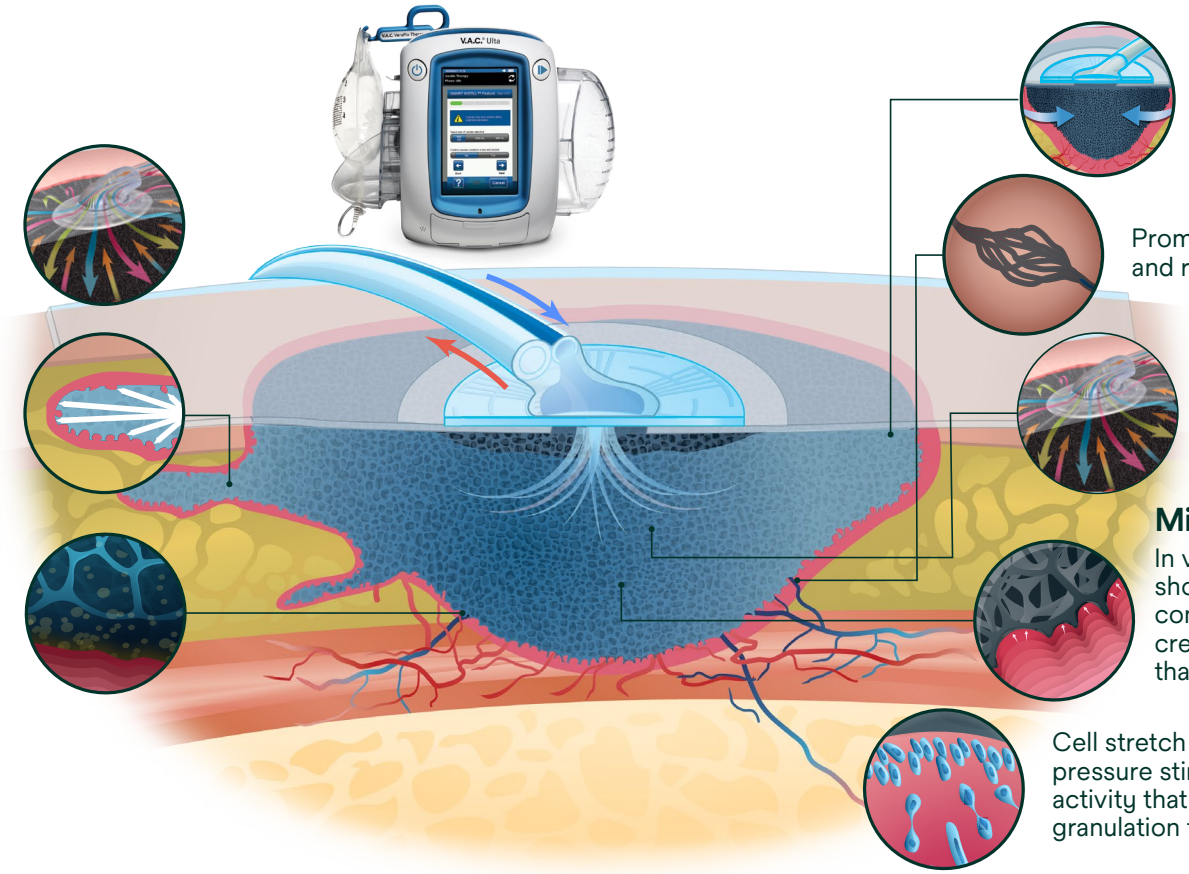
Solution instillation

Cleanses wound with cyclic delivery, dwell and removal of topical wound solutions

Provides thorough wound coverage with topical solution during selected dwell time[37]

Solution dwell

Dilutes and solubilizes infectious material and wound debris



V.A.C.® Therapy phase

Macrostain

Draws wound edges together

Promotes perfusion and reduces edema

Removes exudate and infectious material

Microstain

In vitro/in vivo studies show that foam contact with tissue creates micro-deformation that leads to cell stretch[1,2]

Cell stretch under negative pressure stimulates cellular activity that results in granulation tissue formation[3]

Solventum™ Veraflo Cleanse Choice™ Dressing has the first-ever indication for hydromechanical extraction of non-viable tissue

Veraflo Therapy, with Veraflo Cleanse Choice Dressing, is now indicated for hydromechanical removal of infectious materials, non-viable tissue and wound debris which reduces the number of surgical debridements required, while promoting granulation tissue formation, creating an environment that promotes wound healing.

- Extracts non-viable tissue
- Removes infectious material and wound debris
- Reduces the number of surgical debridements required
- Promotes granulation tissue formation

Clinical results: Teot, 2017[1]

Settings: normal saline instilled every 3-5 hours, dwell time 10 minutes, negative pressure -125 mmHg, dressings changed every 3 days.

Note: no debridement performed during dressing changes.

1. Teot L., Boissiere F., Fluieraru, S. Novel foam dressing using negative pressure wound therapy with instillation to remove thick exudate Int Wound J. 2017; 10:1111/iwj.12719.

Veraflo Therapy when used with Veraflo Cleanse Choice Dressing can help:

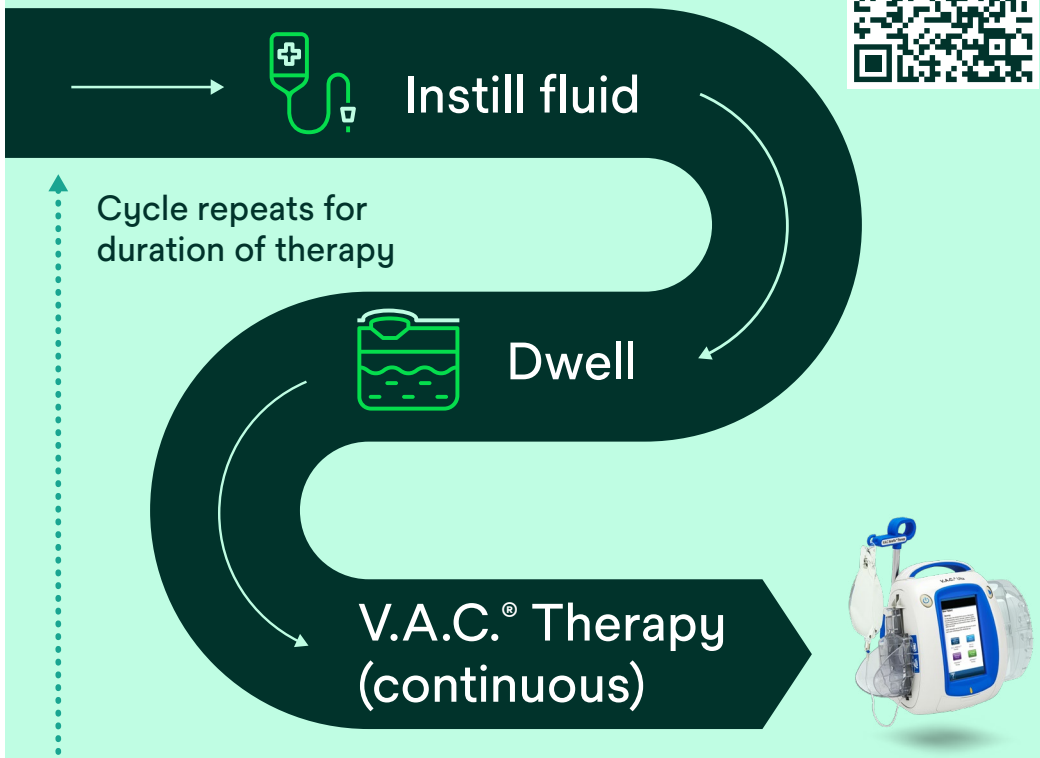
Soften

Separate

Solubilize

Instillation and dwell cycle help to soften, separate, and solubilize thick wound exudate and non-viable tissue.[12]

Veraflo Therapy (NPWTi-d)



Veraflo Therapy combines the benefits of V.A.C.® Therapy with an instillation therapy option featuring both **automated volumetric delivery** of topical wound treatment solutions with a **programmable soak feature**, which allows solution to dwell in the wound for thorough contact.

Veraflo Therapy has demonstrated positive clinical outcomes over standard of care, including traditional NPWT[16]

A systematic review of comparative studies and meta-analysis[16] evaluated the performance of Veraflo Therapy versus control in 13 studies and 720 patients with various wound types. Results of the analysis revealed Veraflo Therapy delivered significant advantages over standard of care.

>30%

fewer surgical debridements[16,17]

(1.77 debridements vs 2.69, p=0.008)

>2x

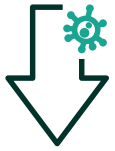
Wounds were 2.39 times more likely to close[16]

(p=0.01)

>50%

reduced length of therapy[16,17]

(9.88 days vs 21.8 days, p=0.02)



reduced bacterial count from baseline[16]

(Odds were 4.4 times greater p=0.003)

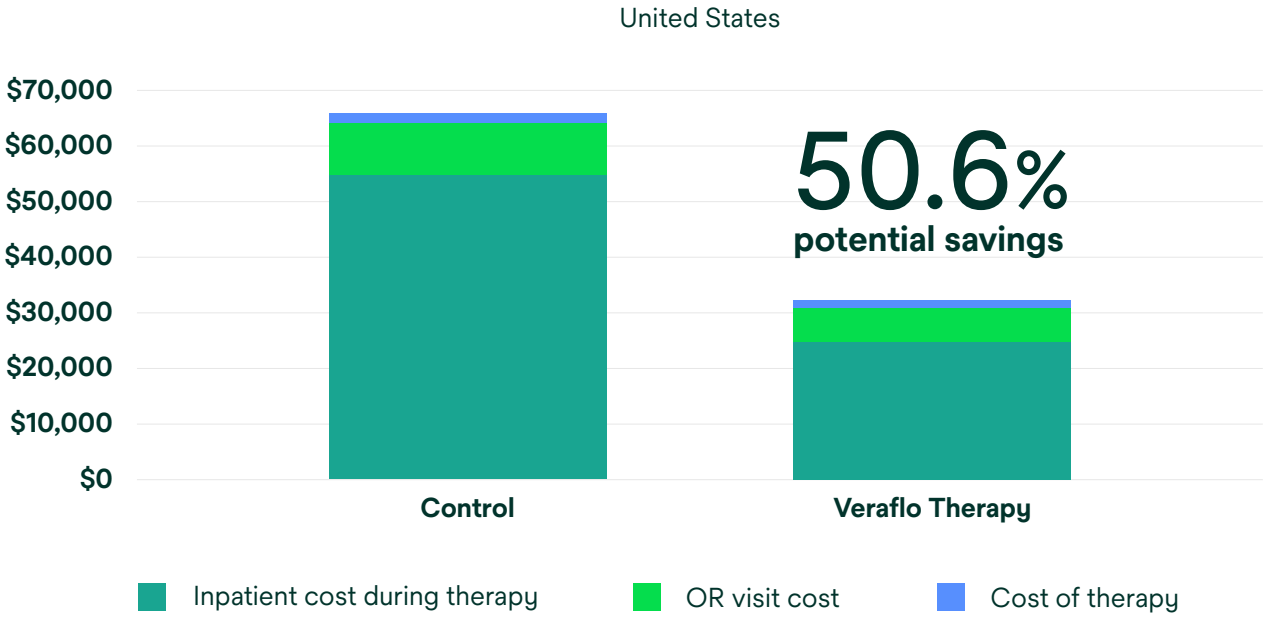
Ready for closure almost **twice as fast**[16,17]

(7.88 days vs 14.36 days, p=0.003)

Use of Veraflo Therapy can potentially reduce costs versus standard of care

Based upon the meta-analysis by Allen Gabriel, MD et al. an economic model[16] was developed to compare the cost of using Veraflo Therapy to traditional wound care options, including V.A.C.® Therapy.

Despite the higher therapy cost of Veraflo Therapy, the reduction in therapy time and required OR visits resulted in a potential savings of 50%, or up to $33,337 per patient.[17]



$33,337

in savings per patient

Overall potential cost saving with NPWTi versus control based on fewer OR visits and shorter therapy.

Note: The model uses select study data to provide an illustration of estimates of costs for use. This model is an illustration and not a guarantee of actual individual costs, savings, outcomes, or results. Savings may not be typical and may vary.

Help give your patients the best chance to heal

Veraflo Therapy significantly outperforms traditional dressings[24]

Faster closures, fewer surgeries—better outcomes

In a randomized controlled trial of 120 patients with traumatic wounds* conducted at Hospital das Clínicas de São Paulo, it was shown that Veraflo Therapy can improve patient outcomes in acute complex traumatic wounds.

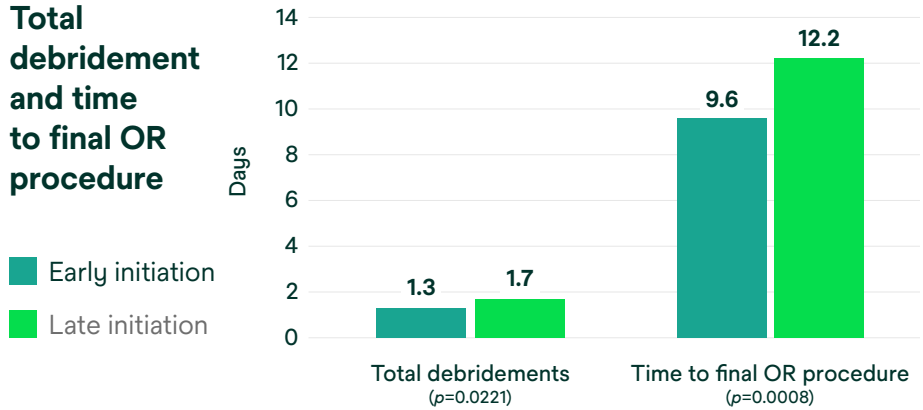
Traditional care group (n=40)		NPWTi-d Group (n=39)	
Traditional care — gauze layer dressing		**NPWT with instillation and dwell (NPWTi-d)**	
11.7 days wound closure time	VS	**6.1 days** wound closure time	Shorter time to wound closure (p<0.001) **48%** ▼
6.2 surgical procedures		**3.0** surgical procedures	Fewer number of surgical procedures (p<0.001) **51%** ▼
Dressing change: 24-48 hours		Normal saline 0.9% instilled every 2 hrs with 20 minute dwell time at -125 mmHg; surgical debridement and dressing changes every 3 days	

Can the timing of Veraflo Therapy initiation help impact outcomes?

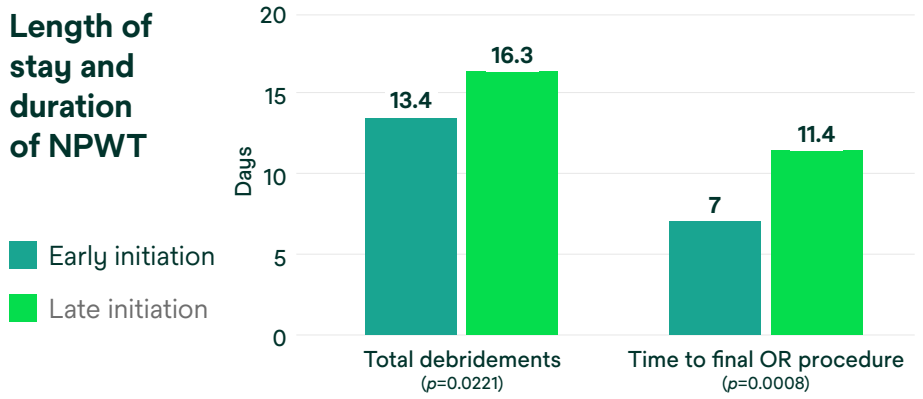
Wound complications and their associated costs can increase when treatment is delayed. A retrospective analysis of a national, all-payer hospital database of patients of 514 patients (257 per group)18 who received Veraflo Therapy in 2019 suggests that early use* of Veraflo Therapy (within 1 day of NPWT application) compared to late initiation of Veraflo Therapy (within 2-7 days) can help improve clinical outcomes and reduce the cost of care.[18]

- Patients who received Veraflo Therapy on the first day of NPWT required **4.4 fewer days of treatment** than patients who received Veraflo Therapy from day 2 through 7 (p<0.0001)[18]
- Patients who received Veraflo Therapy on day 1 had **fewer wound-related readmissions**† than patients receiving late therapy (at 30 days 6 vs. 16; p=0.0293, and at 60 days 10 vs. 24; p=0.0130)[18]
- The mean **total cost of index admissions was $10,877 less** for patients who received Veraflo Therapy on day 1, $34,161 vs. patients who received Veraflo Therapy from day 2 through 7, $45,038 (p<0.0001)[18]

Total debridement and time to final OR procedure



Length of stay and duration of NPWT



*Early initiation of Veraflo Therapy was considered on patients who received it as their initial negative pressure treatment or within one day of NPWT application, and late initiation for patients that received Veraflo Therapy within 2-7 days of initial NPWT.

†Admitting, or primary diagnosis, or primary procedure is wound-related, or patient had a HCPCS charge for NPWT.

Veraflo Therapy with Veraflo Cleanse Choice Dressing: Stage IV Pressure Ulcer

A 64-year-old male presented with a stage 4 pressure ulcer of the sacrum present for more than four years. Patient comorbidities included: former tobacco use, poor nutritional status, hypertension, chronic paraplegia (more than 15 years), leukocytosis, multiple previous pressure ulcers, and osteomyelitis of the sacrum.

The wound had been treated with NPWT, offloading, silver dressings, air mattress, hydrofiber dressings, alginate dressings, and wound debridement. Sharp debridement was performed but limited by the inability to achieve adequate hemostasis.

NPWT with instillation and Veraflo Cleanse Choice Dressing was initiated. Saline (22mL) was instilled, followed by 1 minute soak time and 30 min of negative pressure at -150mmHg. On day 7, sharp debridement was done at the bedside, removing the tip of the coccyx and non-viable slough/adipose tissue. Two days after the debridement, the therapy was interrupted due to soiling, and the patient underwent colostomy surgery. Three days post-surgery, Veraflo Therapy using the Veraflo Cleanse Choice Dressing was re-started. On day 5, the therapy switched to V.A.C.® Therapy at -125mmHg for nine days.

Conservative sharp debridement was performed at the bedside, and oral antibiotics were initiated.

As the wound required further cleansing, Veraflo Therapy using Veraflo Cleanse Choice Dressing was started.

Hypochlorous solution (80-100 mL) was instilled with a 10-minute dwell time, followed by 2 hours of negative pressure at -125 mmHg. Dressing changes occurred every 3 days. After 9 days, Veraflo Therapy was discontinued, and V.A.C.® Therapy was initiated.

Day 0 of Veraflo Therapy:

Wound following bedside sharp debridement

Veraflo Therapy with Veraflo Cleanse Choice Dressing initiated

Dwell time: 1 minute

NPWT time: 30 minutes at -150mmHg

Solution: Saline

Day 3 of Veraflo Therapy:

Wound after first Veraflo Cleanse Choice Dressing change.

Patient data and photos courtesy of Kimberly D. Hall, DNP, RN, GCNS-BC, CWCN-AP, COCN and Jessica Patterson, BSN, RN, CWOCN

Note: As with any case study, the results and outcomes should not be interpreted as a guarantee or warranty of similar results. Individual results may vary depending on the patient's circumstances and condition.

Veraflo Therapy with Veraflo Cleanse Choice Dressing: Chronic Wound

A 54-year-old male with hypertension, diabetes mellitus, and Charcot foot was admitted to the hospital with a chronic left foot wound. Patient was treated with an intravenous antibiotic regimen, followed by surgical debridement with excision of necrotic tissue. Veraflo Therapy using Veraflo Cleanse Choice Dressing was applied.

After 14 days and 4 dressing changes, therapy was discontinued. A human dermal collagen matrix was then applied to the wound for closure.

Day 0 of Veraflo Therapy:

Veraflo Cleanse Choice Dressing is used

Dwell time: 10 minutes

NPWT time: 3.5 hours at -125 mmHg

Solution: Vashe® Wound Therapy Solution

Day 2 of Veraflo Therapy:

After the wound bed displays healthy granulation tissue with minimal devitalized tissue or thick slough, Veraflo Cleanse Choice Dressing was changed

Patient data and photos courtesy of Douglas Duke, DO; Director of Wound Care, Flowers Hospital, Dothan, AL.
Note: As with any case study, the results and outcomes should not be interpreted as a guarantee or warranty of similar results. Individual results may vary depending on the patient's circumstances and condition.

Veraflo Therapy with Veraflo Cleanse Choice Dressing: Traumatic Wound

A 33-year-old male amputee with history of tobacco use, anemia, and methicillin-resistant *Staphylococcus aureus* presented with infection of above-the-knee stump. Conservative sharp debridement was performed at the bedside, and oral antibiotics were initiated. Veraflo Therapy using Veraflo Cleanse Choice Dressing was started.

Hypochlorous solution (80-100 mL) was instilled with a 10-minute dwell time, followed by 2 hours of negative pressure at -125 mmHg. After 9 days, Veraflo Therapy was discontinued, and V.A.C.® Therapy initiated.

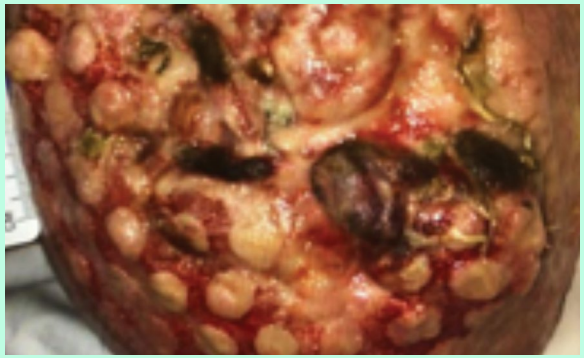
Day 0 of Veraflo Therapy:

Wound at presentation

Dwell time: 10 minutes

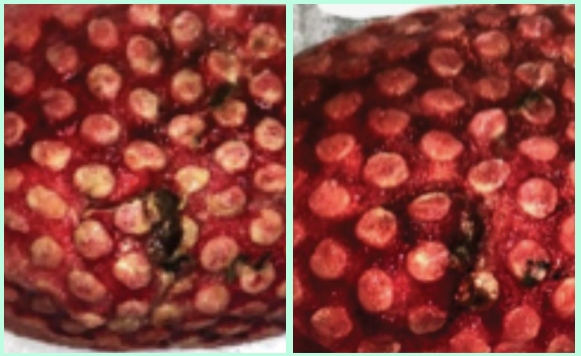
NPWT time: 2 hours at -125 mmHg

Solution: Hypochlorous Solution (80-100 mL)



Day 3 of Veraflo Therapy:

Wound after 3 days of Veraflo Therapy with Veraflo Cleanse Choice Dressing.



Day 6 and 9 of Veraflo Therapy:

Further granulation tissue and reduction in slough after 6 and 9 days of Veraflo Cleanse Choice Dressing. Veraflo Therapy discontinued and switched to V.A.C.® Therapy.

Patient data and photos courtesy of Luis Fernandez, MD, FACS, FASAS, FCCP, FCCM, FICS, University of Texas Health Science Center, Tyler, TX
Note: As with any case study, the results and outcomes should not be interpreted as a guarantee or warranty of similar results. Individual results may vary depending on the patient's circumstances and condition.

Veraflo Therapy with Veraflo Cleanse Choice Dressing: Traumatic Wound

Following an injury, a 26-year-old female received a transfemoral amputation resulting in a soft tissue defect. During transportation to the facility, the patient had a Combat Tourniquet and received 13 units of packed red blood cells and eight units of fresh frozen plasma. The wound was surgically debrided and irrigated at different stages of the treatment. She received therapeutic plasma exchange, continuous renal replacement therapy after being diagnosed with macrophage activation syndrome, and V.A.C.® Therapy at -125mmHg.

When surgical debridement was not an option, Veraflo Therapy was initiated using a Veraflo Cleanse Choice Dressing, instilling 100ml of 0.125% Dakin's Solution to help remove devitalized tissue. As wound healing progressed, Veraflo Therapy was transitioned to using Veraflo Dressing, instilling 80ml normal saline. After the tangential excision and split-thickness skin graft, it was covered with a non-adherent layer and bolstered using V.A.C.® Therapy applied at -125mmHg. Systemic antibiotics were administered throughout the patient's treatment period.

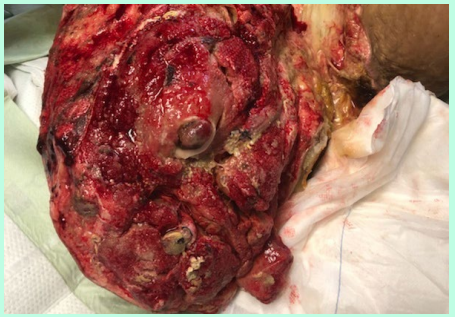
Day 0 of Veraflo Therapy:

With patient in critical condition and debridement no longer an option, Veraflo Therapy with Veraflo Cleanse Choice Dressing was initiated.

Dwell time: 5 minutes

NPWT time: 2 hours at -150 mmHg

Solution: Dakin's® Solution



Day 4 of Veraflo Therapy:

Wound demonstrated healing.

Day 8 of Veraflo Therapy:

Wound showed absence of devitalized tissue, with increase in vascularity and significant granulation. Veraflo Therapy with Veraflo Cleanse Choice Dressing was used first before they transitioned to the Veraflo Dressing.

Patient data and photos courtesy of Brandon Hill, RN, CWCN, FACCWS; Ochsner Louisiana State University Health Shreveport, Shreveport, LA

Note: As with any case study, the results and outcomes should not be interpreted as a guarantee or warranty of similar results. Individual results may vary depending on the patient's circumstances and condition.

Solventum™ V.A.C.® Ulta™ Therapy Unit with Solventum™ Smart Instill™ Feature

The Smart Instill Feature uses sophisticated software that automates many of the Veraflo Therapy steps and delivers an easier and less time-consuming interaction when initiating instillation therapy:

Now with the Smart Instill Feature

Automatically determines the volume of topical wound solution to instill.

Preprogrammed therapy settings align to global advisory recommendations.[19]

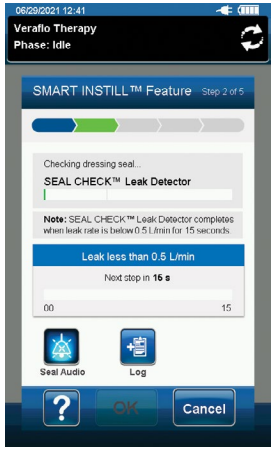
Animated troubleshooting, customizable alarm, and postpone feature.

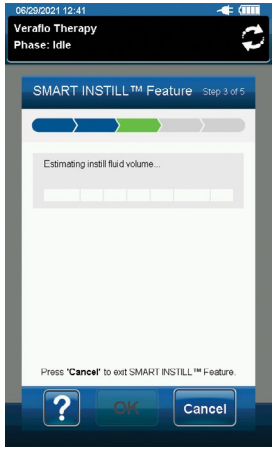
Therapy initiation steps with the Smart Instill Feature

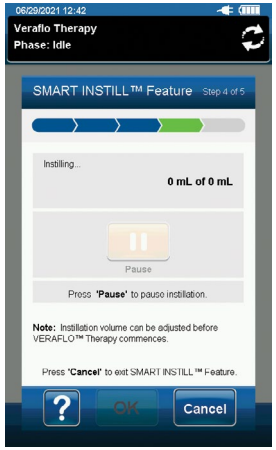
Just another reason to start smart with Veraflo Therapy.

→ **Select**
Veraflo Therapy

→ **Select**
Smart Instill Feature







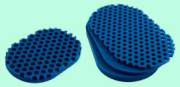
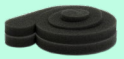
Canister selection

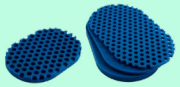
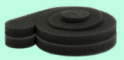
Solventum™ Seal Check™ Button/Feature
Automated

Fill estimation
Automated

Instillation
Automated

Confirmation
Optional Automation

	Solventum™ Veraflo Cleanse Choice™ Dressing Kit 	Solventum™ Veraflo Cleanse™ Dressing Kit 	Solventum™ Veraflo™ Dressing Kit 
Purpose	• Hydromechanically removes debris and promotes granulation tissue growth	• General wound cleansing for complex geometries	• General wound cleansing
Wound treatment goal	• Cleansing by facilitating removal of wound exudate and infectious material • Granulation tissue formation • Extract non-viable tissue	• Cleansing and granulation tissue formation • Fill explored tunnels & undermining with a rod shaped foam with perforations for easy separation	• Cleansing and granulation tissue formation
Dressing indication statement	• Provides hydromechanical removal of infectious materials, non-viable tissue and wound debris • Reduces the number of surgical debridements required, while promoting granulation tissue formation, creating an environment that promotes wound healing	• Provides vacuum assisted drainage and controlled delivery of topical wound treatment solutions and suspensions over the wound bed	• Provides vacuum assisted drainage and controlled delivery of topical wound treatment solutions and suspensions over the wound bed
Debridement required when escar/necrotic tissue present before applying dressing?	No, but crosshatch escar before applying therapy for optimal results	Yes	Yes
Reduce the need for surgical debridement cleared by FDA?	Yes	No	No
Provider CPT® Code	• 97605 size ≤ 50 sq cm • 97606 size > 50 sq cm	• 97605 size ≤ 50 sq cm • 97606 size > 50 sq cm	• 97605 size ≤ 50 sq cm • 97606 size > 50 sq cm
Sizes and SKU	• Medium: ULTVCC05MD • Large: ULTVCC05LG	• Medium: ULTVCL05MD	• Small: ULTVFL05SM • Medium: ULTVFL05MD • Large: ULTVFL05LG

	Solventum™ Veraflo Cleanse Choice™ Dressing Kit 	Solventum™ Veraflo Cleanse™ Dressing Kit 	Solventum™ Veraflo™ Dressing Kit 
Foam composition and dressing components	**Medium:** Blue compressed single piece block foam with a circular hole pattern contact layer • 18.0 cm x 12.5 cm x 1.6 cm • 3 sheets Solventum™ Veraflo™ Drape • 1 Solventum™ VeraT.R.A.C.™ Pad • 4pk 3M™ Cavilon™ No Sting Barrier Film • 1 disposable ruler/foam quantity label **Large:** Blue compressed block foam in three pre-slit layers: a circular hole pattern contact layer plus two cover layers (thin and thick) • 25.6 cm x 15.0 cm x varying thicknesses (0.8 cm – 1.6 cm) • 6 sheets Veraflo Drape • 1 Solventum™ VeraT.R.A.C.™ Duo Pad • 5pk Cavilon No Sting Barrier Film • 1 disposable ruler/foam quantity label	**Medium:** Gray compressed tubular coiled foam • 61 x 3.2 cm diameter • 3 sheets Veraflo Drape • 1 VeraT.R.A.C. Pad • 2pk Cavilon No Sting Barrier Film • 1 disposable ruler/foam quantity label	**Small:** Black spiral-cut foam, not compressed • 11.2 x 7.7 x 1.8 cm per piece (2 pieces spiral) • Each piece: 24 cm uncoiled; 18 cm long bridge • 2 sheets Veraflo Drape • 1 VeraT.R.A.C. Pad • 1pk Cavilon No Sting Barrier Film • 1 disposable ruler/foam quantity label **Medium:** Black spiral-cut foam, not compressed • 17.4 x 14.7 x 1.8 cm per piece (2 pieces spiral) • Each piece: 80 cm uncoiled; 74 cm long bridge • 3 sheets Veraflo Drape • 1 VeraT.R.A.C. Pad • 2pk Cavilon No Sting Barrier Film • 1 disposable ruler/foam quantity label **Large:** Black block foam pre slit into two layers, not compressed • 25.6 x 15.0 x 1.6 cm per piece (oval - 2 pieces) • 5 sheets Veraflo Drape • 1 VeraT.R.A.C. Duo Pad; 4pk Cavilon No Sting Barrier Film • 1 disposable ruler/foam quantity label
Compatible with automated topical solution instillation through Solventum™ Smart Instill™ Feature?	Yes	Yes	Yes
Fill assist start points	• **Medium:** 66 mL • **Large:** 150 mL (1.6 cm cover layer); 75 mL (0.8 cm cover layer); 42 mL (0.8 cm wound contact layer)	• **Medium:** 65-130 mL (1/2 rod); 130-250 mL (full rod)	• **Small:** 12-80 mL (1 piece); 26-160 mL (2 pieces) • **Medium:** 38-240 mL (1 piece); 80-450 mL (2 pieces) • **Large:** 55-350 mL (1 piece); 110-500 mL (2 pieces)

Refer to each dressing's instructions for use. For more information, visit **eifu.solventum.com**
For any reimbursement questions relating to the Solventum Medical Surgical portfolio of products, please contact our Reimbursement Hotline at 1-800-668-6812.

When therapy goals are achieved with Veraflo Therapy, stepping down to other Solventum negative pressure wound therapies

Solventum™ V.A.C.® Ulta™ Therapy Unit

continue negative pressure wound therapy without instillation while in the acute setting. Canisters are available in 500cc or 1000cc.

Solventum™ ActiV.A.C.™ Therapy Unit

when transitioning patients outside of the hospital choose a portable NPWT solution. Its canister size can hold up to 300cc of exudate.

Solventum™ Prevena Plus™ 125 Therapy Unit

This single-use device is now indicated for use with V.A.C.® Therapy Dressings, which combines the benefits of ease of use and flexibility to manage and protect open wounds.

Solventum offers a variety of services to partner with facilities, providers and patients, delivering what is needed most to advance care.

Visit the Solventum™ Express Therapy Portal for more information

Order

- Online platform for ordering and inventory management
- Same-day delivery
- Solventum™ Express Therapy Portal

Place

- Local clinical, sales, and service support
- Bedside support during product application

Therapy

- In-home education for dressing changes/alarm resolution
- Mobile app for wound patients
- Digital educational content available on demand

Discharge

- Seamless on-site support for patients transitioning to Out of Hospital care settings
- Payor authorization assistance
- NPWT telemonitoring for patients' in-home care settings
- Billing management support
- Solventum device cleaning, repair, and quality control to minimize downtime

← Previous

Veraflo Therapy ordering information

Pump & components		Kits & dressings	
ULTDEV01/US	Solventum™ V.A.C.® Ulta™ Therapy Unit, United States	**ULTVCC05LG**	Solventum™ Veraflo Cleanse Choice™ Dressing, Large, 5-pack
ULTLNK0500	Solventum™ Instillation Cassette, 5-pack	**ULTVCC05MD**	Solventum™ Veraflo Cleanse Choice™ Dressing, Medium, 5-pack
ULTDUO0500	Solventum™ VeraT.R.A.C. Duo™ Tube Set, 5-pack	**ULTVCL05MD**	Solventum™ Veraflo Cleanse™ Dressing, Medium, 5-pack
M8275063/5	Solventum™ V.A.C.® Canister with Gel, 500 mL, 5-pack	**ULTVFL05SM**	Solventum™ Veraflo™ Dressing, Small, 5-pack
M8275063/10	Solventum™ V.A.C.® Canister with Gel, 500 mL, 10-pack	**ULTVFL05MD**	Solventum™ Veraflo™ Dressing, Medium, 5-pack
M8275093/5	Solventum™ V.A.C.® Canister with Gel, 1000 mL, 5-pack	**ULTVFL05LG**	Solventum™ Veraflo™ Dressing, Large, 5-pack
M8275071/10	Solventum™ V.A.C.® Canister without Gel, 500 mL, 10-pack	**DTAC10LDP**	Solventum™ Dermatac™ Drape, Case of 10
M8275071/5	Solventum™ V.A.C.® Canister without Gel, 500 mL, 5-pack		

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Note: Specific indications, contraindications, warnings, precautions, and safety information exist for these products and therapies. Please consult a clinician and product instructions for use prior to application.
This material is intended for healthcare professionals. Rx only.

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