

The Unmet Needs for Insulin Requiring Patients



Diabetes is one of the biggest health issues of our time

783 million patients by 2045 – **an increase of 46%**^{*,1}

This projected increase will lead to **higher incidence of other long-term complications** seen in those with T2D, such as CVD, retinopathy, CKD and neuropathy²⁻⁶

Insulin remains a cornerstone of T2D treatment

Approximately **100 million people with diabetes around the world still require insulin**⁷

This is despite there being many innovative treatments available for diabetes since T2D is a progressive disease. Over time the body may require insulin to compensate for declining insulin production by the pancreas⁸

In patients with T2D on injectable GLP-1 RAs, once-weekly regimens were associated with higher persistence and adherence than daily treatments⁹



35% higher adherence relative to daily dosing at 12 months



20% lower risk of discontinuation vs daily dosing, p<0.01

According to the World Health Organization, medication adherence can have a more direct impact on patient outcomes than the specific treatment itself¹⁰



Despite uncontrolled blood sugar, initiation of insulin therapy is often delayed^{11,12} leading to increased risk of diabetes-related complications

50% of people with T2D needing insulin therapy **delay initiation** by an average of 15 months¹³

One year delay leads to increased total economic burden of **7.3B USD**, including **1.8B USD** due to diabetes related complications¹⁴

Injection burden is a major barrier to insulin adherence among people with T2D

93% of people on insulin would like to have **good blood sugar control** without daily injections¹⁵

59% of physicians identified the number of **daily injections as a difficulty** for patients¹⁵

1/3 of all people with diabetes are **not adherent** to insulin therapy¹⁶

*46% increase from global prevalence of diabetes among adults in 2021.

1. International Diabetes Federation. IDF Diabetes Atlas 10th edition, 2021. Available at: <https://www.diabetesatlas.org/en/resources/>. Last accessed: February 2023. 2. Einarson TR, Acs A, Ludwig C, et al. Prevalence of cardiovascular disease in type 2 diabetes: a systematic literature review of scientific evidence from across the world in 2007-2017. *Cardiovasc Diabetol*. 2018;17:83. 3. Yau JWY, Rodgers SL, Kawasaki R, et al. Global prevalence and major risk factors of diabetic retinopathy. *Diabetes Care*. 2012;35:556-564. 4. Gross JL, Azevedo MJD and Silveiro SP. Diabetic Nephropathy: Diagnosis, Prevention, and Treatment. *Diabetes Care*. 2005;28:164-176. 5. Russell JW and Zilliox LA. Diabetic Neuropathies, Continuum: Lifelong Learning in Neurology. 2014;20:1226-1240. 6. Paul SK, Klein K, Thorsted BL, et al. Delay in treatment intensification increases the risks of cardiovascular events in patients with type 2 diabetes. *Cardiovascular Diabetology*. 2015;14. 7. ACCISS study. Insulin users' perspective profile. Available at <https://haiweb.org/wp-content/uploads/2017/05/Insulin-Users-Perspective-Profile.pdf>. Last accessed: February 2023. 8. Diabetes Quebec. Why Insulin Can Become Necessary for a Person with Type 2 Diabetes. Available at: <https://www.diabete.qc.ca/en/living-with-diabetes/care-and-treatment/drugs-and-insulin/why-insulin-can-become-necessary-for-a-person-with-type-2-diabetes/>. Last accessed: February 2023. 9. Polonsky WH et al. *Diabetes Ther*. 2022;13(1):175-187. 10. Brown MT, Bussell JK. Medication adherence: WHO cares?. *Mayo Clin Proc*. 2011;86(4):304-314. 11. Peyrot M, Rubin RR, Lauritzen T, et al. Resistance to insulin therapy among patients and providers: results of the cross-national Diabetes Attitudes, Wishes, and Needs (DAWN) study. *Diabetes Care*. 2005;28:2673-2679. 12. Hauber AB, Johnson FR, Sauriol L, et al. Risking health to avoid injections: preferences of Canadians with type 2 diabetes. *Diabetes Care*. 2005;28:2243-2245. 13. "Importance of initiation and titration" – CI presentation, 16/03/20. Market research with PRFs delaying insulin initiation (n=1,656). 14. Ali S, Dang-Tan T, Valentine WJ, et al. Evaluation of the Clinical and Economic Burden of Poor Glycemic Control Associated with Therapeutic Inertia in Patients with Type 2 Diabetes in the United States. *Adv Ther*. 2020;37:869-882. 15. Peyrot M, Barnett AH, Meneghini LF, et al. Insulin adherence behaviours and barriers in the multinational Global Attitudes of Patients and Physicians in Insulin Therapy study. *Diabetes Med*. 2012;29:682-689. 16. Okemah J, Peng J and Quiñones M. Addressing Clinical Inertia in Type 2 Diabetes Mellitus: A Review. *Adv Ther*. 2018;35:1735-1745.