CLOSER LOOK

MEMORANDUM

Tandem shares new real-world data from over 40,000 users of its next-generation Control-IQ+ algorithm – June 10, 2026

Control-IQ+ was associated with median TIR of 71.4% and high time spent in auto mode

DT&T published a study, "First Use of Control-IQ+ Technology in Newly Indicated Populations," by Tandem's Ms. Kimia Assadi and Dr. Laurel Messer et al. The large retrospective study (n=40,320) assessed outcomes in three stratified Control-IQ+ user populations: (i) low total daily insulin (TDI) of <10 units; (ii) moderate TDI of 10-100 units; and (iii) high TDI of >100 units. It found that most users achieved ADA-recommended Time in Range (TIR) target of ≥70% with little hypoglycemia.

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Time spent in automation was high across all users

Data was pulled from Tandem Source between March and June 2025 for users with at least 14 days Control-IQ+ use and ≥70% CGM coverage. Almost all Control-IQ+ users had a moderate TDI (95%) dose, with just 1% classified as low and 4% as high – the latter was also more likely to have T2D compared to the other cohorts. About half of users were female, the median age was 46 years, and 93% had T1D. Median percent time in automation was high at >90% across all subgroups, similar to real-world use with Control-IQ.

Most of the low-TDI participants were using Tandem Mobi (63%), while the t:slim X2 AID system was more common in the moderate- and high-TDI groups (73% and 91%, respectively).

Control-IQ+ algorithm features key differences from Control-IQ

Control-IQ+ was first rolled out to US users in March 2025. Existing eligible in-warranty users were able to upgrade to the enhanced algorithm through a free remote software update, while new Tandem AID users received pumps preloaded with the software. The algorithm became the first commercially available AID system for use during pregnancy in the US in April 2026, and received an expanded indication in Europe for adults with T2D and for use during pregnancy last week. The updated algorithm features several enhancements compared to its predecessor, including:

- **Expanded weight and TDI inputs:** Control-IQ+ permits broader weight (20-440 lbs. compared to 55-308 lbs. with Control-IQ) and total daily insulin ranges (5-200 units compared to 10-100 units with Control-IQ), supporting wider insulin requirements.
- **Enhanced extended bolus:** The extended bolus feature can be enabled for up to eight hours with Control-IQ+ to improve postprandial glycemic management. Previously, extended boluses with Control-IQ enabled were restricted to two hours maximum, although extended boluses could be administered for up to eight hours if Control-IQ was disabled.
- **Increased flexibility for temporary basal rates:** Users can now enable temporary basal rates with Control-IQ+ active to address short-term needs, such as exercise, stress, and illness. With Control-IQ, temporary basal rates were only available when Control-IQ was disabled.

Most users with low and moderate TDI achieve ADA-recommended glycemic targets

Median TIR for the overall cohort was 71.4%; users with low- and moderate-TDI had similar TIR (72.7% and 71.7%, respectively), meeting ADA-recommended targets. Those with high TDI, however, had lower median TIR of 61.4%. Time in Tight Range (TITR; 70-140 mg/dL) also varied across cohorts, with an overall median TITR of 43.9%; the low- and moderate-TDI cohorts reported TITR of 46.9% and 44.3%, respectively, higher than that of the high-TDI cohort (32%). Hypoglycemia rates were low across all groups regardless of TDI (1.2% in the low TDI cohort, 1.3% with moderate TDI, and 0.5% with high TDI).

While many (two-thirds) participants had used at least one of Control-IQ+'s advanced features, the proactive features (such as Exercise Mode, temp basal, and extended bolus) were not commonly used. The low-TDI group used these features the most (12.2% using temp basal and 26.4% using extended bolus). The authors suggest that this means proactive engagement may be useful but is not necessary with Control-IQ+.

Close Concerns' Questions

1. Control-IQ+ users included in the study largely had T1D – how do these pooled outcomes compare with real-world outcomes in those with T2D?
2. How does real-world use of Control-IQ+ during pregnancy compare to the outcomes seen in Tandem's CIRCUIT trial?
3. Does Tandem believe greater use of its proactive advanced features would yield significantly greater glycemic outcomes compared to standard use?

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