

## 2006 Update of the ASCO Guideline for Antiemetics in Oncology: Recommendation Changes

Previous Recommendation (1999)		Current Recommendation (2006)	
<b>Antiemetic Agents</b>			
<b>Highest Therapeutic Index</b>	Two classes of agents are in this category; serotonin receptor antagonists and corticosteroids.	Three classes of agents are in this category; 5-HT <sub>3</sub> serotonin receptor antagonists, corticosteroids (dexamethasone is recommended), and neurokinin 1 (NK <sub>1</sub> ) receptor antagonists (aprepitant).	
<b>5-HT<sub>3</sub> Serotonin Receptor Antagonists</b>	At equivalent doses, serotonin receptor antagonists have equivalent safety and efficacy and can be used interchangeably based on convenience, availability, and cost.	At equivalent doses for the prevention of acute emesis, 5-HT <sub>3</sub> serotonin receptor antagonists have equivalent safety and efficacy and can be used interchangeably.	
<b>Aprepitant</b>	Not available in 1999.	Only established dose and schedule of aprepitant should be used.	
<b>Lower Therapeutic Index</b>	For chemotherapy with a high risk of emesis, selective serotonin antagonists (with dexrazoxane) are recommended.	For persons receiving chemotherapy of high emetic risk, there is no group of patients for whom agents of lower therapeutic index are appropriate first-choice antiemetics. These agents should be reserved for patients intolerant of or refractory to 5-HT <sub>3</sub> serotonin receptor antagonists, NK <sub>1</sub> receptor antagonists, and dexamethasone.	
<b>Adjunctive Drugs</b>	Benzodiazepines and antihistamines are useful adjuncts to antiemetic drugs, but are not recommended as single agents.	Lorazepam and diphenhydramine are useful adjuncts to antiemetic drugs, but are not recommended as single agents.	
<b>Antiemetics Combinations</b>	It is recommended that serotonin antagonists be given with corticosteroids.	<p>It is recommended that 5-HT<sub>3</sub> serotonin receptor antagonists be given with dexamethasone and aprepitant in patients receiving chemotherapy of high emetic risk and in patients receiving an anthracycline in combination with cyclophosphamide.</p> <p>A 5-HT<sub>3</sub> serotonin receptor antagonist combined with dexamethasone should be used in patients receiving agents of moderate emetic risk other than an anthracycline in combination with cyclophosphamide.</p>	
<b>Chemotherapy-Induced Emesis</b>			
<b>High Emetic Risk (&gt;90%)</b>	<p>The combination of a 5-HT<sub>3</sub> antagonist plus a corticosteroid is recommended before chemotherapy (Cisplatin). Use of a combination of a 5-HT<sub>3</sub> antagonist plus a corticosteroid before chemotherapy is recommended. (Non-Cisplatin)</p> <p>In all patients receiving cisplatin, a corticosteroid plus metoclopramide or a 5-HT<sub>3</sub> antagonist is recommended for the prevention of delayed emesis. (Cisplatin)</p> <p>A prophylactic corticosteroid as a single agent, a prophylactic corticosteroid plus metoclopramide, and a prophylactic corticosteroid plus a 5-HT<sub>3</sub> antagonist are regimens suggested for the prevention of delayed emesis. (Non-Cisplatin)</p>	<p>The 3-drug combination of a 5-HT<sub>3</sub> serotonin receptor antagonist, dexamethasone, and aprepitant is recommended before chemotherapy of high emetic risk.</p> <p>In all patients receiving cisplatin and all other agents of high emetic risk, the 2-drug combination of dexamethasone and aprepitant is recommended for the prevention of delayed emesis.</p> <p>The Update Committee no longer recommends the combination of a 5-HT<sub>3</sub> serotonin receptor antagonist and dexamethasone for the prevention of delayed emesis following chemotherapeutic agents of high emetic risk. <i>(Includes agents from High: cisplatin and High: noncisplatin Emetic-Risk Categories in 1999 Guideline)</i></p>	

Previous Recommendation (1999)		Current Recommendation (2006)
<b>Moderate Emetic Risk (30%-90%)</b>	A corticosteroid is suggested for patients treated with agents of intermediate emetic risk. ( <i>Categorized as either Intermediate or Low risk in 1999</i> )	The 3-drug combination of a 5-HT <sub>3</sub> receptor serotonin antagonist, dexamethasone, and aprepitant is recommended for patients receiving an anthracycline and cyclophosphamide (“AC”). For patients receiving chemotherapy of moderate emetic risk other than “AC,” we continue to recommend the 2-drug combination of a 5-HT <sub>3</sub> receptor serotonin antagonist and dexamethasone.  In patients receiving an anthracycline in combination with cyclophosphamide, aprepitant as a single agent is recommended for the prevention of delayed emesis. For all other chemotherapies of moderate emetic risk, single agent dexamethasone or a 5-HT <sub>3</sub> serotonin receptor antagonist is suggested. ( <i>Includes agents from High: noncisplatin Emetic Risk category in 1999 Guideline</i> )
<b>Low Emetic Risk (10%-30%)</b>	It is suggested that for patients treated with agents of low emetic risk, no antiemetic be routinely administered before chemotherapy.	Dexamethasone 8 mg is suggested for patients treated with agents of low emetic risk. ( <i>Includes agents from Intermediate Emetic Risk category in 1999 Guideline</i> )  No regular preventive use of antiemetics for delayed emesis is suggested for patients receiving chemotherapeutic agents of low or minimal emetic risk. ( <i>Includes agents from Intermediate and Low Emetic Risk groups in the 1999 Guideline</i> )
<b>Minimal (&lt;10%) Emetic Risk</b>	This category did not exist in the 1999 guideline. Some anti-neoplastic agents within this risk category were considered “low risk” in 1999.	These anti-neoplastic agents, originally considered “low risk” in 1999, are categorized as “minimal risk” in the 2006 Update: bleomycin, 2-chlorodeoxyadenosine, fludarabine, vinblastine and vincristine.
<b>Special Emetic Problems</b>		
<b>Pediatric Oncology Patients</b>	The combination of a 5-HT <sub>3</sub> antagonist plus a corticosteroid is suggested before chemotherapy in children receiving chemotherapy of high emetic risk.	The combination of a 5-HT <sub>3</sub> antagonist plus a corticosteroid is suggested before chemotherapy in children receiving chemotherapy of high or moderate emetic risk. Due to variation of pharmacokinetic parameters in children, higher weight-based doses of 5-HT <sub>3</sub> antagonists than those used in adults may be required for antiemetic protection.
<b>High-Dose Chemotherapy</b>	A 5-HT <sub>3</sub> antagonist combined with a corticosteroid is suggested.	A 5-HT <sub>3</sub> serotonin receptor antagonist antiemetic combined with a corticosteroid is suggested. Aprepitant should be considered although evidence to support its use specifically in these patients is lacking.
<b>Radiation-Induced Emesis</b>		
<b>Moderate (60%-90%) Emetic Risk</b>	The Panel suggested giving a serotonin receptor antagonist or a dopamine receptor antagonist before each fraction	The Update Committee recommends a 5-HT <sub>3</sub> serotonin receptor antagonist before each fraction.

This table is derived from recommendations in the 2006 Update of the ASCO Guideline for Antiemetics in Oncology. This table is a practice tool based on ASCO® practice guidelines and is not intended to substitute for the independent professional judgment of the treating physician. Practice guidelines do not account for individual variation among patients. This tool does not purport to suggest any particular course of medical treatment. Use of the practice guidelines and this table are voluntary. The practice guidelines and additional information are available at <http://www.asco.org/guidelines/antiemetics>. Copyright © 2006 by the American Society of Clinical Oncology. All rights reserved.