

LETTER TO THE EDITOR

## Response to Letter

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We thank Dr. Rasmussen for his recent letter expressing concerns about statements made in our article with regard to the efficacy of sodium zirconium cyclosilicate (ZS-9) in patients with serum potassium ( $K^+$ ) concentrations  $>6.5$  mEq/L. Although ZS-9 is certainly one of the potential agents for the treatment of acute hyperkalemia in the future, the HARMONIZE trial (1) was conducted in an outpatient setting and did not include hospitalized patients. Moreover as mentioned in our article (2), the mean  $K^+$  level in the HARMONIZE trial was 5.6 mEq/L with only nine patients with baseline serum  $K^+ >6.5$  mEq/L. While the substudy (3) quoted by the authors showed a significant decline in the mean serum potassium level (0.4 and 0.6 mmol per liter at 1 and 2 hours, respectively), it had a mean baseline serum  $K^+$  of 6.3 mEq/L (95% CI – 6.2–6.4). We do agree that due to the significant limitations of the existing treatment options, it is highly likely that ZS-9 with its low side-effect profile in the trials seems to be a viable alternative. However, large-scale randomized control trials looking at ZS-9 in the acute setting with severe hyperkalemia will be needed to implement it in clinical practice.

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### References

1. Kosiborod M, Rasmussen HS, Lavin P, Qunibi WY, Spinowitz B, Packham D, et al. Effect of sodium zirconium cyclosilicate on potassium lowering for 28 days among outpatients with hyperkalemia: The HARMONIZE randomized clinical trial. *JAMA* 2014; 312(21): 2223–33. doi: 10.1001/jama.2014.15688.
2. Karmacharya P, Poudel DR, Pathak R, Rettew A, Alweis R. Acute hyperkalemia leading to flaccid paralysis: A review of hyperkalemic manifestations. *J Community Hosp Intern Med Perspect* 2015; 5(3): 27993, doi: <http://dx.doi.org/10.3402/jchimp.v5.27993>
3. Kosiborod M, Peacock WF, Packham DK. Sodium zirconium cyclosilicate for urgent therapy of severe hyperkalemia. *N Engl J Med* 2015; 372(16): 1577–8. doi: 10.1056/NEJMc1500353.