Supplementary Material

Assessing Time in Range with Postprandial Glucose-Focused Titration of Ultra Rapid Lispro (URLi) in People with Type 1 Diabetes

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Table S1 Target glucose values for adjustment of insulin dosing

Time of target glucose measurement	Glucose target (range)
Fasting glucose	100 mg/dL (range 80-110 mg/dL)
Overnight glucose excursion (the difference between bedtime and pre-breakfast glucose levels)	≤±30 mg/dL
Postprandial glucose peak	<140 mg/dL or <20% increase from premeal level

Targets were based on those recommended by the American Association of Clinical Endocrinologists (AACE). (16)

Table S2 Proportion of participants achieving recommended CGM targets

	Lispro lead-in period, n (%)	URLi maintenance period, n (%)
>70% of time with glucose values within target range 70-180 mg/dL	13 (41.9)	14 (45.2)
<1% of time with glucose values in hypoglycemic range <54 mg/dL	30 (96.8)	29 (93.5)
<5% of time with glucose values in hyperglycemic range >250 mg/dL	13 (41.9)	17 (54.8)

n=31. CGM, continuous glucose monitoring; n, number of participants in the analysis population; URLi, ultra rapid lispro.

Table S3 Insulin-to-carbohydrate ratio

Meal	n	Lispro lead-in, mean (SD)	URLi endpoint, mean (SD)	Change from baseline, LSM (SE)	*P*-value
Breakfast (g/U)	30	9.69 (3.59)	9.03 (3.49)	-0.67 (0.19)	0.002
Lunch (g/U)	31	9.58 (3.53)	9.07 (3.42)	-0.51 (0.36)	0.169
Dinner (g/U)	31	9.42 (3.33)	9.11 (3.53)	-0.31 (0.35)	0.377
Across meals (g/U)	31	9.52 (3.47)	9.05 (3.40)	-0.47 (0.24)	0.057

LSM, least squares mean; n, number of participants in analysis population; SD, standard deviation; SE, standard error; URLi, ultra rapid lispro.

Table S4 Product of insulin-to-carbohydrate ratio and total daily dose

Product of ICR (g/U) and TDD (U/day)	n	Lispro lead-in period	URLi maintenance period
Breakfast	27	408.6 (174.3)	411.1 (169.8)
Lunch	28	406.2 (172.3)	421.3 (184.2)
Dinner	28	402.0 (175.4)	427.6 (207.0)
Average of three meals	28	403.9 (178.9)	420.0 (183.5)

Data are mean (standard deviation). ICR, insulin-to-carbohydrate ratio; n, number of participants in the analysis population; TDD, total daily dose; URLi, ultra rapid lispro.

Table S5 Glucose variability

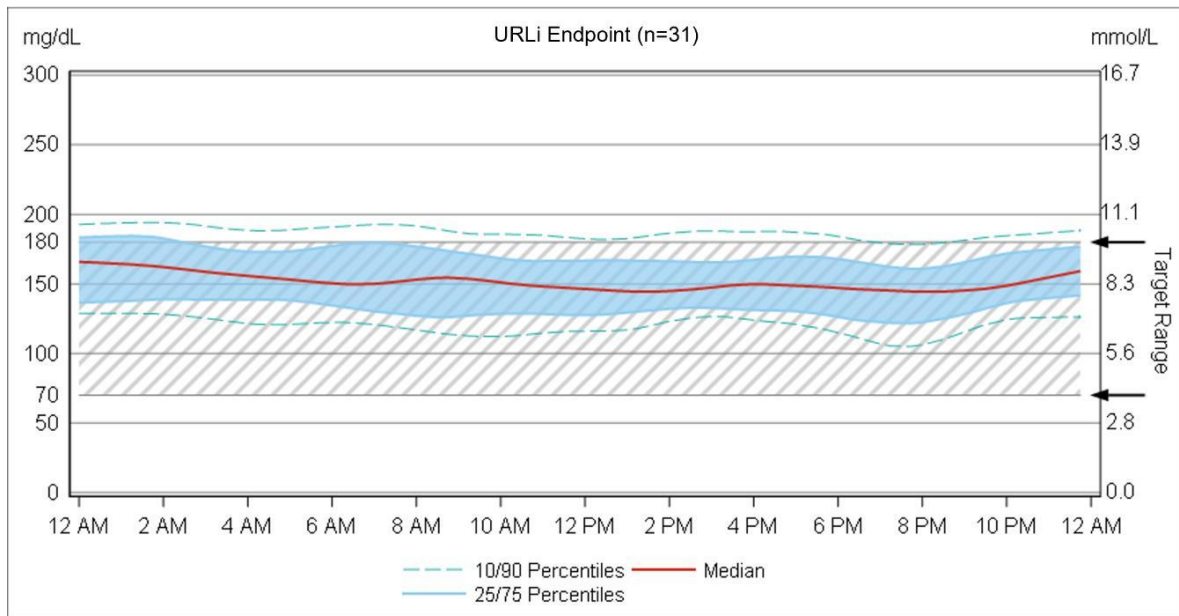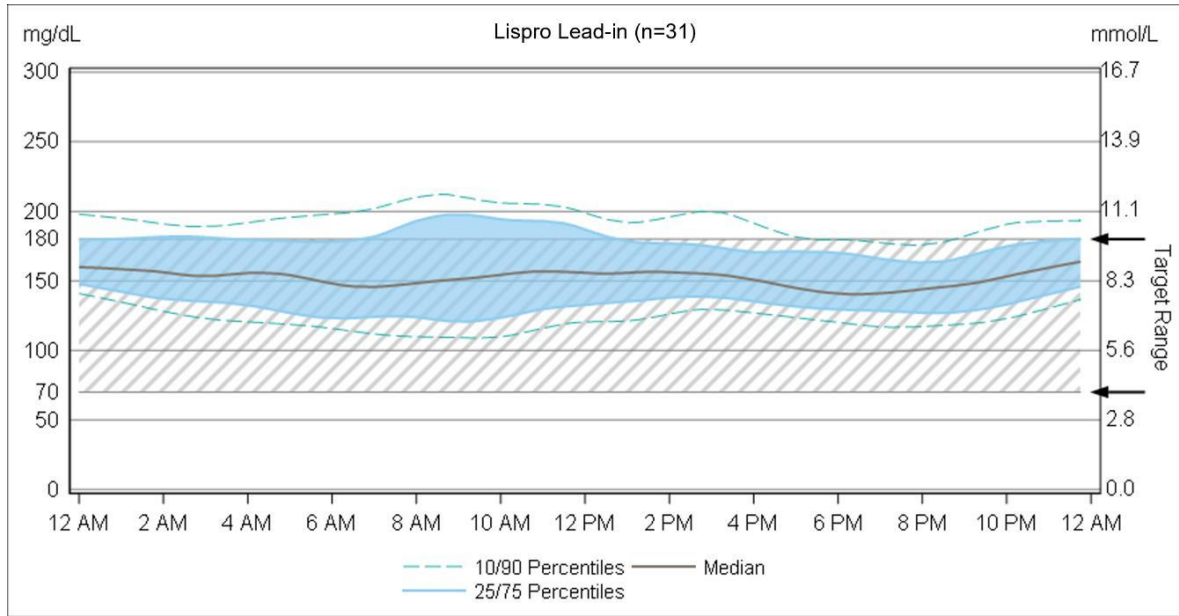| Time period	Lispro lead-in, mean (SD)	URLi maintenance period, mean (SD)	Change from Baseline, LSM (SE)	P-value
Coefficient of variation for glucose, %				
24-h period	30.72 (4.18)	29.18 (4.49)	-1.55 (0.56)	0.010
Daytime	30.74 (4.08)	29.24 (4.96)	-1.50 (0.64)	0.026
Nighttime	17.13 (5.31)	15.52 (4.41)	-1.61 (0.62)	0.015

n=31. LSM, least squares mean; n, number of participants in the analysis population; URLi, ultra rapid lispro.

Table S6 Insulin sensitivity factor

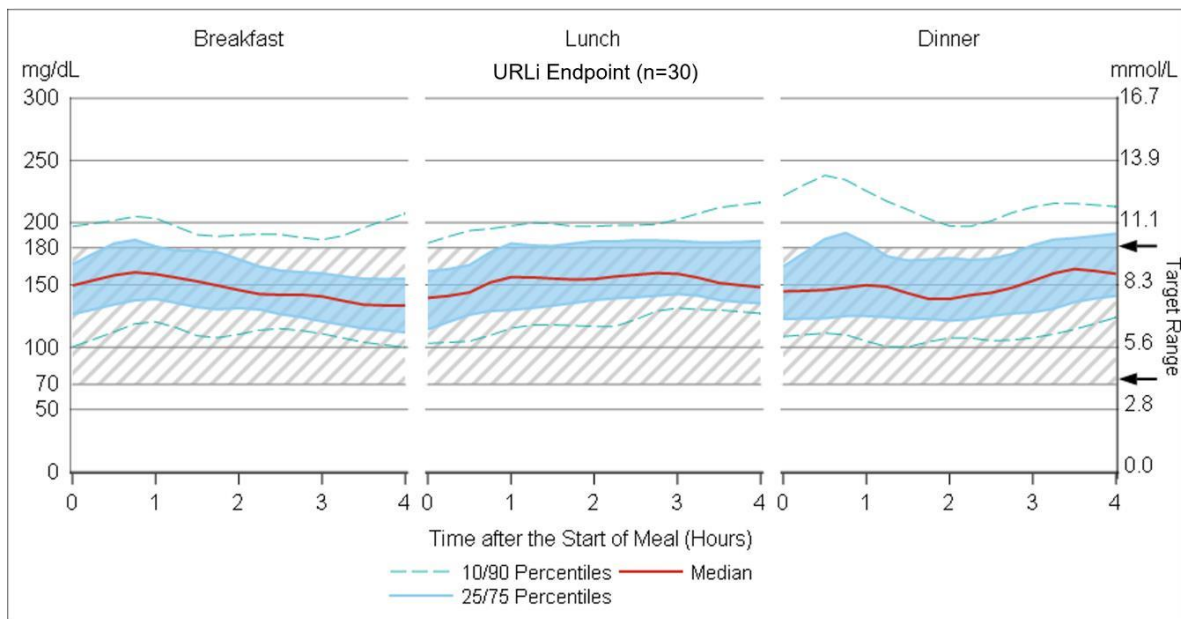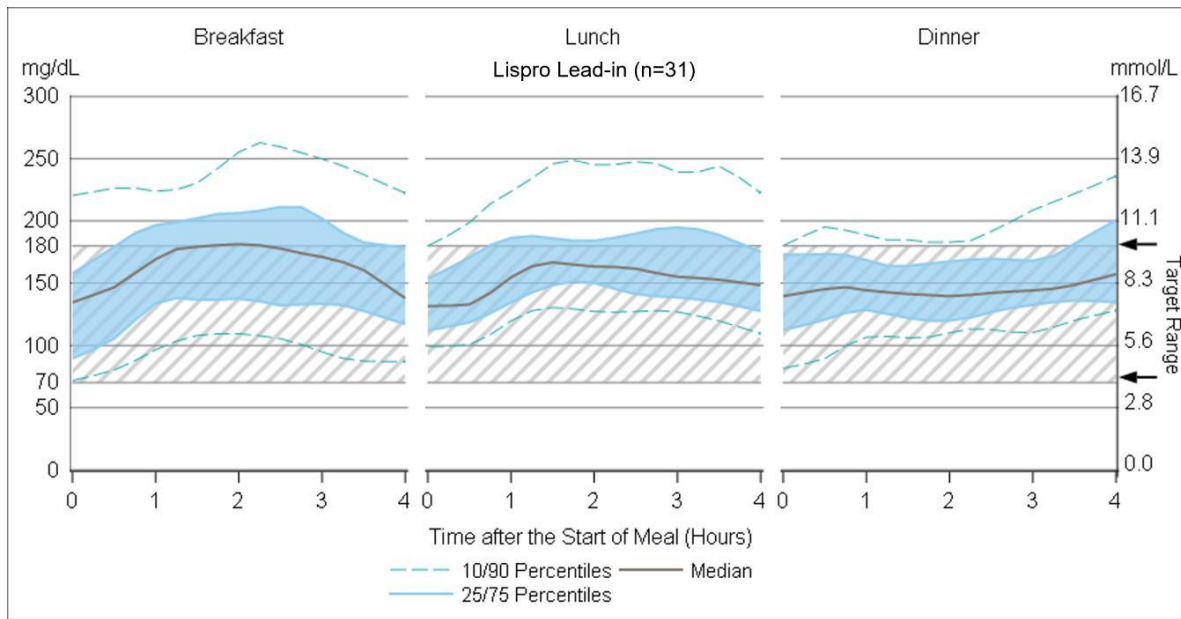| Time point	Lispro lead-in Mean (SD)	URLi maintenance period Mean (SD)	Change from baseline, LSM (SE)	P-value
Breakfast	39.6 (14.8)	38.3 (12.9)	-1.3 (1.5)	0.393
Lunch	39.6 (14.5)	38.8 (12.8)	-0.8 (1.5)	0.578
Dinner	40.3 (14.7)	39.1 (12.5)	-1.2 (1.6)	0.479
Across meals	39.9 (14.6)	38.7 (12.6)	-1.1 (1.5)	0.445

n=31. LSM, least squares mean; n, number of participants in analysis population; SD, standard deviation; SE, standard error; URLi, ultra rapid lispro.

Fig. S1 Median and percentile hourly ambulatory glucose profiles over 24 h during the Lispro lead-in and URLi maintenance period (endpoint).

URLi, ultra rapid lispro.

Fig. S2 Median and percentile hourly ambulatory glucose profiles 0-4 h postmeal during the Lispro lead-in and URLi maintenance period (endpoint).

URLi, ultra rapid lispro.