

# Improving Patient Experience through an Innovative Negative Pressure Wound Therapy System<sup>‡</sup>

Keri Mullins, RN, BSN  
Chief Clinical Officer  
North Alabama Specialty Hospital



## BACKGROUND

Negative Pressure Wound Therapy (NPWT) is the gold standard therapy, effectively treating a wide range of complex wounds. However, as part of our process improvement efforts, the NPWT system we used in our facility was identified as a pain point, both clinically as well as operationally. In an effort to optimize care, we conducted a thorough evaluation of other commercially available NPWT systems. Our main priority was to find a system that could deliver superior clinical outcomes while also providing operational efficiencies beyond just cost savings, namely, reducing staff administrative distractions from micromanaging pumps, time spent troubleshooting, and reliability of pump performance on patients.

## PURPOSE

The purpose of this case series was to evaluate the clinical outcomes as well as overall financial savings when using the Innovative NPWT System<sup>‡</sup>.

## METHODS

This was a five patient case series highlighting a range of challenging wounds including, but not limited to, necrotizing fasciitis, CABG dehiscence and osteomyelitis with exposed bone. Patients received the Innovative NPWT System<sup>‡</sup>, which met the standard of care as defined by the European Wound Management Association (EWMA), containing an electronically-controlled feedback system to maintain set pressure at the wound bed<sup>1</sup>. Dressings were changed 2-3 times weekly and wound measurements were taken. Patients and staff provided overall satisfaction scores for the device.

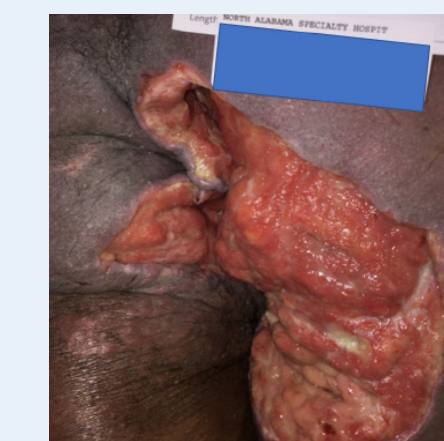
## CONCLUSIONS

The Innovative NPWT System<sup>‡</sup> exceeded our expectations for clinical performance, reliability, inventory management, and cost reduction. Most importantly, the results illustrated positive patient outcomes with an average wound reduction of 71% and average time on therapy of 3.4 weeks treating a range of challenging wound types. Through the use of this Innovative NPWT System<sup>‡</sup>, the facility was able to reduce annual spend by 68% as compared to the previously utilized tNPWT device. The success seen at our facility led to a system-wide conversion to the Innovative NPWT System<sup>‡</sup> and demonstrated that the right NPWT system can deliver both optimized clinical outcomes and significant financial savings.

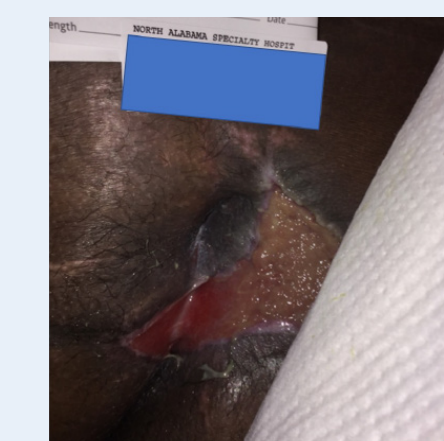
## RESULTS

	Patient	M / F	Age	Weeks on NPWT	Initial Measurements (cm)	Final Measurements (cm)	Volume Reduction
Novel NPWT System <sup>‡</sup>	WM	Male	54	4	19.5 x 14.0 x 5.9	10.0 x 7.0 x 2.5	89%
	RM	Male	68	3	17.0 x 2.2 x 2.4	15.0 x 2.0 x 1.0	67%
	KD	Male	50	4	7.0 x 7.3 x 1.7	6.5 x 5.0 x 0.7	74%
	VB	Female	67	2	7.5 x 7.4 x 1.1	6.5 x 5.6 x 1.0	40%
	DM	Male	70	4	8.0 x 10.0 x 1.0	5.6 x 7.0 x 0.3	85%
				<b>3.4 Average</b>			<b>71% Average</b>

Patient WM



Week 1



Week 5

Patient RM



Week 1



Week 4

Patient KD



Week 1



Week 5

Patient VB



Week 1

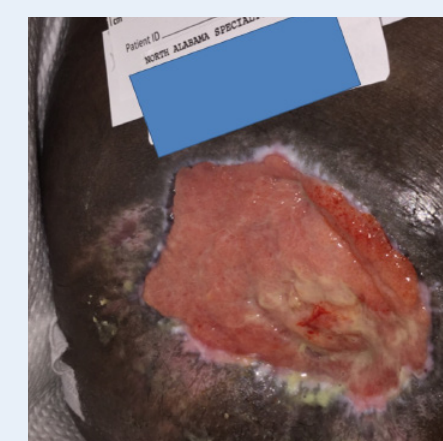


Week 3

Patient DM

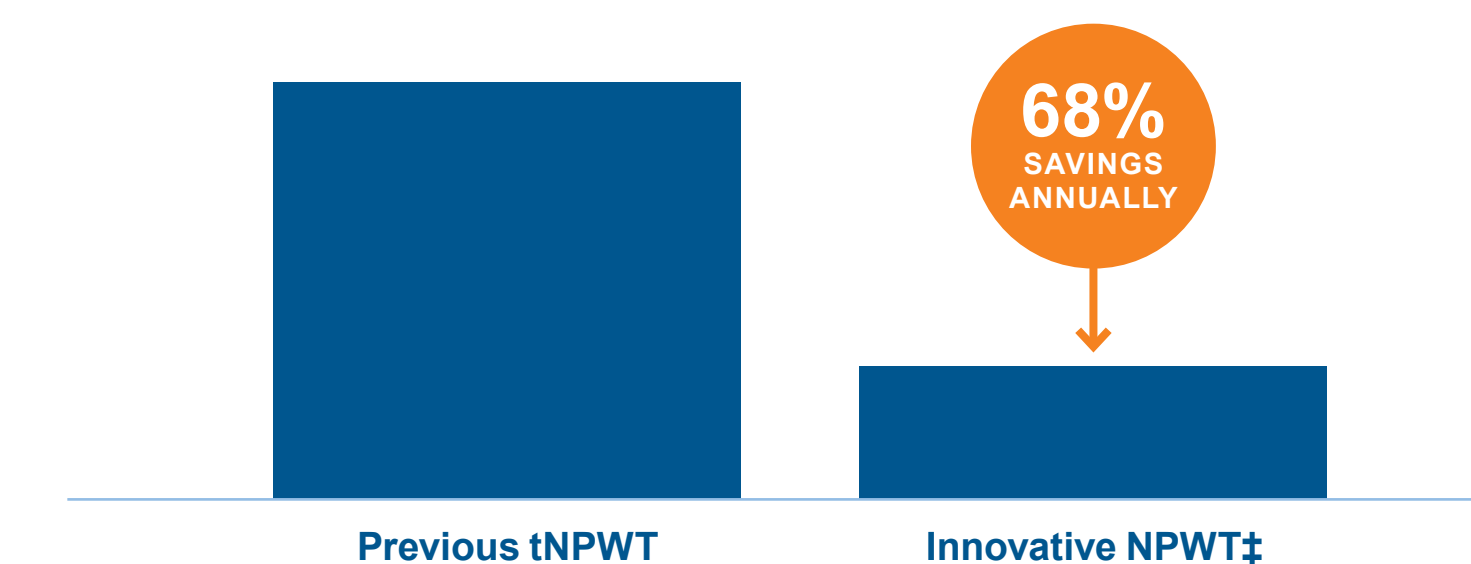


Week 1



Week 4

## Annual NPWT Spend



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



References:

1- Apelqvist, J., Willy, C., Fagerdah, A.M. et al. Negative Pressure Wound Therapy – overview, challenges and perspectives. J Wound Care 2017; 26: 3, Suppl 3, S1–S113.

<sup>‡</sup>Invia® Liberty™ NPWT System; Medela AG Presented at the SAWC Fall October 29-31, 2021.

Support of Medela LLC is acknowledged. Medela and Invia are registered in the U.S. Patent and Trademark Office. Liberty is a trademark of Medela. 1549833A 0921 © 2021 Medela

