

Non-Insulin Anti-Hyperglycemic Agent (Non-Insulin AHA) Titration

Class	Medication Generic (Brand)	Dosing Range	Titration	Adjust for Renal Impairment	Included in SADMANS	Stop if Ketones Present
Biguanide	Metformin (Glucophage)	250 mg - 850 mg daily to three times daily maximum dose: 2550 mg/day	Increase by 250 mg or 850 mg weekly	Monitor for side effects with GFR 30- 60 mL/min, GFR under 30 mL/ min not recommended	Yes	Yes
	Metformin (Glumetza)	500 mg - 2000 mg once daily maximum dose: 2000 mg/day	500 mg every 7 days		Yes	Yes
Sulfonylurea	Gliclazide (Diamicron)	40 mg daily - 160 mg twice daily maximum dose: 320 mg	Increase by 40 - 80 mg as needed	Not recommended in severe renal impairment	Yes	
	Gliclazide (Diamicron MR)	30 mg -120 mg daily maximum dose: 120mg/day	Increase by 30 mg every 2 weeks		Yes	
	Glimepiride (Amaryl)	1 mg - 8 mg daily maximum dose: 8mg/day	Increase by 1-2 mg every 1-2 weeks	Not recommended with GFR < 15 mL/min	Yes	
	Glyburide (Diabeta)	1.25 mg daily - 10 mg twice daily maximum dose: 20mg/day	Increase by 2.5 mg every week	Not recommended for use with renal impairment	Yes	
Meglitinide	Repaglinide (Gluconorm)	0.5 mg -4 mg before each meal maximum dose: 16 mg	May double the dose with each meal each week	Use has not been studied with GFR < 20 mL/min	Yes	
Alpha-glucosidase inhibitor	Acarbose (Glucobay)	25 mg - 100 mg with first bite of each main meal maximum dose: 100mg TID	Increase dose at 4-8 week intervals	Not recommended with GFR < 25 mL/min	No	
DPP-4 Inhibitors	Sitagliptin (Januvia)	100 mg daily	No titration	GFR ≥ 30- ≤ 45 mL/min 50 mg daily GFR ≤ 30 mL/min 25 mg daily	No, unless in combination pill with metformin	

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	Linagliptin (Trajenta)	5 mg daily		No		
	Saxagliptin (Onglyza)	5 mg daily		GFR < 45 mL/min 2.5 mg daily		
	Alogliptin (Nesina)	25 mg daily		GFR \geq 30 to <60 mL/min 12.5 mg daily; GFR \geq 15 to < 30 mL/min 6.25 mg daily		
Thiazolidinediones	Rosiglitazone (Avandia)	4-8 mg daily maximum dose: 8mg daily	Increase to 8 mg after 8-12 weeks	No	No, unless in combination pill with metformin	
	Pioglitazone (Actos)	15 mg - 45 mg daily maximum dose: 45mg daily	Increase by 15 mg after 8-12 weeks			
GLP-1 Agonists	Liraglutide (Victoza)	0.6 mg-1.8 mg daily maximum dose: 1.8mg daily	Increase to 1.2 mg after one week if tolerated (can take up to 4 weeks to tolerate); may increase to 1.8 mg as needed	Limited data, use with caution	No	Yes
	Exenatide (Byetta)	5-10 mcg twice daily maximum dose: 20mcg daily	Increase to 10 mcg twice daily after 1 month	GFR < 30 mL/min Not recommended		
	Exenatide (Bydureon)	2 mg once weekly maximum dose: 2mg weekly	No titration			
	Dulaglutide (Trulicity)	0.75 mg -1.5 mg weekly maximum dose: 1.5mg daily	Double dose after 4 to 8 weeks	No		
	Semaglutide (Ozempic)	0.25 mg -1 mg weekly maximum dose: 1 mg/week	Increase every 4 weeks	No		
	Semaglutide (Rybelsus)	3 mg -14 mg po daily maximum dose: 14mg daily	Increase every 30 days			

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	Lixisenatide (Adlyxine)	10 mcg-20 mcg daily maximum dose: max 20 mcg/day	Increase after 14 days	GFR < 15 mL/min Use not recommended		
SGLT-2 Inhibitor	Empagliflozin (Jardiance)	10- 25 mg daily maximum dose: 25mg daily	Increase to 25 mg daily after 4 to 12 weeks	Glycemic effects decrease when GFR < 45 mL/min	Yes	Yes
	Canagliflozin (Invokana)	100 mg -300 mg daily maximum dose: 300mg daily	Increase to 300 mg after 4 to 12 weeks	GFR 30-60 mL/min 100 mg daily		
	Dapagliflozin (Forxiga)	5 mg -10 mg daily maximum dose: 10mg daily	Increase to 10 mg after 4 to 12 weeks	Glycemic effects decrease when GFR < 45 mL/min		
Combination Medications	Refer to specific product information and Health Canada drug product monograph					

References: Health Canada drug product monograph database <https://www.canada.ca/en/health-canada/services/drugs-health-products/drug-products/drug-product-database.html>