

UTILIZATION MANAGEMENT MEDICAL POLICY

POLICY: Antiemetics – Palonosetron Intravenous Products Utilization Management Medical Policy

- Palonosetron intravenous infusion (generic only)
- Posfrea™ (palonosetron intravenous infusion) – Avyxa)

REVIEW DATE: 05/07/2025; selected revision 05/21/2025

OVERVIEW

Palonosetron intravenous (IV) [formerly Aloxi®, Posfrea], a serotonin-3 (5-HT₃) receptor antagonist, is indicated for the **prevention** of the following:^{1,2}

- **Acute and delayed nausea and vomiting** associated with initial and repeat courses of moderately emetogenic cancer chemotherapy in adults.
- **Acute nausea and vomiting** associated with initial and repeat courses of highly emetogenic cancer chemotherapy in adults.
- **Acute nausea and vomiting** associated with initial and repeat courses of emetogenic cancer chemotherapy, including highly emetogenic cancer chemotherapy, in pediatric patients 1 month to < 17 years of age.
- **Postoperative nausea and vomiting (PONV)** for up to 24 hours following surgery in adults. Efficacy beyond 24 hours has not been demonstrated.

Disease Overview

Palonosetron has strong affinity for the 5-HT₃ receptor and little or no affinity for other receptors.¹ Chemotherapy-induced nausea and vomiting (CINV) is thought to be mediated by release of serotonin from the small intestine, which then activates 5-HT₃ receptors located on vagal afferent nerves in the gastrointestinal tract and chemoreceptor trigger zone of the brain. PONV is influenced by multiple patient, surgical, and anesthesia related factors leading to release of serotonin in the central nervous system and periphery. By blocking the 5-HT₃ receptor, palonosetron inhibits the serotonin-stimulated emetic response.

Guidelines

The 5-HT₃ receptor antagonists feature prominently in National Comprehensive Cancer Network (NCCN) antiemesis guidelines for CINV. In these guidelines (version 1.2025 – March 27, 2025), palonosetron is supported as part of a combination regimen for both acute and delayed emesis CINV prevention.³ American Society of Clinical Oncology (ASCO) antiemetic guidelines (2020) provide similar recommendations for the prevention of CINV.⁴ The American Society of Pediatric Hematology/Oncology (ASPHO) guidelines for the prevention of acute and delayed CINV (2022) recommend palonosetron treatment strategies in selected pediatric patients requiring CINV prevention.⁵

Consensus guidelines for management of PONV (2020) support 5-HT₃ receptor antagonists as one strategy for prevention of PONV in selected patients and note that palonosetron has been found to be more effective than low doses of granisetron or ondansetron in several meta-analyses.⁶

Dosing

NCCN antiemesis guidelines (version 1.2025 – March 27, 2025) indicate repeat dosing of palonosetron injection 48 to 72 hours after chemotherapy appears to be safe and effective.³ Palonosetron has a half-life of approximately 40 hours.¹

POLICY STATEMENT

Prior Authorization is recommended for medical benefit coverage of palonosetron IV. Approval is recommended for those who meet the **Criteria** and **Dosing** for the listed indications. Extended approvals are allowed if the patient continues to meet the Criteria and Dosing. Requests for doses outside of the established dosing documented in this policy will be considered on a case-by-case basis by a clinician (i.e., Medical Director or Pharmacist). All approvals are provided for the duration noted below. In cases where the approval is authorized in months, 1 month is equal to 30 days. An approval duration of one month is sufficient in cases where approval is listed as one dose.

Automation: None.

RECOMMENDED AUTHORIZATION CRITERIA

Coverage of palonosetron IV is recommended in those who meet one of the following criteria:

FDA-Approved Indications

1. Chemotherapy-Induced Nausea and Vomiting, Prevention. SApprove for 1 year.

Dosing. Approve ONE of the following dosing regimens (A or B):

- A) Adults: Approve up to a dose of 0.25 mg administered intravenously for up to two doses per cycle of chemotherapy; OR
- B) Pediatrics (< 18 years of age): Approve up to a dose of 20 mcg/kg (maximum dose 1.5 mg) administered intravenously for one dose per cycle of chemotherapy.

2. Postoperative Nausea and Vomiting, Prevention. Approve for one dose if the patient is ≥ 18 years of age.

Dosing. Approve up to a dose of 0.075 mg intravenously for one dose.

CONDITIONS NOT RECOMMENDED FOR APPROVAL

Coverage of palonosetron IV is not recommended in the following situations:

1. Radiation-Induced Nausea and Vomiting. Ondansetron and granisetron are the recommended 5-HT₃ receptor antagonists by NCCN (version 1.2025 – March 27, 2025) and ASCO (2020).^{2,3} The guidelines note insufficient evidence for use of palonosetron IV.

Note: For patients also receiving chemotherapy in addition to radiation, refer to FDA-Approved Indication #1, Chemotherapy-Induced Nausea and Vomiting, Prevention.

2. Coverage is not recommended for circumstances not listed in the Recommended Authorization Criteria. Criteria will be updated as new published data are available.

REFERENCES

1. Palonosetron intravenous injection or infusion [prescribing information]. Deerfield, IL: Baxter; September 2020.
2. Posfrea™ intravenous injection [prescribing information]. New Jersey: Avyxa, April 2025.
3. The NCCN Antiemesis Clinical Practice Guidelines in Oncology (version 1.2025 – March 27, 2025). © 2025 National Comprehensive Cancer Network. Available at: www.nccn.org. Accessed on April 11, 2025.
4. Hesketh PJ, Kris MG, Basch E, et al. Antiemetics: American Society of Clinical Oncology Clinical Practice Guideline Update. *J Clin Oncol*. 2020 Aug 20; 38(24):2782-2797.
5. Patel P, Robinson PD, Cohen M, et al. Prevention of acute and delayed chemotherapy-induced nausea and vomiting in pediatric cancer patients: A clinical practice guideline. *Pediatr Blood Cancer*. 2022;69(12):e30001.
6. Gan T, Belani K, Bergese S, et al. Fourth consensus guidelines for the management of postoperative nausea and vomiting. *Anesth Analg*. 2020; 131:411-448.

HISTORY

Type of Revision	Summary of Changes	Review Date
Annual Revision	No criteria changes.	05/03/2023
Annual Revision	Title: Updated from “Antiemetics – Aloxi Intravenous” to “Antiemetics – Palonosetron Intravenous”. No criteria changes.	05/01/2024
Annual Revision	Chemotherapy-Induced Nausea and Vomiting, Prevention: Adult dosing was updated from one dose per cycle to allow up to two doses per cycle of chemotherapy.	05/07/2025
Selected Revision	Posfrea (palonosetron intravenous infusion) was added to the Policy. Title: Updated from “Antiemetics – Palonosetron Intravenous” to “Antiemetics – Palonosetron Intravenous Products”	05/21/2025