

# Antihyperglycemic Agents and Renal Function

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From the CPG Diabetes Canada (Update Nov. 2024) and from the product monograph.

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		CRF stage				
		5	4	3	2	1
		<15	15-29	30-59	60-89	≥90
		eGFR(mL/min/1.73 m <sup>2</sup> ):				
Alpha-Glucosidase Inhibitor	Acarbose (Glucobay™)	Contraindicated	Contraindicated	Contraindicated	25	100 mg TID
Biguanides	Metformin (Glucophage®)	Contraindicated	500 mg OD 30	1000 mg OD 45		850 mg TID
DPP-4 Inhibitors	Alogliptin (Nesina®)		6.25 mg 30	12.5 mg 45		25 mg OD
	Linagliptin (Trajenta®)	Limited experience	15			5 mg OD
	Saxagliptin (Onglyza®)	Contraindicated	15	2.5 mg 45		5 mg OD
	Sitagliptin (Januvia®)		25 mg 30	50 mg 45		100 mg OD
GLP-1R Agonists (Short acting)	Liraglutide (Victoza®)	Limited experience	15			1.8 mg OD
	Lixisenatide (Adlyxine™)	Contraindicated	Contraindicated	30		20 ug OD
	Semaglutide (Rybelsus®)	Limited experience	15	30		14 mg OD
GLP-1R Agonists (Long acting)	Dulaglutide (Trulicity®)	Limited experience	15			4.5 mg per week
	Semaglutide (Ozempic®)	Limited experience		30		2 mg per week
	Semaglutide (Wegovy®)	Limited experience		30		2.4 mg per week
GLP-1R Agonists and GIP (Long acting)	Tirzepatide (Mounjaro®)	Limited experience	15			15 mg per week
Insulin Secretagogues	Gliclazide (Diamicon®)	Contraindicated	15	30		MR 120 mg OD or 160 mg BID
	Glimepiride (Amaryl®)	Contraindicated	15	30		4 mg BID
	Glyburide (Diabeta®)	Contraindicated	Contraindicated	Contraindicated	60	10 mg BID
	Repaglinide (Gluconorm®)		Risk of hypoglycemia	30		4 mg TID
SGLT2 Inhibitors	Canagliflozin (Invokana®)		100 mg 30 <sup>1-2-4</sup>	100 mg 60		300 mg OD
	Dapagliflozin (Forxiga®)		25 <sup>3-4</sup>			10 mg OD
	Empagliflozin (Jardiance®)		10mg 20 <sup>4-5</sup>	10mg 30		25 mg OD
Thiazolidinediones	Pioglitazone (Actos®)	Heart failure / Limited experience	25			45 mg OD
	Rosiglitazone (Avandia®)	Heart failure / Limited experience	25			8 mg OD
	Insulin		Risk of hypo if accumulation	45		

Contraindicated

Not recommended

Dose adjustment required

Caution: reason indicated

Safe

**1** = Do not initiate if eGFR is < 30 ml/min

**2** = Previously treated patients with albuminuria > 33.9 mg/mmol.

For more information, please refer to the latest version of the product monograph.

**3** = Do not initiate if eGFR is < 25 ml/min

**4** = Stop when dialysis is started

**5** = Do not initiate if eGFR is < 20 ml/min

The indicated dose is the maximum dose that can be used at this eGFR.