

Improving Patient Experience and Administrative Freedom with an Innovative Negative Pressure Wound Therapy Device

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OVERVIEW OF CLINICAL CHALLENGE:

Negative Pressure Wound Therapy (NPWT) is considered to be an effective wound treatment, yet research has repeatedly highlighted a need for improvement. Research has shown that patients feel NPWT has a positive impact on their wound, however, patients also reported challenges such as noise issues, and reduced mobility¹. Clinical and support staff have been burdened with daily administrative distractions to micromanage pump usage, pump reprocessing and reliable pump inventory.



References:

- Ubbink, D.T., Westerbos, S.J., Evans, D. et al. Topical negative pressure for treating chronic wounds. Cochrane Database Syst Rev. 2008; 16: 3, CD001898
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- Paglinawan R, Schwab P, Bechert K. Negative pressure wound therapy system Innovates standard of care via intelligent pressure control and dynamic exudate removal. Wounds. 2020;32(10):S1-S8.

[†]Invia® Liberty™ NPWT System; Medela AG Presented at the SAWC Spring April 7-9, 2022.

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PAST MANAGEMENT

The previous NPWT system was determined to be noisy, hindered patient mobility, and required additional daily documentation outside of the facility charting system as required by the previous vendor. Par level maintenance of the previous NPWT device was also outside of facility processes and reliability concerns were experienced.

METHODS

An Innovative NPWT System[†] that met the standard of care, as defined by EWMA, by maintaining set pressure at the wound site² was evaluated. This innovative system exceeded our expectations for clinical performance³, reliability and significantly reduced the burden of NPWT device documentation for billing and management.

OUTCOMES

Case series has expanded to seven patients exhibiting a range of challenging wounds including necrotizing fasciitis, CABG dehiscence with osteomyelitis and exposed bone, Fournier’s gangrene and pressure injuries. The Innovative NPWT System[†] was effectively applied to patients. Dressings were changed 2-3 times weekly and wound measurements were taken. The staff noted their overall satisfaction with the device and provided notable patient feedback.

CONCLUSIONS

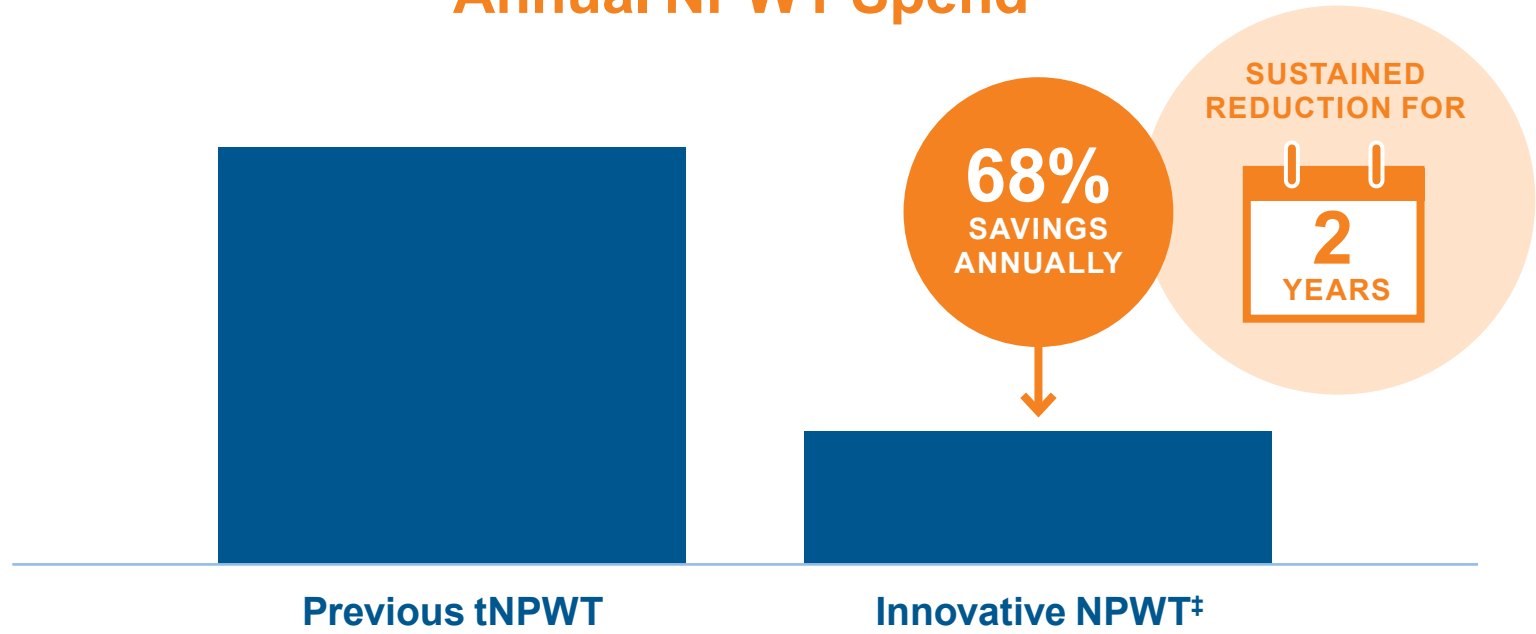
The results from seven patients illustrated positive patient outcomes with an average wound reduction of 67%. Healing time on therapy averaged 3.6 weeks. Overall patient and staff satisfaction with the innovative device was high. Our staff has continued to state that they spend less time problem solving with the Innovative NPWT System[†]. The increased ease of use includes the eradication of daily documentation outside of the facility charting system. We have been able to consistently maintain the initial 68% reduction in spend (six figures) after converting to the Innovative NPWT System[†]. More importantly, the high standards for patient outcomes remain consistent since the implementation.

RESULTS

	Patient	M / F	Age	Weeks on NPWT	Initial Measurements (cm)	Final Measurements (cm)	Volume Reduction
Innovative NPWT System [†]	1	Male	54	4	19.5 x 14.0 x 5.9	10.0 x 7.0 x 2.5	89%
	2	Male	68	3	17.0 x 2.2 x 2.4	15.0 x 2.0 x 1.0	67%
	3	Male	50	4	7.0 x 7.3 x 1.7	6.5 x 5.0 x 0.7	74%
	4	Female	67	3	7.5 x 7.4 x 1.1	6.5 x 5.6 x 1.0	40%
	5	Male	70	5	8.0 x 10.0 x 1.0	5.6 x 7.0 x 0.3	85%
	6	Male	64	2	6.3 x 6.0 x 1.5	6.0 x 4.2 x 1.0	56%
	7	Female	63	4	12.2 x 9.0 x 3.5	9.1 x 7.1 x 2.6	56%
				3.6 Average			67% Average



Annual NPWT Spend



- ✓ Increased quality
- ✓ Reduced troubleshooting
- ✓ Increased reliability of pumps on patients
- ✓ Eliminated rationing of NPWT due to lack of confidence