



# V.A.C. VeraFlo<sup>™</sup> Therapy **Cleanses, Treats, Heals**



# V.A.C.<sup>®</sup> Therapy has been used successfully on many patients

## V.A.C. VeraFlo<sup>™</sup> Therapy is designed to work for many more



Cleanses with instillation of topical wound cleansers in a consistent, controlled manner.

# Treats antimicrobial and antiseptic solutions.

### Moving toward a better negative-pressure wound therapy (NPWT) outcome

Prevent further wound contamination	
Manage excess exudates	
Optimise wound bed	
Cleanse the wound	Only at
Provide antimicrobial antiseptic therapy <sup>1</sup>	Only at

#### Does your NPWT product provide these benefits?



Prompt, appropriate, and effective wound management is more important than ever in reducing the economic and health consequences of wound management<sup>1</sup>

The use of advanced technologies, such as V.A.C.<sup>®</sup> Therapy, may lead to earlier wound closure and be more cost-effective compared to lower-cost products that take longer or fail to heal the wound.<sup>2</sup>

infectious materials with the instillation of appropriate topical

Heals the wound and prepares for primary or secondary closure.

NPWT	V.A.C. VeraFlo™ Therapy
1	1
1	1
1	1
dressing changes	Automatic repetitive cleansing
dressing changes	Automatic repetitive treatment



In a porcine study with V.A.C. VeraFlo<sup>™</sup> Therapy, 43% more granulation tissue was present after 7 days versus standard NPWT<sup>3,4</sup>

V.A.C. VeraFlo<sup>™</sup> Therapy with saline solution instillation significantly increased wound fill after 7 days of therapy compared to NPWT alone.<sup>3</sup>



At day 7, granulation tissue thickness was 43% greater (P<.05) in porcine wounds receiving V.A.C. VeraFlo<sup>™</sup> Therapy with V.A.C. VeraFlo<sup>™</sup> Dressings and saline instillation compared to wounds treated with V.A.C.<sup>®</sup> Therapy with V.A.C.<sup>®</sup> GranuFoam<sup>™</sup> Dressings.<sup>3</sup>

Note: Findings in animal studies have not yet been correlated in humans.

Source: Lessing MC, Slack P, Hong KZ, et al. Negative pressure wound therapy with controlled saline instillation (NPWTi): dressing properties and granulation response in vivo. Wounds. 2011;23(10):309-319.

EFFECTIVE

to standard NPWT<sup>4</sup>

In this *in vitro* mature biofilm study, V.A.C. VeraFlo<sup>™</sup> Therapy with polyhexamethylene biguanide (PHMB) (0.1%) was shown to reduce Pseudomonas aeruginosa bioburden by 99.8% (approximately 3-log reduction).<sup>4</sup>





V.A.C. VeraFlo<sup>™</sup> Therapy provides instillation therapy that, in this study, was shown to reduce biofilm bioburden. A mature Pseudomonas aeruginosa biofilm model using pig skin was used. Instillation was 6 times in 24 hours with 10-minute hold time.

Note: Findings in animal studies have not yet been correlated in humans.

Source: KCI data on file.

# Data from an in vitro biofilm model indicate that V.A.C. VeraFlo<sup>™</sup> Therapy, combined with appropriate wound solutions, may help control the bacteria known to form biofilm compared

#### Pseudomonas aeruginosa results (CFU/mL)



A clinical study indicated that polyhexanide instillation may be effective as an adjunctive therapy to manage infected orthopedic implants (OIs)<sup>5</sup>

(n=32)	Acute infected OI (n=22)		Chronic infected OI (n=10)	
	Retained	Not retained	Retained	Not retained
Knees	3/3 (100%)	0/3 (0%)	5/7 (71.4%)	2/7 (28.6%)
Hips	14/17 (82.4%)	3/17 (17.6%)	3/3 (100%)	0/3 (0%)
Osteosynthesis material	2/2 (100%)	0/2 (0%)	-	-
Total	19/22 (86.4%)	3/22 (13.6%)	8/10 (80%)	2/10 (20%)
Published rates without instillation therapy*	65%	35%	30%	70%

The results of this prospective, multicentre, single-arm, postmarket, observational study suggest that instillation therapy<sup>+</sup> with polyhexanide (PHMB) may be effective as an adjunctive therapy to manage infected orthopedic implants, independent of the type of infection (i.e. acute or chronic) or micro-organism. The results exceeded, or were similar to, what has been reported in the literature without the use of instillation therapy.<sup>5</sup>

\*Literature references are described in the publication. Table adapted from publication. <sup>†</sup>Instillation system used was V.A.C. Instill<sup>®</sup> Therapy System, which is equivalent to V.A.C. VeraFlo™ Therapy.

Source: Lehner B, Fleischmann W, Jukema GN, et al. First experiences with negative pressure wound therapy and instillation in the treatment of infected orthopedic implants: a clinical observational study. Int Orthop. 2011;35(0):1415-1420. e-Pub May 17, 2011.

#### A 66-year-old male was admitted to hospital on February 10, 2012, with an infected hip (THA).



Initiation of V.A.C. VeraFlo<sup>™</sup> Therapy on February 20, 2012. At each cycle, Lactated Ringer's solution (40 mL) was instilled with a soak time of 15 minutes and V.A.C.® Therapy time of 3.5 hours at a pressure of -125mmHg.



Wound was thoroughly debrided and V.A.C. VeraFlo<sup>™</sup> Dressing was applied.



V.A.C. VeraFlo<sup>™</sup> Therapy was discontinued after just 3 days, achieving primary closure.

#### Clinical goal was met, no recurring infections to date.



A clinical study indicated that instillation therapy\* with silver nitrate shortened the and hospital discharge<sup>6</sup>

In this prospective clinical study of 15 patients with a variety of complex infected wounds, NPWT with silver nitrate instillation showed a significant decrease in the mean time to clear infection, wound closure, and hospital discharge compared with traditional wet-to-moist wound care.<sup>6</sup>



\*Instillation system used was V.A.C. Instill<sup>®</sup> Therapy System, which is equivalent to V.A.C. VeraFlo™ Therapy.

Source: Gabriel A, Shores J, Heinrich C, et al. Negative pressure wound therapy with instillation: A pilot study describing a new method for treating infected wounds. Int Wound J. 2008;5:399-413.

#### A 56-year-old diabetic male with infected diabetic foot ulcer following amputation of 2<sup>nd</sup> toe and cleaning plantar abscess.





Day 1

Day 5



Day 7 V.A.C. VeraFlo<sup>™</sup> Therapy was discontinued after just 1 week. Treatment is continued using V.A.C.<sup>®</sup> Therapy only, also using the V.A.C.Ulta<sup>™</sup> Therapy System.

#### Clinical goals were met. No sign of infection and granulation tissue is progressing.

As with any case, 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.

# time to bioburden reduction, wound closure,

Initiation of V.A.C. VeraFlo<sup>™</sup> Therapy on March 8, 2012. At each cycle, Lactated Ringer's solution (22 mL) was instilled with a soak time of 15 minutes and V.A.C.<sup>®</sup> Therapy time of 3.5 hours at a pressure of -125mmHg.

Second dressing change performed on March 12, 2012, using V.A.C. VeraFlo<sup>™</sup> Dressing. Wound is progressing very well.





For more information about the V.A.C.Ulta<sup>™</sup> Therapy System or a product demonstration, please ask your KCI Representative, or visit your local KCI website at www.kci-medical.com.

V.A.C.ULTA <sup>™</sup> SYSTEM ORDERING INFORMATION*				
Part Number	Description			
ULTDEV01	V.A.C.Ulta™ Therapy Unit			
ULTVFL05SM	V.A.C. VeraFlo™ Dressing, 5-pack, Small			
ULTVFL05MD	V.A.C. VeraFlo™ Dressing, 5-pack, Medium			
ULTVCL05MD	V.A.C. VeraFlo Cleanse™ Dressing, 5-pack, Medium			
ULTLNK0500	V.A.C. VeraLink™ Cassette, 5-pack			
ULTDUO0500	V.A.C. VeraT.R.A.C. Duo™ Tube Set, 5-pack			

#### \*The V.A.C.Ulta<sup>™</sup> Therapy Unit is compatible with all InfoV.A.C.<sup>®</sup> System Canisters. When using the V.A.C.Ulta<sup>™</sup> System for V.A.C.<sup>®</sup> Therapy only, use V.A.C.<sup>®</sup> Dressings featuring SensaT.R.A.C.<sup>™</sup> Technology.

#### References

1. World Union of Wound Healing Societies (WUWHS); principles of best practice; wound infection in clinical practice. An international consensus. London: MEP Ltd, 2008. Available from woundsinternational.com Accessed December 9, 2011 Adapted from foreword page. 2. Baharestani MM, Driver VR, De Leon JM, et al. Optimizing clinical and cost effectiveness with early intervention of VA.C. therapy. Ostomy Wound Manage 2008 November 1;54(11 Suppl):1-15. 3. Lessing MC, Slack P, Hong KZ, et al. Negative pressure wound therapy with controlled saline instillation (NPWTi): dressing properties and granulation response in vivo. Wounds. 2011;23(10):309-319. 4. KCI data on file. 5. Lehner B, Fleischmann W, Jukema GN, et al. First experiences with negative pressure wound therapy and instillation in the treatment of infected orthopedic implants: a clinical observational study. Int Orthop. 2011;35(0):1415-1420. e-Pub May 17, 2011. 6. Gabriel A, Shores J, Heinrich C, et al. Negative pressure wound therapy with instillation: A pilot study describing a new method for treating infected wounds. Int Wound J. 2008:5:399-413. 7. KCI Internal data on file.

NOTE: Specific indications, contraindications, warnings, precautions, and safety information exist for KCI products and therapies. Please consult a physician and product instructions for use prior to application.

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