

Effect of Free Style Libre on HbA1c in patients with Diabetes secondary to cystic fibrosis(CFRD) attending cystic Fibrosis centre in a UK centre.

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Aims & Objectives

The use of free style Libre has become fairly common in UK since 2019 and it has been commonly prescribed in patients with cystic fibrosis related diabetes. criteria to continue the funding is to scan at-least > 8 times a day and usage of sensor to more than 70%. A retrospective analysis was done to compare the glycaemic control before and after Libre initiation. In addition, we assessed the impact of Libre by analysing other factors such as Time in range (TIR), time above (TBR) and below ranges, sensor activity.

Methods

The data for people living with cystic fibrosis related diabetes was captured from electronic records and Libreview database. We studied the HbA1c levels, TIR, TBR, and Time above range (TAR). The target glucose as per international consensus was 4-10mmol/l for all the participants. TIR, TBR, TAR were analysed from the last 3 months' time. HbA1c was taken pre and post libre sensor initiation.

Results

58 (27 male, 31 female) participants are currently under the joint cystic fibrosis and diabetes clinic and data was analysed for all these patients. The average age was 33.5 years with range of 19 to 57 years. The average HbA1c before the start of Libre was 8.5% (69 mmol/mol) which improved to 7.74% (61 mmol/mol) after the initiation of Free style Libre (FSL). 37/58 (63.8%) people had TBR (< 4% times), 40/58 (69%) had TAR (>10% of times), 30/58 (51.7%) people had more than 70% TIR. 34/58 (58.6%) had sensor activity more than 70%. Out of the rest only 26.4% patients had less than 50% sensor activity. P value <0.05 suggesting statistical significance. None of the participants had any episodes of inpatient admission due to Diabetic Ketoacidosis post Libre.

conclusion

The use of Free Style Libre (FSL) in patients with cystic fibrosis related diabetes is associated with improved HbA1c levels; furthermore majority of the patients had more than 70% time in range with good sensor activity

