The Unique Pharmacological and Pharmacokinetic Profile of Teneligliptin: Implications for Clinical Practice

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- Teneligliptin is a potent, selective, and long-lasting DPP-4 inhibitor with a t½ of approximately 24 h and unique pharmacokinetic properties: it is metabolized by cytochrome P450 (CYP) 3A4 and flavin-containing monooxygenase 3 (FMO3), or excreted from the kidney in an unchanged form.
- Because of its multiple elimination pathways, dose adjustment is not needed in patients with hepatic or renal impairment, and it is considered to have a low potential for drug-drug interactions.
- Furthermore, teneligliptin has anti-oxidative properties and has shown endothelial protective effects in several non-clinical and clinical studies.

Clinical studies and post-marketing surveillance show that teneligliptin administered as monotherapy and/or in combination with antihyperglycemic agents, is effective and well tolerated in T2DM patients, including in elderly patients and those with renal impairment.