

Analysis of “Accuracy Evaluation of Five Blood Glucose Monitoring Systems: The North American Comparator Trial”

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Abstract

In an article in *Journal of Diabetes Science and Technology*, Halldorsdottir and coauthors examined the accuracy of five blood glucose monitoring systems (BGMSs) in a study sponsored by the manufacturer of the BGMS CONTOUR NEXT EZ (EZ) and found that this BGMS was the most accurate one. However, their findings must be viewed critically given that one of the BGMSs (ACCU-CHEK Aviva) was not compared against the reference measurement specified by its manufacturer, thus making it likely that it performed suboptimally. Also, the accuracy of the glucose-oxidase-based ONE TOUCH Ultra2 and TRUEtrack BGMS is likely to have been underestimated because of the expected low oxygen level in the glycolysed blood samples used to test the performance of these BGMSs under hypoglycemic conditions. In conclusion, although this study shows that EZ is an accurate BGMS, comparisons between this and other BGMSs should be interpreted with caution.

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Abbreviations: (ACAP) ACCU-CHEK Aviva, (BGMS) blood glucose monitoring system, (EZ) CONTOUR NEXT EZ, (OTU2) ONE TOUCH Ultra2, (TT) TRUEtrack

Keywords: accuracy, blood glucose, blood glucose monitoring system, diabetes

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