New Study Showed Consistent Glycemic Outcomes Across Sensors Integrated with MiniMed 780G System

Randomized crossover trial reinforces SmartGuard™ algorithm as key driver of automated insulin delivery performance

NORTHRIDGE, Calif., May 21, 2026 /PRNewswire/ -- MiniMed (Nasdaq: MMED), a global leader in diabetes technology, today announced results from a new randomized crossover study demonstrating that glycemic outcomes for study participants were virtually identical when using the MiniMed™ 780G system with either the Simplera Sync™ sensor or Instinct sensor, made by Abbott. This data, published today in *Diabetes Technology & Therapeutics*, reinforces that the automated insulin delivery (AID) algorithm, not the sensor, is the primary determinant of clinical outcomes.[1]

Time in Range (70–180 mg/dL)	79.1 %	80.6 %
HbA1c	6.7 %	6.8 %
Mean Sensor Glucose	137.9 mg/dL	139.5 mg/dL
Time in Auto Mode	90.0 %	92.6 %

"These results underscore an important principle in automated insulin delivery, which is that the intelligence of the algorithm is what ultimately drives glycemic outcomes," said Principal Investigator Amir Tirosh, Director of the Division of Endocrinology, Diabetes, and Metabolism at Sheba Medical Center and Professor of Medicine at Tel Aviv University. "Across every key metric, the results between the two sensors were remarkably consistent, underscoring the strength and adaptability of the Minimed™ 780G system."

Twenty-four adult participants with type 1 diabetes were randomized to use either the Simplera Sync™ or Instinct sensor for a six-week period, then crossed over to the alternate sensor for an additional six weeks. Each crossover period utilized a new insulin pump to eliminate algorithm memory carryover effects.

Both sensors maintained strong Time in Range during the study period, exceeding international consensus targets for glycemic control as defined by the American Diabetes Association.[2] No cases of diabetic ketoacidosis (DKA), severe hypoglycemia, or unanticipated device effects were reported during the study.

These results build on preliminary real-world evidence on 4,364 U.S. users of the MiniMed™ 780G system with type 1 diabetes that showed individuals who transitioned from the Guardian™ 4 sensor to the Instinct sensor maintained consistently strong glycemic outcomes. The data was presented at the International Conference on Advanced Technologies & Treatments for Diabetes in March by Viral N. Shah, MD, Professor of medicine in the division of endocrinology and metabolism and director of diabetes clinical research at Indiana University Center for Diabetes and Metabolic Diseases.[3,4]

An updated real-world analysis of over 20,000 U.S. users of the MiniMed 780G system living with diabetes showed consistent results, validating the algorithm's central role in driving results.[5]

Number of Individuals	20245	20245	8558	8558
Time in Range (70–180 mg/dL)	74.7 %	76.6 %	78.6 %	80.5 %
GMI	6.9 %	6.9 %	6.8 %	6.7 %

Time in Auto Mode	90.0 %	94.9 %	93.2 %	97.5 %

"This data provides compelling clinical validation of what we've always believed – that the power of our system lies in the intelligence of our SmartGuard™ algorithm," said Que Dallara, CEO of MiniMed. "This growing body of evidence gives people living with diabetes the confidence to choose a sensor from our portfolio that best fits their lifestyle. We're relentlessly focused on advancing the science behind automated insulin delivery and building a full-stack insulin delivery ecosystem that makes diabetes management simpler, more personalized, and increasingly hands-free."

MiniMed is a global leader in insulin delivery, constantly advancing therapies that support people with diabetes in 80 countries. Our full-stack, integrated ecosystem, including our insulin delivery systems, CGMs, algorithms, and easy-to-use app experience, is designed to work seamlessly together, supported by white-glove, wrap-around service. For over 40 years, we've pioneered therapies people can rely on by anticipating needs, reducing burden, and helping make life with diabetes easier. Our mission is to make every day a better day for people with diabetes.

[1] Laron-Hirsch, M., et al. Glycemic concordance of Simplera Sync™ and Instinct sensors in MiniMed™ 780G system users: A randomized crossover feasibility study. Diabetes Technology and Therapeutics. DOI:10.1177/15209156261449884

[2] American Diabetes Association Professional Practice Committee; 6. Glycemic Goals and Hypoglycemia: Standards of Care in Diabetes–2025. *Diabetes Care* 1 January 2025; 48 (Supplement_1): S128–S145. https://doi.org/10.2337/dc25-S006

[3] Medtronic data on file: MiniMed 780G data uploaded voluntarily by 4,364 eligible users to CareLink Personal, from 2 January 2020 to 31 January 2026

[4] Shah VN, et al. Performance of a newly introduced sensor with an AID system: A real-world analysis. Presented at: International Conference on Advanced Technologies & Treatments for Diabetes; March 11-14, 2026; Barcelona, Spain.

[5] Data on file.

SOURCE MiniMed

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