

TABLE 2
Profile of current antihyperglycemic therapies

Class of agent	Route of administration	Mechanism of action	Effect on glucose levels	Benefits	Risks	Monitoring	Relative cost
Biguanide (Metformin)	Oral		Moderate: primarily FPG	Weight neutral	Gastrointestinal side effects; renal insufficiency; lactic acidosis	Renal function	Low
Sulfonylureas	Oral	Insulin secretagogue	Moderate: PPG and FPG effects		Hypoglycemia; mild weight gain	Renal function	Low
Insulin	Injectable	Insulin replacement	Substantial, depending on dose Basal: FPG effects Prandial: PPG effects Premixed: FPG and PPG effects		Hypoglycemia; weight gain		Low (NPH, regular); moderate (analog)
Thiazolidinediones	Oral	Insulin sensitizer	Moderate: primarily PPG effects	Improvements in some CV markers (eg, lipid profile)	Edema; weight gain; fracture risk	Signs/symptoms of CHF; decreased BMD in postmenopausal women	Moderate
GLP-1 agonists	Injectable	Incretin mimetic	Moderate to marked: primarily PPG effects	Associated with weight loss	Gastrointestinal side effects	Renal function	High
DPP-4 inhibitors	Oral	Incretin enhancer	Modest: primarily PPG effects	Weight neutral	Generally well tolerated	Reduce dose in renal insufficiency	High
Glinides	Oral	Insulin secretagogue	Moderate: primarily FPG effects		Hypoglycemia; gastrointestinal side effects		Moderate
α-Glucosidase inhibitors	Oral	Affects gastric emptying	Moderate: primarily PPG effects		Gastrointestinal side effects		Moderate
Colesevelam	Oral	Unknown	Modest	Improves lipid profiles	Gastrointestinal side effects		
Pramlintide	Injectable	Amylin agonist	Moderate: primarily PPG effects		Gastrointestinal side effects		High

BMD, bone mineral density; CHF, congestive heart failure; CV, cardiovascular; DPP-4, dipeptidyl peptidase-4; FPG, fasting plasma glucose; GLP-1, glucagon-like peptide-1; NPH, neutral protamine Hagedorn; PPG, postprandial plasma glucose.