Canada's Drug and
Health Technology Agency

Updated CADTH Reimbursement Recommendations From a Streamlined Drug Class or Therapeutic Review

Sodium-Glucose Cotransporter-2 Inhibitors in Type 2 Diabetes Mellitus

Streamlined Drug Class Review

March 7, 2024

On November 30, 2023, the Formulary Management Expert Committee (FMEC) deliberated on a streamlined drug class review for sodium-glucose cotransporter-2 (SGLT2) inhibitors in type 2 diabetes mellitus.

Rationale for Updates to CADTH Reimbursement Recommendations

Based on the overall evidence on efficacy, safety, and costs, FMEC voted (7 to 1) in favour of the following reimbursement recommendations:

Recommendation 1

- SGLT2 inhibitors should be prioritized over sulfonylureas and dipeptidyl peptidase-4 (DPP-4) inhibitors in adults diagnosed with type 2 diabetes mellitus following inadequate control with metformin or a contraindication or intolerance to metformin.

Recommendation 2

- SGLT2 inhibitors and glucagon-like peptide 1 (GLP-1) agonists both demonstrated clinical efficacy in the outcomes deemed important by FMEC. However, because of differences in cost, SGLT2 inhibitors should be prioritized over GLP-1 agonists in adults diagnosed with type 2 diabetes mellitus following inadequate control with metformin or a contraindication or intolerance to metformin unless the drug plan cost per patient of a GLP-1 agonist is no more than the least costly SGLT2 inhibitor.

As described in the Procedures for CADTH Streamlined Drug Class Reviews, FMEC may provide updates to previous CADTH reimbursement recommendations, which can include amendments to the recommendation status, criteria, and/or conditions, as appropriate.

FMEC has updated the previous criteria and/or conditions set out by the Canadian Expert Drug Advisory Committee (CEDAC) or the Canadian Drug Expert Committee (CDEC) for therapeutics in type 2 diabetes mellitus based on the scope of the streamlined drug class review. Note that only relevant reviews with positive recommendations will be updated. Recommendations that were out of scope for the review (e.g., GLP-1 in combination with insulin) were not updated.

Updates to CADTH Reimbursement Recommendations

The CADTH recommendations in this document now supersede the previously published recommendations for the relevant therapeutics.

Refer to Table 1 (summary of revisions) and Table 2 (summary of additions) for the updated CADTH reimbursement recommendations for these drugs, which includes the previous final recommendations (from CEDAC or CDEC) and updates by FMEC.

Table 1

Summary of Revisions to Previous CADTH Reimbursement Recommendations

Generic name (brand name), project number	Date final recommendation (CDEC) issued	Final recommendation (CEDAC or CDEC)	Revisions to CEDAC or CDEC recommendation (by FMEC)
		SGLT2 inhibitors	
Canagliflozin (Invokana), SR0370-000	January 15, 2015	CDEC recommends that canagliflozin be listed for the treatment of type 2 diabetes, if the following clinical criterion and conditions are met: • Added on to metformin and a sulfonylurea for patients with inadequate glycemic control on metformin and a sulfonylurea and for whom insulin is not an option • Drug plan costs for canagliflozin should not exceed the drug plan cost of dipeptidylpepetidase-4 (DPP-4) inhibitors	FMEC affirms that canagliflozin should be reimbursed with criteria or conditions for the treatment of type 2 diabetes mellitus. The following amendment to conditions for reimbursement will now apply. **Initiation** For use in the case of contraindication or intolerance to metformin or added on to metformin for patients with inadequate glycemic control. **Pricing** The drug plan costs for canagliflozin should not exceed the least costly SGLT2 inhibitor used to treat type 2 diabetes mellitus.
Dapagliflozin (Forxiga), SR0428-000	November 20, 2015	CDEC recommends that dapagliflozin be listed for use in patients with type 2 diabetes mellitus to improve glycemic control, if the clinical criteria and condition are met for any one of the following four scenarios: • Added on to metformin for patients: ◦ Who have inadequate glycemic control on metformin ◦ Who have a contraindication or intolerance to a sulfonylurea ◦ For whom insulin is not an option. • Added on to a sulfonylurea for patients: ◦ Who have inadequate glycemic control on a sulfonylurea ◦ Who have a contraindication or intolerance to metformin ◦ For whom insulin is not an option.	FMEC affirms that dapagliflozin should be reimbursed with criteria or conditions for the treatment of type 2 diabetes mellitus. The following amendment to conditions for reimbursement will now apply. **Initiation** For use in the case of contraindication or intolerance to metformin or added on to metformin for patients with inadequate glycemic control. **Pricing** The drug plan costs for dapagliflozin should not exceed the least costly SGLT2 inhibitor used to treat type 2 diabetes mellitus.

Generic name (brand name), project number	Date final recommendation (CDEC) issued	Final recommendation (CEDAC or CDEC)	Revisions to CEDAC or CDEC recommendation (by FMEC)
		• Added on to insulin in combination with metformin for patients with inadequate glycemic control on insulin with metformin. • Added on to insulin without metformin for patients with the following: ◦ Inadequate glycemic control on insulin ◦ Contraindication or intolerance to metformin. Drug plan cost of treatment with dapagliflozin should not exceed the drug plan cost of treatment with the least costly option from within the sodium-glucose cotransporter-2 (SGLT2) inhibitor and dipeptidyl peptidase-4 (DPP-4) inhibitor classes.	
Dapagliflozin-metformin hydrochloride (Xigduo), SR0468-000	**July 20, 2016**	CDEC recommends that dapagliflozin-metformin (Xigduo) be reimbursed for patients with type 2 diabetes mellitus if the following criterion and condition are met: • Patients who are already stabilized on therapy with metformin and dapagliflozin, to replace the individual component of dapagliflozin and metformin for those patients who: ◦ Have inadequate glycemic control on metformin, a contraindication or intolerance to a sulfonylurea, and for whom insulin is not an option, or ◦ Have inadequate glycemic control on metformin and insulin • The drug plan cost for the dapagliflozin-metformin fixed-dose combination (FDC) should not exceed the combined cost of dapagliflozin and metformin administered separately.	FMEC affirms that dapagliflozin-metformin hydrochloride should be reimbursed with criteria or conditions for the treatment of type 2 diabetes mellitus. **Initiation** Dapagliflozin should be added on to metformin for patients with inadequate glycemic control. **Pricing** The drug plan costs for the dapagliflozin-metformin combination should not exceed the combined cost of the least costly SGLT2 inhibitor and metformin administered separately.

Generic name (brand name), project number	Date final recommendation (CDEC) issued	Final recommendation (CEDAC or CDEC)	Revisions to CEDAC or CDEC recommendation (by FMEC)
Empagliflozin (Jardiance), SR0427-000	**October 15, 2015**	CDEC recommends that empagliflozin be listed for the treatment of type 2 diabetes, if the following clinical criterion and condition are met: • Added on to metformin and a sulfonylurea for patients with inadequate glycemic control on metformin and a sulfonylurea and for whom insulin is not an option • The drug plan cost of treatment with empagliflozin should not exceed the drug plan cost of treatment with the least costly option from within the sodium glucose cotransporter-2 (SGLT2) inhibitor and dipeptidyl peptidase-4 (DPP-4) inhibitor classes.	FMEC affirms that empagliflozin should be reimbursed with criteria or conditions for the treatment of type 2 diabetes mellitus. The following amendment to conditions for reimbursement will now apply. **Initiation** For use in the case of contraindication or intolerance to metformin or added on to metformin for patients with inadequate glycemic control. **Pricing** The drug plan costs for empagliflozin should not exceed the least costly SGLT2 inhibitor used to treat type 2 diabetes mellitus.
Empagliflozin-metformin (Synjardy), SR0489-000	**October 25, 2016**	CDEC recommends that empagliflozin and metformin hydrochloride (empagliflozin/metformin) fixed-dose combination (FDC) be reimbursed for patients with type 2 diabetes mellitus if the following clinical criteria and condition are met: • Patients who are eligible to receive metformin and empagliflozin based on participating drug plan reimbursement criteria, to replace the individual components of empagliflozin and metformin. • Drug plan costs for the empagliflozin/metformin FDC should not exceed the combined cost of empagliflozin and metformin administered separately.	FMEC affirms that empagliflozin-metformin hydrochloride should be reimbursed with criteria or conditions for the treatment of type 2 diabetes mellitus. **Initiation** Empagliflozin should be added on to metformin for patients with inadequate glycemic control. **Pricing** The drug plan costs for the empagliflozin-metformin combination should not exceed the combined cost of the least costly SGLT2 inhibitor and metformin administered separately.

CDEC = Canadian Drug Expert Committee; CEDAC = Canadian Expert Drug Advisory Committee; FMEC = Formulary Management Expert Committee; SGLT2 = sodium-glucose cotransporter-2.

Table 2

Summary of Additions to Previous CADTH Reimbursement Recommendations

Generic name (brand name)	Date final recommendation (CDEC) issued	Final recommendation (CEDAC or CDEC)	Addition(s) to CEDAC or CDEC recommendation (by FMEC)
GLP-1 agonists			
Semaglutide (Ozempic), SR0594-000	May 15, 2019	CDEC recommends that semaglutide be reimbursed for the treatment of type 2 diabetes mellitus (T2DM) to improve glycemic control, if the following conditions are met: • Adult patients diagnosed with T2DM with inadequate glycemic control. • In combination with metformin (MET) alone, when diet and exercise plus maximal tolerated dose of MET do not achieve adequate glycemic control. • Semaglutide should not be reimbursed for use as add-on therapy to MET and another antihyperglycemic drug. • Drug plan costs for semaglutide should not exceed the drug plan costs of the least costly currently reimbursed drug used when MET alone is insufficient to achieve glycemic control in the treatment of patients with T2DM.	FMEC affirms that semaglutide should be reimbursed with criteria or conditions for the treatment of type 2 diabetes mellitus. The following addition to conditions for reimbursement will now apply. **Initiation** The patient must have received a trial of an SGLT2 inhibitor unless the pricing condition is met. **Pricing** The drug plan costs for semaglutide should not exceed the least costly SGLT2 inhibitor used to treat type 2 diabetes mellitus.
Semaglutide (Rybelsus), SR0637-000	June 8, 2021	CADTH recommends that Rybelsus should be reimbursed by public drug plans for the treatment of type 2 diabetes if certain conditions are met: • Rybelsus should only be reimbursed if it is used in addition to metformin or other antihyperglycemic agents and it does not cost more than glucagon-like peptide-1 receptor agonists, dipeptidyl peptidase-4 inhibitors, and sodium-glucose cotransporter-2 inhibitors.	FMEC affirms that semaglutide should be reimbursed with criteria or conditions for the treatment of type 2 diabetes mellitus. The following addition to conditions for reimbursement will now apply. **Initiation** The patient must have received a trial of an SGLT2 inhibitor unless the pricing condition is met. **Pricing** The drug plan costs for semaglutide should not exceed the least costly SGLT2 inhibitor used to treat type 2 diabetes mellitus.

Generic name (brand name)	Date final recommendation (CDEC) issued	Final recommendation (CEDAC or CDEC)	Addition(s) to CEDAC or CDEC recommendation (by FMEC)
Dulaglutide (Trulicity), SR0462-000	June 16, 2016	CDEC recommends that dulaglutide be reimbursed for the treatment of adults with type 2 diabetes mellitus in combination with metformin to improve glycemic control, if the following condition is met: • Drug plan cost not to exceed that of the least costly pharmacotherapy reimbursed in combination with metformin.	FMEC affirms that dulaglutide should be reimbursed with criteria or conditions for the treatment of type 2 diabetes mellitus. The following addition to conditions for reimbursement will now apply. **Initiation** The patient must have received a trial of an SGLT2 inhibitor unless the pricing condition is met. **Pricing** The drug plan costs for dulaglutide should not exceed the least costly SGLT2 inhibitor used to treat type 2 diabetes mellitus.
DPP-4 inhibitors			
Linagliptin (Trajenta), SR0244-000	February 15, 2012	CDEC recommends that linagliptin be listed as a third drug added on to metformin and a sulfonylurea for patients with inadequate glycemic control on metformin and a sulfonylurea and for whom insulin is not an option.	FMEC affirms that linagliptin should be reimbursed with criteria or conditions for the treatment of type 2 diabetes mellitus. The following addition to conditions for reimbursement will now apply. **Initiation** The patient must have received a trial of an SGLT2 inhibitor.
Linagliptin-metformin (Jentadueto), SR0306-000	October 17, 2013	CDEC recommends that linagliptin/metformin be listed for patients if the following clinical criterion is met: • Patients for whom insulin is not an option and who are already stabilized on therapy with metformin, a sulfonylurea and linagliptin, to replace the individual components of linagliptin and metformin for these patients.	FMEC affirms that linagliptin-metformin should be reimbursed with criteria or conditions for the treatment of type 2 diabetes mellitus. The following addition to conditions for reimbursement will now apply. **Initiation** The patient must have received a trial of an SGLT2 inhibitor.

Generic name (brand name)	Date final recommendation (CDEC) issued	Final recommendation (CEDAC or CDEC)	Addition(s) to CEDAC or CDEC recommendation (by FMEC)
Saxagliptin (Onglyza), SR0329-000	November 15, 2013	CDEC recommends that saxagliptin be listed if the following clinical criterion and condition are met: • Added on to metformin and a sulfonylurea for patients with inadequate glycemic control on metformin and a sulfonylurea and for whom insulin is not an option. • Drug plan costs for saxagliptin should not exceed the cost of other dipeptidyl peptidase-4 (DPP-4) inhibitors	FMEC affirms that saxagliptin should be reimbursed with criteria or conditions. The following addition to conditions for reimbursement will now apply. **Initiation** The patient must have received a trial of an SGLT2 inhibitor.
Saxagliptin-metformin (Komboglyze), SR0348-000	June 20, 2014	CDEC recommends that saxagliptin/metformin be listed for patients if the following clinical criterion and condition are met: • Patients for whom insulin is not an option and who are already stabilized on therapy with metformin, a sulfonylurea and saxagliptin, to replace the individual components of saxagliptin and metformin in these patients. • Drug plan costs for the saxagliptin/metformin fixed-dose combination (FDC) should not exceed the combined cost of saxagliptin and metformin administered separately.	FMEC affirms that saxagliptin-metformin should be reimbursed with criteria or conditions for the treatment of type 2 diabetes mellitus. The following addition to conditions for reimbursement will now apply. **Initiation** The patient must have received a trial of an SGLT2 inhibitor.
Sitagliptin (Januvia), SR0181-000	June 23, 2010	CEDAC recommends that sitagliptin be listed as a third drug added on to metformin and a sulfonylurea for patients with inadequate glycemic control on metformin and a sulfonylurea and for whom insulin is not an option.	FMEC affirms that sitagliptin should be reimbursed with criteria or conditions for the treatment of type 2 diabetes mellitus. The following addition to conditions for reimbursement will now apply. **Initiation** The patient must have received a trial of an SGLT2 inhibitor.
Sitagliptin phosphate monohydrate/metformin hydrochloride (Janumet), SR0182-000	June 23, 2010	CEDAC recommends that sitagliptin/metformin (Janumet) be listed for use in patients for whom insulin is not an option and who are already stabilized on therapy with metformin, a sulfonylurea and sitagliptin, to replace the individual components of sitagliptin and metformin in these patients.	FMEC affirms that sitagliptin-metformin should be reimbursed with criteria or conditions for the treatment of type 2 diabetes mellitus. The following addition to conditions for reimbursement will now apply. **Initiation** The patient must have received a trial of an SGLT2 inhibitor.

CDEC = Canadian Drug Expert Committee; CEDAC = Canadian Expert Drug Advisory Committee; DPP-4 = dipeptidyl peptidase-4; FMEC = Formulary Management Expert Committee; GLP-1 = glucagon-like peptide 1; SGLT2 = sodium-glucose cotransporter-2.

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