



Veraflo™
Therapy

Start Smart

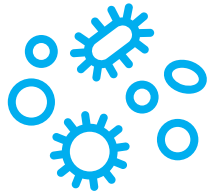
Negative Pressure
Wound Therapy with Instillation





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

40%



of all wounds are infected
or critically colonized¹

In the average
500-bed hospital,
infected wounds can
add 9.58 days in excess LOS
and \$38,656 in excess charges²



Costs are expected
to increase even more
as the population ages
and the incidence of comorbid
conditions that give rise
to wounds increases³



Costs may spiral if a wound does not receive the right therapy at the right time:

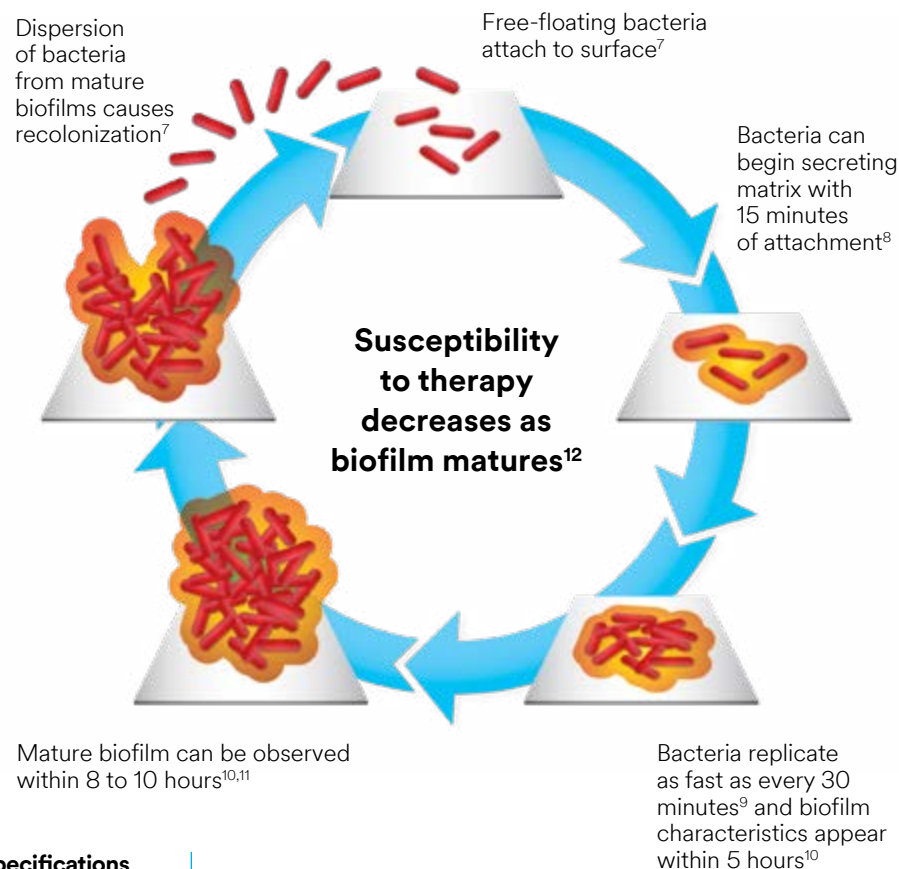
- Stalled wounds may develop complications such as infection, resulting in higher costs and longer hospital stays⁴



A smart start to managing bioburden.

The number of microorganisms with which an object is contaminated is referred to as the bioburden.⁵

Bioburden formation is commonly considered to occur in five main stages⁶:



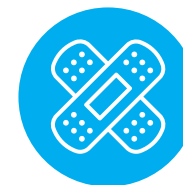
Veraflo™ Therapy helps reduce bioburden through repeated cleansing cycles.

It can help:



Cleanse

Delivers topical wound solutions that dwell in the wound to help dilute and solubilize infectious material¹³



Remove

Removes solubilized wound debris and infectious materials, under negative pressure to lower bioburden¹⁴



Promote

Promotes granulation tissue formation and perfusion to prepare the wound for closure¹⁵



3M™ Veraflo™ Therapy: Shown to promote granulation tissue formation.

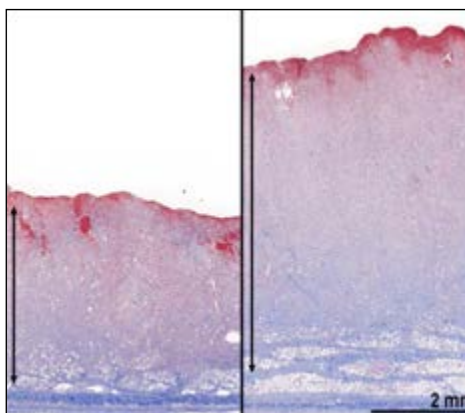


A significant
increase
in granulation
tissue
thickness

43%*

($p=0.05$)

*These results have not been confirmed
in human studies.



Histological images from a porcine study show a 43% increase in granulation tissue thickness between 3M™ V.A.C.® Therapy with the 3M™ V.A.C.® Granufoam™ Dressing (left) and Veraflo Therapy with the 3M™ V.A.C. Veraflo™ Dressing (right) after 7 days of therapy.¹⁶



3M™ Veraflo™ Therapy can provide positive clinical outcomes over standard of care in various wound types.

A systematic review of comparative studies and meta-analysis¹⁷ evaluated the performance of Veraflo Therapy versus control in 13 studies and 720 patients in various wound types. **Results of the analysis revealed Veraflo Therapy delivered significant advantages over standard of care.**



>30% Fewer surgical
debridements^{17,18}

(1.77 debridements vs 2.69, $p=0.008$)



45% Faster
wound closure^{17,18}

(7.88 days vs 14.36 days, $p=0.003$)



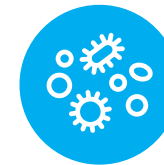
Wounds were **2.39 times**
more likely to close¹⁷

($p=0.01$)



>50% reduced length
of therapy^{17,18}

(9.88 days vs 21.8 days, $p=0.02$)



Reduced bacterial
count from baseline¹⁷

Odds were 4.4 times greater ($p=0.003$)

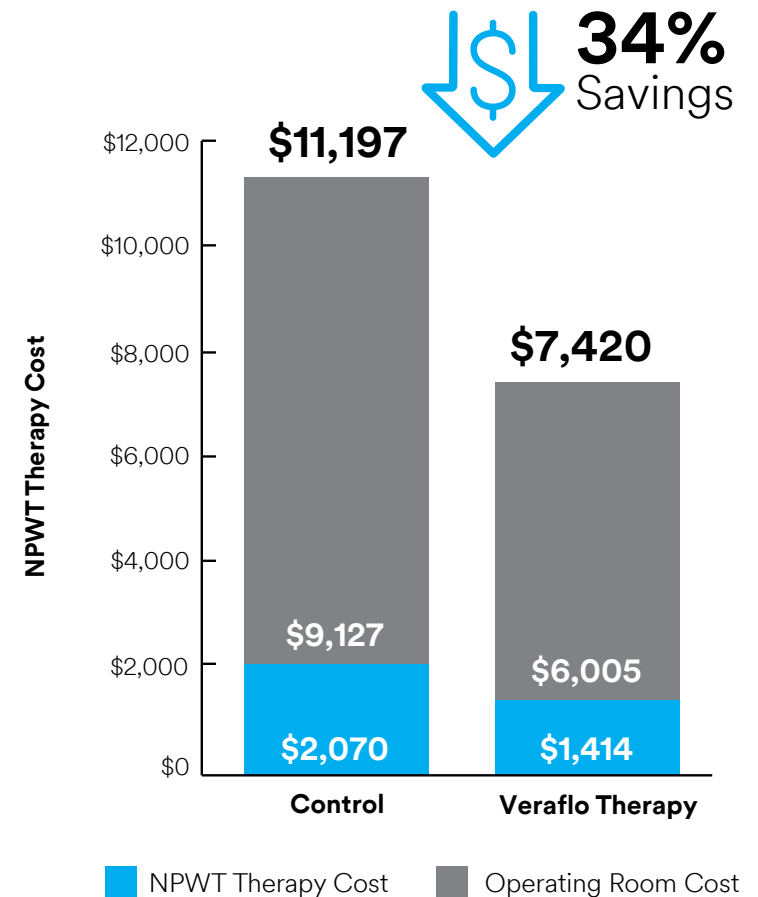


Use of 3M™ Veraflo™ Therapy can potentially reduce costs verses standard of care.

- Improved wound outcomes can result in health economic benefits
- An economic analysis of the Gabriel et al. meta-analysis¹⁷ with non-standardized means¹⁸ illustrates potential cost effectiveness for Veraflo Therapy

Veraflo Therapy Sample Health Economic Model

	Control	Veraflo Therapy	Potential Reduction
Trips to OR for debridement	2.69	1.77	34%
Mean cost of OR Debridement ^A	\$3,393	\$3,393	
Total OR debridement cost (trips x cost)	\$9,127	\$6,005	34%
Time to final surgical procedure	14.36	7.88	45%
Length of Therapy (days)	21.8	9.88	55%
Daily cost of therapy ^B	\$94	\$143	
Total therapy costs (days x daily cost)	\$2,070	\$1,414	32%
Total cost per patient	\$11,197	\$7,420	34%
Potential savings due to fewer trips to OR		\$3,121	
Potential savings due to shorter length of therapy		\$655	
Total potential savings per patient		\$3,777	





Manage Bioburden

Promote
Granulation Tissue

Outcomes &
Economics

3M™ V.A.C. Veraflo
Cleanse Choice™ Dressing

Case Studies

The 3M Advantage

Goals

Mechanism of Action

The 3M™ V.A.C. Veraflo Cleanse Choice™ Dressing helps facilitate the removal of thick wound exudate and other infectious material.



Goals for using V.A.C. Veraflo Cleanse Choice Dressing are varied and include¹³:



Cleanse

Cleanse wounds when slough or nonviable tissue remains present on the wound surface



Remove

Remove thick exudates and infectious materials



Promote

Promote granulation tissue formation



Provide

Help provide a bridge to a defined endpoint for a clinical plan of care

Specifications

References



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3M™ V.A.C. Veraflo
Cleanse Choice™ Dressing

Case Studies

The 3M Advantage

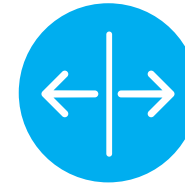
Goals

Mechanism of Action

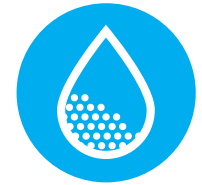
3M™ V.A.C. Veraflo Cleanse Choice™ Dressing with 3M™ Veraflo™ Therapy can help¹³:



Soften



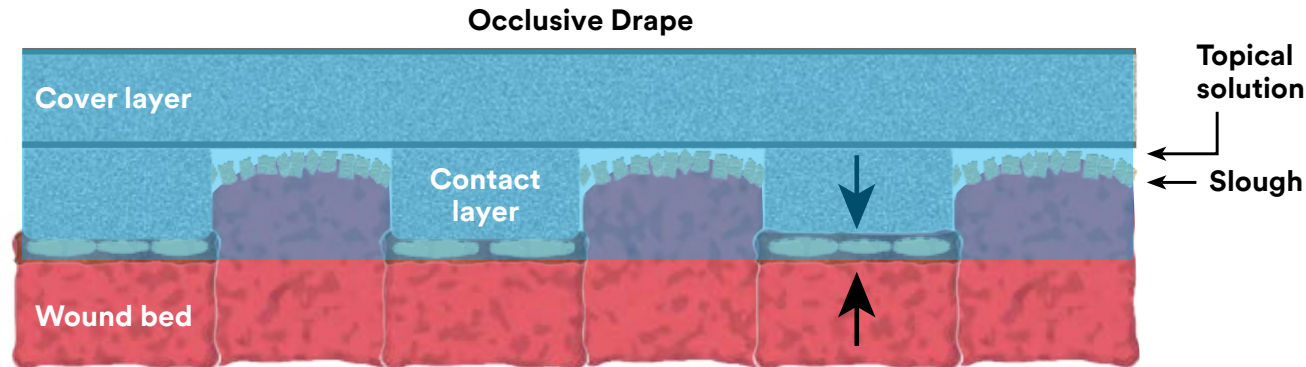
Separate



Solubilize

3M™ V.A.C. Veraflo Cleanse Choice™ Dressing Mechanism of Action

Instillation and dwell cycle helps to soften, separate and solubilize thick wound exudate and nonviable tissue.



During the negative pressure wound therapy cycle, the V.A.C. Veraflo Cleanse Choice Dressing becomes compressed and provides mechanical movement at the wound surface to help remove thick slough exudate and non-viable tissue.

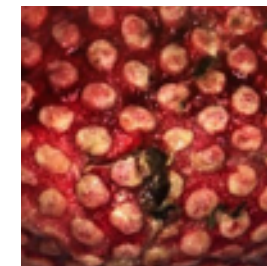


Day 0:

Dwell time: 10 minutes

NPWT time:
2 hours at -125mmHg

Solution:
Hypochlorous



Day 6:

Dressing changes
occurred every 3 days

30-year-old male patient with infected above-the-knee amputation stump. Comorbidities included tobacco use, anemia, and a history of methicillin-resistant *Staphylococcus aureus* infection. Conservative sharp debridement was performed at the bedside, and oral antibiotics were initiated.

Specifications

References

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 patients circumstances and condition.



Manage Bioburden

Promote
Granulation Tissue

Outcomes &
Economics

3M™ V.A.C. Veraflo
Cleanse Choice™ Dressing

Case Studies

The 3M Advantage

Stage IV Pressure Ulcer

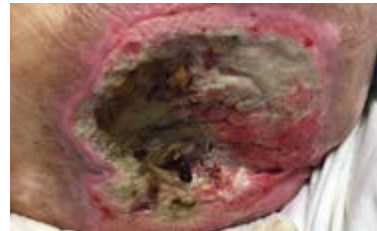
Diabetic Foot Wound

Venous Leg Ulcer

Above-Knee Amputation

Transfemoral Amputation

Patient results you have to see to believe: 3M™ Veraflo™ Therapy and 3M™ V.A.C. Veraflo Cleanse Choice™ Dressing.



**Veraflo Therapy with
V.A.C. Veraflo Cleanse
Choice Dressing
for stage IV pressure ulcer.**

[See more >](#)



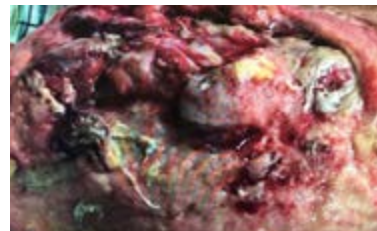
**Veraflo Therapy with
V.A.C. Veraflo Cleanse
Choice Dressing
for diabetic foot wound.**

[See more >](#)



**Veraflo Therapy with
V.A.C. Veraflo Cleanse
Choice Dressing
for venous leg ulcer.**

[See more >](#)



**Veraflo Therapy with
V.A.C. Veraflo Cleanse Choice
Dressing for amputee with
traumatic wound at stump.**

[See more >](#)



**Veraflo Therapy with
V.A.C. Veraflo Cleanse
Choice Dressing for
soft tissue defect following
transfemoral amputation.**

[See more >](#)

Specifications

References

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 patients circumstances and condition.



3M™ Veraflo™ Therapy with 3M™ V.A.C. Veraflo Cleanse Choice™ Dressing: Stage IV pressure ulcer.

A 64-year-old male with multiple comorbidities presented with a stage IV pressure ulcer of the sacrum present for over four years.

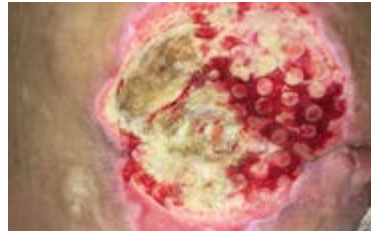


Day 0: Veraflo Therapy with V.A.C. Veraflo Cleanse Choice Dressing initiated.

Dwell time: 1 minute

NPWT time: 30 minutes at -150mmHg

Solution: Saline (22mL)



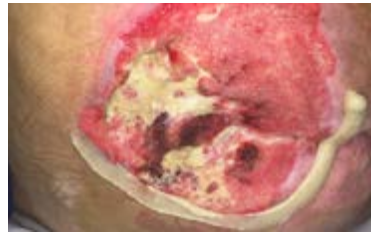
Day 3: Wound at first dressing change following three days of Veraflo Therapy and V.A.C. Veraflo Cleanse Choice Dressing.



Day 7: Wound after one week of Veraflo Therapy and V.A.C. Veraflo Cleanse Choice Dressing plus surgical debridement to remove tip of the coccyx and non-viable slough/adipose tissue.



Day 12: Wound after discontinuation of Veraflo Therapy, colostomy and resumption of Veraflo Therapy for five days. Patient is then switched to 3M™ V.A.C.® Therapy.



Day 16: Wound after nine days of V.A.C.® Therapy. Patient discharged.

Specifications

References

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.



3M™ V.A.C. Veraflo Cleanse Choice™ Dressing with 3M™ Veraflo™ Therapy for diabetic patient with chronic foot wound.

A 54-year-old male with hypertension, diabetes mellitus, and Charcot foot was admitted to the hospital with a chronic left foot wound.



Figure A: Wound at presentation.

Dwell time: 10 minutes

NPWT time: 3.5 hours
at -125mmHg

Solution: Vashe® Wound
Therapy Solution



Figure B: Patient is treated with an intravenous antibiotic regime, followed by surgical debridement with excision of necrotic tissue (Figure B). Patient begins Veraflo Therapy using V.A.C. Veraflo Cleanse Choice Dressing.



Figure C: After two days of Veraflo Therapy, the wound bed displays healthy granulation tissue with minimal devitalized tissue or thick slough. V.A.C. Veraflo Cleanse Choice dressing is changed.

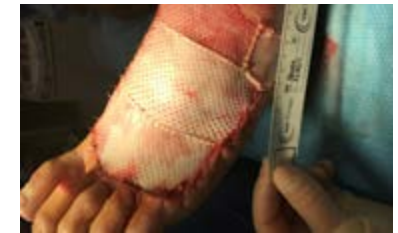


Figure D: After 14 days and 4 dressing changes, Veraflo Therapy is discontinued and human dermal collagen is applied.



3M™ V.A.C. Veraflo Cleanse Choice™ Dressing with 3M™ Veraflo™ Therapy: Venous leg ulcer.

A 60-year-old female presented with a venous leg ulcer (10 cm x 16 cm x 1.5 cm) of the right distal lower extremity. Systemic antibiotics were initiated upon presentation.

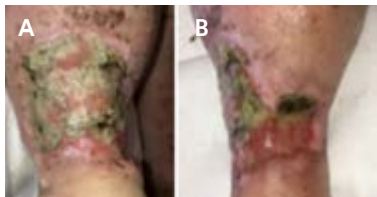


Figure 1: Wound at presentation. A. Anterior view. B. Medial view.

Dwell time: 10 minutes

NPWT time: 1 hour at -125mmHg

Solution: 34mL of quarter-strength Dakin's® solution

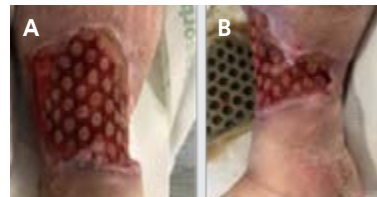


Figure 2: Wound after 24 hours of V.A.C. Veraflo Cleanse Choice Dressing with Veraflo Therapy. Solution changed to 28mL normal saline.



Figure 3: Wound after 8 days of Veraflo Therapy with V.A.C. Veraflo Cleanse Choice Dressing showed decrease in size and healthy granulation tissue. Patient was transitioned to Veraflo Therapy with 3M™ V.A.C. Veraflo™ Dressings.

Dwell time: 10 minutes

NPWT time: 2 hours at -125mmHg

Solution: saline

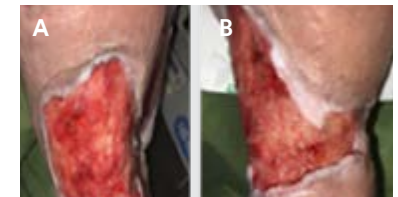


Figure 4: Wound after 2 days Veraflo Therapy with V.A.C. Veraflo Dressing showed healthy granulation tissue. Patient transitioned to advanced wound dressing and compression therapy.

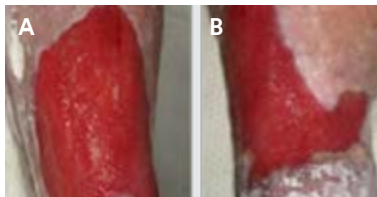


Figure 5: Wound after 7 days of advanced wound dressing and compression therapy showed continued improvement with healthy granulation tissue.

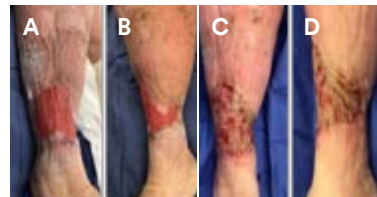


Figure 6: Wound approved for allograft: Anterior (A) and medial (B) views prior to allograft procedure; anterior (C) and medial (D) views of allograft application.



Figure 7: After 2 days patient was discharged to a skilled nursing facility. After 44 days wound demonstrated areas of reepithelialization.

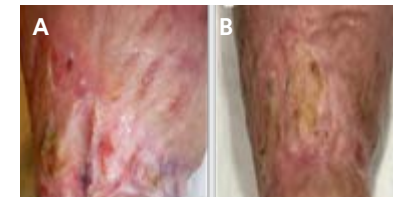
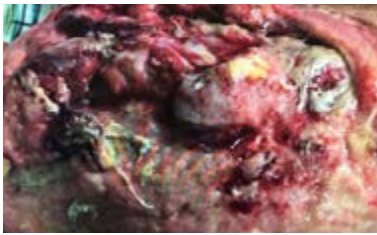


Figure 8: Fully closed after 102 days (A) of advanced wound dressing care and compression dressings; remained closed 56 days post closure (B).



3M™ V.A.C. Veraflo Cleanse Choice Dressing™ with 3M™ Veraflo™ Therapy: 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.



Day 0: Veraflo Therapy with V.A.C. Veraflo Cleanse Choice Dressing initiated.

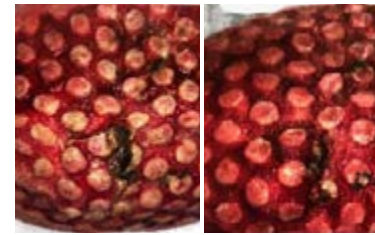
Dwell time: 10 minutes

NPWT time: 2 hours at -125mmHg

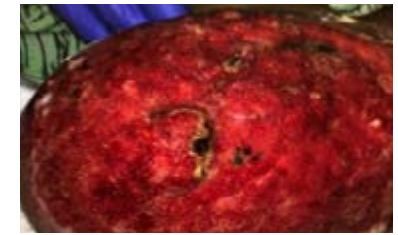
Solution: Hypochlorous solution (80-100mL)



Day 3: Wound after 3 days of Veraflo Therapy with V.A.C. Veraflo Cleanse Choice Dressing.



Days 6 and 9: Further granulation tissue and reduction in slough after 6 and 9 days of V.A.C. Veraflo Cleanse Choice Dressing. Veraflo Therapy discontinued and switched to 3M™ V.A.C.® Therapy.



Day 12: Wound after 1-day V.A.C.® Therapy. Patient was discharged to a long-term care facility 12 days after admission to the hospital.



3M™ V.A.C. Veraflo Cleanse Choice™ Dressing with 3M™ Veraflo™ Therapy: Soft tissue defect following transfemoral amputation.

Following a boating injury, a 26-year-old female received transfemoral amputation that resulted in soft tissue defect measuring approximately 90 × 45cm². Antibiotics were administered throughout the patient treatment period.



Day 1: Extensive wound on injured leg debrided of devitalized tissue and irrigated. 3M™ V.A.C.® Therapy at -125mmHg applied.



Day 6: Following diagnosis of macrophage activation syndrome, patient received further debridement and irrigation due to aggressive infection.



Day 9: With patient in critical condition and debridement no longer an option, Veraflo Therapy with V.A.C. Veraflo Cleanse Choice Dressing was initiated.

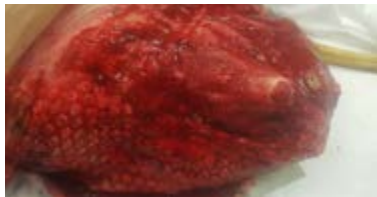
Dwell time: 5 minutes

NPWT time: 2 hours at -150mmHg

Solution: 100mL Dakin's Solution



Day 13: Wound demonstrated healing at 4 days following initiation of Veraflo Therapy.



Day 17: Wound showed absence of devitalized tissue, with increase in vascularity and significant granulation. Veraflo Therapy was transitioned to 3M™ V.A.C. Veraflo™ Dressing.



Day 25: Wound measured approximately 25 × 30cm, with significant granulation tissue and considerable coverage over the femur fragment.



Day 43: The patient underwent a tangential excision and split-thickness skin graft, which was covered with a non-adherent layer and bolstered using 3M™ V.A.C.® Therapy.



Day 167: Patient 167 days after initial injury, taking first steps on a new prosthesis.



With a comprehensive portfolio of advanced wound care solutions, 3M is at the forefront of scientific innovation, collaborating with clinical partners to develop proven clinical therapies at every point in the patient journey. Transforming outcomes through patient-centric science, 3M is setting high standards across the continuum of care.



Supported by over

500

clinical and medical
affairs team members



1,900+

peer-reviewed publications
support the value of 3M negative
pressure technology



>100

peer-reviewed publications
on 3M™ Veraflo™ Therapy



>10M

wounds treated worldwide
with 3M™ V.A.C.® Therapy¹⁹



World class, award-winning
educational programs

3M.com/MedicalEducation





>25 years

of transformative technology
in Negative Pressure
Wound Therapy leadership



3M™ V.A.C. Veraflo™ Dressing specifications and fill volumes

	V.A.C. Veraflo Dressing: Small & Medium 	V.A.C. Veraflo Dressing: Large 	3M™ V.A.C. Veraflo Cleanse Choice™ Dressing 
Wound characteristics	Open wounds, including wounds with shallow undermining or tunnel areas where the distal aspect is visible	Large open wounds, including wounds with shallow undermining or tunnel areas where the distal aspect is visible	Wounds with thick wound exudate, such as fibrin, slough or infectious material
Dressing specifications	Small: L x W x D 3.0" x 4.4" x 0.7" 7.7 x 11.3 x 1.8 cm Medium: L x W x D 5.8" x 6.8" x 0.7" 14.7 x 17.4 x 1.8 cm	Large: L x W x D 10.1" x 5.9" x 0.6" 25.6 x 15.0 x 1.6 cm	Medium: L x W x D1 or D2 or D3 7.1" x 4.9" x D1 or D2 or D3 18.0 cm x 12.5 cm x D1 or D2 or D3 Large: L x W x D1 or D2 or D3 10.1" x 5.9" x D1 or D2 or D3 25.6 cm x 15.0 cm x D1 or D2 or D3 D = layer thickness D1 = 0.3" (0.8 cm) thin cover layer D2 = 0.6" (1.6 cm) thick cover layer D3 = 0.3" (0.8 cm) wound contact layer (1.0cm circular holes; 5 mm spacing)
Fill volume start points	Small: 12-80 ml (1 piece) 26-160 ml (2 pieces) Medium: 38 ml (1 piece) 80 ml (2 pieces)	Large: 55 ml (1 piece) 110 ml (2 pieces)	Medium: 85 ml (1.6 cm cover layer); 42 ml (0.8 cm cover layer); 24 ml (0.8 cm wound contact layer) Large: 150 ml (1.6 cm cover layer); 75 ml (0.8 cm cover layer); 42 ml (0.8 cm wound contact layer)

3M™ V.A.C.® Ulta Therapy System ordering information for Veraflo™ Therapy

ULTDEV01/US	V.A.C.® Ulta Therapy Unit, United States	ULTVCC05LG	V.A.C. Veraflo Cleanse Choice Dressing, large, 5-pack
ULTVFL05SM	V.A.C. Veraflo Dressing, small, 5-pack	ULTLNK0500	3M™ V.A.C. Veralink™ Cassette, 5-pack
ULTVFL05MD	V.A.C. Veraflo Dressing, medium, 5-pack	ULTDUO0500	3M™ V.A.C. VeraT.R.A.C. Duo™ Tube Set, 5-pack
ULTVCL05MD	3M™ V.A.C. Veraflo Cleanse™ Dressing, medium, 5-pack	M8275063/5	500ml Canister with gel for use with V.A.C.® Ulta Therapy System
ULTVFL05LG	V.A.C. Veraflo Dressing, large, 5-pack	M8275093/5	1000ml Canister with gel for use with V.A.C.® Ulta Therapy System
ULTVCC05MD	V.A.C. Veraflo Cleanse Choice Dressing, medium, 5-pack	DTAC10LDP	3M™ Dermatac™ Drape, Case of 10

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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. Rx only.

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PRA-PM-US-02908 (2/21)