

The GluCurve Pet CGM Non-Inferiority Study

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Background

ALR Technologies developed a novel continuous glucose monitor (CGM) for diabetic cats and dogs branded the GluCurve Pet CGM. It continuously measures the interstitial glucose (IG) concentrations every 3 minutes for 14 day and converts the measurements into blood glucose levels.

Objectives

Proof of concept study to assess the accuracy of the GluCurve Pet CGM compared to the leading blood glucose monitor (BGM) AlphaTRAK 2 in diabetic cats and dogs with an IDEXX Catalyst One Chemistry Analyzer used for baseline measurements.

Animals

Six client-owned diabetic cats on insulin treatment.
Two client-owned diabetic dogs on insulin treatment.

Methods

The GluCurve Pet CGM was placed on each subject day 1, blood samples were drawn intravenously and measured on the BGM, Chemistry Analyzer, and CGM. The subjects were sent home day 1 and brought back into the clinic periodically over 14 days to repeat the sampling process. Utilizing the Chemistry Analyzer as the baseline for accuracy, corresponding measurements from the GluCurve Pet CGM and the AlphaTRAK 2 were paired for comparison.

Results

The GluCurve Pet CGM was more accurate 11/23 with an average deviation from the Chemistry Analyzer of 9.73%. The AlphaTRAK 2 was more accurate 12/23 with an average deviation from the Chemistry Analyzer of 8.23%

Conclusion

No significant difference was found between the accuracy of the GluCurve Pet CGM and the leading BGM. The GluCurve Pet CGM was easily applied and well tolerated by the subjects, it provided substantially more readings at 480 per day with the added benefit of the subject being at home.