

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:

Refer to etoposide monograph

- etoposide phosphate is **NOT interchangeable** with other etoposide formulations and should not be substituted

SIDE EFFECTS:

Refer to etoposide monograph

Allergic reactions 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.³

INTERACTIONS:

Refer to etoposide monograph

SUPPLY AND STORAGE:

Injection:

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.⁴⁻⁶

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.⁴

- Etoposide phosphate does *NOT* contain polysorbate 80.⁴ Therefore, diethylhexyl phthalate (DEHP) does not leach from polyvinyl chloride (PVC) containers and tubing into etoposide phosphate IV solution. Etoposide phosphate does NOT require non-DEHP containers and 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 ⁴
Intermittent infusion	<ul style="list-style-type: none"> • dilute to final concentration of 0.1 mg/mL or greater⁴ • over 5 minutes to 3.5 hours⁴ (e.g., over 30 minutes)⁷ • non-DEHP administration sets not required

DOSAGE GUIDELINES:

Refer to etoposide monograph

REFERENCES:

1. 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.
2. Collier K, Schink C, Young AM, et al. Successful treatment with etoposide phosphate in patients with previous etoposide hypersensitivity. *J Oncol Pharm Pract* March 01, 2008;14(1):51-55.
3. Sambasivan K, Mahmoud S, Kokache A, et al. Hypersensitivity reactions to etoposide phosphate. *J Oncol Pharm Pract* April 01, 2014;20(2):158-160.
4. Bristol-Myers Squibb Company. ETOPOPHOS® product monograph. Princeton, New Jersey, USA; September 2013.
5. Joseph Atallah. Interim County Medical Director. Personal communication re: new Canadian distributor for ETOPOPHOS®. Bristol-Myers Squibb Canada.; 15 November 2019.
6. George Gafrey. VP Business Development. Personal communication re: new Canadian distributor for ETOPOPHOS®. Xediton Pharmaceuticals Inc.; 27 November 2019.
7. Reck M, von Pawel J, Macha HN, et al. Efficient palliation in patients with small-cell lung cancer by a combination of paclitaxel, etoposide and carboplatin: quality of life and 6-years'-follow-up results from a randomised phase III trial. *Lung Cancer* Jul 2006;53(1):67-75.