

Medications for Type 2 Diabetes

Maine Independent Clinical Information Service, 2023



GLP-1s (glucagon-like peptide agonists)

FDA approved in 2005-17 **NICKNAME:** the “tides”

MECHANISM OF ACTION: works in the pancreas to increase glucose dependent insulin secretion as an incretin mimetic, decreases glucagon, decreases GI emptying, increases satiety

BENEFITS (see individual drug information, newer drugs studied more): decreased mortality, decreased MACE (major adverse cardiac events), possible slowed progression of CKD

CONTRAINDICATIONS: Personal/family hx medullary thyroid carcinoma or multiple endocrine neoplasia syndrome type 2 (MEN-2, black box warning); use with relative caution with hx gastric surgery, gastroparesis, hx pancreatitis

DRUG INTERACTIONS: Insulin (monitor glycemic control, consider dose decrease), sulfonylureas, dose medications that require rapid GI absorption at least 1 hour prior to GLP-1 (antibiotics, oral contraceptives, drugs with narrow therapeutic window), DPP4i (gliptins-duplication)

MONITORING: baseline and periodic creatinine, glycemic control, electrolytes if significant GI sx, watch for signs of pancreatitis, routine eye exams in patients hx retinopathy

SIDE EFFECTS:

Common: GI: nausea, vomiting, diarrhea, constipation, decreased appetite; tolerance;

Rare: thyroid C-cell tumor, MEN-2, pancreatitis, AKI, retinopathy, gallbladder disease

ADVICE TO COUNTER GI SIDE EFFECTS:

always start with low dose, including after period of abstinence, titrate up slowly as symptoms allow, wait 4-6 weeks between dose increases, eat smaller, more frequent, low fat meals slowly, consider once weekly agents

Sources:

- VA Clinician's Guide (www.pbm.va.gov/PBM/AcademicDetailingService/Documents/508/IB10-1402_Type2DiabetesCliniciansGuide_508Conformant.pdf)
- Alosa Health Diabetes module (alosahealth.org/wp-content/uploads/2022/05/RefCard_Diabetes_5.22_final.pdf)
- RxFiles Drug Comparison Charts, 13th Ed. (www.rxfiles.ca/RxFiles/home.aspx)

Information summarized by the Maine Independent Clinical Information Service (MICIS). MICIS is a program of the Maine Medical Association, funded by Maine DHHS. MICIS does not accept pharmaceutical support. Updated 07/06/23.



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