CLINICAL INSIGHTS

BLUE CROSS Division of Blue Cross Laboratories

TENEBLU TABLETS ***Issue IV, No.10, 2026***

Efficacy and Safety of Alternate-Day Versus Daily Teneligliptin in Type 2 Diabetes Mellitus Uncontrolled on Metformin and Sulfonylureas: An Open-Label Randomised study

Agarwal R,et.al; EJCM Volume 15 Issue 8 (August, 2025) | Pages 918 - 923.

- Teneligliptin is a long-acting DPP-4 inhibitor with a plasma half-life of ~24 hours, allowing sustained glycemic control with once-daily dosing. Its pharmacokinetic profile suggests that alternate-day dosing may maintain efficacy while reducing cost and pill burden, a strategy particularly relevant in resource-limited settings.
- The objective of this study was to compare the efficacy and safety of alternate day versus daily Teneligliptin therapy in patients with type 2 diabetes mellitus (T2DM) inadequately controlled on metformin and sulfonylureas. Prospective, open-label, randomized, parallel-group study, 120 adults with T2DM (HbA1c 7.5–10%) on stable metformin + sulfonylurea were randomized (1:1) to receive Teneligliptin 20 mg once daily (Daily group) or every other day (Alternate-day group) for 12 weeks.
- Mean HbA1c reduction at 12 weeks was −1.2 ± 0.4% in the Daily group vs −1.0 ± 0.5% in the Alternate-day group (between-group $p = 0.08$). FPG and PPG decreased significantly within both groups ($p < 0.001$), with no statistically significant between-group differences.
- The proportion achieving HbA1c < 7% was 48.3% vs 41.7% ($p = 0.42$) in the Daily and Alternate-day groups, respectively. Hypoglycemic episodes (all mild–moderate) were numerically higher in the Daily group (18.3% vs 10%; $p = 0.19$).
- Alternate-day Teneligliptin provided clinically meaningful and statistically significant improvements in glycemic parameters, appearing non-inferior to daily dosing within the precision limits of this study, with a similar safety profile and potential cost advantage.

These findings support alternate-day Teneligliptin as a rational dose-sparing strategy in selected T2DM patients uncontrolled on metformin and sulfonylureas.

❖❖❖❖❖❖