



TO: Hospitals
Regional Cancer Programs
Heads of Medical Oncology
Ontario Cancer Leads and Drug Advisory Committees
Chairs of Disease Site Groups
Regional Vice Presidents

FROM: Scott Gavura, Director, Provincial Drug Reimbursement Programs

CC: Dr. Leta Forbes, Provincial Head, Systemic Treatment Program
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DATE: January 18, 2019

SUBJECT: **Provincial Drug Reimbursement Programs (PDRP) Update**

- Etoposide Supply Status Update

PLEASE DISTRIBUTE TO ALL CANCER CARE PROVIDERS

A. Etoposide Supply Status Update

CCO has previously notified sites of an **ongoing supply interruption affecting the intravenous (IV) etoposide formulation**. While the exact duration of the supply interruption remains unknown at this time, **available supplies are expected to be significantly restricted starting as early as February 2019**. On January 14, 2019, Sandoz Canada informed hospitals/cancer centres that their estimated return-to-market date for all IV etoposide products has **shifted from the third quarter of 2019 to end of 2019**. In addition, the allocation rate for their existing supply has been reduced to 25%. Please refer to the enclosed memo from Sandoz Canada for more information.

The current supply interruption was expected to improve once Teva Canada returned to the market in greater capacity (estimated shortage end date: March 30, 2019), but this will be offset by Sandoz being unable to supply the market. The shortage is not expected to resolve fully until Sandoz Canada returns to market in December 2019 (exact shortage end date to be confirmed). Of note, Teva Canada has previously indicated that **they will not have the capacity to supply the entire Canadian market for the duration of the shortage**.

On January 2, 2019, BMS Canada confirmed to CCO that oral etoposide has returned to market; available stock is still being allocated, however, current allocation rate (exact percentage not available) is significantly higher compared to 2018. Availability of oral etoposide may help to alleviate some of the potential IV use but this strategy would only be appropriate in a subset of patients. Sites may contact Bristol-Myers Squibb (BMS) Canada directly at 1-800-267-0005 or via e-mail (otc.canada@bms.com) for questions regarding available supply.

To ensure use of available product is fair, equitable and transparent, it is **strongly suggested** that sites continue to work with clinical experts and key decision-makers at their facility and within their region to ensure etoposide use is prioritized across all disease sites, particularly those where the treatment intent is curative. Please refer to the document entitled “*Conservation Strategies for Etoposide in Oncology Care*”, circulated on November 22, 2018, for suggested mitigation strategies (including non-etoposide and etoposide-sparing options), if not already implemented, as a means of etoposide conservation within the cancer system until the supply interruption is fully resolved.

CCO is in ongoing and active discussions with Health Canada, the Ministry of Health and Long-Term Care (MOHLTC), other provinces/territories, the Canadian Association of Provincial Cancer Agencies (CAPCA), Group Purchasing Organizations (GPOs) and the manufacturers with the overall goal of minimizing the patient impact of this supply interruption. **This includes working with Health Canada and the Canadian subsidiaries of multi-national organizations to determine if the importation of foreign-labelled IV etoposide product may be feasible and to accelerate the timelines where possible to secure access to an uninterrupted supply of IV etoposide.** Further communication will follow as updated supply status information for all etoposide formulations becomes available, including any importation options.

Please refer to *Appendix 1* for the current supply status from available manufacturers for all etoposide products.

B. Resources

Drug Shortages Canada Website

As of March 14, 2017, regulations require drug manufacturers to publicly report drug shortages and product discontinuations. Specifically, manufacturers must report an anticipated drug shortage, a discontinuation of a drug six months in advance, and any previously unreported shortage within five days of learning about it. This information will be reported on the *Drug Shortages Canada* website at: <https://www.drugshortagescanada.ca>.

Drug Shortages and Medication Safety Concerns. ISMP Canada Safety Bulletin. 20 March 2012
https://www.ismp-canada.org/download/safetyBulletins/2012/ISMPCSB2012-03_Drug_Shortages.pdf

Ethical Framework for Resource Allocation during a Drug Supply Shortage
http://www.health.gov.on.ca/en/pro/programs/drugs/supply/docs/ethical_framework.pdf

Drug Shortages Guide. A Guide for Assessment and Patient Management. Canadian Pharmacists Association
<http://www.pharmacists.ca/cpha-ca/assets/File/cpha-on-the-issues/DrugShortagesGuide.pdf>

Multi-Stakeholder Steering Committee on Drug Shortages Toolkit
https://www.drugshortagescanada.ca/files/MSSC_Toolkit_2017.pdf

Multi-Stakeholder Steering Committee on Drug Shortages Protocol
https://www.drugshortagescanada.ca/files/MSSC_Protocol_2017.pdf

C. Drug Shortage Questions?

Please direct any questions for CCO on drug shortages to Ron Fung, Clinical Program Manager, Provincial Drug Reimbursement Programs at ron.fung@cancercare.on.ca.

Appendix 1

Table 1: Supply Status of Etoposide Products in Canada as of January 14, 2019*

Brand	DIN	Vial Size	Dosage Form	Availability	Estimated End Date of Shortage
BMS	00616192	Not applicable	Capsule 50 mg	Available on allocation. Next replenishment of stock expected in March 2019.	To be determined
Sandoz	02380935	5 mL	Solution [20 mg/mL]	Backorder	December 2019
Sandoz	02380935	10 mL	Solution [20 mg/mL]	Available on 25% allocation – estimated depletion by end of January 2019	December 2019
Sandoz	02380935	25 mL	Solution [20 mg/mL]	Available on 25% allocation – estimated depletion in early February 2019	December 2019
Sandoz	02380935	50 mL	Solution [20 mg/mL]	Available on 25% allocation – estimated depletion in mid-February 2019	December 2019
Teva	02080036	5 mL	Solution [20 mg/mL]	Planned resupply week of January 21, 2019 (may last up to 1.5 months based on historical use). Further update from the manufacturer expected in early February 2019.	March 30, 2019
Teva	02080036	10 mL	Solution [20 mg/mL]	Planned resupply week of January 21, 2019 (may last up to 1.5 months based on historical use). Further update from the manufacturer expected in early February 2019.	March 30, 2019
Teva	02080036	25 mL	Solution [20 mg/mL]	Planned resupply week of January 21, 2019 (may last up to 1.5 months based on historical use). Further update from the manufacturer expected in early February 2019.	March 30, 2019
Teva	02080036	50 mL	Solution [20 mg/mL]	Backorder	March 30, 2019 (to be confirmed)

*For the most up-to-date information on supply status and ordering procedures, please contact the manufacturer and/or your distributor directly.