

Antiemetic Agents Quantity Limit Program Summary

This program applies to Commercial, GenPlus, NetResults A series, SourceRx and Health Insurance Marketplace formularies.

OBJECTIVE

The intent of the Antiemetic Agents Quantity Limit (QL) is to provide antiemetic therapy with the requested agent for up to 7 days of cancer chemotherapy or radiotherapy. Requests for Sancuso will be evaluated for use beyond 14 days of cancer chemotherapy. Emend 40 mg tablets, Kytril, and Zofran injection are not included in the program. The criteria will also evaluate Cesamet for additional quantities after conventional antiemetics have been shown to give an inadequate response. Requests for larger quantities of the requested agent may be approved if prescriber provides documentation indicating chemotherapy or radiation treatment extending beyond the set limit, delayed emesis to highly emetogenic chemotherapy, or hyperemesis gravidarum.

QUANTITY LIMIT TARGET AGENTS - RECOMMENDED LIMITS

Brand (generic)	GPI	Quantity Per 30 Day Limit
Akynzeo [®] (netupitant/palonosetron)		
300 mg / 0.5 mg	50309902290120	2 capsules
Anzemet [®] (dolasetron)		
50 mg tablet	50250025200320	7 tablets
100 mg tablet	50250025200330	7 tablets
Cesamet [®] (nabilone)		
1 mg capsule	50300040000110	42 capsules
Emend [®] (aprepitant)		
80 mg capsule ^a	50280020000120	4 capsules
125 mg capsule ^a	50280020000130	2 capsules
Emend Therapy Pack (1x125 mg	50280020006320	2 therapy packs
capsule, 2x80 mg capsules) ^a		
125mg/5mL oral suspension	50280020001930	6 single use kits
granisetron		
1 mg tablet ^a	50250035100310	14 tablets
Sancuso [®] (granisetron)		
3.1 mg/24 hours patch	50250035005920	2 patches
Varubi™ (rolapitant)		
90 mg tablet	50280050200320	4 tablets
Zofran [®] (ondansetron)		
4 mg tablet ^a	50250065050310	21 tablets
8 mg tablet ^a	50250065050320	21 tablets
24 mg tablet ^{ab}	50250065050340	1 tablet
4 mg/5 mL oral solution ^a	50250065052070	100 mL (2 bottles)
Zofran [®] ODT (ondansetron)		
4 mg orally disintegrating tablet ^a	50250065007220	21 tablets
8 mg orally disintegrating tablet ^a	50250065007240	21 tablets
Zuplenz [®] (ondansetron)		
4 mg oral soluble film	50250065008220	20 films (2 boxes of 10)

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Brand (generic)	GPI	Quantity Per 30 Day Limit
8 mg oral soluble film	50250065008240	20 films (2 boxes of 10)

a - generic available and included in quantity limit program

b - 24 mg tablet available as generic only

PRIOR AUTHORIZATION CRITERIA FOR APPROVAL

Quantities above the program set limit for **Anzemet, granisetron, Zofran/Zofran ODT/ondansetron, or Zuplenz** will be approved when ONE of the following is met:

- 1. The patient has cancer chemotherapy related nausea and vomiting and will be receiving chemotherapy more than 7 days per month **OR**
- 2. The patient has delayed emesis in highly emetogenic chemotherapy OR
- 3. The patient has hyperemesis gravidarum **OR**
- 4. The patient has radiation therapy induced nausea and vomiting for radiation treatment that extends beyond 7 days per month **OR**
- 5. The prescriber has submitted documentation in support of the requested therapeutic use and quantity for the requested agent, which has been reviewed and approved by the Clinical Review pharmacist

Length of Approval: 12 months

Quantities above the program set limit for **Sancuso** will be approved when ONE of the following is met:

- 1. The patient has cancer chemotherapy related nausea and vomiting and will be receiving chemotherapy more than 14 days per month **OR**
- 2. The prescriber has submitted documentation in support of the requested therapeutic use and quantity for the requested agent, which has been reviewed and approved by the Clinical Review pharmacist

Length of Approval: 12 months

Quantities above the program set limit for **Akynzeo**, **Emend**, or **Varubi** will be approved when ONE of the following is met:

- 1. The patient has cancer chemotherapy related nausea and vomiting and the patient will be receiving chemotherapy more than 7 days per month **OR**
- 2. The prescriber has submitted documentation in support of the requested therapeutic use and quantity for the requested agent, which has been reviewed and approved by the Clinical Review pharmacist

Length of Approval: 12 months

Quantities above the program set limit for **Cesamet** will be approved when ONE of the following is met:

- 1. BOTH of the following:
 - a. The patient has a documented history of failure to respond adequately to one conventional antiemetic treatment (Akynzeo, Anzemet, Emend, granisetron, Sancuso, Varubi, or Zofran/Zofran ODT/ondansetron) **AND**
 - b. The prescriber has submitted documentation in support of use for cancer chemotherapy related nausea and vomiting and the patient will be receiving chemotherapy more than 7 days per month

OR

2. The prescriber has submitted documentation in support of the requested therapeutic use and quantity for the requested agent, which has been reviewed and approved by the Clinical Review pharmacist

Length of Approval: 12 months

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FDA APPROVED INDICATIONS AND DOSAGE^{1-8,19,20}

	TIONS AND DOSAGE	.
Agent	FDA Indication(s)	Dosing and Administration
Akynzeo®	 Prevention of acute and delayed 	1 capsule administered
(netupitant/palonosetron)	nausea and vomiting associated	approximately 1 hour prior to
	with initial and repeat courses of	the start of chemotherapy
capsules	cancer chemotherapy, including,	and beare of enemotionarpy
capsules	but not limited to, highly	
•	emetogenic chemotherapy	
Anzemet®	Prevention of nausea and	Adults: 100 mg orally one
(dolasetron)	vomiting associated with	hour before chemotherapy
	moderately emetogenic cancer	
tablets	chemotherapy, including initial	Pediatrics 2-16 years old: 1.8
	and repeat courses in adults and	mg/kg given within one hour
	children 2 years of age and older	before chemotherapy, up to a
		maximum of 100 mg
Cesamet [®]	Treatment of the nausea and	1 or 2 mg twice daily; initial
		-
(nabilone)	vomiting associated with cancer	dose to be given 1 to 3 hrs
	chemotherapy in patients who	before chemo; may give a
capsules	have failed to respond	dose the night before;
	adequately to conventional	maximum daily dose is 6 mg
	antiemetic treatments	divided in 3 doses
Emend [®] *	Emend capsules	Prevention of Chemotherapy
(aprepitant)	In combination with other	Induced Nausea and
	antiemetic agents, in patients 12	Vomiting (CINV)
capsules, oral suspension	years of age and older for the	Adults and pediatric
	prevention of:	patients 12 years of age
	 Acute and delayed nausea 	and older: 125 mg on
	and vomiting associated with	Day 1 and 80 mg on Days
	initial and repeat courses of	2 and 3
	highly emetogenic	 Oral suspension in
	chemotherapy including	pediatric patients 6
	high-dose cisplatin(HEC)	months to less than 12
	including high-dose cisplatin	years of age or pediatric
	Prevention of postoperative	and adult patients unable
	nausea and vomiting (PONV) in	to swallow capsules
	adults	
	Emend oral suspension	PONV
	 In combination with other 	• Adults: 40 mg capsules
	antiemetic agents, in patients 6	within 3 hours prior to
	months of age and older for the	induction of anesthesia
	prevention of:	
	 Acute and delayed nausea 	
	and vomiting associated with	
	initial and repeat courses of	
	highly emetogenic cancer	
	chemotherapy (HEC)	
	including high-dose cisplatin	
	 Nausea and vomiting 	
	associated with initial and	
	repeat courses of moderately	
	emetogenic cancer	
	chemotherapy (MEC)	
granisetron*	 Prevention of nausea and/or 	2 mg orally once daily or 1
	vomiting associated with initial	mg orally twice daily
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Agent	FDA Indication(s)	Dosing and Administration
tablets Sancuso®	 and repeat courses of emetogenic cancer therapy, including high dose cisplatin Prevention of nausea and/or vomiting associated with radiotherapy Prevention of nausea and 	Apply a single patch a
(granisetron) transdermal patch	vomiting in patients receiving moderately and/or highly emetogenic chemotherapy for up to 5 consecutive days	minimum of 24 hours before chemotherapy. Patch can be worn for up to 7 days and should be removed 24 hours after the end of chemotherapy
Varubi™ (rolapitant) tablets	 Used in combination with other antiemetic agents in adults for the prevention of delayed nausea and vomiting associated with initial and repeat courses of emetogenic cancer chemotherapy, including, but not limited to, highly emetogenic chemotherapy 	180 mg administered approximately 1 to 2 hours prior to the start of chemotherapy
Zofran [®] / Zofran ODT [®] / ondansetron* tablets, orally disintegrating tablets, oral solution	 Prevention of nausea and vomiting associated with highly emetogenic cancer chemotherapy, including cisplatin greater than or equal to 50 mg/m² Prevention of nausea and/or vomiting associated with initial and repeat courses of moderately emetogenic cancer therapy Prevention of nausea and vomiting associated with radiotherapy in patients receiving either total body irradiation, single high-dose fraction to the abdomen Prevention of postoperative nausea and/or vomiting 	Highly emetogenic chemo: 24 mg 30 minutes before chemo Moderately emetogenic chemo: 8 mg twice daily Radiotherapy: 8 mg three times daily Postoperative: 16 mg one hour before anesthesia
Zuplenz [®] (ondansetron) oral soluble film	 Prevention of nausea and vomiting associated with highly emetogenic cancer chemotherapy Prevention of nausea and vomiting associated with initial and repeat courses of moderate emetogenic cancer chemotherapy, including high dose cisplatin Prevention of nausea and vomiting associated with 	 Highly emetogenic chemo: 24 mg 30 minutes before chemo Moderately emetogenic chemo: 8 mg twice daily Radiotherapy: 8 mg three times daily Postoperative: 16 mg one hour before

Agent	FDA Indication(s)	Dosing and Administration
	 radiotherapy in patients receiving total body irradiation, single high-dose fraction to abdomen, or daily fractions to abdomen Prevention of postoperative nausea and/or vomiting 	anesthesia

* generics available

Cesamet capsules are to be used in patients who have failed to respond adequately to conventional antiemetic treatments. This restriction is required because a substantial proportion of any group of patients treated with Cesamet can be expected to experience disturbing psychotomimetic reactions not observed with other antiemetic agents. Because of its potential to alter the mental state, Cesamet is intended for use under circumstances that permit close supervision of the patient by a responsible individual particularly during initial use of Cesamet and during dose adjustments; it is are not intended to be used on an as needed basis or as a first antiemetic product prescribed for a patient.⁶

Cesamet contains nabilone, which is controlled in Schedule II of the Controlled Substances Act. Schedule II substances have a high potential for abuse. Prescriptions for Cesamet should be limited to the amount necessary for a single cycle of chemotherapy (i.e., a few days). As with all controlled drugs, prescribers should monitor patients receiving nabilone for signs of excessive use, abuse and misuse. Patients who may be at increased risk for substance abuse include those with a personal or family history of substance abuse (including drug or alcohol abuse) or mental illness.⁶

CLINICAL RATIONALE

Guidelines

Multiple randomized clinical trials along with current guidelines in antiemesis demonstrate that granisetron (oral and injectable), ondansetron (oral and injectable), and dolasetron (oral) are largely therapeutically equivalent and considered first line treatment for chemotherapy induced nausea and vomiting (CINV), radiation induced nausea and vomiting (RINV) and postoperative nausea and vomiting (PONV) and are associated with relatively few mild adverse events.⁹⁻¹¹

Chemotherapy Induced Nausea and Vomiting (CINV)

Guidelines from the National Comprehensive Cancer Network (NCCN) suggest when a serotonin antagonist is used as part of an antiemetic regimen that does not include an NK-1 antagonist, palonosetron is the preferred serotonin (5-HT3) antagonist. Compared to the other 5-HT3 antagonists (i.e., ondansetron, granisetron, dolasetron), palonosetron has a longer half life, prolonged inhibition of the 5-HT3 receptor, and greater binding affinity for the receptor.¹⁰

	Antiometic Theorem	
Emetic Risk	Antiemetic Therapy	
IV Chemotherapy Acute and Delayed Emesis Prevention		
High Emetic Risk	aprepitant + 5-HT3 + DEX	
	fosaprepitant + 5-HT3 + DEX	
	rolapitant + 5-HT3 + DEX	
	netupitant/palonosetron + DEX	
	olanzapine + palonosetron IV +DEX	
	aprepitant or fosaprepitant IV + 5-HT3 + DEX	
	+ olanzapine	
Moderate Emetic Risk	5-HT3 + DEX	
	aprepitant + 5-HT3 + DEX	
	fosapreitant IV + 5-HT3 + DEX	

The NCCN recommends the following for CINV:¹⁰

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Emetic Risk	Antiemetic Therapy	
	rolapitant + 5-HT3 + DEX	
	netupitant/palonsetron + DEX	
	olanzapine + palonosetron IV +DEX	
	DEX	
Low Emetic Risk	metoclopramide	
LOW EMELIC RISK	prochlorperazine	
	5-HT3	
Minimal Emetic Risk	No routine prophylaxis	
Oral Chemotherapy Acute and Delayed Em	nesis Prevention	
High to Moderate Emetic Risk	5-HT3	
Low to Minimal Emotic Rick	5-HT3	
Low to Minimal Emetic Risk (PRN recommended)	metoclopramide	
	prochlorperazine	
Breakthrough Treatment		
Breakthrough Treatment	5-HT3 (dolasetron, granisetron, ondansetron)	
	Atypical antipsychotics (olanzapine)	
	Benzodiazepeine (lorazepam)	
Add one agent from a different drug class to	Cannabinoid (dronabinol, nabilone)	
the current regimen	Steroid (DEX)	
	Phenothiazine (prochlorperazine,	
	promethazine)	
	Other (haloperidol, metoclopramide,	
	scopolamine patch)	

NK1 = neurokinin 1 antagonist; 5-HT3 = Serotonin 5-HT3 antagonist; DEX = dexamethasone

In a comparative clinical trial, the granisetron transdermal patch was shown to be non-inferior to oral granisetron in the prevention of nausea and vomiting.⁴ The granisetron transdermal patch must be applied 24-48 hours before the start of chemotherapy. Patients often have blood counts tested on the day of chemotherapy and if they do not qualify for chemotherapy that day, the patch may be wasted. The manufacturer of the granisetron patch does provide free replacement patches to patients that waste one.⁴

Postoperative Nausea and Vomiting (PONV)

The Society of Ambulatory Anesthesiology 2014 guideline for the management of PONV states the following: $^{\rm 11}$

Recommended pharmacologic antiemetics for PONV prophylaxis in adults include 5-HT3 receptor antagonists (ondansetron, dolasetron, granisetron, palonosetron), NK-1 receptor antagonists (e.g., aprepitant), corticosteroids (dexamethasone, methylprednisolone), butyrophenones (droperidol, haloperidol), antihistamines (dimenhydrinate, meclizine), and anticholinergics (transdermal scopolamine [TDS]).¹¹

An algorithm on prevention and treatment strategies considers patient preferences, baseline risks, and cost effectiveness, but does not prefer one agent over others in all patients. While PONV prevention is recommended in a subset of patients, current evidence does not support giving prophylactic antiemetics to all patients who undergo surgical procedures. If prophylaxis fails or was not received, use of an antiemetic from a different class than prophylactic drug is recommended. Combination therapy for PONV prophylaxis is preferable to using a single drug alone.¹¹

Although ondansetron has been considered the "gold standard" compared with other antiemetics, it is less effective than aprepitant for reducing emesis and palonosetron for the incidence of PONV. Palonosetron 0.075 mg is more effective than granisetron 1 mg and ondansetron 4 mg in preventing PONV. Ondansetron, dolasetron, granisetron, and tropisetron are most effective in the prophylaxis of PONV when given at the end of surgery, although some data on dolasetron suggest timing may have little effect on efficacy. Palonosetron is typically given at the start of surgery.¹¹

In 2 large RCTs, aprepitant was similar to ondansetron in achieving complete response (no vomiting and no use of rescue antiemetic) for 24 hours after surgery. However, aprepitant was significantly more effective than ondansetron for preventing vomiting at 24 and 48 hours after surgery and in reducing nausea severity in the first 48 hours after surgery. It also has a greater antiemetic effect compared with ondansetron.¹¹

Radiation Induced Nausea and Vomiting (RINV)

The American Society of Clinical Oncology (ASCO) Practice Guidelines for Antiemetics in Oncology recommends that for patients who receive high-risk radiation therapy, patients receive a 5-HT3 antagonist before each radiation fraction and at least 24 hours after completing radiation therapy. Patients should also be given a five-day course of dexamethasone during fractions one to five.⁹

The NCCN recommends starting pretreatment for each day of radiation therapy treatment with either granisetron or ondansetron, with or without dexamethasone.

Nausea and Vomiting of Pregnancy

American College of Obstetricians and Gynecologists (ACOG, 2015) recommends the following for nausea and vomiting during pregnancy:¹³

- Taking prenatal vitamins for 3 months before conception may reduce the incidence and severity of nausea and vomiting of pregnancy.
- Treatment of nausea and vomiting of pregnancy with vitamin B6 or vitamin B6 plus doxylamine is safe and effective and should be considered first-line pharmacotherapy. Medications for which there are some safety data but no conclusive evidence of efficacy include anticholinergics and metoclopramide. Evidence is limited on the safety or efficacy of the 5-HT3 inhibitors (e.g., ondansetron) for nausea and vomiting of pregnancy; however, because of their effectiveness in reducing chemotherapy-induced emesis, their use appears to be increasing.

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