RESPONSE TO COMMENT ON SEIDU ET AL.

Efficacy and Safety of Continuous Glucose Monitoring and Intermittently Scanned Continuous Glucose Monitoring in Patients With Type 2 Diabetes: A Systematic Review and Meta-analysis of Interventional Evidence. Diabetes Care 2024;47:169–179

Samuel Seidu and Setor K. Kunutsor

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We thank Professor Aleppo for the insightful comment (1) on our systematic review and meta-analysis of the efficacy and safety of continuous glucose monitoring (CGM) and intermittently scanned continuous glucose monitoring (isCGM) in patients with type 2 diabetes (T2D) (2). We value this feedback and are eager to address the concerns. Our study assesses the advantages and risks of CGM and isCGM versus self-monitoring of blood glucose (SMBG) in managing T2D using randomized controlled trials (RCTs), and we used two distinct comparisons.

First, we compared CGM with usual care/SMBG, and second, we compared isCGM with usual care/SMBG. The comparison between CGM and usual care/SMBG involved 17 unique RCTs comprising 1,146 patients with T2D (632 assigned to CGM and 514 assigned to usual care/SMBG). That between isCGM and usual care/SMBG involved nine unique RCTs comprising 1,637 patients with T2D (871 assigned to isCGM and 766 assigned to usual care/SMBG). Our study revealed that CGM and isCGM reduce HbA_{1c} without altering body composition, blood pressure, or lipids versus usual care/SMBG. However, both methods are linked to higher adverse event risks without affecting hypoglycemia. Professor Aleppo's concerns involve our methodology, particularly the categorization of CGM and isCGM studies and trial selection. Regrettably, our methodology and findings have been misinterpreted. Our study compared each method against usual care/SMBG, not directly against each other. This approach was intentional to assess the efficacy and safety of each monitoring method in the context of standard care practices. While we acknowledge the distinction between professional and real-time CGM, our study aimed to assess the collective impact of CGM technology versus SMBG on glycemic control. We intended to conduct subgroup analyses by CGM type but could only do so for HbA_{1c} change because of data limitations.

Concerning the studies Professor Aleppo (1) mentioned, including Ajjan et al. (3), our analysis carefully extracted data pertinent to T2D patients only, ensuring the relevance of our findings to the population of interest. In other instances where studies included mixed populations of patients with type 1 diabetes or T2D (4), we extracted and analyzed data for patients with type 2 diabetes exclusively or excluded the study if separate estimates were not available. Regarding user satisfaction, we noted the differences in satisfaction scores between CGM and isCGM compared with usual care/SMBG. CGM versus usual care/SMBG showed reduced satisfaction scores, whereas isCGM versus usual care/SMBG yielded increased satisfaction scores. Our conclusion did not assert the superiority of isCGM over CGM in this regard. We specifically acknowledged the limitations of our study, including the technological advancements over the years and the variability in device wearability and accuracy, and stated that the findings need to be interpreted carefully considering these limitations. Our aim was to provide an objective analysis based on the available evidence, without bias toward any specific technology or manufacturer. We appreciate the engagement with our work and the opportunity to clarify our methodology and findings. It is through constructive dialogue such as this that we can advance our understanding and management of diabetes care.

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Corresponding author: Samuel Seidu, sis11@leicester.ac.uk

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