

Technical Aspects of the Parkes Error Grid

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Abstract

Background:

The Parkes error grid, which was developed in 1994, presented performance zones for blood glucose (BG) monitors with borders that were not mathematically specified at the time the grid was published.

Methods:

In this article, we (1) review the history of the Parkes error grid, (2) present the never-before-published exact coordinates and specifications of the grid so that others may produce an exact replica of the original grid, and (3) discuss our suggestions how this metric should be applied.

Results:

The new ISO15197:2013 guideline for system accuracy assessment of BG meters for patient self-measurement incorporates use of this metric for defining acceptable accuracy of BG monitors. It is expected that, for regulatory purposes, this document will stipulate that the error grid version for type 1 diabetes should be applied with the caveat that only the A zone represents acceptable accuracy.

Conclusions:

It remains to be seen by how much the new error grid, which is currently being developed by the Food and Drug Administration/Diabetes Technology Society/American Diabetes Association/The Endocrine Society/Association for Advancement of Medical Instrumentation, will deviate from the Parkers error grid.

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Abbreviations: (BG) blood glucose, (ISO) International Organization for Standardization

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