The pan-Canadian Oncology Drug Review (pCODR) was established by Canada’s provincial and territorial Ministries of Health (with the exception of Quebec) to assess cancer drug therapies and make recommendations to guide drug-reimbursement decisions. The pCODR process brings consistency and clarity to the cancer drug assessment process by looking at clinical evidence, cost-effectiveness, and patient perspectives.

Providing Feedback on this Initial Recommendation

Taking into consideration feedback from eligible stakeholders, the pERC will make a Final Recommendation. Feedback must be provided in accordance with pCODR Procedures, which are available on the pCODR website. The Final Recommendation will be posted on the pCODR website once available, and will supersede this Initial Recommendation.

pERC RECOMMENDATION

The pCODR Expert Review Committee (pERC) does not recommend reimbursement of palbociclib (Ibrance) in combination with letrozole for the treatment of postmenopausal women with estrogen receptor positive, human epidermal growth factor receptor 2 negative (ER+/HER2-) advanced breast cancer as initial endocrine-based therapy for their metastatic disease.

pERC made this recommendation because the Committee was not confident that there is a net clinical benefit of palbociclib plus letrozole compared with letrozole alone due to limitations in the evidence from the available phase II clinical trial (PALOMA-1). While pERC was confident that palbociclib produces anti-tumour activity, the Committee concluded that there was considerable uncertainty in the magnitude of clinical benefit of palbociclib plus letrozole compared with letrozole alone in regards to outcomes important to decision-making such as overall survival, progression-free survival and quality of life. pERC also noted that palbociclib plus letrozole had moderate toxicities requiring additional monitoring above standard endocrine therapy such as letrozole alone.

In addition, the uncertainty in the clinical benefit of palbociclib plus letrozole and whether there is an unmet need given available therapy options (letrozole, anastrozole, or exemestane) led pERC to conclude that palbociclib plus letrozole only partially aligned with patient values.

The Committee noted that, based on the information provided, palbociclib plus letrozole compared with letrozole alone was not cost-
effective in this population.

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<tr>
<th>POTENTIAL NEXT STEPS FOR STAKEHOLDERS</th>
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<td><strong>Possibility of Resubmission to Support Reimbursement</strong></td>
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<td>pERC acknowledged that a phase III randomized controlled trial (PALOMA-2) comparing palbociclib plus letrozole with letrozole alone is expected to report results in the near future. PALOMA-2 is expected to provide data to address the uncertainty in the net clinical benefit of palbociclib plus letrozole in postmenopausal women with ER+/HER2- advanced or metastatic breast cancer. pERC encouraged a resubmission to pCODR when the full data are available from the PALOMA-2 study.</td>
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SUMMARY OF pERC DELIBERATIONS

Breast cancer is the most common cancer in women in Canada and the second most common cause of cancer mortality in Canadian women. Estrogen receptor positive, human epidermal growth factor receptor 2 negative (ER+/HER2-) breast cancer represents approximately 65% to 70% of all breast cancers. pERC noted that the goals of treatment for patients with advanced or metastatic breast cancer are primarily palliative; namely to prolong life while maintaining or improving quality of life (QoL). pERC noted that in the treatment of first-line postmenopausal women with ER+/HER2- advanced or metastatic breast cancer, a number of endocrine therapies are available including letrozole, anastrozole, exemestane, and tamoxifen. pERC acknowledged and agreed with the pCODR Clinical Guidance Panel that these endocrine therapies are standard treatment options in the first-line setting. Overall, pERC considered that there is a need for new and effective therapies for patients with advanced or metastatic breast cancer that provide improvements in patient survival, have more favourable toxicity profiles and improve QoL.

pERC deliberated upon the results of a trial (PALOMA-1) that compared palbociclib plus letrozole with letrozole alone. pERC considered letrozole alone to be a reasonable comparison. pERC discussed the current evidence on the efficacy of palbociclib plus letrozole and was not confident that there is a net clinical benefit with palbociclib plus letrozole in patients with ER+/HER2- advanced or metastatic breast cancer. pERC had several significant concerns with PALOMA-1, including the 1) small number of patients included (n=165); 2) multiple data-driven amendments as the phase 2 open-label study was not designed to be a registration trial for regulatory approval; and 3) high number of protocol deviations. The Committee noted that PALOMA-1 reported a statistically significant improvement in progression-free survival (PFS) in favour of palbociclib plus letrozole compared with letrozole alone. However, PALOMA-1 used a one-sided alpha level of 0.10 which increases the risk for concluding a statistical difference in PFS in favour of palbociclib plus letrozole when there is no difference. pERC also noted that, although overall survival (OS) results were immature, there was no significant difference between groups. The Committee was also unable to comment on quality of life (QoL) associated with the treatment of palbociclib plus letrozole as data on this important outcome were not measured or reported for the PALOMA-1 study. Therefore, although the Committee agreed that palbociclib plus letrozole demonstrated anti-tumour activity, the Committee concluded there exists substantial uncertainty in the clinical benefit of palbociclib plus letrozole compared with letrozole alone in patients with ER+/HER2- advanced or metastatic breast cancer.

pERC discussed the toxicity profile of palbociclib plus letrozole and noted that there were more frequent toxicities compared with letrozole alone, including adverse events of neutropenia, fatigue, anemia, nausea, and alopecia. No cases of neutropenic fever were reported in the palbociclib plus letrozole group despite the high rate of neutropenia. pERC recognized that the toxicity profile of palbociclib is different from standard endocrine therapies. pERC noted that these adverse events could be managed in clinical practice through dose adjustments, but monitoring of patients would still be required. pERC noted that although palbociclib is an oral therapy, frequent monitoring of these adverse events and dose adjustments may limit its accessibility in remote areas.

pERC concluded that there is great uncertainty in the net clinical benefit of palbociclib plus letrozole based on insufficient evidence from PALOMA-1 and given that other treatment options are currently available for this population. The Committee agreed with the pCODR Clinical Guidance Panel (CGP) that the large ongoing double-blind phase 3 randomized controlled trial, PALOMA-2, comparing palbociclib plus letrozole versus letrozole alone for ER+/HER2- advanced or metastatic breast cancer as first-line therapy will likely provide robust data on PFS, OS, QoL, and safety of palbociclib plus letrozole in this setting. pERC was informed of a recent media release that reported that PALOMA-2 had met its primary endpoint by demonstrating an improvement in PFS. pERC, however, was unable to consider this information in the current review of palbociclib. No detailed efficacy and safety results from PALOMA-2 were available at

pERC's Deliberative Framework for drug reimbursement recommendations focuses on four main criteria:

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the time of this review. Furthermore, pERC agreed that when the full data are available, the PALOMA-2 study may form the basis of a resubmission to pCODR.

pERC reviewed patient advocacy group input that indicated patients value treatments that delay progression, reduce toxicity, and improve or maintain QoL. Input indicated that patients with ER+/HER2-advanced or metastatic breast cancer were willing to accept adverse effects if there was a clinical benefit. pERC noted that, given the uncertain clinical benefit of palbociclib plus letrozole, patients may be less willing to tolerate the more frequent toxicities associated with palbociclib plus letrozole. pERC acknowledged that patients who had direct experience with palbociclib in the patient advocacy group input indicated that the side effects of palbociclib were tolerable. pERC also noted that in PALOMA-1, there was no difference in symptom outcomes between groups and QoL was not reported. On balance, therefore, pERC considered that palbociclib plus letrozole only partially aligned with patient values.

pERC deliberated upon the cost-effectiveness of palbociclib plus letrozole and concluded that it is not cost-effective when compared with letrozole alone in postmenopausal women with ER+/HER2- advanced or metastatic breast cancer as first-line therapy. Due to the limitations in the available evidence from PALOMA-1, pERC noted that there was a high level of uncertainty in the clinical inputs used in the economic evaluation. This made it challenging to estimate the incremental effect of treatment with palbociclib plus letrozole compared with letrozole alone and, therefore, the resulting incremental cost-effectiveness of palbociclib plus letrozole. Given the substantial uncertainty in clinical benefit with palbociclib plus letrozole, pERC noted that the actual incremental cost-effectiveness ratio may be even higher than the pCODR Economic Guidance Panel (EGP)’s best estimate. Neither the submitter’s nor EGP’s best estimates compared with letrozole alone could be considered cost-effective in this setting.

pERC also considered the feasibility of implementing a reimbursement recommendation for palbociclib. The pCODR Provincial Advisory Group (PAG) noted the high cost of palbociclib, large patient population, potential for drug wastage, and additional health care resources are key challenges. pERC noted that palbociclib is expected to be added on to existing therapy and overall treatment costs could be expected to increase if it were reimbursed. pERC noted the submitted budget impact analysis likely underestimated the market share that palbociclib would capture if reimbursed. If palbociclib were reimbursed, the uptake in first-line therapy for the prevalent population of advanced or metastatic breast cancer would be high. Input from PAG indicated that various aromatase inhibitors (AIs) are available for the initial treatment of metastatic disease in ER+/HER2- breast cancer, which include anastrozole, exemestane, and letrozole. pERC noted that a network meta-analysis was provided by the submitter that compared palbociclib plus letrozole with anastrozole, exemestane, and tamoxifen. pERC acknowledged and agreed with the CGP’s inability to draw conclusions on palbociclib plus letrozole compared with other AIs given concerns with PALOMA-1 and limitations in the submitted network meta-analysis.
pERC deliberated upon a pCODR systematic review, other literature in the Clinical Guidance Report providing clinical context, an evaluation of the manufacturer’s economic model and budget impact analysis, guidance from pCODR clinical and economic review panels, input from two patient advocacy groups (ReThink Breast Cancer and Canadian Breast Cancer Network) and input from pCODR’s Provincial Advisory Group.

OVERALL CLINICAL BENEFIT

pCODR review scope
The purpose of this review is to evaluate the efficacy and safety of palbociclib (Ibrance) in combination with standard endocrine therapy compared with standard endocrine therapy alone as first-line treatment in post-menopausal women with estrogen receptor positive, human estrogen receptor 2 negative (ER+/HER2-) advanced or metastatic breast cancer.

Studies included: one small open-label RCT with many protocol deviations/amendments
The pCODR systematic review included one phase 2 open-label randomized controlled trial (PALOMA-1) that evaluated the efficacy and safety of palbociclib plus letrozole (n=84) compared with letrozole alone (n=81). Patients were enrolled in two cohorts simultaneously; in cohort 1, patients were enrolled based on ER+/HER2- biomarker status alone, whereas in cohort 2 they were also required to have cancers with amplification of cyclin D1 (CCND1), loss of p16 (INK4A or CDKN2A), or both. Patients received palbociclib at a dose of 125 mg once daily for 21 days with 7 days off. Letrozole was given at a continuous dose of 2.5 mg once daily in both treatment groups. Treatment was continued until disease progression, unacceptable toxicity, study withdrawal or death. PALOMA-1 was restricted to patients with an Eastern Cooperative Oncology Group Performance Status (ECOG PS) of 0-1. Cross over for patients who had progressed on the letrozole alone group to palbociclib plus letrozole was not permitted.

The trial protocol was amended eight times over the course of the trial, this included a major change to the statistical plan of the trial. The accrual to cohort 2 was stopped after an unplanned interim analysis of cohort 1 and the statistical analysis plan for the primary endpoint of progression-free survival was amended to a combined analysis of cohorts 1 and 2 (instead of cohort 2 alone). It was noted that PALOMA-1 was not designed to be a registration trial for regulatory approval. A substantial number of protocol deviations also occurred in the trial (93%) with a higher proportion in the palbociclib plus letrozole group compared with the letrozole alone group (99% versus 88%).

Patient populations: stage IV de novo/metastatic disease, ECOG performance status 0-1
Patient characteristics appeared to be balanced between the two groups in PALOMA-1 except for slight imbalances in disease site, disease-free interval, and previous treatment. Patients had a median age of 63 years. The majority of patients were white (90%) and had stage IV disease (98%). A large proportion of patients had not received any prior systemic therapy, with 41% of patients presenting with de novo advanced/metastatic disease. Most patients were ECOG performance status 0 or 1 (55% and 45%, respectively).

Key efficacy results: improved PFS and no significant difference in OS results
The key efficacy outcomes deliberated on by pERC included progression-free survival (PFS), the primary endpoint of the PALOMA-1 study, and overall survival (OS).

The median investigator-assessed PFS was 20.2 and 10.2 months in the palbociclib plus letrozole group and letrozole alone group, respectively (HR=0.49 (0.32-0.75; p=0.0004). The median blinded independent central review-assessed (BICR) PFS was similar, with 25.7 and 14.8 months in the palbociclib plus letrozole group and letrozole alone group, respectively (HR= 0.62, 95%CI:0.38-1.02; p=0.03). pERC noted that PFS results, as assessed by BICR, were of a lower magnitude than the PFS results as assessed by the investigators. Overall survival data were immature at the time of the final analysis of PFS data (30 and 31 deaths in the palbociclib-letrozole and letrozole alone groups, respectively) and showed no significant difference between groups. pERC had several significant concerns with the internal validity of PALOMA-1 given the small sample size, multiple data-driven amendments, and high number of protocol deviations.
pERC concluded that the magnitude of clinical benefit of palbociclib-letrozole compared with letrozole alone is uncertain.

Quality of life: no quality of life data and no significant difference in pain outcomes
Quality of life outcomes were not collected in PALOMA-1. Patient-reported pain was assessed using the Modified Brief Pain Inventory. Results suggested that the majority of patients in both groups had either mild or no pain at baseline. There were no significant differences in either pain severity or pain interference from baseline to end of treatment between palbociclib plus letrozole and letrozole alone. Numerically, patients in the palbociclib plus letrozole group had greater reductions from baseline compared to the letrozole alone group for pain severity and pain interference.

Safety: moderate toxicities requiring more frequent monitoring
The incidence of grade 3 or 4 adverse events (AEs) was 76% versus 21% in the palbociclib plus letrozole and letrozole alone groups, respectively. The most common grade 3 or 4 AEs were neutropenia (54% in the palbociclib plus letrozole group versus 1% in the letrozole alone group), leucopenia (19% versus 0%), anemia (6% versus 1%) and fatigue (4% versus 1%). pERC noted that no cases of febrile neutropenia were reported in the palbociclib plus letrozole group despite the high rate of neutropenia. pERC noted that these adverse events could be managed in clinical practice through dose adjustments (required in 40% of patients) and frequent monitoring of patients would still be required.

Comparator information: other aromatase inhibitors such as anastrozole and exemestane
PALOMA-1 compared palbociclib plus letrozole with letrozole alone in post-menopausal women with ER+/HER2- advanced breast cancer. pERC noted that the submitter conducted a network meta-analysis comparing palbociclib plus letrozole with anastrozole, tamoxifen, and exemestane to inform the cost-effectiveness analyses. Contextual information provided in the pCODR Clinical Guidance Report discussed the limitations of the indirect comparison. pERC acknowledged and agreed with the pCODR Clinical Guidance Panel that they were unable to draw conclusions on palbociclib plus letrozole compared with other aromatase inhibitors given concerns with PALOMA-1 and limitations in the network meta-analysis. The Committee had concerns with the internal validity of PALOMA-1, exclusion of relevant studies in the network meta-analysis, and lack of comparison of palbociclib plus letrozole to other combination therapies.

Need and Burden of Illness: Treatment with improved survival, QoL, and reduced toxicity
Breast cancer is the most common cancer in women in Canada and the second most common cause of cancer mortality in Canadian women. ER+/HER2- breast cancer represents approximately 65-70% of all breast cancers. For the treatment of first-line postmenopausal women with ER+/HER2- advanced or metastatic breast cancer, a number of endocrine therapies are available including letrozole, anastrozole, exemestane, and tamoxifen. pERC noted that the goals of treatment for patients with advanced or metastatic breast cancer are primarily palliative; namely to prolong life while maintaining or improving QoL. Overall, pERC considered that there is a need for new and effective therapies for patients with advanced or metastatic breast cancer that provide improvements in patient survival, have more favourable toxicity profiles and improve QoL.

PATIENT-BASED VALUES

Values of patients with metastatic breast cancer: improved disease control and quality of life
pERC deliberated upon patient advocacy group input for palbociclib for advanced or metastatic breast cancer and discussed the values of patients with advanced or metastatic breast cancer. pERC acknowledged that patients indicated that it is important to have access to therapies that delay the progression of disease, relieve cancer-related symptoms, and improve or maintain quality of life.

Patient values on treatment: disease control with acceptable toxicities
pERC noted that three patients who provided input had direct experience with palbociclib. These patients reported that palbociclib was able to stabilize/control their disease and provide improved quality of life. Adverse events, such as febrile neutropenia and fatigue were reported to be tolerable and manageable through dose adjustments and supportive medications. Patients indicated that palbociclib was able to shrink/control their breast cancer and overall, had acceptable side effects. Input indicated that patients
with ER+/HER2- advanced breast cancer were willing to accept adverse effects for longer survival, improved disease control, or quality of life. pERC noted that given the uncertain clinical benefit of palbociclib plus letrozole, patients may be less willing to tolerate the more frequent toxicities associated with palbociclib plus letrozole.

ECONOMIC EVALUATION

Economic model submitted: cost-utility analysis
The pCODR Economic Guidance Panel (EGP) assessed a cost-utility analysis in the first-line setting for postmenopausal women with ER+/HER2- advanced or metastatic breast cancer. Palbociclib—letrozole was compared with letrozole alone. A comparison was based on the results of the PALOMA-1 study. A network meta-analysis was also conducted to compare palbociclib, used in combination with letrozole, with other aromatase inhibitors (anastrozole or exemestane) or tamoxifen.

Basis of the economic model: clinical and economic inputs
Costs considered in the model provided by the submitter included drug costs, monitoring costs, and post-progression treatment costs. The key clinical outcomes considered in the model provided by the submitter were progression free survival, overall survival, and utilities. The EGP noted the economic evaluation employed various statistical methods for extrapolating survival beyond the trial period of PALOMA-1.

Drug costs: cost of treatment
Palbociclib costs $297.62 per 75mg, 100mg, and 125mg capsule at the list price. At the recommended dose of 125mg once daily for 21 days followed by 7 days off treatment, palbociclib costs $297.62 per day and $6,250 per 28-day course. Palbociclib costs $[price] per 125mg capsule at the confidential price. (The cost of palbociclib is based on a confidential price submitted by the manufacturer and cannot be disclosed to the public according to the pCODR Disclosure of Information Guidelines.) At the recommended dose of 125mg once daily for 21 days followed by 7 days off treatment, palbociclib costs $[price] per day and $[price] per 28-day course. The confidential price of palbociclib was used in the economic model. (The cost of palbociclib is based on a confidential price submitted by the manufacturer and cannot be disclosed to the public according to the pCODR Disclosure of Information Guidelines.)

Letrozole costs $1.38 per 2.5mg tablet. At the recommended dose of 2.5mg once daily for 28 days, letrozole costs $1.38 per day and $38.58 per 28-day course.

Anastrozole costs $1.28 per 1mg tablet. At the recommended dose of 1mg once daily for 28 days, anastrozole costs $1.29 per day and $35.64 per 28-day course. Exemestane costs $1.33 per 25mg tablet. At the recommended dose of 25mg once daily for 28 days, exemestane costs $1.33 per day and $37.14 per 28-day course. Tamoxifen costs $0.35 per 20mg tablet. At the recommended dose of 20mg once daily for 28 days, tamoxifen costs $0.35 per day and $9.80 per 28-day course.

Cost-effectiveness estimates: not cost-effective at submitted price
pERC deliberated upon the cost-effectiveness of palbociclib plus letrozole and noted that the EGP’s estimate of incremental cost-effectiveness ratios (ICERs) was higher than the submitter’s estimate, primarily because of various survival assumptions and the duration of post-progression active therapy. pERC noted the assumptions of survival benefit with palbociclib plus letrozole differed from results in PALOMA-1 which indicated no significant difference in overall survival. pERC reviewed the incremental cost-effectiveness estimates provided by both the submitter and the EGP and determined that palbociclib plus letrozole was not cost-effective, at the submitted price, when compared with letrozole alone in either analysis. pERC concluded that the incremental cost-effectiveness ratios may be even higher than the EGP’s best estimates due to the large degree of clinical uncertainty in PALOMA-1.

Given the limitations and great uncertainty in the results presented through the network meta-analysis for palbociclib plus letrozole versus anastrozole, tamoxifen, and exemestane, the EGP did not provide re-analysis estimates for these comparisons.
ADOPTION FEASIBILITY

Considerations for implementation and budget impact: large population and high drug cost
pERC discussed the feasibility of implementing a reimbursement recommendation for palbociclib plus letrozole and noted that the high cost of palbociclib, large patient population, and additional health care resources are key challenges. pERC noted the submitted budget impact analysis likely underestimated the market share that palbociclib would capture if reimbursed. If palbociclib were reimbursed, the uptake in first-line therapy for the prevalent population of advanced or metastatic breast cancer would be high. The Provincial Advisory Group (PAG) indicated that various aromatase inhibitors are available for initial treatment of ER+/HER2- advanced or metastatic breast cancer including anastrozole, exemestane and letrozole. pERC was unable to draw conclusion on the clinical benefit of palbociclib plus letrozole compared with other aromatase inhibitors given concerns with PALOMA-1 and limitations in the network meta-analysis provided.
**Drug and Condition Information**

| Drug Information | • Potent and highly selective reversible inhibitor of cyclin dependent protein kinase (CDKs) 4 and 6  
| | • 75 mg, 100 mg, and 125 mg capsules  
| | • 125 mg orally once daily for 21 consecutive days followed by 7 days off treatment  

| Cancer Treated | • Estrogen receptor positive, human epidermal growth factor receptor 2 negative (ER+/HER2-) advanced or metastatic breast cancer  
| | • First-line setting  

| Burden of Illness | • Breast cancer is the most common cancer in women in Canada and the second most common cause of cancer mortality in Canadian women  
| | • Patients with breast cancer present or develop advanced or metastatic disease  

| Current Standard Treatment | • Letrozole  
| | • Anastrozole  
| | • Exemestane  
| | • Tamoxifen  

| Limitations of Current Therapy | • Estrogen-driven breast cancers will initially respond to endocrine therapy but disease becomes resistant  

**About This Recommendation**

**The pCODR Expert Review Committee (pERC)**

Recommendations are made by the pCODR Expert Review Committee following the pERC Deliberative Framework. pERC members and their roles are as follows:

| Dr. Anthony Fields, Oncologist (Chair) | Don Husereau, Health Economist  
| Dr. Maureen Trudeau, Oncologist (Vice-Chair) | Dr. Anil Abraham Joy, Oncologist  
| Dr. Scott Berry, Oncologist | Karen MacCurdy-Thompson, Pharmacist  
| Dr. Kelvin Chan, Oncologist | Valerie McDonald, Patient Member Alternate  
| Dr. Matthew Cheung, Oncologist | Carole McMahon, Patient Member  
| Dr. Craig Earle, Oncologist | Dr. Catherine Moltzan, Oncologist  
| Dr. Allan Grill, Family Physician | Jo Nanson, Patient Member  
| Dr. Paul Hoskins, Oncologist | Danica Wasney, Pharmacist  

All members participated in deliberations and voting on the initial recommendation except:

- Dr. Allan Grill who was not present for the meeting  
- Dr. Maureen Trudeau, Don Husereau, and Dr. Anil Abraham Joy who were excluded from deliberations and voting due to a conflict of interest  
- Carole McMahon and Jo Nanson who were excluded from voting due to a conflict of interest
Avoidance of conflicts of interest
All members of the pCODR Expert Review Committee must comply with the pCODR Conflict of Interest Guidelines; individual conflict of interest statements for each member are posted on the pCODR website and pERC members have an obligation to disclose conflicts on an ongoing basis. For the review of palbociclib (Ibrance) for advanced breast cancer, through their declarations, seven members had a real, potential or perceived conflict and based on application of the pCODR Conflict of Interest Guidelines, five of these members was excluded from voting.

Information sources used
The pCODR Expert Review Committee is provided with a pCODR Clinical Guidance Report and a pCODR Economic Guidance Report, which include a summary of patient advocacy group and Provincial Advisory Group input, as well as original patient advocacy group input submissions to inform their deliberations. pCODR guidance reports are developed following the pCODR review process and are posted on the pCODR website. Please refer to the pCODR guidance reports for more detail on their content.

Consulting publicly disclosed information
pCODR considers it essential that pERC recommendations be based on information that may be publicly disclosed. All information provided to the pCODR Expert Review Committee for its deliberations was handled in accordance with the pCODR Disclosure of Information Guidelines. The manufacturer, as the primary data owner, did not agree to the disclosure of some economic information, therefore, this information was redacted from this recommendation and publicly available reports.

Use of this recommendation
This recommendation from the pCODR Expert Review Committee (pERC) is not intended as a substitute for professional advice, but rather to help Canadian health systems leaders and policymakers make well-informed decisions and improve the quality of health care services. While patients and others may use this Recommendation, it is for informational and educational purposes only, and should not be used as a substitute for the application of clinical judgment respecting the care of a particular patient, for professional judgment in any decision-making process, or for professional medical advice.

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