Table 1

Medications Associated With Hyperglycemia or Diabetes Mellitus

Drug Class	Agents	Mechanism	Incidence of Drug-Induced Diabetes or Hyperglycemia	Short-Term Reversibility
Steroids	Prednisone Prednisolone Methylprednisolone Dexamethasone	Insulin resistance, increased hepatic glucose production, increased PPAR-gamma activation	40%-65%	Yes
Antipsychotics	First generation: Chlorpromazine, perphenazine, phenothiazines Second generation: Clozapine, olanzapine, Paliperidone, risperidone, quetiapine	Insulin resistance, reduced insulin secretion, beta-cell damage	10%-30%	Yes
Antiretrovirals	Protease inhibitors: Atazanavir Darunavir Indinavir Lopinavir Nucleoside reverse transcriptase inhibitors: Zidovudine Stavudine	Decreased insulin sensitivity, insulin resistance, lipodystrophy, metabolic syndrome	3%-17%	No
Chemotherapy	Alpelisib PD-1/PDL1 checkpoint inhibitors: • Pembrolizumab • Nivolumab • Dostarlimab • Atezolizumab • Avelumab	Alpelisib: decreased insulin resistance PD-1/PD-L1 checkpoint inhibitors: autoimmune destruction of pancreatic beta cells	Alpelisib: 63% PD-1/PD-L1 checkpoint inhibitors: 0.8%-1.9%	Alpelisib: yes PD-1/PD-L1 checkpoint inhibitors: no
Transplant immuno-suppressants	Tacrolimus Cyclosporine Basiliximab Sirolimus Everolimus	Decreased insulin secretion, glucose intolerance	15%-30%	Yes
Thiazide diuretics	Chlorthalidone ✓ Hydrochlorothiazide ✓ Indapamide Chlorothiazide	Reduced potassium leading to decreased insulin secretion, increased insulin resistance	10%	Yes
Lipid-lowering agents	Niacin Statins: • Atorvastatin ✓ • Rosuvastatin • Pravastatin • Lovastatin • Simvastatin • Pitavastatin • Fluvastatin	Niacin: altered hepatic glucose metabolism Statins: decreased insulin secretion, decreased glucose uptake in skeletal muscles, insulin resistance	Niacin: 6.8%-19.8% Statins: 7%-48%	Niacin: yes Statins: unknown

Continued