

QUICK FACTS

BURN WOUND INFECTION

BURN WOUNDS ARE A PERSISTENT GLOBAL PROBLEM

486,000 people seek care for burns each year in the U.S., leading to **40,000 hospitalizations**¹

11 million burns are treated globally each year²

INFECTION IS THE LEADING CAUSE OF DEATH AFTER BURN INJURY

> 65% of burn mortality attributable to infection³

BIOFILM-SPECIFIC INFECTION INCREASES MORTALITY

60% of all deaths in burn victims due to biofilm-specific infection⁴

Burn wounds become infected quickly

- Patients' burn wounds rapidly attract a range of pathogens from their own skin and contaminated environmental surfaces
- Burns are quickly colonized by gram-positive bacteria, principally *S. aureus*
- Within a few hours to a few days, wounds are further colonized by gram-negative bacteria, principally *P. aeruginosa* and *A. baumannii*⁴

Biofilm complicates burn wound infections

- Bacteria in biofilm form can be 100- to 1000-times more resistant to antibiotics than planktonic or free-floating bacteria⁴
- *In vitro* studies have shown that once biofilm is established, silver has limited benefit⁵
- While current therapies attempt to inhibit bacterial growth in burn wounds, no standard of care exists for treatment of biofilm infection



Electricity delivered by Procellera™ Dressings combats biofilm infection in burn wounds.^{5,6}

Treat burn wounds with

Procellera™
ANTIMICROBIAL WOUND DRESSING
POWERED BY V.DOX™ TECHNOLOGY



Published studies demonstrate Procellera's ability to:

- Kill a broad-spectrum of microbes, including multidrug-resistant and biofilm-forming bacteria⁷⁻⁹
- Disrupt established biofilm infection^{6,8}
- Prevent biofilm from forming^{6,8}

REFERENCES: 1. <https://ameriburn.org/who-we-are/media/burn-incidence-fact-sheet/> 2. Peck MD. Epidemiology of burn injuries globally. www.uptodate.com. February 9, 2021. 3. Lachiewicz AM et al. Bacterial infections after burn injuries: impact of multidrug resistance. *Clin Infect Dis*. 2017 Nov 29;65(12):2130-2136. 4. Thomas RE, Thomas BC. Reducing biofilm infections in burn patients' wounds and biofilms on surfaces in hospitals, medical facilities and medical equipment to improve burn care: a systematic review. *Int J Environ Res Public Health*. 2021 Dec 14;18(24):13195. 5. Chan RK et al. A prospective, randomized, controlled study to evaluate the effectiveness of a fabric-based wireless electroceutical dressing compared to standard of care treatment against acute trauma and burn wound biofilm infection. *Adv Wound Care (New Rochelle)*. 2023 Feb 28. doi: 10.1089/wound.2023.0007. Epub ahead of print. 6. Barki KG et al. Electric field based dressing disrupts mixed-species bacterial biofilm infection and restores functional wound healing. *Ann Surg*. 2019 Apr;269(4):756-766. 7. Kim H et al. Antibacterial efficacy testing of a bioelectric wound dressing against clinical wound pathogens. *Open Microbiol J*. 2014 Feb 21;8:15-21. 8. Banerjee J et al. Silver-zinc redox-coupled electroceutical wound dressing disrupts bacterial biofilm. *PLoS One*. 2015 Mar 24;10(3):e0119531. 9. Kim H, Izadjoo MJ. Antibiofilm efficacy evaluation of a bioelectric dressing in mono- and multi-species biofilms. *J Wound Care*. 2015 Feb;24 Suppl 2:S10-4.

Please review the Instructions for Use for a complete list of indications, contraindications, warnings, and precautions.
© 2023 Vomar. All rights reserved. Vomar logo, Vomar, Procellera, and V.Dox are trademarks of Vomar Innovations, Inc.
K-181 Rev. B

Vomar Wound Care, Inc.
1911 East Fifth Street | Tempe, AZ 85288 USA
+1 (480) 921-4948 | (866) 496-8743

