

Antihyperglycemic Agents and Renal Function

Adapted by: Steve Chalifoux, BSN, Diabetes Case Manager, PCDQ

From the CPG Diabetes Canada (Update Nov. 2021) 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 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		
GLP-1R Agonists and GIP (Long acting)	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 [®])	10mg	20 ⁴⁻⁵	10mg 30	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

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

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