



Flash glucose monitoring in noncompliant children and adolescents with type 1 diabetes

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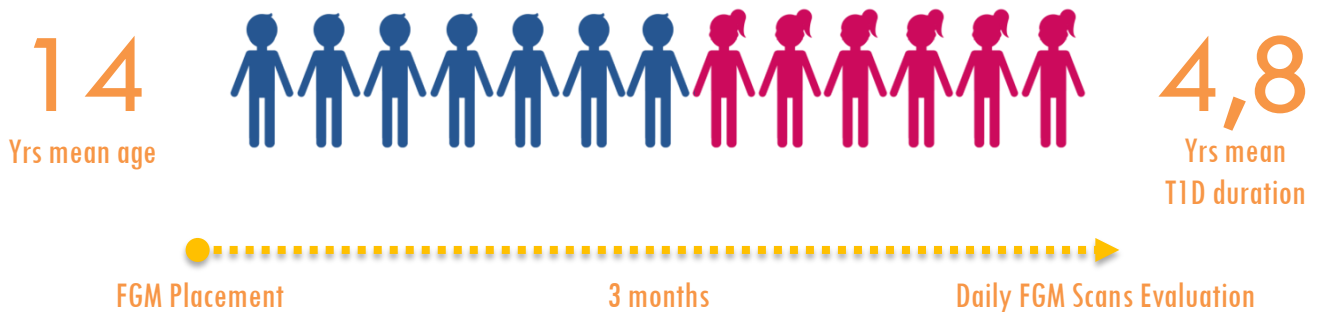
// Background and Aims

Recent data involving adults with type 1 diabetes have shown that Flash Glucose Monitoring is effective. However, data regarding children and adolescent who are noncompliant with regular capillary blood glucose monitoring are lacking. Our aim was to assess whether FGM could represent an empowering tool and improve glucose control in children and adolescent who are non compliant to regular BGM and treated with multiple injections.



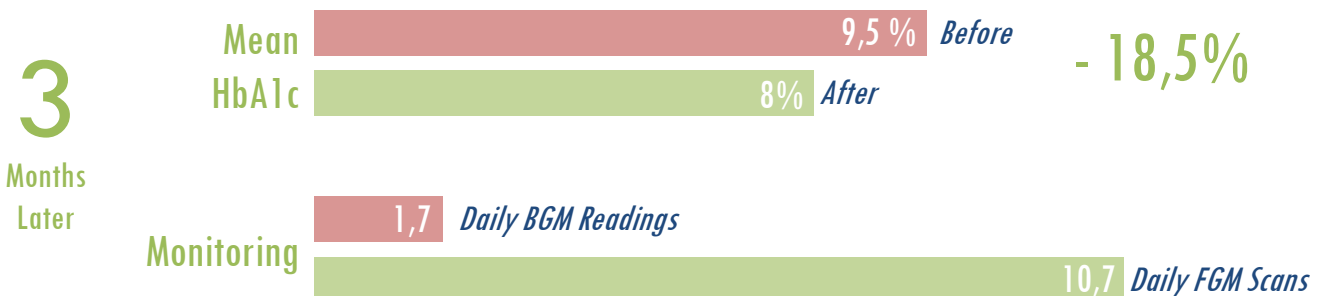
// Methods

We evaluated 13 T1DM patient (7 males, 6 females) with the following characteristics: mean age 14 years (SD 4.1 years), mean T1D duration of 4,8 (SD 2.2 years), undergoing multiple injection therapy. HbA1c readings were evaluated at FGM placement and average number of daily FGM scans were evaluated at 3 months. At FGM insertion the patients were educated on interstitial glucose monitoring management and trend arrow evaluation. Patients were required to measure at least one BGM to assess FGM accuracy. A paired t-test was used to compare HbA1c means.



// Results

Mean HbA1c at FGM placement and after 3 months were 81 mmol/mol +/-28 and 66mmol/mol +/-19 respectively. The decrease in mean HbA1c of 15 mmol/mol was statistically significant ($p < 0,0019$). Average number of daily BGM readings in the 3 months prior to FGM placement: 1.7 +/-1.3. Average number of daily FGM scans in the 3 months: 10.7 +/-6.6. No episodes of severe hypoglycaemia or DKA were detected.



FGM use may improve glucose control and motivation in noncompliant children and adolescents with T1D. Further studies are needed to determine whether improved outcomes can be achieved with prolonged use of the system.