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First real-world data on newest Medtronic Smart MDI system shows users responding to actionable alerts experienced strongest outcomes

Medtronic Smart MDI system includes unique early notification feature for missed meal boluses and high glucose that enables users to bolus on time. Consistent response to these notifications was associated with Time in Range of 67% and 71%, respectively.

Medtronic plc, a global leader in medical technology, presented today the first real-world data on the use of its latest Smart MDI system, which combines the InPen™ smart insulin pen with the Simplera™ continuous glucose monitoring (CGM) sensor. This data shows how the system, designed for people with diabetes using multiple daily injections when used as intended, helps users get closer to the internationally recommended target of 70% Time in Range (TIR). The data was shared today at the 18th International Conference on Advanced Technologies and Treatments for Diabetes (ATTD) in Amsterdam.

Calculating insulin dosing a challenge for many

While it is well-established that automated insulin delivery (AID) systems are more effective[1] than multiple daily injections (MDI) at achieving glycemic targets, multiple daily injections are used by the majority of people with type 1 diabetes[2], either by choice or lack of access to technology.

Minimizing the frequency of glucose highs are critical as it reduces the risk of both short-[3,4] and long-term[5,6] complications and supports better overall health. That's why bolusing before a meal is essential as it helps mitigate blood sugar spikes after eating. However, it's estimated that individuals living with diabetes regularly miss 1 out of 3 doses. Missing two insulin doses per week can potentially lead to an increase in HbA1C of up to 0.4%.[7] Remembering when and how much insulin to dose on a daily basis is burdensome and which often leads to diabetes burnout over time.

Clinical outcomes of MDI not good enough

Less than 30% of people with diabetes using CGM achieve the glycemic target of HbA1c < 7%[8] and studies have shown that those using MDI alongside regular blood glucose monitoring (BGM) achieve a TIR of only 45%.[9] When



MDI is accompanied by intermittently scanned CGM (isCGM), TIR increases to 51%,[1] still short of the international goal of 70% time in range.

First real-world performance of Medtronic Smart MDI system with Simplera™ CGM shows actionable alerts help achieve better glycemic outcomes

Real-world data was collected from 1,852 Smart MDI system users across Europe who self-reported living with type 1 diabetes.* The mean percentage of time spent in the range of 70-180 mg/dl (3.9-10.0 mmol/l) was 55.7%. Individuals who used the Smart MDI system as intended, reacting to >75% of Missed Dose or Correct High Glucose alerts with a bolus, had a higher average TIR of 67.2% and 71.5% respectively, indicating that the actionable alerts help users achieve better glycemic outcomes.

The Smart MDI systems from Medtronic reduces the guesswork and helps simplify diabetes management by offering real-time, personalized insights that make it easier to determine insulin needs. The data indicated that 52.6% of injections were preceded by a recommendation from the dose calculator.

"For people with diabetes on multiple daily injections, the mental gymnastics of calculating insulin doses every day can be a challenge. This first snapshot of how the Medtronic Smart MDI system with Simplera™ CGM is simplifying the burden in real life is very promising" said Prof. Ohad Cohen MD, senior global medical affairs director, Medtronic Diabetes. "The information provides us with an insight into the behaviors of users on MDI therapy. By analyzing the features that are contributing most to better outcomes and focusing on education efforts we believe better outcomes will be seen in future longitudinal analysis."

Percentage of response by bolus to a Missed Dose alert

Source: Medtronic data on file: Smart MDI system data uploaded voluntarily by 1,852 users in Europe from 22 October 2024 until 04 January 2025.

Percentage of response by bolus to a Correct High Glucose alert

Source: Medtronic data on file: Smart MDI system data uploaded voluntarily by 1,852 users in Europe from 22 October 2024 until 04 January 2025.

Medtronic remains at the forefront of the industry, striving to be the partner of choice for individuals to manage their diabetes, regardless of their chosen insulin dosing therapy. The Medtronic Smart MDI system with the InPen™ smart insulin pen, the InPen™ app and Simplera™ CGM is currently available in 16 countries across Europe, Middle East and Africa. Medtronic will initiate a limited market release in the U.S. beginning with existing standalone CGM and InPen™ customers followed by a broad commercial launch.

About Medtronic Diabetes (www.medtronicdiabetes.com)
Medtronic Diabetes is on a mission to alleviate the burden of diabetes by empowering individuals to live life on their terms, with the most advanced diabetes technology and always-on support when and how they need it. We've pioneered first-of-its-kind innovations for over 40 years and are committed to designing the future of diabetes management through next-generation sensors (CGM), intelligent dosing systems, and the power of data science and AI while always putting the customer experience at the forefront.

About Medtronic
Bold thinking. Bolder actions. We are Medtronic. Medtronic plc, headquartered in Galway, Ireland, is the leading global healthcare technology company that boldly attacks the most challenging health problems facing humanity by searching out and finding solutions. Our Mission — to alleviate pain, restore health, and extend life — unites a global team of 95,000+ passionate people across more than 150 countries. Our technologies and therapies treat 70 health conditions and include cardiac devices, surgical robotics, insulin pumps, surgical tools, patient monitoring systems, and more. Powered by our diverse knowledge, insatiable curiosity, and desire to help all those who need it, we deliver innovative technologies that transform the lives of two people every second, every hour, every day. Expect more from us as we empower insight-driven care, experiences that put people first, and better outcomes for our world. In everything we do, we are engineering the extraordinary. For more information on Medtronic, visit www.Medtronic.com and follow Medtronic on LinkedIn.

Any forward-looking statements are subject to risks and uncertainties such as those described in Medtronic's periodic reports on file with the Securities and Exchange Commission. Actual results may differ materially from anticipated results.

*Data was uploaded voluntarily from 22 October 2024 until 04 January 2025 in the CareLink™ Personal platform. Data aggregation and analysis was based on user consent and complied with local data privacy regulations.

Contacts:
Ashley Patterson
Global Communications

+1-818-576-3025

Ryan Weispfenning
Investor Relations
+1-763-505-4626

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https://news.medtronic.com/First-real-world-data-on-newest-Medtronic-Smart-MDI-system-shows-users-responding-to-actionable-alerts-experienced-strongest-outcomes