



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
 Dr. Kelvin Chan, Clinical Lead, Provincial Drug Reimbursement Programs
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DATE: April 4, 2019

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

- Dexrazoxane Supply Status Update
- Erwinia asparaginase Supply Status Update
- Etoposide Supply Status Update

PLEASE DISTRIBUTE TO ALL CANCER CARE PROVIDERS

A. Dexrazoxane Supply Status Update

Strict allocations remain in effect for the limited supply of product available with full restoration of supply not expected until May 2019. Pfizer is the sole source manufacturer of this product in Canada.

As of April 1, 2019, CCO was informed that **Pfizer Canada has been able to secure limited stock from their US subsidiary, and are finalizing details with Health Canada to import this US-labelled product.** As with the Canadian product, the US-labelled product will be available on allocation as a temporary measure to help mitigate the impact of this shortage. Further communication will follow as updated supply status information (including importation timelines) becomes available. The current supply status is as follows:

Brand	DIN	Vial Size	Dosage Form	Availability	Estimated Resupply Date
Zinecard™ (Pfizer)	02153432	250 mg	Lyophilized powder	On allocation – emergency use only	May 10, 2019
Zinecard™ (Pfizer)	02153440	500 mg	Lyophilized powder	Backorder	July 1, 2020

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

B. Erwinia asparaginase Supply Status Update

As of April 3, 2019, CCO received an update from Jazz Pharmaceuticals on their upcoming product availability for Erwinia asparaginase. Jazz Pharmaceuticals expects multiple batches to be released over the next six months while also anticipating that stockouts will occur following the release of each batch. Please refer to the attached 'Dear Health Authority Representative' letter dated March 2019 for more information.

C. Etoposide Supply Status Update

CCO has previously notified sites of an **ongoing supply interruption affecting the intravenous (IV) formulation**. On March 11, 2019, Sandoz Canada informed hospitals/cancer centres that their estimated return-to-market date for all IV etoposide products has **shifted from the end of 2019 to the second quarter of 2020**. Currently, Teva Canada is the only manufacturer supplying product to the entire Canadian market. On February 15, 2019, CCO sent a communication informing sites of Teva's US-labelled product being available. CCO has been in ongoing dialogue with Teva Canada regarding their supply; below is the most current update:

- Based on current demand and distribution patterns for the entire Canadian market, Teva Canada projects their combined supplies (current and expected) of Canadian and US product to last as follows:
 - 5mL vial – 10 months
 - 10mL vial – 11 months
 - 25mL vial – 11 months
 - 50mL vial – 13 months
- Estimated resupply dates for Canadian-labelled etoposide are as follows:
 - 5mL vial – June 2019
 - 10mL, 25mL vials – July 2019

Please note that **the estimated resupply timelines and quantities mentioned above are subject to change; Teva Canada has also indicated that they are unable to obtain additional quantities of their US-labelled product for the near future**. Please refer to the attached 'Dear Healthcare Provider' letter from Teva Canada dated April 1, 2019 for more detailed information.

Sites are reminded that while Teva's limited stock of the US-labelled product is currently available and some additional Canadian product is expected in June-July 2019, **full restoration of supply is not expected until Sandoz Canada returns to the market in May 2020**. Teva Canada has previously indicated that **they will not have the capacity to supply the entire Canadian market for the duration of the shortage**.

CCO **strongly suggests** 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 as well as substitution with oral etoposide where clinically appropriate) as a means of etoposide conservation within the cancer system until the supply interruption is fully resolved.

D. Resources

Drug Shortages Canada Website

As of March 14, 2017, regulations require the 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

E. 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.