Mesna for Injection (Preservative-Free) Shortage

There is a critical supply shortage of preservative-free mesna injection products in Canada. Supply is under careful allocation, with a potential for a supply gap in **August 2026** for preservative-free ampoules. While mesna multidose vials containing benzyl alcohol remain available, these products may not be appropriate for all patient populations, particularly pediatric patients.

Table 1: Mesna injectable products marketed in Canada[1] and approved Indications[2,3]

Product	Strength	DIN	Manufacturer	Health Canada–Approved Indications
Mesna for Injection (preservative-free ampoules)	100 mg/mL (4 mL and 10 mL ampoules)	02241411	Baxter Corporation	Reduction and prevention of urinary tract toxicity (hemorrhagic cystitis) associated with oxazaphosphorines, including ifosfamide and cyclophosphamide
Mesna for Injection (multidose vial containing benzyl alcohol)	100 mg/mL (10 mL multidose vial)	02371839 02244931	Baxter Corporation; Fresenius Kabi Canada Ltd.	Reduction and prevention of urinary tract toxicity (hemorrhagic cystitis) associated with oxazaphosphorines, including ifosfamide and cyclophosphamide.

For the current status of drug shortages and discontinuations, refer to Drug Shortages Canada at healthproductshortages.ca/.

Important Considerations

- Benzyl alcohol-containing multidose vials may not be suitable for:
  - Neonates;
  - Pediatric patients, particularly those weighing less than 12 kg;
  - Certain situations where oral administration from the injectable formulation is required.
- Situations in which mesna dosing may result in benzyl alcohol exposure exceeding the acceptable daily intake (5 mg/kg/day)
  - For example, continuous infusion at 100% of the high-dose ifosfamide regimens
  - For example, cumulative exposure from the formulation approaches or exceeds the threshold of 10.4 mg/mLin adult patients.[4,5]

Management Strategies:

Conservation measures are recommended to ensure continued access to preservative-free mesna for patients with the greatest clinical need. Prescribers and pharmacy teams are asked to consider the following measures:

- Reserve remaining supplies of preservative-free mesna for patients in whom benzyl alcohol-containing formulations are not appropriate, particularly pediatric patients.
- Prioritize available supply for patients currently receiving active treatment and those scheduled to receive treatment in the coming weeks.
- Confirm mesna availability before initiating new treatment protocols that include mesna.
- Implement dose-rounding strategies where clinically appropriate to minimize wastage.
- Transition to multidose vial formulations containing benzyl alcohol for appropriate adult patients when clinically feasible.
- Restrict dispensing quantities to immediate patient care needs during the shortage period.
- Avoid using mesna for injection orally as oral administration requires double the dose compared to intravenous administration
- Implement local allocation strategies to support equitable distribution across institutions and patient populations, in particular to support centres caring for pediatric patients and other high-priority populations.
- Review the use of mesna in lower-dose cyclophosphamide and ifosfamide regimens, and consider omission where its benefit is not clearly established. Mesna use varies across institutions for certain intermediate-dose cyclophosphamide protocols (e.g., ~2500 mg/m^2 used in bone marrow transplant mobilization), where comparable outcomes have been observed with and without mesna; therefore, in similar lower-dose regimens lacking clear evidence of benefit, omission may be appropriate based on clinical judgement and institutional practice.[6,7]

References

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