SUPPLEMENTARY DATA

SUPPLEMENTARY DATA

Supplementary Table S1. Baseline Demographic and Clinical Characteristics

	Overall N=77
Age (years) – n(%)	
18 to <25	28 (36)
25 to <35	23 (30)
35 to <45	10 (13)
45 to <55	11 (14)
≥55	5 (6)
Median (25th, 75th percentile)	31 (22, 42)
Mean ±SD	33 ± 12
Female – n(%)	45 (58)
Race/ethnicity – n(%)	
White Non-Hispanic	74 (96)
Black Non-Hispanic	1 (1)
Hispanic or Latino	1 (1)
Other Race/Ethnicity	1 (1)
Duration of diabetes (years) – n(%)	
<10	27 (35)
10 to <20	16 (21)
20 to <30	20 (26)
≥30	14 (18)
Median (25th, 75th percentile)	18 (9, 25)
Mean ±SD	18 ± 11
Body mass index (kg/m^2) – n(%)	
18.5 - <25.0	35 (45%)
25.0-<30.0	30 (39%)
≥30.0	12 (16%)
Median (25th, 75th percentile)	25 (23,28)
Mean ±SD	26 ± 4
Primary insulin modality – n(%)	
Insulin pump	57 (74)
Multiple daily insulin injections	20 (26)
Total daily insulin (units/kg) - median (25th, 75th percentile)	0.58 (0.46, 0.68)
Most recent severe hypoglycemic event[a] – n(%)	
Never	46 (60)
≤30 days	0
31 to 90 days	4 (5)

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91 to 180 days	0
181 to 365 days	2 (3)
>365 days	25 (32)
HbA1c[b] – n(%)	
≤7%	21 (27)
7.1 to 8.0%	22 (29)
8.1 to 9.0%	15 (19)
9.1 to 10.0%	8 (10)
>10.0%	11 (14)
Mean ±SD	8.3 ± 1.8
Clarke Hypoglycemia Unawareness score[c] – n(%)	
Reduced awareness	10 (13)
Intermediate	10 (13)
Aware	57 (74)

[a]Severe hypoglycemic event defined as an episode that required third party assistance for treatment

[b]HbA1c performed locally by point of care device or laboratory

[c]Reduced awareness = 4 or more reduced responses; Intermediate = 3 reduced responses; Aware= 2 or fewer reduced responses

SUPPLEMENTARY DATA

Supplementary Table S2. Additional Insulin Infusion Characteristics by Treatment Arm

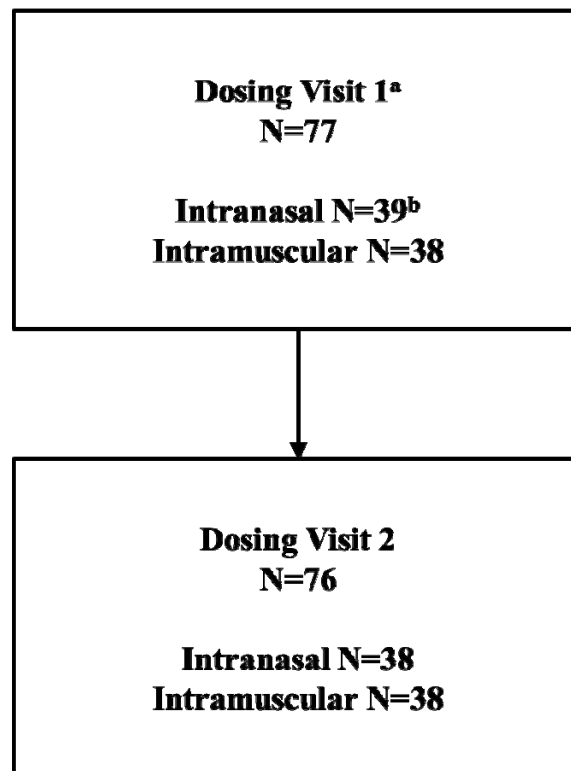|	Intranasal N=75	Intramuscular N=75
Initial rate of insulin infusion – n(%)		
1.0 mU/kg/min	2 (3)	1 (1)
1.5 mU/kg/min	4 (5)	7 (9)
2.0 mU/kg/min	69 (92)	67 (89)
Final rate of insulin infusion (mU/kg/min)		
Median (25th, 75th percentile)	1.0 (1.0, 1.0)	1.0 (1.0, 1.0)
Average rate of insulin infusion (mU/kg/min)		
Median (25th, 75th percentile)	1.7 (1.5, 1.8)	1.7 (1.5, 1.8)

SUPPLEMENTARY DATA

Supplementary Figure S1. Intranasal glucagon device

Supplementary Figure S2. Visit Completion

```
┌────────────────────────────────┐
│         Dosing Visit 1ᵃ         │
│             N=77               │
│                                │
│       Intranasal N=39ᵇ         │
│      Intramuscular N=38        │
└────────────────────────────────┘
                │
                ▼
┌────────────────────────────────┐
│         Dosing Visit 2         │
│             N=76               │
│                                │
│       Intranasal N=38          │
│      Intramuscular N=38        │
└────────────────────────────────┘
```

[a] 1 ineligible first dosing visit (premature administration of carbohydrates); information from this participant was not used in the efficacy analysis

[b] 1 participant requested to withdrawal after completing the first dosing visit due to symptoms experienced during the dosing visit (nausea, vomiting, high blood glucose)

N=77 completed at least 1 visit – included in safety analysis

N=75 completed both visits – included in the efficacy analysis

Supplementary Figure S3. Edinburgh Hypoglycemia Symptom Scores According to Treatment Visit
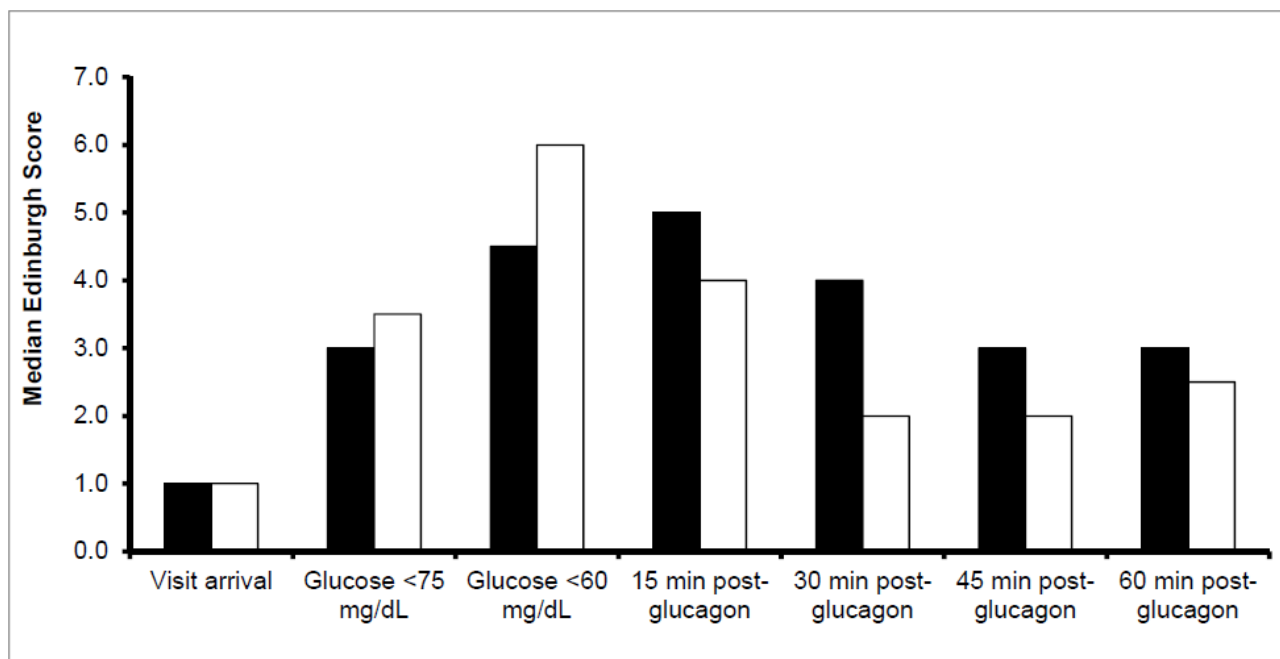

Figure Legend

Black columns represent the Intranasal group

White columns represent the Intramuscular group

SUPPLEMENTARY DATA

List of Investigators

A listing of the T1D Exchange Clinic Network sites with participating principal investigators (PI), co-investigators (I), and coordinators (C) ordered by the number of participants recruited per site is included below:

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