

Truvitalyte

RESEARCH SUMMARY



Electrolyte Comparison TRUVITALYTE - MIXED BUFFER ELECTROLYTE VS. ACETATE BASED ELECTROLYTE VS. BICARBONATE BASED ELECTROLYTE

Details

- 45 dehydrated Holstein calves
 - 14 Truvitalyte Calves
 - 16 Acetate Based Calves
 - 15 Bicarbonate Based Calves
- Blood gas measures were taken:
 - 0 hrs (before electrolyte administration)
 - 1 hr after electrolyte administration
 - 8 hrs after electrolyte administration
 - 24 hrs after electrolyte administration

Results

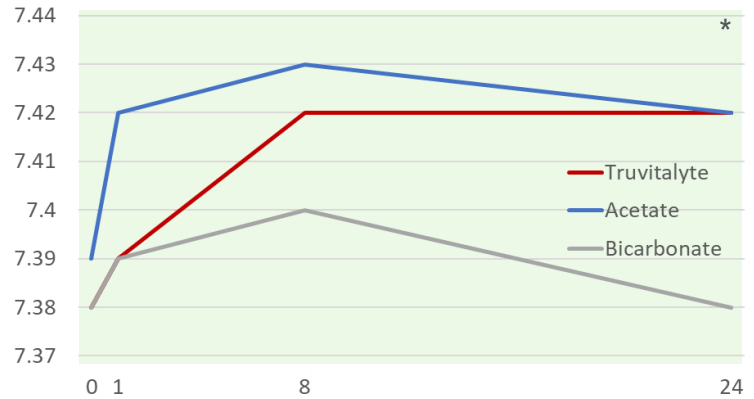
When comparing the blood measures in the dehydrated calves over 24 hours, to measures of a healthy calf, Truvitalyte administration:

- Increased pH from enrollment to 24 hours following administration
- Elevated carbon dioxide partial pressure
- Elevated the bicarbonate and base excess levels after 8 hrs

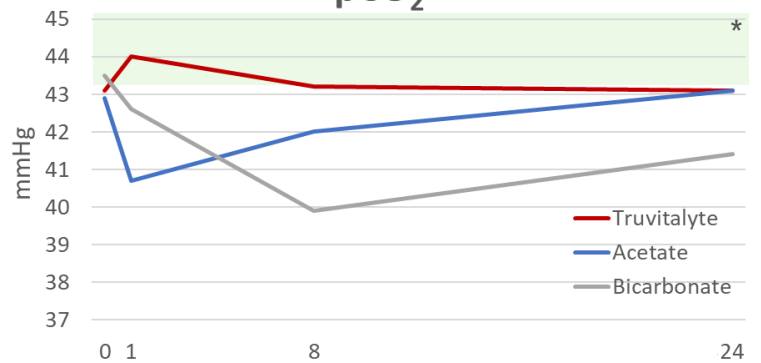
Conclusion

The results of this trial highlight that administering Truvitalyte, a mixed buffer solution, in the treatment of calves with diarrhea lead to an improved acid base status and bicarbonate level after 8 hours. As well as increasing pH and partial pressure of carbon dioxide. Overall, Truvitalyte reduced the risk of metabolic acidosis in dehydrated calves.

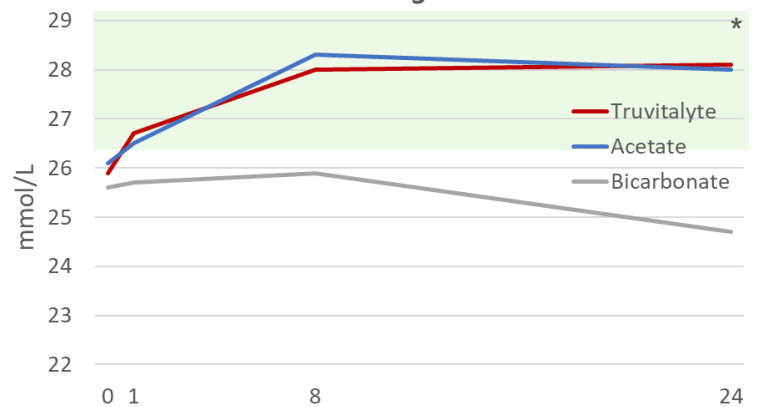
pH



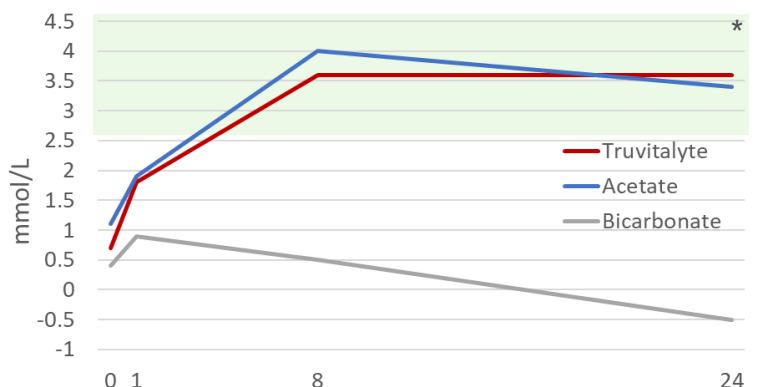
pCO₂



HCO₃



BASE EXCESS



*Reference Range Values from: Dillane, Patrick et al. "Establishing Blood Gas Ranges In Healthy Bovine Neonates Differentiated By Age, Sex, And Breed Type". Journal Of Dairy Science, vol 101, no. 4, 2018, pp. 3205-3212. American Dairy Science Association, doi:10.3168/jds.2017-13445.