**RenalGuard**<sup>®</sup> is indicated for temporary replacement of urine output by infusion of a matched volume of sterile replacement solution to maintain a patient's intravascular fluid volume.

#### **Features**

- Closed loop fluid management system
- High fluid volume pump
- High accuracy, dual weight measuring system
- Motion-detected artifact reduction
- Proprietary disposables
  - Single-use intravenous set
  - Urine collection system that interfaces with a standard Foley catheter
- Real-time display of urine and hydration fluid volumes and urine rate
- User-selected fluid bolus administration
- Automatic battery back-up
- Automatic priming of the infusion set
- Timely alerts to drain urine bag or to replace hydration fluid bag
- Safety features such as automatic air detection intravenous occlusions

## **Specifications**

- Dimensions: 36×18×23 cm (H × W × D)
- Weight: 4.1 kg
- Mains Voltage: 100–240 VAC, 60/50 Hz Power: 50 VA
- Flow Rates: KVO rate 10–100 ml/hr
- Normal Operating Range: 10–3000 ml/hr
- Maximum Flow Rate: 6000 ml/hr up to 3 mins

RenalGuard® is CE-marked for the intended use of temporary (up to 14 days) replacement of urine output by infusion of a matched volume of sterile replacement solution to maintain a patient's intravascular fluid volume. The RenalGuard System is not intended for infusion of blood, blood components, medications, or nutritional fluids. All treatments administered via The RenalGuard System must be prescribed by a physician. RenalGuard Solutions, Inc. reserves the right to modify the specifications and features described herein, or discontinue manufacture of the product described at any time without prior notice or obligation.

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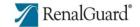


# RenalGuard Therapy® For Cardiac Surgery



## Personalized, Matched Hydration Therapy

Preventing AKI in High-Risk Cardiac Surgery Patients



RenalGuard® a new, clinically validated approach for preventing Cardiac Surgery Associated AKI with personalized matched hydration therapy. <sup>1</sup>

- Creates and maintains a high urine output
- Maintains balanced hydration by matching fluid input to urine output in real time
- Automatic control reduces the risk of over and under-hydration

RenalGuard® simplifies AKI management for high-risk cardiac surgery patients

- Easy to set up and operate
- Fits into normal cardiac surgery work-flow
- Therapy begins 30 minutes before procedure, continues during, and completes 4 hours afterwards.
- Nurse-operated during the procedure, allowing the physician to focus on surgery



### **Standard of Care**

- Limited efficacy to prevent AKI
   With high clinical burden and associated costs
- Passive Monitoring of Urine Output Delays diagnosis of AKI progression
- Adverse Effects include Pulmonary Edema
   Due to risk of manual over hydration





RenalGuard 11 of 110 patients

23 of 110 patients

KIDNEY Study: The validation trial demonstrated a 52% reduction in AKI in cardiac surgery patients when treated with RenalGuard® vs the standard of care. <sup>1</sup>



<sup>1</sup>Luckraz H \*, Giri R, Wrigley B, Nagarajan K, Senanayake E, Sharman E et al. European Journal of Cardio-Thoracic Surgery 0 (2020) 1–8Reduction in acute kidney injury post cardiac surgery using balanced forced diuresis: a randomized, controlled trial DOI:10.1093/ejcts/ezaa395 Received 16 June 2020, received in revised form 2 September 2020, accepted 16 September 2020