Drug Coverage Decision for BC PharmaCare

About PharmaCare BC PharmaCare is a publicly funded drug plan that helps B.C. residents pay for most prescription drugs and pharmacy services, and some medical devices and supplies.

Details of Drug Reviewed

Drug	**Rivaroxaban granules for oral suspension**
Brand name	Xarelto®
Dosage form(s)	1 mg/mL granules when reconstituted for oral suspension
Manufacturer	Bayer Inc.
Submission type	**Ministry Initiated Review**
Indication reviewed	For the treatment of venous thromboembolic events (VTE) and prevention of VTE recurrence in term neonates, infants and toddlers, children and adolescents aged less than 18 years after at least 5 days of initial parenteral anticoagulation treatment.
Canada's Drug Agency (CDA-AMC) Formulary Non-Sponsored Reimbursement Reivew	The CDA-AMC Formulary Management Expert Committee (FMEC) recommended: **to Reimburse with clinical criteria and/or conditions**. Visit the CDA-AMC website for more details.
The Drug Benefit Council (DBC)	In their review, the DBC considered the following: the final reviews completed by CDA-AMC's non-sponsored review on November 2, 2023, which included clinical and economic evidence review material and the FMEC recommendations. The DBC received no Patient Input Questionnaire responses from patients, caregivers, or patient groups, nor was there patient input available to the CDA-AMC. The DBC also considered Clinical Practice Reviews from one specialist and one general physician, an Equity Assessment, and a Budget Impact Assessment
Drug Coverage Decision	**Limited Coverage benefit** Special Authority drug list - Province of British Columbia
Date	July 8, 2026
Reasons	Drug coverage decision is consistent with the FMEC recommendation to reimburse rivaroxaban granules for oral suspension for the treatment of VTE and prevention of VTE recurrence in term neonates, infants and toddlers, children and adolescents aged less

	than 18 years after at least 5 days of initial parenteral anticoagulation treatment with conditions. • The EINSTEIN Jr trial demonstrated efficacy and safety of rivaroxaban for pediatric patients with VTE as compared to lower molecular weight heparin (LMWH). • The expected cost of rivaroxaban is less than the most frequently used anticoagulation, which is currently LMWH. • While DBC recommended not to list rivaroxaban granules at the submitted price, it recognized an unmet clinical need.

The drug review process in B.C.

A manufacturer submits a request to the Ministry of Health (the Ministry).

An independent national organization called Canada's Drug Agency (CDA-AMC) provides evidence-based recommendations to public drug plans across Canada through its reimbursement review process. As part of the CDA-AMC's Clinical Reimbursement Review process, the Canadian Drug Expert Committee (CDEC) makes reimbursement recommendations for non-oncology pharmaceuticals to the participating federal, provincial, and territorial publicly funded drug plans. In developing its recommendations, the CDEC considers:

- whether the drug is safe and effective
- what the drug costs and whether funding it provides good value
- ethical considerations of covering or not covering the drug
- input from physicians, patients, caregivers, patient groups and drug submission sponsors

The Ministry makes a BC PharmaCare coverage decision by considering:

- existing BC PharmaCare policies, programs and resources
- the evidence-informed advice of the CDA-AMC
- the recommendations and reimbursement conditions of the CDEC
- if a Ministry Initiated review, the advice of an independent expert group called the Drug Benefit Council (DBC)
- BC-specific patient input collected through the Your Voice website
- drugs already covered by BC PharmaCare that treat similar medical conditions
- the overall cost of covering the drug
- the outcomes of pan-Canadian Pharmaceutical Alliance (pCPA) negotiations with manufacturers

Visit BC PharmaCare and Drug reviews for more information.

This document is intended for information only.
It does not take the place of advice from a physician or other qualified health care provider.

Appendix

Drug Benefit Council (DBC) Recommendation and Reasons for Recommendation

FINAL

Rivaroxaban (Xarelto®) Granules for Oral Suspension

Bayer Inc.

Description:

Drug review of **rivaroxaban (Xarelto®) granules for oral suspension** for the following Health Canada approved indication:

> For the treatment of venous thromboembolic events (VTEs) and prevention of VTE recurrence in individuals less than 18 years old, after at least 5 days of initial parenteral anticoagulation treatment.

In their review, the DBC considered the following: the final reviews completed by Canada's Drug Agency (CDA-AMC) on November 2, 2023, which included clinical and pharmacoeconomic evidence review material and the CDA-AMC recommendations. The DBC received no Patient Input Questionnaire responses from patients, caregivers, or patient groups, nor was there patient input available to the CDA-AMC. The DBC also considered Clinical Practice Reviews from one specialist and one general physician, an Equity Assessment, and a Budget Impact Assessment.

Dosage Forms:

Xarelto® is available as rivaroxaban granules for oral suspension (1 mg/mL when reconstituted) at a body weight adjusted dose.

Recommendations:

1. The Drug Benefit Council (DBC) recommends that Rivaroxaban (Xarelto®) granules for oral suspension (1 mg/mL when reconstituted) not be listed at the manufacturer price.

Of Note:

- Rivaroxaban tablets (2.5mg, 10mg, 15mg, 20mg) are a PharmaCare Regular Benefit.
- The DBC noted that rivaroxaban granules should only be used for children weighing less than 12 kg. Children weighing more than 12 kg should use rivaroxaban tablets that align with the manufacturer's recommended dosing unless there is a rationale to use granules (e.g. unable to swallow tablets).

Reasons for the Recommendation:

1. Summary

- Rivaroxaban is the only direct oral anticoagulant (DOAC) with an approved pediatric indication.
- Results from one randomized 2:1, open-label phase III, multicentre, parallel group trial that aimed to evaluate the efficacy and safety of an age- and body weight–adjusted rivaroxaban regimen compared to standard of care in children with acute VTE suggested a favourable clinical benefit and that the occurrence of recurrent VTE may be similarly rare with rivaroxaban treatment as with standard of care anticoagulation.
- Reimbursement of rivaroxaban granules may result in increased drug costs when compared with VKAs (vitamin K antagonists) or decreased drug costs when compared with LMWHs (low molecular weight heparins).

2. Clinical Efficacy

- The DBC considered the CDA-AMC systematic review, which included one pivotal trial, EINSTEIN-Jr (N = 500), a randomized 2:1, open-label phase III, multicentre, parallel group trial that aimed to evaluate the efficacy and safety of an age- and body weight–adjusted rivaroxaban regimen

compared to standard of care (i.e., low molecular weight heparin [LMWH], fondaparinux, UFH, and/or VKA) in children with acute VTE. The primary end point of EINSTEIN-Jr was symptomatic recurrent VTE.

- The mean age of patients was 11 years in the rivaroxaban group and 11.2 years in the standard of care anticoagulation group.
- In the EINSTEIN-Jr trial, 1.2% of patients (4 of 335) in the rivaroxaban group and 3% of patients (5 of 165) in the standard of care anticoagulation group had a recurrent VTE. The trial was not powered to demonstrate a difference between the treatment groups.
- During the extended treatment period, 1 of 38 patients (2.6%) in the rivaroxaban group (during extension period 2) and 2 patients in the standard of care anticoagulation group (1 of 46 patients [2.2%] during extension period 1 and 1 of 19 [5.3%] patients during extension period 2) had a recurrent VTE.
- EINSTEIN-Jr was not powered to demonstrate noninferiority between treatment groups. An adequately powered trial is not likely possible due to the low incidence of the condition and challenges in enrolling the pediatric population in clinical trials. However, the results suggest a favourable clinical benefit (i.e., composite of recurrent VTE and bleeding events) and that the occurrence of recurrent VTE may be similarly rare with rivaroxaban treatment as with standard of care anticoagulation.
- For detailed information on the systematic review of rivaroxaban please see the CDA-AMC Final Recommendation at: https://www.cda-amc.ca/rivaroxaban-8.

3. Safety

- In the EINSTEIN-Jr trial, there were no notable differences between the rivaroxaban and the standard of care anticoagulation groups in the frequency of adverse events (AEs), serious adverse events (SAEs), and AEs leading to discontinuation.
- There were 2 deaths in the EINSTEIN-Jr trial, both in patients who were in the rivaroxaban group. Ten patients (3%) in the rivaroxaban group and 3 patients (2%) in the standard of care anticoagulation group had a major or clinically relevant nonmajor bleeding event.
- The AEs, SAEs, deaths, and notable harms in the extension phase were supportive of the findings from the main study.
- For detailed information on the safety and tolerability of rivaroxaban, please see the CDEC Final Recommendations at the links above.

4. Economic Considerations

- The standards of care most predominantly used currently for VTE are LMWHs and vitamin K antagonist (VKAs). The CDA-AMC analysis found that reimbursement of rivaroxaban granules may result in increased drug costs when compared with VKAs or decreased drug costs when compared with LMWHs, depending on the comparator treatment and the patient's weight.
- The CDA-AMC analysis noted that rivaroxaban granules may or may not be associated with lower treatment monitoring and administration costs than current standards of care.

- The PharmaCare BIA estimated a small number of patients (fewer than 20 patients in the first 3 years) would utilize rivaroxaban if it were listed as a Limited Coverage benefit for the treatment of VTE in pediatric patients less than 18 years old. Many patients would use the tablet formulation of rivaroxaban if they weigh 12kg or more.

5. Of Note

- In recent years, more VTE events, including venous thrombosis and/or PE (pulmonary embolism) are being diagnosed in the pediatric population. This is attributed to medical advances in improving the survival of children with life threatening or chronic medical conditions, improved diagnostic techniques, as well as greater exposure to risk factors.
- Spontaneous (idiopathic) VTE is not common in children, and the majority of VTE cases are a result of identifiable (inherited or acquired) underlying conditions and risk factors, also known as “provoked” VTE.
- Risk factors such as an indwelling central venous catheter (CVC) account for more than 90% of neonatal VTE and more than 50% of pediatric VTE. Malignant diseases, obesity, infections, cardiopathy, nephrotic syndrome, surgery, trauma, immobilization, and use of estrogen-containing oral contraceptive pills are other risk factors for pediatric VTE. In particular, obesity and oral contraceptive use have resulted in increased incidence of VTE in adolescents over the past 2 decades.
- Clinicians have noted that rivaroxaban is administered orally and does not require monitoring of INR. This may be an advantage of administration as LMWHs are administered subcutaneously while warfarin requires INR monitoring approximately every 2 to 4 weeks.