

Antihyperglycemic Agents and Renal Function

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 From the CPG Diabetes Canada (Update Nov. 2021)
 and from the product monograph.
 Last date of revision: February 9, 2023

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

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

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