



RenalGuard's Ability to Prevent Contrast-Induced Acute Kidney Injury in Vascular Surgery Showcased at LINC 2019

*Continued Demonstration of Therapy Effectiveness to be Presented by
Key German Vascular Surgeon*

MILFORD, Mass. — February 6, 2019 - RenalGuard Solutions™, Inc., a medical device company focused on innovative technologies for the cardiac and vascular markets, was showcased during the 2019 Leipzig Interventional Course (LINC 2019) in a presentation by Dr. med. Matthias W. Mende, Chief Vascular Surgeon, St. Ansgar Hospital Clinic for Vascular Surgery and Endovascular Surgery, Hoxter, Germany. LINC is an interdisciplinary live course, designed to provide a global platform, permitting the discussion of vascular patients by integrating colleagues of different specialties who are performing endovascular interventions. The conference was held in Leipzig, Germany from 22-25 January 2019.

Dr. Mende discussed his practical experience with RenalGuard® as part of the Innovation Forum, Thursday, 24 January 2019. Dr. Mende reviewed the results of the real-world use of the system at his center. In 58 high-risk patients treated over 23 months, one patient developed renal failure (1.7%), 3 patients saw a small increase in serum creatinine, while 90% of patients saw a decrease or no change in their serum creatinine. Dr. Mende described individual cases that utilized RenalGuard, including contrast-enhanced CT, endovascular repair (EVAR) and peripheral interventions. Dr. Mende's presentation also included a review of the challenges of using CO₂, including potential for patient pain, poor picture quality and the complicated logistics required.

"The use of RenalGuard continues to increase with interventional physicians in Germany and other European countries as a way to protect the kidney function in renal-impaired patients undergoing endovascular procedures and planned contrast-enhanced CT scans," said Dr. Mende. "The most important detail about this system we learned in our cohort is that the therapy must not be interrupted by any means, like failing IV access or working with nurses who may not be familiar with the system and protocol. If RenalGuard runs smoothly, all patients have the potential to benefit from its use. We are optimistic we will continue to see positive results in select patients as we continue to use the system."

Currently used in Europe and other countries that recognize the CE Mark, RenalGuard is designed to reduce the incidence of CIN found in the millions of at-risk patients undergoing cardiovascular imaging procedures by managing real-time fluid balance in conjunction with interventional procedures involving contrast media. A number of studies have demonstrated RenalGuard's ability to protect patients from AKI following catheterization procedures when compared to the standard of care. To date over 20,000 patients worldwide have been treated with RenalGuard.

The RenalGuard System™ measures the patient's urine output, and then infuses a volume of saline to maintain the desired fluid balance. The system is designed to induce high urine rates, which have been shown to protect the kidney from a range of insults.

"We are very pleased by the positive response in the medical community in Europe towards the use of RenalGuard in high-risk patients undergoing cardiovascular procedures," said Jim Dillon, Chief Executive Officer, RenalGuard Solutions. "Dr. Mende's experience with endovascular procedures is consistent with what we are seeing in other major hospitals in Germany and across Europe. We look forward to the continued increased usage of the system with these patients."

About RenalGuard Therapy®

RenalGuard measures a patient's urine output and automatically infuses hydration fluid based on that urine output. The system is designed to induce high urine rates, which have been shown to protect the kidney from a range of insults. A number of studies have demonstrated RenalGuard's ability to protect patients from AKI following catheterization procedures when compared to the standard of care, including: [MYTHOS](#), which found RenalGuard to be superior to overnight hydration; [REMEDIAL II](#), which found RenalGuard to be superior to sodium bicarbonate hydration; [Protect-TAVI](#), which reported a significant reduction in post-procedural acute kidney injury (AKI) following transcatheter aortic valve replacement (TAVR) when using RenalGuard during the procedure, compared to standard therapy; and [AKIGUARD](#), which showed significant improvement in long-term outcomes when using RenalGuard vs. standard therapy. Two meta-analyses of these results ([Putzu](#) and [Mattathil](#)) found RenalGuard consistently reduced kidney injury, dialysis, adverse events and mortality compared to standard therapy.

About RenalGuard Solutions, Inc.

RenalGuard Solutions, Inc. is a medical device company focused on innovative technologies for the cardiac and vascular markets. The company's lead product, RenalGuard®, is designed to protect patients from acute kidney injury (AKI), including contrast-induced AKI. Investigator-sponsored studies in Europe have demonstrated RenalGuard's effectiveness at preventing CI-AKI in at-risk patients. RenalGuard is CE-marked and is sold in Europe and certain countries around the world via a network of distributors. For further information, please visit the company's website at <https://www.renalguard.com>.

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