

POLICY: Antiemetics – Aloxi® Intravenous [palonosetron injection for intravenous use – Helsinn Therapeutics]

DATE REVIEWED: 05/06/2020

OVERVIEW

Aloxi, a serotonin-3 (5-HT₃) receptor antagonist, is indicated in adults and pediatric patients ≥ 1 month of age for prevention of acute and delayed nausea and vomiting associated with initial and repeat courses of emetogenic chemotherapy.¹ Aloxi is also indicated in adults for prevention of postoperative nausea and vomiting (PONV) for up to 24 hours following surgery. Efficacy of Aloxi in PONV beyond 24 hours has not been demonstrated.

Disease Overview

Aloxi has strong affinity for the 5-HT₃ receptor and little or no affinity for other receptors.¹ Chemotherapy-induced nausea and vomiting 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, Aloxi inhibits the serotonin-stimulated emetic response.

Guidelines

The 5-HT₃ receptor antagonists feature prominently in National Comprehensive Cancer Network (NCCN) antiemesis guidelines for chemotherapy-induced nausea and vomiting. In these guidelines (version 1.2020 – February 19, 2020), Aloxi is supported as part of a combination regimen for both acute and delayed emesis prevention.² American Society of Clinical Oncology (ASCO) antiemetic guidelines (2017) provide similar recommendations.³ Guidelines for management of PONV (2014) support 5-HT₃ receptor antagonists as one strategy for prevention of PONV in selected patients and note that Aloxi has been found to be more effective than low doses of granisetron or ondansetron.⁴

POLICY STATEMENT

Prior authorization is recommended for medical benefit coverage of Aloxi. Approval is recommended for those who meet the Criteria and Dosing for the listed indication(s). 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. An approval duration of one month is sufficient in cases where approval is listed as one dose.

RECOMMENDED AUTHORIZATION CRITERIA

Coverage of Aloxi is recommended in those who meet the following criteria:

FDA-Approved Indications

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

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

- A) **Adults:** Approve up to a dose of 0.25 mg administered intravenously for one dose per cycle of chemotherapy; OR
- B) **Pediatrics (less than 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

Aloxi has not been shown to be effective, or there are limited or preliminary data or potential safety concerns that are not supportive of general approval for the following conditions. Rationale for non-coverage for these specific conditions is provided below. (Note: This is not an exhaustive list of Conditions Not Recommended for Approval.)

1. Radiation-Induced Nausea and Vomiting. Ondansetron and granisetron are recommended the 5-HT₃ receptor antagonists by NCCN (version 1.2020 – February 19, 2020) and ASCO (2017).^{2,3} The guidelines note insufficient evidence for use of Aloxi. One open-label pilot study has suggested efficacy of oral palonosetron (not available in the US) for radiation-induced nausea and vomiting.⁵ Intravenous Aloxi has not been studied.

Note: For patients also receiving chemotherapy, 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. Aloxi[®] injection for intravenous use [prescribing information]. Iselin, NJ: Helsinn Therapeutics; April 2020.
2. The NCCN Antiemesis Clinical Practice Guidelines in Oncology (Version 1.2020 – February 19, 2020). © 2020 National Comprehensive Cancer Network, Inc. Available at: www.nccn.org. Accessed on April 3, 2020.
3. Hesketh PJ, Kris MG, Basch E, et al. Antiemetics: American Society of Clinical Oncology Clinical Practice Guideline Update. *J Clin Oncol*. 2017;35(28):3240-3261.
4. Gan TJ, Diemunsch P, Habib AS, et al. Consensus guidelines for the management of postoperative nausea and vomiting. *Anesth Analg*. 2014;118:85-113.
5. Ganesh V, Drost L, DeAngelis C, et al. A pilot study with palonosetron in the prophylaxis of radiation-induced nausea and vomiting. *Ann Palliat Med*. 2018;7(2):211-220.

HISTORY

Type of Revision	Summary of Changes	Date Reviewed
New Policy	--	05/01/2019
Annual revision	No criteria changes.	05/06/2020