V.A.C. VeraFlo™ Therapy

Cleanses, Treats, Heals
V.A.C.® Therapy has been used successfully on many patients

Prompt, appropriate, and effective wound management is more important than ever in reducing the economic and health consequences of wound management.

The use of advanced technologies, such as V.A.C.® 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.
V.A.C. VeraFlo™ Therapy is designed to work for many more

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

Treats
infectious materials with the instillation of appropriate topical antimicrobial and antiseptic solutions.

Heals
the wound and prepares for primary or secondary closure.

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

<table>
<thead>
<tr>
<th>Benefits</th>
<th>NPWT</th>
<th>V.A.C. VeraFlo™ Therapy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prevent further wound contamination</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Manage excess exudates</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Optimise wound bed</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Cleanse the wound</td>
<td>Only at dressing changes</td>
<td>Automatic repetitive cleansing</td>
</tr>
<tr>
<td>Provide antimicrobial antiseptic therapy¹</td>
<td>Only at dressing changes</td>
<td>Automatic repetitive treatment</td>
</tr>
</tbody>
</table>

Does your NPWT product provide these benefits?
In a porcine study with V.A.C. VeraFlo™ Therapy, 43% more granulation tissue was present after 7 days versus standard NPWT\textsuperscript{3,4}

V.A.C. VeraFlo™ Therapy with saline solution instillation significantly increased wound fill after 7 days of therapy compared to NPWT alone.\textsuperscript{3}

Mean granulation tissue thickness after 7 days of therapy (n=12)

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

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

Data from an *in vitro* biofilm model indicate that V.A.C. VeraFlo™ Therapy, combined with appropriate wound solutions, may help control the bacteria known to form biofilm compared to standard NPWT. In this *in vitro* mature biofilm study, V.A.C. VeraFlo™ Therapy with polyhexamethylene biguanide (PHMB) (0.1%) was shown to reduce *Pseudomonas aeruginosa* bioburden by 99.8% (approximately 3-log reduction).^4^

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

V.A.C. VeraFlo™ 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.
A clinical study indicated that polyhexanide instillation may be effective as an adjunctive therapy to manage infected orthopedic implants (OIs)\(^5\)

<table>
<thead>
<tr>
<th>(n=32)</th>
<th>Acute infected OI (n=22)</th>
<th>Chronic infected OI (n=10)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Retained</td>
<td>Not retained</td>
</tr>
<tr>
<td>Knees</td>
<td>3/3 (100%)</td>
<td>0/3 (0%)</td>
</tr>
<tr>
<td>Hips</td>
<td>14/17 (82.4%)</td>
<td>3/17 (17.6%)</td>
</tr>
<tr>
<td>Osteosynthesis material</td>
<td>2/2 (100%)</td>
<td>0/2 (0%)</td>
</tr>
<tr>
<td>Total</td>
<td>19/22 (86.4%)</td>
<td>3/22 (13.6%)</td>
</tr>
<tr>
<td>Published rates without instillation therapy*</td>
<td>65%</td>
<td>35%</td>
</tr>
</tbody>
</table>

The results of this prospective, multicentre, single-arm, postmarket, observational study suggest that instillation therapy\(^1\) 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.\(^5\)

\(^1\)Literature references are described in the publication. Table adapted from publication.

\(^1\)Instillation system used was V.A.C. Instill\(^\circledast\) Therapy System, which is equivalent to V.A.C. VeraFlo\(^\circledast\) Therapy.


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

Initiation of V.A.C. VeraFlo\(^\circledast\) 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.\(^\circledast\) Therapy time of 3.5 hours at a pressure of -125mmHg.

Wound was thoroughly debrided and V.A.C. VeraFlo\(^\circledast\) Dressing was applied.

V.A.C. VeraFlo\(^\circledast\) Therapy was discontinued after just 3 days, achieving primary closure.

Clinical goal was met, no recurring infections to date.

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.
A clinical study indicated that instillation therapy* with silver nitrate shortened the time to bioburden reduction, wound closure, and hospital discharge.

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.

![Graph showing time to wound closure, time to clear infection, and length of hospital stay for NPWT with instillation and moist wound therapy.](image)

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


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

**Day 1**
Initiation of V.A.C. VeraFlo™ 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.® Therapy time of 3.5 hours at a pressure of -125mmHg.

**Day 5**
Second dressing change performed on March 12, 2012, using V.A.C. VeraFlo™ Dressing. Wound is progressing very well.

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

Clinical goals were met. No sign of infection and granulation tissue is progressing.
For more information about the V.A.C.Ultra™ 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.Ultra™ SYSTEM ORDERING INFORMATION*

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Description</th>
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<tbody>
<tr>
<td>ULTDEV01</td>
<td>V.A.C.Ultra™ Therapy Unit</td>
</tr>
<tr>
<td>ULTVFLO55M</td>
<td>V.A.C. VeraFlo™ Dressing, 5-pack, Small</td>
</tr>
<tr>
<td>ULTVFLO55MD</td>
<td>V.A.C. VeraFlo™ Dressing, 5-pack, Medium</td>
</tr>
<tr>
<td>ULTVCL05MD</td>
<td>V.A.C. VeraFlo Cleanse™ Dressing, 5-pack, Medium</td>
</tr>
<tr>
<td>ULTLINK0500</td>
<td>V.A.C. VeraLink™ Cassette, 5-pack</td>
</tr>
<tr>
<td>ULTDUO0500</td>
<td>V.A.C. VeraT.R.A.C. Duo™ Tube Set, 5-pack</td>
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*The V.A.C.Ultra™ Therapy Unit is compatible with all InfoV.A.C.® System Canisters. When using the V.A.C.Ultra™ System for V.A.C.® Therapy only, use V.A.C.® Dressings featuring SensaT.R.A.C.™ Technology.

References
4. KCI data on file.
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.