

EP035 **DURABLE HIGH GLUCOMETRIC PERFORMANCE OF THE MINIMED™ 780G ADVANCED HYBRID CLOSED LOOP SYSTEM IN REAL WORLD EVALUATION IN A VALUE BASED DIABETER CENTER (DIABETER NETHERLANDS)**



D. Mul<sup>1</sup>, A. Arrieta<sup>2</sup>, H.J. Aanstoot<sup>1</sup>, J. Castañeda<sup>2</sup>, J. Da Silva<sup>3</sup>

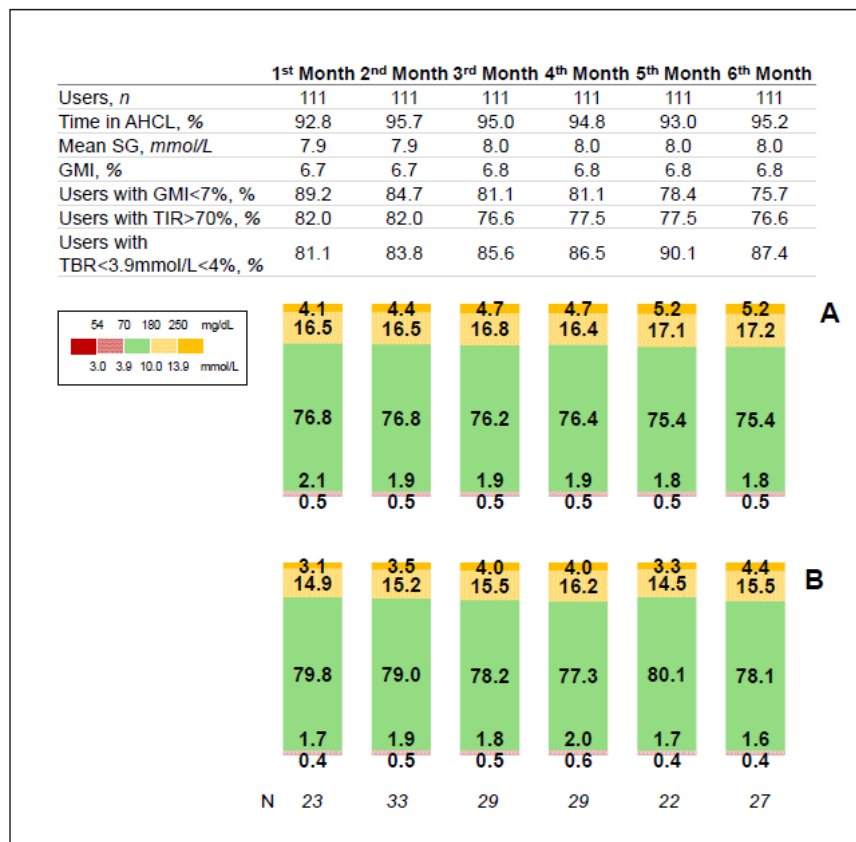
<sup>1</sup>Diabeter, Centre for pediatric and adult diabetes care and research, Rotterdam, Netherlands, <sup>2</sup>Medtronic, Bakken Research Center, Maastricht, Netherlands, <sup>3</sup>Medtronic International Trading Sàrl, Tolochenaz, Switzerland

**1. INTRODUCTION & AIM**

In previous studies it has been shown that the MiniMed™ 780G system can provide time in range (TIR) well in target. The success of any advanced hybrid closed loop (AHCL) system depends on technical, educational and psychological factors. In a real-world analysis these components come together, and success is reflected not only in high TIR but also in durability of the glucometric performance. We analyzed the durability of glucometric outcomes of 6 months use of the MiniMed™ 780G system.

**2. METHODS**

We retrospectively analyzed the glucometrics of patients with T1DM who initiated the MiniMed™ 780G system between SEP-2020 and NOV-2021 in Diabeter Netherlands. To be included in the analysis, patients needed to have at least 6 months of sensor glucose (SG) data after AHCL initiation and at least 10 days of SG data in each month. All patients received structured education before start and multiple (eHealth) HCP contacts during use.



**Figure 1:** Longitudinal glucometric results 0-6 months. **A:** all. **B:** with optimal AHCL settings (100mg/dL + 2hrs active insulin time (AIT))

**3. RESULTS**

- 111 Patients were included in the analysis (41.4% male, 49.0% aged ≤15 years)
- These patients achieved TIR>75% over the 6 months observation period (Figure 1A)
- Results of glucometrics did not differ between users aged ≤15 years (TIR range: 75.0-76.4%) and those aged >15 years (75.6-77.6%).
- When the system was used with the optimal settings of 100 mg/dl target and 2h Active Insulin Time (AIT), patients achieved higher TIR without increasing time below range (TBR, Figure 1B)

**4. CONCLUSIONS**

- Users of the MiniMed™ 780G system achieved a high TIR which sustained over the 6-month observation period.
- Results of glucometrics did not differ between users aged ≤15 years and those aged >15 years.
- Optimal results were obtained in those with a target of 100 mg/dL and an AIT of 2 hours