

Achieving FPG Target without Hypoglycemia: A Meta-Analysis of Insulin Degludec vs. Insulin Glargine

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Insulin degludec (IDeg) is a basal insulin with a long and stable glucose-lowering effect and low day-to-day intra-patient variability compared with insulin glargine (IGlar). This meta-analysis investigated the proportion of patients meeting the laboratory-measured FPG target of <130 mg/dL (7.2 mmol/L), defined as the upper limit of the recommended premeal PG goal based on the 2015 ADA Standards of Medical Care in Diabetes, at each visit during the maintenance period, as well as doing so without experiencing nocturnal hypoglycemia. The maintenance period is defined as all visits from week 16 onwards. Nocturnal hypoglycemia was defined as any confirmed (BG <56 mg/dL [3.1 mmol/L]) self-monitored event occurring between 00:01 and 05:59, inclusive. Patients (T1D or T2D) from seven open-label, randomized, treat-to-target trials treated with either IDeg (n=2501) or IGlar (n=1256) were included. Use of IDeg resulted in significantly more patients reaching the FPG target at each visit throughout the maintenance period, as well as doing so without experiencing nocturnal confirmed hypoglycemia, compared with IGlar. These results were similar across the three patient populations; T1D, T2D insulin treated and T2D insulin naïve. In conclusion, more patients treated with IDeg can achieve target FPG at repeated visits as well as without nocturnal confirmed hypoglycemia compared with IGlar.