

Sodium Bicarbonate for Severe Metabolic Acidemia and Acute Kidney Injury

An open-label, investigator-initiated, multicenter randomized clinical trial.

BICARBONATE GROUP

Intravenous administration of 4.2% sodium bicarbonate, targeting an arterial pH of 7.30 or higher throughout the next 28 days or until ICU discharge.

314 Patients

BICARICU-2 TRIAL

or patients with severe metabolic acidosis and moderate to severe acute kidney injury, does sodium bicarbonate infusion decrease day 90 all-cause mortality?

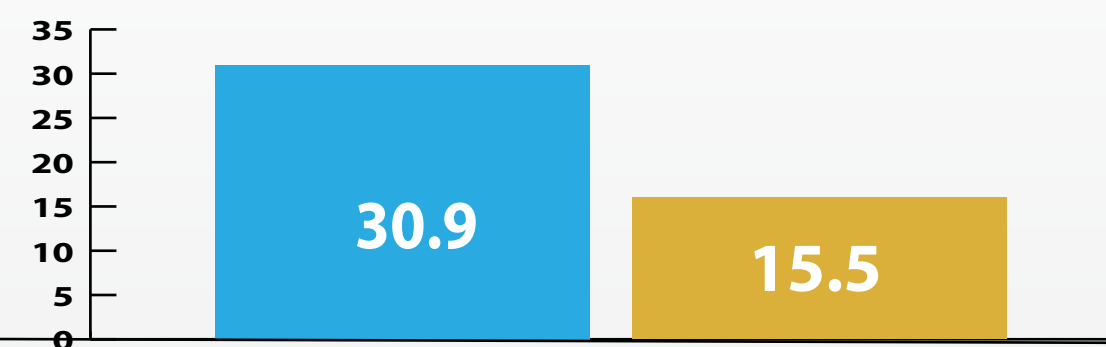
627 patients
43 French intensive care units

CONTROL GROUP

Did not receive sodium bicarbonate infusions or placebo.

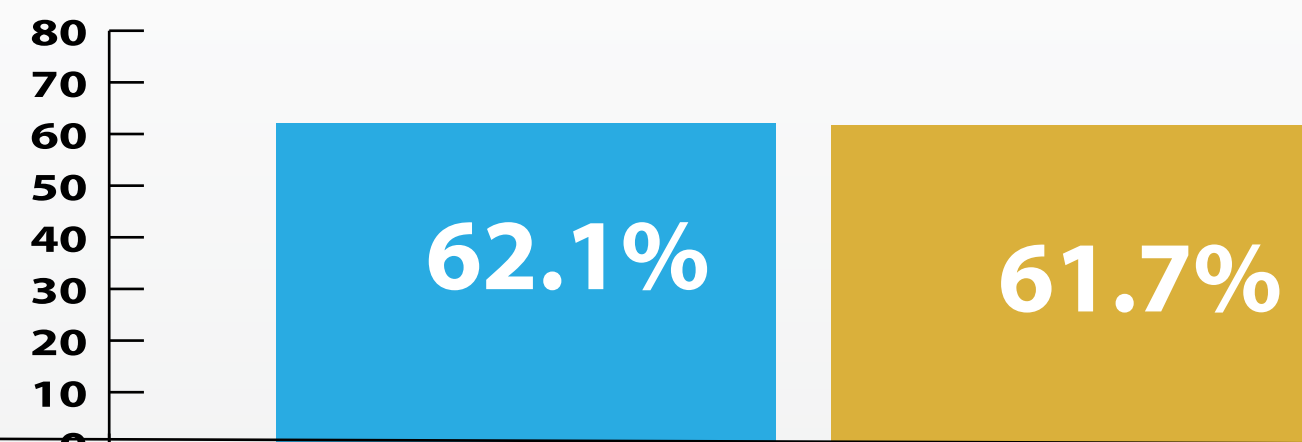
313 Patients

Time to RRT (hours)



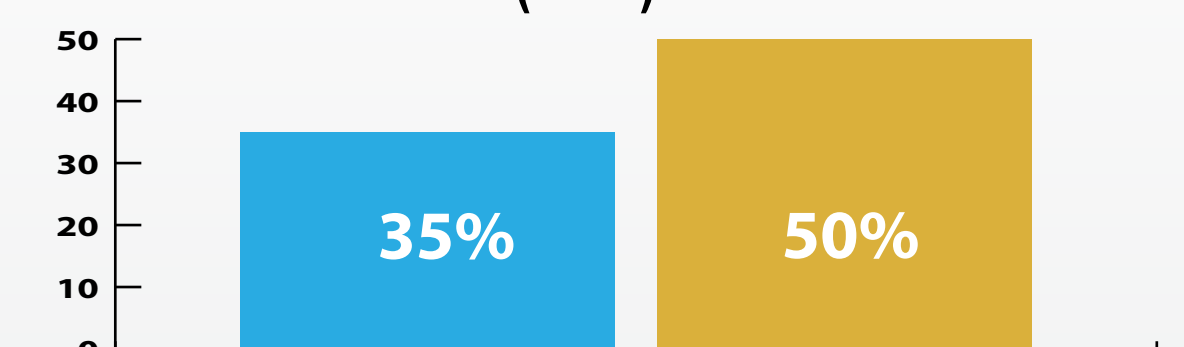
absolute difference, 13; 95% CI, 6.4-20.8

All-cause Mortality at Day 90.



absolute difference, 0.4; 95% CI, -7.2 to 8.0; P=.91

Renal Replacement Therapy (RRT)



absolute difference, -15.5; 95% CI, -23.1 to -7.8

In patients with severe metabolic acidemia and moderate to severe acute kidney injury, intravenous sodium bicarbonate did not reduce mortality but was associated with a lower rate and delayed initiation of renal replacement therapy.