

Reimbursement Recommendation

Empagliflozin

Reimbursement request: For the treatment of chronic kidney disease in adult patients with or without type 2 diabetes mellitus

Requester: Public drug programs

Final recommendation: Reimburse with conditions

Summary

What Is the Reimbursement Recommendation for Empagliflozin?

The Formulary Management Expert Committee (FMEC) recommends that empagliflozin be reimbursed for the treatment of chronic kidney disease (CKD) in adult patients with or without type 2 diabetes mellitus (T2DM), provided certain conditions are met.

What Are the Conditions for Reimbursement?

Empagliflozin should be priced no higher than the least costly SGLT2 inhibitor available for this population.

Why Did Canada's Drug Agency Make This Recommendation?

FMEC reviewed 2 phase III randomized controlled trials (RCTs) (EMPA-KIDNEY and EMPA-REG RENAL) comparing empagliflozin with placebo in adults with CKD, 3 phase III RCTs that enrolled subgroups of adults with CKD (EMPA-REG OUTCOME, EMPEROR-Preserved, and EMPEROR-Reduced), 3 indirect treatment comparisons, and a cost comparison of empagliflozin versus other treatments used in Canada. Empagliflozin delayed time to progression of kidney disease or cardiovascular death (composite outcome) and delayed time to hospitalization for any cause. Empagliflozin was associated with delayed time to kidney disease progression (composite), delayed time to kidney disease progression or death from any cause (composite), delayed time to end-stage kidney disease (ESKD) or cardiovascular death (composite), and a slower decline in estimated glomerular filtration rate (eGFR).

FMEC concluded that empagliflozin demonstrates acceptable clinical value; the reimbursement conditions were further developed based on unmet need, distinct social and ethical considerations, and economic considerations.

Review Background

What Is CKD?

CKD is a heterogeneous group of disorders that can progress to kidney failure and result in poor health-related quality of life (HRQoL), high morbidity (e.g., cardiovascular disease, hospitalizations, and infections), and premature mortality. Depending on the duration and severity of disease, patients with CKD may be asymptomatic or experience symptoms such as fatigue, poor mobility, bone or joint pain, poor sleep, and decreased appetite. A 2024 report estimated that 4.1 million people in Canada have or are at risk for kidney disease. In 2021, more than 6,000 people in Canada received kidney replacement therapy, including dialysis or pre-emptive kidney transplant.

What Are the Current Treatment Options?

Pharmacologic treatments recommended by clinical practice guidelines for CKD include renin-angiotensin system inhibitors, SGLT2 inhibitors, mineralocorticoid receptor agonists, and glucagon-like peptide-1 receptor agonists.

What Is the Treatment Under Review?

Empagliflozin is an inhibitor of SGLT2, which leads to increased urinary glucose excretion, reduced sodium reabsorption, and increased delivery of sodium to the distal tubule in patients with T2DM. These mechanisms of action may influence physiologic functions that preserve cardiac and kidney function and structure. Empagliflozin is available as 10 mg and 25 mg oral tablets. Empagliflozin has been approved by Health Canada to reduce the risk of sustained eGFR decline, ESKD, and cardiovascular and renal death in adults with CKD.

Why Did We Conduct This Review?

A review of the evidence for empagliflozin in adult patients with CKD with or without T2DM was requested by the Formulary Working Group. Data protection for empagliflozin expired in 2023, so this drug is eligible for a nonsponsored reimbursement review as per the [Procedures for Reimbursement Reviews](#).

Summary of Input From Interested Parties

- We did not receive input from patient groups, clinician groups, or industry.
- **Public drug plans** inquired about the evidence available for empagliflozin to inform a recommendation on whether it should be reimbursed for adults with CKD, with or without T2DM. The public drug plans outlined implementation questions related to relevant comparators.

► Refer to the Main Report and the Supplemental Material document for [this review](#).



Person With Lived Experience

A person living in a small town in Ontario shared his journey with CKD and treatment. Fever, extreme fatigue, and hematuria led him to follow up with his doctor in 2006, and tests confirmed immunoglobulin A nephropathy. This news came as a shock, and he managed his condition through dietary changes and medication. Trialling different drugs to keep up with his disease progression was necessary, but navigating those shifts was confusing at times. His kidney function eventually declined to the point that dialysis was required. He chose home peritoneal dialysis instead of hemodialysis to minimize travel and maintain his lifestyle. Dialysis continued for 15 months while he awaited a kidney transplant, which he received in 2021 from a living donor. The transplant was successful and his condition was under control until 2024, when his creatinine levels began to increase and glomerular nephritis was diagnosed. Dapagliflozin was initiated, and he has continued to take it with good clinical response and no side effects. He has not trialled any other SGLT2 medications. He was prescribed a glucagon-like peptide-1 receptor agonist to treat elevated blood glucose levels. With his kidney disease now stable, his energy has returned and he is able to engage in yard work and enjoy leisure pursuits, physical activity, and time with his grandchildren. His medical appointments are less frequent and the anxiety he previously felt about his kidney function has diminished. He finds great value in sharing his lived experience to support other patients who have received transplants in their journeys.

Disclaimer: The perspectives shared by people with lived experiences who present to the committee reflect their individual experiences and are not necessarily representative of all people with the same condition or course of treatment. Their insights provide valuable context about what a patient, support person, or caregiver might go through when facing this condition or treatment, helping to inform the committee's deliberations. These narratives complement other forms of evidence and input and should be considered as part of a broader understanding of the condition and treatment under review. When gender or gendered pronouns are used in these narratives, they are included with the permission of the individual.

Recommendation

With a vote of 9 to 0, FMEC recommends that empagliflozin for the treatment of CKD in adult patients with or without T2DM be reimbursed if the condition presented in [Table 1](#) is met.

Table 1: Conditions, Reasons, and Guidance

Reimbursement condition	Reason	Implementation guidance
Pricing		
1. Empagliflozin should be priced no higher than the least costly SGLT2 inhibitor available for this population.	FMEC concluded that reimbursement of empagliflozin is associated with higher drug acquisition costs than its comparators based on publicly available list prices. Empagliflozin is expected to have similar clinical effectiveness compared to canagliflozin and dapagliflozin. Given that empagliflozin is associated with increased drug acquisition costs and similar clinical benefit, it should be priced no higher than the least costly comparator for this population.	—

FMEC = Formulary Management Expert Committee.

Summary of Deliberation

FMEC deliberated on all domains of value of the deliberative framework before developing its recommendation: clinical value, unmet clinical need, distinct social and ethical considerations, economic considerations, and impacts on health systems. For further information on the domains of value, please refer to the [Expert Committee Deliberation at Canada's Drug Agency](#) document.

FMEC considered the following key discussion points, organized by the 5 domains of value.



Clinical Value

- **FMEC concluded that empagliflozin demonstrates acceptable clinical value versus appropriate comparators in Canada.**
- Through reflection on the insights shared by the person with lived experience and published literature shared by the patient lead on the committee, FMEC members noted that patients want treatments that improve energy levels and increase HRQoL. Improved kidney function enhances patients' overall well-being and may prolong the survival of a transplanted kidney.
- **FMEC** members highlighted the following discussion points:
 - **Appropriate comparators.** The committee agreed the active comparators (dapagliflozin and canagliflozin) are appropriate and align with clinical practice in Canada.
 - **Outcomes assessed.** Outcomes assessed align with those identified by patients, caregivers, and health professionals to be important, such as prevention or delay of CKD and reductions in disease-related morbidity and mortality.
 - HRQoL was identified as an important outcome, but it was not reported in the included trials.

- **Efficacy of empagliflozin.** The committee agreed that empagliflozin compared to placebo demonstrated meaningful improvements in key outcomes with a median follow-up of 2.0 years:
 - Empagliflozin demonstrated improvement in delayed time to progression of kidney disease or cardiovascular death (composite outcome) and in time to hospitalization for any cause.
 - Empagliflozin was associated with improvement in several composite outcomes: time to progression of kidney disease, time to progression of kidney disease or death from any cause, delayed time to ESKD (defined as initiation of maintenance dialysis or receipt of a kidney transplant) or cardiovascular death, and delayed time to ESKD or death from any cause.
 - Empagliflozin was favoured over placebo for change in eGFR from baseline to the final follow-up visit.
 - Empagliflozin was favoured over placebo for the composite outcomes of time to hospitalization for heart failure or cardiovascular death, time to cardiovascular death, and time to death from any cause; however, these outcomes had small numbers of events and wide confidence intervals.
- **Harms of empagliflozin.** FMEC acknowledged that there were no new safety signals, and comparators from the same class had similar adverse event profiles. There is a lack of evidence on long-term efficacy and harms beyond the median 2 years of follow-up. The incidence of ketoacidosis was slightly higher with empagliflozin (0.3%) compared to placebo (0.1%).
- **Level of certainty in clinical value.** The committee agreed that there is an acceptable level of certainty in clinical value.
- FMEC heard from the guest specialists consulted for this review that for cardiovascular outcomes, hospitalization, death, and kidney death, the minimal important difference thresholds are numerically very low (i.e., prevention of any of those outcomes is clinically meaningful).
- FMEC acknowledged that there was supportive evidence from indirect treatment comparisons for most outcomes, but FMEC had low confidence in the results due to methodological concerns.
- The guest specialists shared that they do not preferentially select a specific SGLT2 inhibitor versus another (e.g., empagliflozin versus dapagliflozin) as they consider the clinical benefits to be a drug class effect.



Unmet Clinical Need

- **FMEC concluded that there is a significant clinical need arising from CKD despite available treatments.**
- Through reflection on the insights shared by the person with lived experience and published literature shared by the patient lead on the committee, FMEC members noted that common symptoms of CKD (e.g., weakness, fatigue, shortness of breath) can significantly impair daily functioning and quality of life. The treatment approach includes lifestyle management (e.g., a low-sodium diet, blood pressure control, glycemic management) and pharmacologic treatments. Medications may need to be trialled

and switched to determine the most effective treatment for each patient, which can create confusion and anxiety. For ESKD, dialysis (hemodialysis or peritoneal dialysis) and kidney transplant may become necessary.

- **FMEC** members highlighted the following discussion points:
 - **Availability of treatment options.** There are other drug classes that are used for CKD, such as ACE inhibitors, angiotensin II receptor blockers, or mineralocorticoid receptor antagonists; however, they are not considered alternative treatment options, as current evidence and treatment recommendations support combination therapy with SGLT2 inhibitors as the first-line treatment plus an ACE inhibitor or angiotensin II receptor blocker.
 - **Severity of the disease.** FMEC acknowledged that CKD is associated with high morbidity and mortality. CKD is prevalent in Canada, with higher mortality reported over the past few years. People with ESKD or kidney failure tend to report poorer HRQoL, experience higher morbidity, and have a higher risk for premature death.
 - **Significant unmet clinical need.** The committee agreed that there is a need for treatments that delay or prevent ESKD, delay or prevent kidney failure, and improve HRQoL.
 - Empagliflozin addressed most of the identified unmet clinical needs related to delaying progression of CKD, but its effect on HRQoL is unknown.
 - **Evidence generation.** FMEC agreed there are no challenges in generating evidence in this area, and there should not be allowance for greater uncertainty.
 - FMEC heard from the guest specialists that in clinical practice they frequently encounter patients with undertreated late-stage presentations of severe disease; therefore, the key unmet need is earlier identification and treatment of CKD to prevent progression to high-risk stages.
 - FMEC heard from the guest specialists that RCTs of SGLT2 inhibitors for CKD often exclude the enrolment of patients with baseline eGFRs less than 20 mL/min/1.73 m², but patients who initiate therapy and experience a decline in eGFR to less than 20 mL/min/1.73 m² continue with therapy. In clinical practice, a physician may initiate treatment with an SGLT2 inhibitor for a patient if their eGFR is 15 to 20 mL/min/1.73 m² and patients may continue with an SGLT2 inhibitor if their eGFR levels drop during treatment based on an expectation of continued therapeutic benefit. At the same time, FMEC also heard that clinicians may refrain from such treatment for a patient who is nearing receipt of dialysis. Two ongoing trials — the Renal Lifecycle trial and the DARE-ESKD-2 trial — are evaluating whether SGLT2 inhibitors provide cardiac and renal benefits for patients being treated with dialysis.



Distinct Social and Ethical Considerations

- **FMEC concluded that it is unclear whether empagliflozin would potentially address a significant nonclinical need arising from CKD despite available treatments.**

- **FMEC did not identify any important measures that should be implemented to ensure that the use of empagliflozin addresses relevant social and ethical implications.**
- Through reflection on the insights shared by the person with lived experience from the meeting testimony and published literature shared by the patient lead on the committee, FMEC members noted that CKD has substantial impacts beyond its clinical consequences, such as travel for dialysis or medical appointments, participation in family activities (e.g., playing with grandchildren), and financial burdens for those without a drug plan.
- **FMEC** members highlighted the following discussion points:
 - **Unmet nonclinical needs.** The committee discussed that the need for dialysis and the travel time for those with CKD whose disease progresses to ESKD contribute to a nonclinical need. However, FMEC acknowledged there is no definitive treatment or cure for CKD, and none of the nonclinical needs are directly related to the treatment itself.
 - For patients for whom empagliflozin may slow the progression of CKD and confer cardiovascular benefit, empagliflozin may address some nonclinical needs (e.g., burden of dialysis).
 - **Social and ethical considerations.** The committee agreed that it is important to consider equity given the disproportionate impact of the disease (e.g., higher rates of CKD, faster progression, and worse outcomes) on populations that are Black, are Indigenous, or have low socioeconomic status in Canada. Lack of access to empagliflozin as first-line treatment may result in inequities in these populations, especially if individuals are affected at younger ages.



Economic Considerations

- **FMEC concluded there are economic considerations that are important to address when implementing empagliflozin.**
- **FMEC** members highlighted the following discussion points:
 - Empagliflozin is associated with higher costs and similar clinical benefit compared with its comparators.
 - Indirect treatment comparisons of empagliflozin versus its comparators suggest the potential for either drug to be favoured in clinical outcomes, with methodological limitations and imprecise effect estimates.
 - Given that empagliflozin has higher drug acquisition costs and expected similar clinical benefit, it should be priced no higher than the least costly comparator for this population.



Impacts on Health Systems

- **FMEC did not identify any impacts on health systems that are important to address when implementing empagliflozin.**
- **FMEC** members highlighted the following discussion points:

- **Impacts on health systems.** The committee agreed that implementing empagliflozin would have no impact on health systems, as it is widely used with experience across primary care and other specialties. Empagliflozin is available as an oral medication.
- **Considerations for health system sustainability.** The committee agreed that given the effect empagliflozin has on delaying the progression of CKD to the point of requiring dialysis and its related complications (requiring acute care), empagliflozin could potentially alleviate current challenges with health system sustainability.
- **Equity implementation.** FMEC agreed that empagliflozin would need to be accessible and covered by public drug plans for those who need it, especially in equity-deserving groups with individuals who tend to be affected at a younger age.

Sources of Information Used by the Committee

To make its recommendation, the committee considered the following information (links to the full documents for the review can be found on the [project web page](#)).

- the CDA-AMC review of the clinical and pharmacoeconomic evidence related to empagliflozin (refer to the Main Report and the Supplemental Material document)
- input from a person with lived experience who delivered a brief presentation and answered questions from the committee (refer to the Person With Lived Experience section earlier in this document)
- input from public drug programs that participate in the reimbursement review process (refer to the FMEC Responses to Questions From the Drug Program document)
- input from 2 guest specialists with expertise in the management of CKD consulted by CDA-AMC.

Feedback on Draft Recommendation

CDA-AMC received feedback from the public drug programs, who agreed with the recommendation with no requested revisions.

All feedback received in response to the draft recommendation is available on the CDA-AMC [project web page](#).

FMEC Information

Members of the committee: Dr. Emily Reynen (Chair), Dr. Zaina Albalawi, Ms. Marilyn Barrett, Dr. Hardit Khuman, Ms. Valerie McDonald, Dr. Bill Semchuk, Dr. Jim Silvius, Dr. Marianne Taylor, Dr. Maureen Trudeau, Dr. Dominika Wranik. Two guest specialists from Ontario and the Prairies participated in this review.

Meeting date: June 5, 2026

Conflicts of interest: None

Special thanks: CDA-AMC extends special thanks to the individuals who presented directly to FMEC and to patient organizations representing and supporting the community of people living with CKD, including the Renal Patient and Donor Foundation, Susan McKenzie, and Graham Nesbitt.

Note: CDA-AMC makes every attempt to engage with people with lived experiences as closely to the indication and treatments under review as possible; however, at times, CDA-AMC is unable to do so and instead engages with individuals with similar treatment journeys or experience with comparators under review to ensure lived experience perspectives are included and considered in Reimbursement Reviews. CDA-AMC is fortunate to be able to engage with individuals who are willing to share their treatment journeys with FMEC.



Canada's Drug Agency
L'Agence des médicaments du Canada
Drugs. Health Technologies and Systems. Médicaments, technologies de la santé et systèmes.

ISSN: 2563-6596

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