

The value of 3M[™] V.A.C.[®] Therapy: Clinical and economic benefits of negative pressure wound therapy in subcutaneous

abdominal wound healing impairment

Solid evidence: The largest 3M[™] V.A.C.[®] Therapy clinical trial

Negative pressure wound therapy vs conventional wound treatment in subcutaneous abdominal wound healing impairment (SAWHI): The SAWHI randomized clinical trial¹

Objective:

Evaluate the effectiveness and safety of negative pressure wound therapy (NPWT = V.A.C.[®] Therapy) compared to conventional wound care (CWT) for SAWHI after surgery in clinical practice.

Methods:

Multicenter, multinational observer-blinded randomized clinical trial



Results:



Significantly more patients achieved wound closure with V.A.C.[®] Therapy than CWT.

Wound Closure Time (p<0.001)



Significantly shorter time to wound closure with V.A.C.[®] Therapy than CWT within the 42 day study period.

Conclusions:

It was demonstrated in this study that negative pressure wound therapy (NPWT) is superior to conventional dressings in achieving complete closure of post-surgical subcutaneous abdominal wounds.

Clinical benefits translated to health economic impact

NPWT resource use compared with conventional wound treatment in subcutaneous abdominal wounds with healing impairment after surgery: SAWHI randomized clinical trial results²

Objective:

To compare resource utilization of NPWT (3M[™] V.A.C.[®] Therapy) and conventional wound treatment (CWT) for subcutaneous abdominal wound healing impairment (SAWHI) after surgery in the per protocol (PP) population.

Results:



Local infrastructure and reimbursement challenges during the study prevented many V.A.C[®] Therapy patients from transferring to the out of hospital (OOH) setting. The results of this study encouraged a change in OOH reimbursement policy for NPWT.

Time for dressing changes

(minutes) (p<0.001)



Time for dressings changes per study participant was significantly shorter in the V.A.C.® Therapy group.



Treatment length within 42-day study period was significantly shorter in the V.A.C. $^{\circ}$ Therapy arm.





Time for wound-related procedures was significantly shorter in the V.A.C. $^{\circ}$ Therapy arm.

Conclusions:

Although NPWT hospitalization time was longer, NPWT reduces resources used and may be an efficient treatment alternative to CWT for SAWHI after surgery.

Why choose 3M[™] V.A.C.[®] Therapy?

>10 million

V.A.C.[®] Therapy³

>25 years of V.A.C.® Therapy

>75% of all NPWT evidence is based on V.A.C.® Therapy⁴

Clinical Benefits with a variety of wound types

3M[™] V.A.C.[®] Therapy is proven:

Number of published clinical articles, evidence levels 1-3 across manufacturers as of 12 August 2021.

	3M	Smith&Nephew	Others
Burns	2	0	0
Enteric fistula	2	0	0
Mediastinitis	10	1	0
Mixed	45	9	4
Necrotizing Fasciitis	1	1	0
Other	19	5	2
Other - Basic Science	1	0	0
Surgical - Fasciotomy	3	0	0
Surgical - Open Abdomen	78	5	5
Surgical- Amputations (diabetic)	5	0	0
Surgical- Amputations (non-diabetic)		1	0
Surgical- Dehisced	26	1	2
Surgical- Grafts & Flaps	22	4	1
Surgical- Pilonidal	3	0	0
Surgical- Prophylactic	75	30	2
Surgical- Sternal	22	2	1
Trauma- Compartment Syndrome	1	0	0
Trauma- Mixed	1	0	0
Trauma- Orthopedic	20	1	4
Ulcers- Diabetic	22	2	4
Ulcers- Pressure	5	0	1
Ulcers- Venous stasis	7	2	0
Total	370	64	26



such as:

Lowered incidence of readmission, additional surgeries and complications⁵



Reduced amputation rates⁶



Reduced time to wound closure⁶



Reduced incidence of surgical dehiscence and infection⁷

References

1. Seidel D, Diedrich S, Herrle F, et al. Negative Pressure Wound Therapy vs Conventional Wound Treatment in Subcutaneous Abdominal Wound Healing Impairment: The SAWHI Randomized Clinical Trial. JAMA Surgery. 2020;155(6):469-478.

2. Seidel D, Lefering R. NPWT Resource Use Compared With Conventional Wound Treatment in Subcutaneous Abdominal Wounds With Healing Impairment After Surgery: SAWHI Randomized Clinical Trial Results. Ann Surg. 2021 Jun 10. doi: 10.1097/SLA.000000000004960. Epub ahead of print. PMID: 34117147.

3. 3M Internal Report: Cumulative NPWT Wounds - 10 million - 2013-2015.

4. 3M Medical Publications Analysis, August 2020.

5. Page JC, Newsander B, Schwenke DC, Hansen M, Ferguson J. Retrospective analysis of negative pressure wound therapy in open foot wounds with significant soft tissue defects. Adv Skin Wound Care. 2004;17(7):354-364.

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7. Stannard JP, Volgas DA, McGwin G III, et al. Incisional negative pressure wound therapy after high-risk lower extremity fractures. J Orthop Trauma. 2012;26(1):37-42.

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.

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