

# Lactated Ringer Is Associated With Reduced Mortality and Less Acute Kidney Injury in Critically Ill Patients: A Retrospective Cohort Analysis\*

Critical Care Medicine

December 2016 • Volume 44 • Number 12

Fernando G. Zampieri, MD<sup>1,2</sup>; Otavio T. Ranzani, MD<sup>3</sup>; Luciano Cesar Pontes Azevedo, MD, PhD<sup>1,4</sup>; Izanio D. S. Martins, MD<sup>5</sup>; John A. Kellum, MD, PhD<sup>6</sup>; Alexandre B. Libório, MD, PhD<sup>5</sup>

## CONCLUSIONS

Higher %LR during the first 2 days of ICU admission was associated with reduced hospital mortality and reduced incidence of AKI from days 3 to 7 after ICU admission in a large population of critically ill patients. The protective effect of %LR was more pronounced as the total volume of fluids infused increased and was not evident in subgroup analysis when less than 7 L of fluid was infused.

Study design:

Retrospective, single-institution, cohort

Inclusion criteria - All patients from two hospitals

Exclusion:

<500mls of crystalloid

Initial creat >5mg/dl

Colloid administration during first 48h

AKI occurring in first 48 hours

Outcomes:

AKI occurrence day 3-7

Survival at 90 days

Results

For patients that received overall lower total fluid volume in first 48 hours, up to 50% LRS was associated with lower risk of AKI and 90d mortality

For patients that received higher overall total fluid volume, up to 75% LRS was associated with lower risk of AKI and 90d mortality.

Overall low risk of AKI

