

MEDICATION SAFETY COMMUNICATION

Information for health professionals in NSW public health organisations

UPDATED: Fludarabine phosphate 50 mg injection – 13 September 2023

Details of affected product(s)	Fludarabine (Juno) 50 mg powder for injection – ARTG 147831 Fludarabine (Ebewe) 50 mg/2 mL concentrated injection vial – ARTG 135540
Reason for communication	Disruption to supply due to manufacturing issues.
Date issue made apparent	31 July 2023
Supply impact dates	1 September 2023 – 1 April 2024

Main indications and use

Fludarabine is a potent antimetabolite agent primarily used for:

- the treatment of haematologic malignancies such as chronic lymphocytic leukaemia, acute myeloid leukaemia and non-Hodgkin Lymphoma
- Chimeric Antigen Receptor T-Cell (CAR-T cell) conditioning
- allogenic conditioning for blood and bone marrow transplant protocols.

Fludarabine is listed on the NSW Medicines Formulary with restrictions for use – see [here](#).

Situation

There is an anticipated disruption to the supply of fludarabine (Juno) 50 mg powder for injection due to manufacturing issues between 1 September 2023 until 1 March 2024 and fludarabine (Ebewe) 50 mg/2 mL concentrated injection vial until April 2024 (subject to change).

Juno has communicated that they will be managing the release of their stock for the duration of the disruption to supply via a Product Restriction Program (PRP) through Symbion.

Alternative agents

The following international alternatives are available for use under Section 19A (S19A) of the Therapeutic Goods Act until 30 April 2024:

- Fludarabine (Actavis) 25 mg/mL solution for injection or infusion manufactured in Sweden, which is currently available for purchase from Link Healthcare.
- Fludarabine (Bendarbaine) 50 mg powder for injection or infusion manufactured in Germany, which is currently available for purchase from Link Healthcare (Note – **stock is short dated with expiry of 31 December 2023**).

Further S19A alternatives may become available – see [here](#) for further information.

The following international alternatives are available via the Therapeutic Goods Administration's Special Access Scheme (SAS):

- Fludarabine (Teva) 25 mg/mL solution for injection manufactured in Belgium, which is currently available for purchase from ProPharmaceuticals Group.

Precautions, safety issues and other considerations associated with alternatives

While the S19A and SAS alternatives are identical in active ingredient to the Australian registered products, there are differences in formulation, excipients, storage requirements and presentation. See **Table 1** on the next page for a comparison.

To ensure timely access to both Australian registered and S19A/SAS stock, it is recommended that:

- clinical staff are notified to facilitate proactive review of patient lists and identify treatment plans that include IV fludarabine
- sites place back orders for stock based on anticipated requirements (if compounding on-site) given constrained stock availability and lead times for international products
- sites are in regular liaison with external compounders about expected requirements (if compounding occurs externally).

Impacts of this communication on clinical practice




Actions to address the disruption to supply of fludarabine should be coordinated and implemented by the local Drug and Therapeutics Committee in consultation with the relevant clinicians. S19A/SAS alternatives are available and can be utilised by facilities after consideration of the above precautions and safety issues.

This Communication is intended as a guide only and does not equate to expert opinion. Interpretation of recommendations should always be taken in context with the patient's current condition and formal clinical assessment. As the information in this publication is subject to review, please contact a medical or health professional before using this publication. Whilst the information is considered to be true and correct at the date of publication, changes in circumstances after the time of publication may impact on the accuracy of the information. The information may change without notice and the State of New South Wales is not in any way liable for the accuracy of any information printed and stored or in any way interpreted and used by a user.

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Table 1: Comparison of Australian registered products and SAS/S19A alternatives

	ARTG listed Product Fludarabine Juno	ARTG listed Product Fludarabine Ebewe	SAS Alternative – ProPharmaceuticals Group Fludarabine Teva (Belgium)	S19A Alternative – Link Healthcare Fludarabine Actavis (Sweden)	S19A Alternative – Link Healthcare Fludarabine Bendarabine (Germany)
Active ingredient and strength	Fludarabine phosphate 50 mg	Fludarabine phosphate 50 mg/2 mL			Fludarabine phosphate 50 mg
Form	Powder for injection	Concentrated solution for injection/infusion			Powder for injection/infusion
Storage	Below 25°C (Prior to reconstitution)	Refrigerate between 2-8 °C			Below 25°C (Prior to reconstitution)
Excipients	Mannitol, sodium hydroxide	Sodium phosphate dibasic dihydrate, sodium hydroxide, water for injection	Sodium hydroxide, water for injection	Disodium phosphate dihydrate, water for injection, sodium hydroxide	Mannitol, sodium hydroxide
Presentation	Glass vial				
Labelling language	Product information and product labelling in English		Product information in French Product Labelling in Dutch/French/German	Labelling in Swedish	Labelling in German
Image of product/artwork	<p>PRESCRIPTION ONLY MEDICINE KEEP OUT OF REACH OF CHILDREN</p> <p>Fludarabine JUNO Fludarabine phosphate 50 mg Powder for Injection</p>  <p>50 mg</p> <p>AUST R 147831</p> <p>For intravenous use only after dilution 1 x 50 mg vial JUNO</p>		<p>Fludarabine Teva 25 mg/ml</p> <p>concentraat voor oplossing voor injectie of infusie/solution à diluer pour injection ou perfusion/Konzentrat zur Herstellung einer Injektions- oder Infusionslösung</p> <p>fludarabinefosfaat/fosfate de fludarabine/Fludarabinephosphat</p> <p>I.V. gebruik na verdunning/Usage I.V. après dilution/IV nach Verdünnung</p> <p>CYTOTOXISCH/CYTOTOXIQUE/CYTOTOXISCH</p> <p>1 injectieflacon/flacon/Durchstechflasche</p>  <p>2 ml = 50 mg</p> <p>2 ml injektionsflaska teva</p>	<p>CYTOSTATIKUM</p> <p>Vnr 42 48 11</p> <p>Fludarabin Actavis 25 mg/ml</p> <p>koncentrat till injektions- eller infusionsvätska, lösning</p> <p>fludarabinfosfat</p> <p>2 ml = 50 mg</p> <p>2 ml injektionsflaska teva</p>	<p>BENDARABIN 50 mg</p> <p>BENDARABIN 50 mg Pulver zur Herstellung einer Injektionslösung oder Infusionslösung</p> <p>Fludarabin-phosphat 50 mg</p> <p>Wirkstoff (nach Rekonstitution): 25 mg/ml Fludarabinphosphat</p> <p>Sonstige Bestandteile: Mannitol, Natriumhydroxid (für die Einstellung des pH-Wertes auf 7,7)</p> <p>Packungsbeilage beachten.</p> <p>Bendalis</p> 
Additional information		N/A		Dear Health Care Professional Letter from Link Healthcare	Dear Health Care Professional Letter from Link Healthcare

Associated regulatory or policy references

[PD2022_032 Medication Handling](#)

[PD2019_019 Coordination of responses to urgent system-level medicine or medical device issues](#)

Key contacts

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