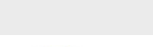
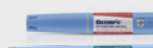
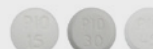
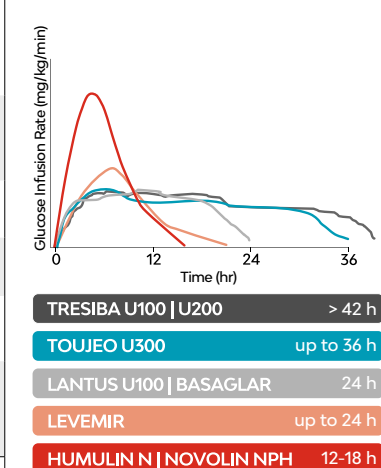
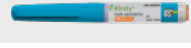


ANTIHYPERGLYCEMIC DRUGS for type 2 diabetes																		Dr. Pierre McCabe, 2024		Diabetes Québec				
Rx					eGFR (mL/min/1.73m²)								Major Adverse Cardiovascular Events¹		RAMQ ↕ reimbursement criteria				NIHB reimbursement criteria (Non-Insured Health Benefits program for First Nations and Inuit)					
															Monotherapy MET + SU Contraindicated or not tolerated	In conjunction If the other agent is contraindicated, not tolerated, or ineffective		Combination treatment EN 150: SU contraindicated, not tolerated or ineffective; MET stable for 1 month EN 219: Recognized indication for Empa; MET stable for 1 month		Coverage	Combination treatment coverage			
					< 15 or dialysis	15–29	30–44	45–59								+ MET	+ SU	Cardiovascular criterion EN 179: In combination with other drugs; presence of MCAS or MVAS; A1C ≥ 7%						
1*	Metformin	GLUCOPHAGE (Metformin)		500 - 850 mg BID/TID (max. 850 mg TID/1000 mg BID)		500 mg QD (do not initiate)	500 mg BID		–	Neutral	Rare	–	–	Covered	–	Covered	–	Open Benefit	–					
		GLUMETZA (Metformin)		500 - 1000 mg QD (max. 2000 mg QD)			1000 mg QD		–					Private ins.	–	Private ins.	–	Not listed	–					
SGLT2i		INVOKANA (Canagliflozin)		100 - 300 mg QD		Continue treatment	100 mg (Recommended for cardiorenal benefits. Lower glycemic efficacy.)		↓↓↓ 0.8 to 0.9%	↓↓ 3.3 to 4.0 kg	Rare	POSITIVE ¹ (Established atherosclerotic cardiovascular disease)	↓ Hospitalization for heart failure³ ↓ Progression of nephropathy⁴	EN 167	EN 148	EN 149	Invokamet 50 - 150/500 - 1000 Private ins.	Limited Use Uncontrolled T2D and intolerance to MET and SU	Invokamet (Not listed)					
		JARDIANCE (Empagliflozin)		10 - 25 mg QD	< 20 ml/min	10 mg Continue treatment	(Recommended for cardiorenal benefits. Lower glycemic efficacy.)		↓↓↓ 0.7 to 0.8%	↓↓ 2.1 to 3.1 kg				EN 167	EN 148	Private ins.	Synjardy 5 - 12.5/500 - 850 - 1000 EN 219 Jardiance EN 179	Open Benefit	Synjardy Open Benefit					
		FORXIGA (Dapagliflozin)		5 - 10 mg QD		Continue treatment			↓↓↓ 0.5 to 0.8%	↓↓ 2.9 to 3.2 kg				Private ins.	EN 148	EN 149	Xigduo 5/850 - 1000 EN 150	Open Benefit	Xigduo Open Benefit					
INCRETINS	2**	GLP-1 RA	VICTOZA (s.c. Liraglutide)		0.6 mg QD x 1 week 1.2 mg QD x 1 week 1.8 mg QD (optional)	NR			↓↓↓ 1.0 to 1.5%	↓↓ 2.6 to 3.4 kg	Rare	POSITIVE ² (Established atherosclerotic cardiovascular disease AND/OR >60 yo with 2 CV risk factors)	↓ Albuminuria⁵	Exception drugs Not at target + MET; BMI >30; DPP-4i is ineffective, contraindicated, and/or not tolerated. 12 months per authorization (first continuation: ↓ A1C ≥ 0.5% or a value ≤ 7%)			–	Not listed	–					
			TRULICITY (s.c. Dulaglutide)		0.75 mg Q1W x 2 weeks 1.5 mg Q1W (optional)	Caution			↓↓↓ 1.0 to 1.4%	↓↓ 2.7 to 3.1 kg							–	Not listed	–					
			OZEMPIC (s.c. Semaglutide)		0.25 mg Q1W x 4 weeks 0.5 mg Q1W x 4 weeks 1 mg Q1W (optional)	NR	Caution		↓↓↓ 1.3 to 1.6%	↓↓ 4.2 to 5.8 kg				Exception drugs In association with MET, where a SU is contraindicated, not tolerated or ineffective			–	Open Benefit	–					
			RYBELSUS (oral Semaglutide)		3 mg QD x 30 days 7 mg QD x 30 days 14 mg QD (optional)	NR			↓↓↓ 1.0 to 1.3%	↓↓ 2.2 to 3.8 kg							–	Limited Use Uncontrolled T2D and intolerance to MET and SU	–					
	AR GIP + GLP-1		MOUNJARO (Tirzepatide)		2.5 mg Q1W x 4 weeks ↑ 2.5 mg Q1W x 4 weeks ad 5 mg, 10 mg or 15 mg Q1W (optional)				↓↓↓↓ 2.0 to 2.3 kg	↓↓↓ 7.6 to 11.2 kg	Rare	(ongoing study)	–	Private ins.			–	Not listed	–					
			DPP-4i	JANUVIA (Sitagliptin)		100 mg QD		25 mg	50 mg					↓↓ 0.7%	Neutral	Rare	NEUTRAL	–	EN 167	EN 148	Private ins.	Janumet 50/500 - 850 - 1000 EN 150 Janumet XR 50/500 - 1000; 100/1000 EN 150	Limited Use Uncontrolled T2D and intolerance to MET and SU	Janumet Limited Use Uncontrolled T2D and intolerance to MET and SU
				TRAJENTA (Linagliptin)		5 mg QD	Caution							↓↓ 0.5 %	Neutral				EN 167	EN 148	Private ins.	Jentadueto 2.5/500 - 850 - 1000 EN 150	Open Benefit	Jentadueto Open Benefit
				NESINA (Alogliptin)		25 mg QD		6.25 mg	12.5 mg					↓↓ 0.6 %	Neutral				EN 167	EN 148	EN 149	Kazano 12.5/500 - 850 - 1000 EN 150	Not listed	Kazano (Not listed)
				ONGLYZA (Saxagliptin)		5 mg QD	Caution	2.5 mg						↓↓ 0.7 %	Neutral				Private ins.	EN 148	EN 149	Komboglyze 2.5/500 - 850 - 1000 EN 150	Open Benefit	Komboglyze Open Benefit
Alpha-glucosidase		GLUCOBAY (Acarbose)		50 - 100 mg TID					↓↓ 0.6 %	Neutral	Rare	NEUTRAL	–	Covered	Covered	Covered	–	Open Benefit	–					
		Secretagogues	DIABETA (Glyburide)		2.5 - 5 mg QD/BID (max. 10 mg BID)			Caution		↓↓ 0.5 to 1.0 %				↑ 1.5 kg	++	–		Covered	Covered	–	–	Open Benefit	–	
			DIAMICRON (Gliclazide)		80 mg (max. 160 mg BID) MR 30 - 60 mg (max. 120 mg QD)	NR				↓↓ 0.5 to 1.0 %				↑ 1.5 kg	+			Covered	Covered	–	–	Open Benefit	–	
			AMARYL (Glimepiride)		1 - 2 - 4 mg (max. 8 mg QD)	NR	Caution			↓↓ 0.5 to 1.0 %				↑ 1.5 kg	++			EN 23	EN 23	–	–	Not listed	–	
			GLUCONORM (Repaglinide)		0.5 - 1 - 2 mg TID (max. 4 mg QID)	Caution				↓↓ 0.5 to 1.0 %				↑ 1.6 kg	+			Covered	Covered	–	–	Open Benefit	–	
TZD		ACTOS (Pioglitazone)		15 - 30 - 45 mg QD	Caution				↓↓↓ 0.9 to 1.5 %	↑↑ 1.5 to 2.8 kg	Rare	NEUTRAL	↑ Heart failure	EN 121	EN 118	EN 119	EN 117 (For patients with CKD) EN 120 (In combination with MET + SU when insulin is indicated, but the patient is unable to receive it)	Open Benefit (generic only)	–					
		AVANDIA (Rosiglitazone)		2 - 4 - 8 mg QD	Caution				↓↓↓ 0.9 to 1.5 %	↑↑ 1.5 to 2.8 kg				EN 121	EN 118	EN 119	–	Not listed	–					

		Rx	Pens pre-filled	Delivery System and Maximum Single Dose	Dosage †			Hypo Risk	RAMQ Coverage	SSNA Coverage	Duration of Action
					Initiation	Titration	Switch				
BASAL INSULIN	Long-acting	TRESIBA U100 (Degludec)		FlexTouch (max. 80 U)	10 U at any time of day	2 U every 3–4 days OR 4 U once a week until targets reached (4 to 7 mmol/L)	1:1 (↓ by 20% when switched from TOUJEO or twice daily insulin)	+	Covered	Open Benefit	
		TRESIBA U200		FlexTouch (max. 160 U)							
		TOUJEO U300 (Glargine)		SoloSTAR (max. 80 U) DoubleSTAR (max. 160 U)	10 U at bedtime or in the morning	1 U QD until targets reached (4 to 7 mmol/L)	1:1 (↓ by 20% when switched from twice daily insulin)	+	Covered	Open Benefit	
		LANTUS U100 (Glargine)		Cartridge SoloSTAR (max. 80 U)				Private ins. (Plan dependent)	Open Benefit		
		BASAGLAR (Biosimilar glargine)		Cartridge KwikPen (max. 80 U)	10 U at bedtime or in the morning	1 U QD until targets reached (4 to 7 mmol/L)	1:1 (↓ by 20% when switched from TOUJEO or twice daily insulin)	++	Covered	Open Benefit	
		SEMGLEE (Biosimilar glargine)		Semglee (max. 80 U)				Covered	Open Benefit		
		LEVEMIR (Detemir)		Cartridge	10 U at bedtime or in the morning	1 U QD until targets reached (4 to 7 mmol/L)	1:1 (↓ by 20% when switched from twice daily insulin)	++	Covered	Open Benefit	
	Intermediary	HUMULIN N		Cartridge KwikPen (max. 60 U)	10 U at bedtime	1 U QD until targets reached (4 to 7 mmol/L)	1:1	+++	Covered	Open Benefit	
		NOVOLIN NPH		Cartridge							

		R _x	Pens pre-filled	Delivery System and Maximum Single Dose	Onset	RAMQ Coverage	NIHB Coverage
MEALTIME INSULIN	Fast	FIASP (Faster aspart)		Cartridge FlexTouch (max. 80 U)	4 min	Private ins. (Plan dependent)	Not listed
		NOVORAPID (Aspart)		Cartridge FlexTouch (max. 80 U)		Private ins. (Plan dependent)	Open Benefit
		TRURAPI (Biosimilar aspart)		Cartridge SoloSTAR (max. 80 U)	10-20 min	Covered	Open Benefit
		KIRSTY (Biosimilar aspart)		Kirsty (max. 80 U)		Covered	Open Benefit
		HUMALOG U100 (Lispro)		Cartridge KwikPen (max. 60 U)	10-15 min	Private ins. (Plan dependent)	Open Benefit
		HUMALOG U200		KwikPen (max. 60 U)		Covered	Open Benefit
		ADMELOG (Biosimilar lispro)		Cartridge SoloSTAR (max. 80 U)		Covered	Open Benefit
		APIDRA (Glulisine)		SoloSTAR (max. 80 U)		Covered	Open Benefit
	Regular	HUMULIN R		Cartridge KwikPen (max. 60 U)	30 min	Covered	Open Benefit
		NOVOLIN GE TORONTO		Cartridge			

Recommendations based on Diabetes Canada guidelines.

1* Metformin is the first line of treatment. 2** SGLT2i and GLP-1 RA should be favoured after metformin in patients with CV comorbidity and/or in poorly controlled patients in whom it is desirable to promote CV benefits and/or weight loss while minimizing the risk of hypoglycemia.

¹ Patients on insulin should have an individualized fasting glucose targets. † 3-point MACE is defined as a composite of nonfatal stroke, nonfatal myocardial infarction, and cardiovascular death.

Results of CV studies (evidence level A and B in italic): **1** ↓ in MACE: if established Atherosclerotic Cardiovascular Disease OR if CKD. **2** ↓ in MACE: if established Atherosclerotic Cardiovascular Disease OR if >60 yo with 2 risk factors (tobacco, HBP, DLD, obesity) OR if CKD. **3** ↓ in Hospitalization for Heart Failure: if history of Heart Failure OR if CKD OR if established Atherosclerotic Cardiovascular Disease OR if >60 yo with 2 CV risk factors. **4** ↓ progression of nephropathy: if CKD OR if established Atherosclerotic Cardiovascular Disease. **5** ↓ Albuminuria: if established Atherosclerotic Cardiovascular Disease.

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CAD: coronary artery disease | CKD: chronic kidney disease | CV: cardiovascular | DLD: dyslipidemia | eGFR: estimated glomerular filtration rate | HBP: high blood pressure | MET: metformin | NR: not recommended PAD: peripheral artery disease | QD: once per day | Q1W: once weekly | QID: four times a day | s.c.: subcutaneous | SU: sulfonylurea

Reference: Efficacy on A1C and weight lowering data as add-on to metformin have been taken from product monographs or from head-to-head trials. This guide reflects current standards and the author's opinion, Dr. Pierre McCabe, specialist in general internal medicine. It does not replace clinical judgement and should only be used as a reference. Some products are not represented on the chart as they are rarely prescribed. | 2020 © Photos by Vigilance Santé inc. © Diabetes Québec, 2024