

# Successful Use of Technosphere Insulin (TI-inhaled insulin) From Clinical Research to Clinical Practice

## KEY TAKEAWAYS

- Technosphere Insulin (TI) is an option for people with insulin-requiring diabetes
- Studies in patients with type 1 and type 2 diabetes have shown improvements or non-inferiority in HbA1c when compared to other insulin therapies<sup>1,2</sup>
- TI may lead to significantly lower post-prandial glucose excursions compared to subcutaneous rapid-acting insulin analogs<sup>3</sup>



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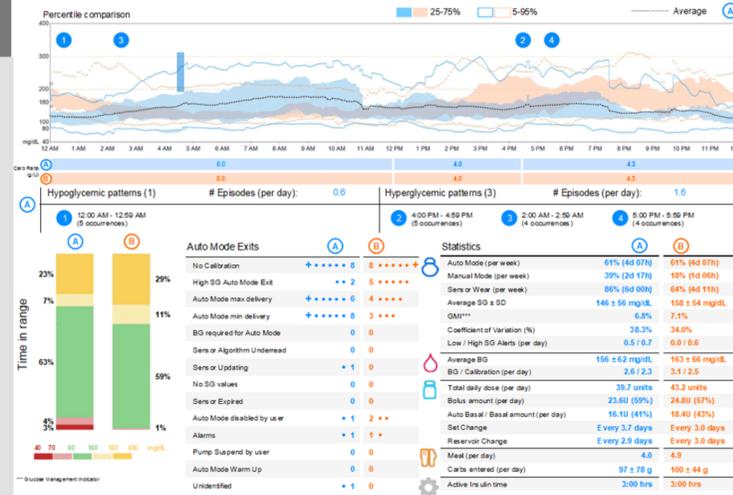
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### CASE 1: INHALE-3 60 y/o male with T1D

Before Inhaled Insulin; AID Medtronic 780G

**HbA1c: 7.2%**      **Time in Range: 63%**

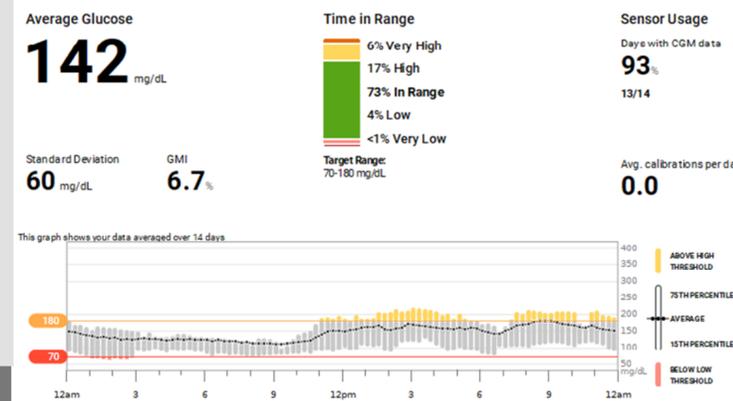
- Had challenges staying in auto mode when using AID



On Inhaled Insulin, after 1 year

**HbA1c: 6.2%**      **Time in Range: 73%**

- Daily Insulin: 20U TI/meal, with post meal and bedtime dosing, as needed and 18U degludec
- **Happier with fewer lows and less variability**

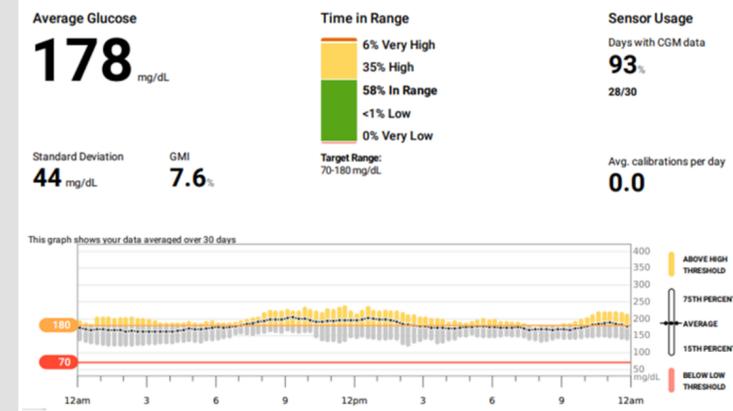


### CASE 2: Clinical Practice 87 y/o male with T2D

Before Inhaled Insulin; Injections

**HbA1c: 8.0%**      **Time in Range: 58%**

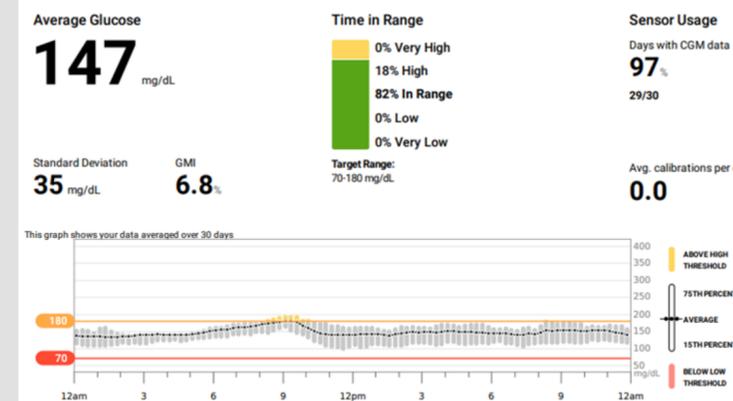
- Could not tolerate SGLT2 inhibitors
- 16U degludec caused overnight hypoglycemia
- 4-8U aspart added to reduce post-prandial highs



On Inhaled Insulin, after 1 year

**HbA1c: 7.4%**      **Time in Range: 82%**

- Daily Insulin: 8-12U TI/meal and 14U degludec
- **Happier with rapid onset of TI, post-meal control, and portability of inhaler**



### CASE 3: INHALE-3 38 y/o female with T1D

Before Inhaled Insulin; AID Omnipod 5

**HbA1c: 6.4%**      **Time in Range: 73%**

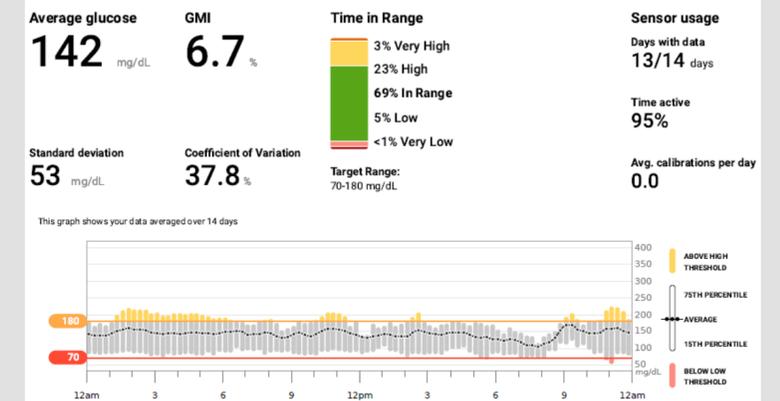
- Daily insulin: 18.3 units of basal, 15.3 units of bolus



On Inhaled Insulin, after 30 weeks

**HbA1c: 6.5%**      **Time in Range: 69%**

- Daily Insulin: 16U TI/meal and 12U degludec
- **Happier with tighter control around meals and preferred to stay on TI post-study**



<sup>1</sup>Hirsch IB, Beck RW, Marak MC, et al. *Diabetes Care*. vol 47,9 (2024): 1682-1687. <sup>2</sup>Hoogwerf BJ, Pantalone KM, Basina M, et al. *Endocr Pract*. 2021;27(1):38-43. <sup>3</sup>American Diabetes Association Professional Practice Committee; 7. Diabetes Technology: Standards of Care in Diabetes-2025. *Diabetes Care*. 2025;48 (Supplement\_1): S146-S166.