

DRUG NAME: Etoposide phosphate

SYNONYM(S): Refer to etoposide monograph

COMMON TRADE NAME: ETOPOPHOS®

CLASSIFICATION: Refer to etoposide monograph

MECHANISM OF ACTION:

Refer to etoposide monograph

PHARMACOKINETICS:

Refer to etoposide monograph

USES:

Refer to etoposide monograph

SPECIAL PRECAUTIONS:

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- when etoposide cannot be used in a protocol due to severe hypersensitivity reaction, etoposide phosphate may be considered as an alternative¹⁻³

SIDE EFFECTS:

Refer to etoposide monograph

Allergic reactions to etoposide phosphate may be less common and severe than etoposide because etoposide phosphate does not contain polysorbate 80. Etoposide phosphate has been safely administered in patients with previous hypersensitivity^{1,2} although rare cross-sensitivity has been reported.⁴

INTERACTIONS:

Refer to etoposide monograph

SUPPLY AND STORAGE:

Injection: Etoposide phosphate is only available via Health Canada Special Access Program. Therefore, it may be supplied by different manufacturers and/or include different brand name products than those stated below.

Xediton Pharmaceuticals Inc. (for Cheplapharm Arzneimittel GmbH Germany) supplies etoposide phosphate (ETOPOPHOS®) as 100 mg single dose (preservative-free) vials of lyophilized powder. Refrigerate. Protect from light.⁵⁻⁷

For basic information on the current brand used at BC Cancer, see [Chemotherapy Preparation and Stability Chart](#) in Appendix.

SOLUTION PREPARATION AND COMPATIBILITY:

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Additional information:

- Etoposide phosphate is a water soluble ester of etoposide which lessens the potential for precipitation following dilution and intravenous administration.⁵
- Etoposide phosphate does NOT contain polysorbate 80.⁵ Therefore, diethylhexyl phthalate (DEHP) is not leached from polyvinyl chloride (PVC) containers and tubing into etoposide phosphate IV solution and consequently, etoposide phosphate does not require non-DEHP containers or tubing for administration.

PARENTERAL ADMINISTRATION:

Refer to etoposide monograph

BC Cancer administration guideline noted in ***bold, italics***

Direct intravenous	not to be administered by direct IV route ⁵
Intermittent infusion	<ul style="list-style-type: none"> • over 5 minutes to 3.5 hours⁵ (e.g., <i>over 30-60 min</i>)⁹ • non-DEHP administration sets are NOT required

DOSAGE GUIDELINES:

Refer to etoposide monograph

REFERENCES:

1. Collier K, Schink C, Young AM, et al. Successful treatment with etoposide phosphate in patients with previous etoposide hypersensitivity. J Oncol Pharm Pract 2008;14(1):51-55
2. Siderov J, Prasad P, De Boer R, et al. Safe administration of etoposide phosphate after hypersensitivity reaction to intravenous etoposide. Br J Cancer 2002;86(1):12-13
3. BC Cancer Interim Therapeutic Evaluation Committee (iTEC). (iTEC) Request: Etoposide phosphate as alternative to etoposide in commonly prescribed chemotherapy protocols, following etoposide hypersensitivity reactions. Vancouver, British Columbia; September 16, 2021
4. Sambasivan K, Mahmoud S, Kokache A, et al. Hypersensitivity reactions to etoposide phosphate. J Oncol Pharm Pract 2014;20(2):158-160
5. Bristol-Myers Squibb Company. ETOPOPHOS® product monograph. Princeton, New Jersey, USA; September 2013
6. Joseph Atallah. Interim County Medical Director. Bristol-Myers Squibb Canada. Personal communication re: new Canadian distributor for ETOPOPHOS®. November 15, 2019
7. George Gafrey. VP Business Development. Xediton Pharmaceuticals Inc. Personal communication re: new Canadian distributor for ETOPOPHOS®. November 27, 2019
8. Bristol-Myers Squibb Company. ETOPOPHOS® product monograph. Princeton, New Jersey, USA; May 2019
9. Teva Canada Limited. Etoposide injection product monograph. Toronto, Ontario; 22 April 2016