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on Drugs and Therapeutics

GLP-1 and GIP/GLP-1 RECEPTOR AGONISTS FOR TYPE 2 DIABETES

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GLP-1 and GIP/GLP-1 RECEPTOR AGONISTS FOR TYPE 2 DIABETES AND ITS COMPLICATIONS

Drug	Diabetes-Related Indications	Usual Dosage	Other Information
GLP-1 Receptor Agonists			
Dulaglutide – Trulicity (Lilly) 0.75, 1.5, 3, 4.5 mg/0.5 mL single-dose pens	- Treatment of type 2 diabetes in patients ≥10 years old - Reduce the risk of MACE in adults with type 2 diabetes and established CV disease or multiple CV risk factors	10-18 years old: 0.75-1.5 mg SC once/week Adults: 1.5-4 mg SC once/week Titration: 0.75 mg once/week x 4 weeks; increase to 1.5 mg once/week and, in adult patients, increase in 1.5-mg increments every 4 weeks as needed (max 4.5 mg/week in adults)	Mean reduction in A1C at 52 weeks with 4.5-mg dose: 1.8
Exenatide – generic 250 mcg/mL (1.2, 2.4 mL) prefilled pens	Treatment of type 2 diabetes in adults	Adults: 5-10 mcg SC bid 60 minutes before meals Titration: 5 mcg bid; increase to 10 mcg bid after 1 month if needed	Not recommended in patients with severe renal impairment or ESRD
Liraglutide – Victoza (Novo Nordisk), and generics 18 mg/3 mL pens	- Treatment of type 2 diabetes in patients ≥10 years old - Reduce the risk of MACE in adults with type 2 diabetes and established CV disease	10-18 years old: 0.6-1.8 mg once/day Adults: 1.2-1.8 mg SC once/day Titration: 0.6 mg SC once/day x 7 days, then 1.2 mg once/day; can increase to 1.8 mg once/day after 1 week if needed	- Mean reduction in A1C at 52 weeks with 1.8-mg dose: 1.14 - Liraglutide is also available as <i>Saxenda</i> (SC injection) for chronic weight management in patients ≥12 years old
Semaglutide – Ozempic (Novo Nordisk) 0.68, 1.34, 2.68 mg/mL (3 mL) prefilled pens	- Treatment of type 2 diabetes in adults - Reduce the risk of MACE in adults with type 2 diabetes and established CV disease - Reduce the risk of kidney disease worsening, kidney failure, and cardiovascular death in adults with type 2 diabetes and chronic kidney disease	Adults: 0.5-2 mg SC once/week Titration: 0.25 mg SC once/week x 4 weeks, then 0.5 mg once/week; if needed, increase every 4 weeks to 1 mg once/week and then to 2 mg once/week (max 2 mg/week)	- Mean reduction in A1C at 40 weeks with 2-mg dose: 2.2 - Semaglutide is also available as <i>Wegovy</i> (SC injection) for chronic weight management in patients ≥12 years old and other indications
Rybelsus (Novo Nordisk) R1: 3, 7, 14 mg tabs	- Treatment of type 2 diabetes in adults - Reduce the risk of MACE in adults with type 2 diabetes who are at high risk for these events	Adults: 7-14 mg PO once/day 30 min before food with ≤4 ounces of plain water Titration: 3 mg PO once/day x 30 days, then 7 mg once/day; increase to 14 mg once/day after 30 days if needed for glycemic control (14-mg dose was used to support MACE indication)	- Mean reduction in A1C at 26 weeks with 14-mg dose: 1.4 - Taking two 7-mg tablets to achieve 14-mg dose is not recommended
GIP/GLP-1 Receptor Agonist			
Tirzepatide – Mounjaro (Lilly) 2.5, 5, 7.5, 10, 12.5, 15 mg/0.5 mL single-dose pens or vials	Treatment of type 2 diabetes in adults	Adults: 5-15 mg SC once/week Titration: 2.5 mg SC once/week x 4 weeks, then 5 mg once/week; increase in 2.5-mg increments every 4 weeks as needed (max 15 mg once/week)	- Mean reduction in A1C at 40 weeks with 15-mg dose: 2.1 - Tirzepatide is also available as <i>Zepbound</i> (SC injection) for chronic weight management in adults and obstructive sleep apnea in patients with obesity

MACE = major adverse cardiovascular effects; CV = cardiovascular