Steglujan
(ertugliflozin, sitagliptin)

NEW PRODUCT SLIDESHOW

MPR

Introduction

- **Brand name:** Steglujan
- **Generic name:** Ertugliflozin, sitagliptin
- **Pharmacological class:** Sodium-glucose co-transporter 2 (SGLT2) inhibitor + dipeptidyl peptidase-4 (DPP-4) inhibitor
- **Strength and Formulation:** 5mg/100mg, 15mg/100mg; tabs
- **Manufacturer:** Merck & Co
- **How supplied:** Tabs—30, 90, 500
- **Legal Classification:** Rx

Indications

- Adjunct to diet and exercise to improve glycemic control in adults with **type 2 diabetes mellitus** when treatment with both ertugliflozin and sitagliptin are appropriate

Limitations of Use

- **Not** for treating type 1 diabetes mellitus or diabetic ketoacidosis
- **Not** studied in patients with a history of pancreatitis

Dosage & Administration

- Swallow whole
- Take in the AM
- Initially 5mg/100mg once daily; if tolerated and need additional glycemic control; may increase to max 15mg/100mg once daily

Dosage & Administration

- Renal impairment
  - **eGFR 30–<60mL/min/1.73m^2:** do not initiate
  - **Persistently between 30–<60mL/min/1.73m^2:** continued use is not recommended

Contraindications

- Severe renal impairment (eGFR <30mL/min/1.73m^2), ESRD, or dialysis

Considerations for Special Populations

- **Pregnancy:** Avoid during 2nd/3rd trimester
- **Nursing mothers:** Not recommended
- **Pediatric:** <18yrs: not established
- **Elderly:** Insufficient number of patients studied
- **Renal impairment:** See Dosing, Contraindications
- **Hepatic impairment:** Severe: not recommended

Warnings/Precautions

- Correct **volume depletion** and assess for volume contraction before initiating
- Monitor for **symptomatic hypotension** after starting therapy (esp. elderly, renal impairment, low systolic BP, or on diuretics)

Warnings/Precautions

- Assess for **ketoacidosis** in the presence of signs/symptoms of metabolic acidosis, regardless of blood glucose levels; discontinue if suspected, evaluate and treat; consider risk factors before initiation (eg, pancreatic insulin deficiency, caloric restriction, alcohol abuse)

Warnings/Precautions

- Evaluate **renal function** prior to starting and monitor periodically thereafter
- Risk of **acute kidney injury** in hypovolemia, chronic renal insufficiency, CHF, and concomitant drugs (eg, diuretics, ACEIs, ARBs, NSAIDs)

Warnings/Precautions

- Consider temporarily discontinuing in reduced oral intake or fluid losses; monitor for acute kidney injury; discontinue and treat if occurs
- Consider risks/benefits in patients with known risk factors **for heart failure**; monitor for signs/symptoms; evaluate and consider discontinuing if develops

Warnings/Precautions

- Monitor for signs/symptoms of pancreatitis, serious hypersensitivity reactions, severe joint pain, or bullous pemphigoid; discontinue if suspected or occurs
- Monitor for genital mycotic infections, UTIs (including urosepsis, pyelonephritis), increases in LDL-C; treat as appropriate

Warnings/Precautions

- Before initiating, consider factors that may increase risk of **amputation** (eg, history of prior amputation, peripheral vascular disease, neuropathy, diabetic foot ulcers)
- Monitor for **infection** (including osteomyelitis), new pain/tenderness, sores or ulcers of the lower limbs; discontinue if occur
- History of **angioedema** to other DPP-4 inhibitors

Interactions

- Consider a lower dose of concomitant insulin or insulin secretagogue (eg, sulfonylurea) to reduce risk of hypoglycemia
- Hypotension with concomitant diuretics
- May cause false (+) urine glucose tests or unreliable measurements of 1,5-AG assay; use alternative methods to monitor glycemic control
- Concomitant digoxin; monitor

Adverse Reactions

- Genital mycotic infections (esp. females)
- Upper respiratory tract infections
- Nasopharyngitis
- Headache
- UTIs
- Vaginal pruritus
- Increased urination
- Back pain
- Weight decrease
- Thirst
- Hypotension
- Hypoglycemia
- Pancreatitis
- Ketoacidosis
- Renal impairment
- LDL increase
- Possible severe and disabling arthralgia
- Bullous pemphigoid

Mechanism of Action

- By inhibiting SGLT2, **ertugliflozin** reduces renal reabsorption of filtered glucose and lowers the renal threshold for glucose, and thereby increases urinary glucose excretion
- **Sitagliptin** slows the inactivation of incretin hormones, increases insulin release, and decreases glucagon levels in the circulation in a glucose-dependent manner

Clinical Studies

- Ertugliflozin in combination with sitagliptin has been studied in 3 multicenter, randomized, double-blind, placebo- and active comparator-controlled clinical studies (N=1,985) involving patients with type 2 diabetes mellitus

Clinical Studies

- A randomized, double-blind, 26-week, active controlled study (N=1,233) randomized patients with type 2 diabetes mellitus with inadequate glycemic control (HbA1c 7.5–11%) on metformin monotherapy to 1 of 5 arms:
  - Ertugliflozin 5 mg
  - Ertugliflozin 15mg
  - Sitagliptin 100mg
  - Ertugliflozin 5mg + sitagliptin 100mg
  - Ertugliflozin 15mg + sitagliptin 100mg

Clinical Studies

- At Week 26, ertugliflozin 5mg or 15mg + sitagliptin 100mg provided **statistically significantly greater reductions in HbA1c** vs individual components
  - -1.4% change from baseline for both vs -1.0%
- More patients achieved **HbA1c <7%** on the combination vs individual components
  - 126 (5mg) and 123 (15mg) patients

Clinical Studies

- A randomized, double-blind, multi-center, 26-week, placebo-controlled study (N=463) randomized patients with type 2 diabetes inadequately controlled on metformin and sitagliptin 100mg once daily to:
  - Placebo
  - Ertugliflozin 5mg
  - Ertugliflozin 15mg

Clinical Studies

- At Week 26, ertugliflozin 5mg or 15mg provided statistically significant reductions in HbA1c vs placebo
  - -0.7% (5mg) and -0.8% (15mg) vs -0.2% (placebo)
- A higher proportion of patients treated with ertugliflozin achieved HbA1c <7% vs placebo
  - 54 (5mg) and 64 (15mg) vs 31 (placebo) patients

Clinical Studies

- A randomized, double-blind, multi-center, placebo-controlled 26-week study (N=291) enrolled patients with type 2 diabetes mellitus inadequately controlled on diet and exercise
- Patients without background antihyperglycemic treatment for at least 8 weeks were randomized to placebo, ertugliflozin 5mg, ertugliflozin 15mg in combination with sitagliptin 100mg once daily

Clinical Studies

- At Week 26, treatment with ertugliflozin 5mg and 15mg plus sitagliptin 100mg daily provided statistically significant reductions in HbA1c vs placebo
  - -1.6% (5mg) and -1.5% (15mg) vs -0.6% (placebo)

Clinical Studies

- A higher proportion of patients treated with ertugliflozin 5mg and 15mg plus sitagliptin 100mg achieved HbA1c <7% vs placebo
  - 36 (5mg) and 32 (15mg) vs 9 (placebo) patients

- For more clinical trial data, see full labeling

New Product Monograph

- For more information view the product monograph available at:

  https://www.empr.com/steglujan/drug/34791/