

Improved Glycaemic Outcomes and Associated Cost Savings with an Advanced Hybrid Closed Loop System for People with Type 1 Diabetes with Suboptimal Glycaemic Control in Europe

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1. OBJECTIVE

Improved glycaemic control, measured by HbA1c, is associated with reduced diabetes-related complication risks. The Advanced Hybrid Closed Loop (AHCL) system with automated adjustment of insulin delivery and correction bolus features, improves glycaemic outcomes for people with type 1 diabetes with suboptimal glycaemic control compared to the standard of care, which is multiple daily insulin injections with intermittently scanned continuous glucose monitoring (MDI+isCGM).¹

The aim of this study is **to assess potential short-term cost savings** of using the **MiniMed™ 780G AHCL system* vs MDI+isCGM** in Europe.

2. METHODS

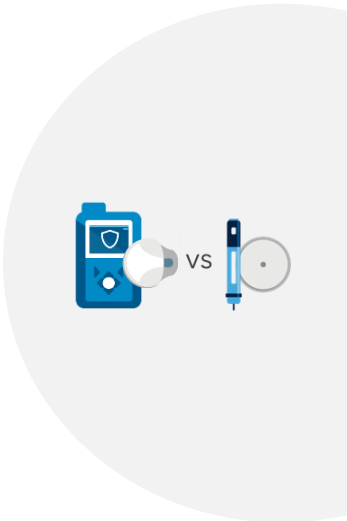
A previously published **budget impact model with a 5-year time horizon** was used². The cost savings modelled through 5 years were converted into average per patient per year savings.

Countries in scope were **Austria, Germany, Greece, France, the Netherlands, Italy and Spain**. Complications costs and work absenteeism data were derived from published literature and tariffs.

Baseline and change in HbA1c were sourced from a 6-month randomized controlled trial¹.

Cost Savings per patient per year with the MiniMed™ 780G AHCL System* use vs MDI+isCGM

Country	Total Cost Savings <i>per patient per year</i>	Direct Cost Savings <i>per patient per year</i>	Indirect Cost Savings <i>per patient per year</i>
Austria	€ 698	€ 453	€ 245
France	€ 805	€ 556	€ 249
Germany	€ 783	€ 400	€ 383
Greece	€ 627	€ 523	€ 104
Italy	€ 624	€ 390	€ 234
Netherlands	€ 713	€ 546	€ 167
Spain	€ 734	€ 533	€ 201



3. RESULTS

With AHCL use, HbA1c decreased from 9% to 7.4% (2).

The **direct cost savings** (complications only) varied between **390€-556€ per patient per year**, while the **total cost savings** (complications and productivity) varied between **624€-805€ per patient per year**, depending on the country.

These results corresponded to:

- an **average direct cost savings of 486€ per patient per year** and
- an **average total cost savings of 712€ per patient per year**

in Europe, through the first 5 years of therapy initiation.

4. CONCLUSIONS

The improved glycaemic control with **the MiniMed™ 780G AHCL system*** can be translated into **potential cost savings thanks to reduced complications cost and improved productivity**. Therefore, higher AHCL therapy acquisition costs can be partially offset vs MDI+isCGM, even in a 5-year time horizon.

These findings **complement the longer-term cost-effectiveness results** of the MiniMed™ 780G AHCL system*, suggesting it also offers **good short-term value for money**.

*The MiniMed 780G system is indicated for use by patients aged 7-80 years with type 1 diabetes
References: 1. Choudhary P. et al. *Lancet Diabetes Endocrinol.* 2022;10(10):720-731. 2. Choudhary P. et al. *Diabet Med.* 2019;36(8):988-994