

# Ethnic disparities in people accessing FreeStyle Libre in the UK: insights from the Association of British Clinical Diabetologists audit

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## Introduction

We have shown that FreeStyle Libre (FSL) use in people living with diabetes is associated with improvements in glycaemic control, hypoglycaemia awareness, diabetes distress and resource utilisation. In this study, we wanted to identify any ethnicity-specific differences in people who access this technology.

## Methods

Clinicians were invited to submit anonymised FSL user data to a secure web-based tool held within the NHS N3 network. We collected baseline data before FSL initiation, such as patient demographics, previous structured education, duration of diabetes, body mass index (BMI), glycosylated haemoglobin (HbA<sub>1c</sub>) values from the previous 12 months, Gold score and Diabetes Distress Screening scale (DDS2) score. We compared the baseline clinical characteristics across ethnicities using ANOVA and Chi-squared test. All the analyses were done in R 4.1.2.

## Results

The study consisted of 11,652 people living with diabetes. The study included people of White (10,972), East Asian (396), African (92) and other (192) ethnicity. Those with African ethnicity had a higher baseline HbA<sub>1c</sub> 76.1(±22.4) mmol/mol, as compared with White 70.3(±17.8) mmol/mol and East Asian 70.2(±16.8) mmol/mol background (P-Anova <0.05). Those with African ethnicity also had higher diabetes-related distress at baseline as compared with other ethnicities (3.3(±1.4) in African vs 2.9(±1.3) in white and 3.02 (±1.3) in East Asian populations (P-Anova<0.05). There were no significant ethnicity-specific differences in hypoglycaemia awareness or severe hypoglycaemia in the study population.

## Conclusion

This national audit demonstrates evidence of ethnic disparities in people living with diabetes who access FSL. This study supports a detailed analysis of national diabetes datasets such as the national diabetes audit (NDA) data to understand ethnic disparities in access to FSL and other diabetes technologies available for people living with diabetes in the UK. ■

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