COMMONLY USED ANTI-HYPERGLYCEMIC AGENTS

The following charts include commonly used medications for diabetes.
For information on dosing and other considerations, please refer to pharmaceutical inserts.

Oral Agents

CLASS	MECHANISM OF ACTION	GENERIC NAME	TRADE NAME®
Biguanides	Decreases hepatic glucose production and increases insulin sensitivity.	metformin	Glucophage Riomet
		metformin extended release (ER)	Glucophage XR Glumetza Fortamet
Sulfonylureas	Stimulates pancreatic islet beta cell insulin release.	glipizide	Glucotrol
		glipizide extended release (ER)	Glucotrol XL
		glyburide	Micronase Diabeta
		glyburide (micronized)	Glynase PresTab
		glimepiride	Amaryl
Insulin Secretagogues (Meglitinides)	Stimulates pancreatic islet beta cell insulin release.	repaglinide	Prandin
		nateglinide	Starlix
Thiazolidinediones (TZDs)	Increases peripheral and hepatic sensitivity to insulin.	pioglitazone	Actos
Alpha-glucosidase Inhibitors	Delays and decreases absorption of starch after a meal.	acarbose	Precose
		miglitol	Glyset
Dipeptidyl peptidase-4 (DPP-4) Inhibitors	Inhibits action of DPP-4, slowing incretin metabolism, increasing insulin synthesis and release, and decreasing glucagon levels.	sitagliptin	Januvia
		saxagliptin	Onglyza
		linagliptin	Tradjenta
Oral Combination Drugs	Refer to actions of individual drugs.	glyburide/metformin	Glucovance
		glipizide/metformin	Metaglip
		metformin/pioglitazone	ACTOplusmet
		sitagliptin/metformin	Janumet
		saxagliptin/metformin	Kombiglyze

Injectable Agents

CLASS	MECHANISM OF ACTION	GENERIC NAME	TRADE NAME®
Incretin Mimetic	Stimulates insulin production in response to elevated blood glucose levels, inhibits post-meal glucagon release, and slows nutrient absorption.	exenatide injection	Byetta
		liraglutide injection	Victoza
Amylin Analogue	Decreases postprandial plasma glucose rise, suppresses glucagon secretion, delays gastric emptying, and promotes satiety.	pramlintide injection	Symlin

Insulin

INSULIN TYPE	TRADE NAME	ONSET	PEAK	DURATION
Very short-acting	insulin lispro (*Humalog*)	15–30 minutes	0.5–2.5 hours	3–5 hours
	insulin aspart (*NovoLog*)	10–20 minutes	1–3 hours	3–5 hours
	insulin glulisine (*Apidra*)	10–30 minutes	1.6–2.8 hours	3–4 hours
Short-acting	regular insulin (*Humulin R, Novolin R*)	30 minutes	2.5–5 hours	4–12 hours
Intermediate-acting	NPH insulin (*Humulin N, Novolin N*)	1–2 hours	4–12 hours	14–24 hours
Long-acting	insulin glargine (*Lantus*)	1 hour	No pronounced peak	generally 24 hours; range 10.8 to > 24 hours
	insulin detemir (*Levemir*)	0.8–2 hours (dose dependent)	No pronounced peak	dose dependent; 6–23 hours
Pre-mixed Insulin	75% insulin lispro protamine/ 25% insulin lispro (*Humalog Mix 75/25*)	15–30 min	1–6.5 hours	14–24 hours
	70% NPH/ 30% regular (*Humulin 70/30*)	30 minutes	2–12 hours	18–24 hours
	70% insulin aspart protamine/ 30% insulin aspart (*Novolog Mix 70/30*)	10–20 minutes	1–4 hours	18–24 hours
	70% NPH/30% regular (*Novolin 70/30*)	30 minutes	2–12 hours	18–24 hours
	50% insulin lispro protamine/ 50% lispro (*Humalog 50/50*)	15–30 minutes	0.8–4.8 hours	14–24 hours

Reference: *Lexi-Comp, Inc. (Lexi-Drugs™). Lexi-Comp, Inc.; May 23, 2011.*