

## Diabetic Medications Cheat Sheet for Providers

Medication	How it Works	Benefits	Side Effects	Contraindications	A1c Effect	Cost
<p><b>Class: Biguanides</b></p> <p>metformin(Glucophage)</p> <p>Administration: Oral</p>	<ul style="list-style-type: none"> <li>- First line</li> <li>- Targets insulin resistance</li> <li>- Decreases glucose production in the liver</li> </ul>	<ul style="list-style-type: none"> <li>- Weight neutral or decreased</li> <li>- Low risk for hypoglycemia</li> </ul>	<ul style="list-style-type: none"> <li>- Nausea, vomiting, diarrhea</li> <li>- Risk of lactic acidosis</li> </ul>	<p>GFR 30-60, consider changing dose by 50%</p> <p>GFR &lt;30 - stop</p>	1.0-2 or more	\$
<p><b>Class: GLP-1 Agonists</b></p> <p>exenatide ER (Bydureon) Weekly</p> <p>liraglutide (Victoza) Daily</p> <p>dulaglutide (Trulicity) Weekly</p> <p>semaglutide (Ozempic) Weekly</p> <p>Administration: Injection</p>	<ul style="list-style-type: none"> <li>- Suppresses glucose production by inhibiting glucagon secretion</li> <li>- Slows gastric emptying therefore slowing glucose absorption</li> <li>- Stimulates insulin release in response to food</li> </ul>	<ul style="list-style-type: none"> <li>- Weight loss</li> <li>- Decreased appetite</li> <li>- Low risk of hypoglycemia</li> </ul> <p><i>- <u>liraglutide (Victoza) and semaglutide (Ozempic) have shown to reduce rates of MI, CVA, and cardiovascular events; also reduce renal disease and progression of these diseases</u></i></p>	<ul style="list-style-type: none"> <li>- N/V and stomach cramping</li> <li>- Rare cases pancreatitis</li> <li>- Can cause benign lumps at sites of injections (esp Bydureon)</li> </ul>	<p>exenatide(Bydureon)</p> <p>Avoid CrCl &lt;30</p> <p>dulaglutide, liraglutide, semaglutide:</p> <p>No renal or liver dosing needed</p> <p>- Do not use in history of pancreatitis or medullary thyroid cancer</p>	0.5-2.0	\$\$-\$\$\$
<p><b>Class: DPP-4 Inhibitors</b></p> <p>sitagliptin (Januvia)</p> <p>saxagliptin (Onglyza)</p> <p>linagliptin (Tradjenta)</p> <p>alogliptin (Nesina)</p> <p>Administration: Oral</p>	<ul style="list-style-type: none"> <li>- Increases insulin sensitivity</li> <li>- Targets post meal glucose levels</li> <li>- Increase insulin secretion from pancreas</li> <li>- Decreases glucagon secretion from pancreas</li> </ul>	<ul style="list-style-type: none"> <li>- Very few side effects</li> <li>- Weight neutral</li> <li>- Low risk hypoglycemia(unless used with insulin or sulfonylurea)</li> </ul>	<ul style="list-style-type: none"> <li>- Risk for joint pains</li> <li>- Heart failure risk varies: No risk with sitagliptin</li> <li>- urticaria</li> </ul>	<ul style="list-style-type: none"> <li>- Measure Cr at baseline and adjust for renal function based on medication</li> <li>- Tradjenta has no renal adjustments</li> <li>- Do not use with history of pancreatitis</li> </ul>	0.5-0.8	\$\$-\$\$\$

<p><b>Class: SGLT-2 Inhibitors</b></p> <p>canagliflozin(Invokana) dapagliflozin(Farxiga) empagliflozin (Jardiance)</p> <p>Administration: Oral</p>	<p>- Increases glucose excretion in the kidneys - decreased reabsorption of filtered glucose in kidneys</p>	<p>- Weight loss - Lowers systolic BP</p> <p><i>- empagliflozin (Jardiance) and canagliflozin (Invokana) have shown to reduce rates of MI, CVA, and cardiovascular events; also reduce renal disease and progression of these diseases</i></p>	<p>- Contraindicated if eGFR&lt;45-60 (agent dependent) -Dizziness -Urinary infections -Yeast infections -Increase in LDL - Rare cases ketoacidosis - rare cases of Fourniers gangrene have been reported</p>	<p>- Monitor kidney function prior to and during treatment</p>	<p>0.5-1.0</p>	<p>\$\$\$</p>
<p><b>Class: Thiazolidinediones</b></p> <p>pioglitazone(Actos)</p> <p>Administration: Oral</p>	<p>- increases insulin sensitivity in peripheral tissues and the liver</p>	<p>- Improved Lipids (decreased TG, Increased HDL)</p>	<p>-Edema, fluid retention - Weight gain</p>	<p>- Avoid if ALR &gt;2.5xULN before treatment of &gt;3ULN during therapy -Avoid in CHF (NYHA Class III/IV), Osteoporosis, Bladder cancer</p>	<p>0.4-1.4</p>	<p>\$\$</p>
<p><b>Class: Sulfonylureas</b></p> <p><b>Second generation</b> (Glipizide, glyburide) <b>Third Generation</b> (Glimepiride)</p> <p>Administration: Oral</p>	<p>- Increases insulin secretion in the pancreas</p>	<p>- Rapidly effective - Long term safety profile</p>	<p>- Weight gain (esp when used with basal insulin) - Hypoglycemia - increased cardiovascular risk</p>	<p>- Avoid in elderly - Glyburide – avoid in CrCl &lt;50</p>	<p>1.0-2.0</p>	<p>\$</p>
<p><b>Class: Glitinides</b></p> <p>Prandin, Starlix</p> <p>Administration: Oral</p>	<p>- Administer with meals - Low risk hypoglycemia</p>				<p>0.5-0.9</p>	<p>\$\$</p>