Antiemetics: American Society of Clinical Oncology Focused Guideline Update
Introduction

• The goal of this update is to provide oncologists, other health care practitioners, patients, and caregivers with recommendations regarding the use of netupitant and palonosetron (NEPA).
• The first American Society of Clinical Oncology (ASCO) guideline for the use of antiemetics was published in 1999, with updates in 2006 and 2011.
• Pending a full update of the 2011 guideline, this update provides expedited guidance regarding a new agent to prevent chemotherapy-induced nausea and vomiting.
• Recommendations regarding other agents will be addressed in a subsequent, comprehensive guideline update.
ASCO Guideline Development Methodology

The ASCO Clinical Practice Guidelines Committee guideline process includes:

- a systematic literature review by ASCO guidelines staff
- an expert panel provides critical review and evidence interpretation to inform guideline recommendations
- final guideline approval by ASCO CPGC

The full ASCO Guideline methodology supplement can be found at:

www.asco.org/guidelines/antiemetics
Guideline Update Question

Should NEPA be incorporated into existing recommendations for the prevention of chemotherapy-induced nausea and vomiting?
Target Audience

- Medical Oncologists
- Radiation Oncologists
- Oncology Nurses
- Patients
- Caregivers
Summary of Guideline Recommendations

What is the optimal treatment to prevent nausea and vomiting from highly emetogenic chemotherapy agents?

2015 Update Question: Should NEPA be incorporated into existing recommendations?

• All patients who receive highly emetogenic chemotherapy regimens (including anthracycline-cyclophosphamide) should be offered a three-drug combination of an NK₁ receptor antagonist, a 5-HT₃ receptor antagonist, and dexamethasone. The oral combination of netupitant and palonosetron (NEPA) plus dexamethasone is an additional treatment option in this setting.
Summary of Guideline Recommendations*

What is the optimal treatment to prevent nausea and vomiting from moderately emetogenic antineoplastic agents?
• The preferred 5-HT$_3$ receptor antagonist antagonist for patients who receive moderately emetogenic chemotherapy regimens is palonosetron; antiemetic treatment includes that agent combined with a corticosteroid.

What is the optimal treatment to prevent nausea and vomiting from low emetogenic antineoplastic agents?
• A single 8-mg dose of dexamethasone before chemotherapy is suggested.

*2011 recommendations are pending a full update to the guideline.
Summary of Guideline Recommendations*

What is the optimal treatment to prevent nausea and vomiting from minimally emetogenic antineoplastic agents?
• No antiemetic should be administered routinely before or after chemotherapy.

What is the optimal treatment to prevent nausea and vomiting from combination chemotherapy?
• Patients should be administered antimetics appropriate for the component chemotherapeutic (antineoplastic) agent of greatest emetic risk.

*2011 recommendations are pending a full update to the guideline.
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What is the role of adjunctive drugs for nausea and vomiting induced by cancer treatments?
• Lorazepam and diphenhydramine are useful adjuncts to antiemetic drugs but are not recommended as single-agent antiemetics.

What is the optimal treatment to prevent nausea and vomiting associated with cancer therapy for pediatric patients?
• The combination of a 5-HT$_3$ receptor 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$_3$ receptor antagonists than those used in adults may be required for antiemetic protection.

*2011 recommendations are pending a full update to the guideline.

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Summary of Guideline Recommendations*

What is the optimal treatment to prevent nausea and vomiting in patients who are undergoing high-dose chemotherapy with stem cell or bone marrow transplant?
• A 5-HT$_3$ receptor antagonist combined with dexamethasone is recommended.

What is the optimal treatment to prevent nausea and vomiting for patients receiving multi-day chemotherapy?
• It is suggested that antiemetics appropriate for the emetogenic risk class of the chemotherapy be administered for each day of the chemotherapy and for two days after, if appropriate.
• The Update Committee suggests, based on limited data, that patients receiving five-day cisplatin regimens be treated with a 5-HT$_3$ receptor antagonist in combination with dexamethasone and aprepitant.

*2011 recommendations are pending a full update to the guideline.

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Summary of Guideline Recommendations*

What is the optimal antiemetic regimen for patients who experience nausea and vomiting secondary to cancer therapy despite optimal prophylaxis?

• Language from the 2006 guideline was re-formatted for clarity. Clinicians should:
  1. Re-evaluate emetic risk, disease status, concurrent illnesses, and medications;
  2. Ascertain that the best regimen is being administered for the emetic risk;
  3. Consider adding lorazepam or alprazolam to the regimen; and
  4. Consider adding olanzapine to the regimen or substituting high-dose intravenous metoclopramide for the 5-HT$_3$ receptor antagonist or adding a dopamine antagonist to the regimen.

*2011 recommendations are pending a full update to the guideline.

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What treatment options are available for patients who experience anticipatory nausea and vomiting?

- Use of the most active antiemetic regimens appropriate for the chemotherapy being administered to prevent acute or delayed emesis is suggested. Such regimens should be used with initial chemotherapy, rather than assessing the patient’s emetic response with less effective treatment. If anticipatory emesis occurs, behavioral therapy with systematic desensitization is effective and suggested.

*2011 recommendations are pending a full update to the guideline.

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What is the optimal prophylaxis for nausea and vomiting caused by high emetic risk radiation therapy?

- For those treated with highly emetogenic radiation therapy, a 5-HT$_3$ receptor antagonist before each fraction and a 5-day course of dexamethasone are recommended.

What is the optimal prophylaxis for nausea and vomiting caused by moderate emetic risk radiation therapy?

- A 5-HT3 receptor antagonist before each fraction is also recommended before moderately emetogenic radiation; a 5-day course of dexamethasone is optional.

*2011 recommendations are pending a full update to the guideline.
Summary of Guideline Recommendations*

What is the optimal treatment to manage nausea and vomiting associated with low emetic risk radiation therapy?

- The Update Committee recommends a 5-HT₃ receptor antagonist alone as either prophylaxis or rescue. For patients who experience RINV while receiving rescue therapy only, prophylactic treatment should continue until radiotherapy is complete.

What is the optimal treatment to manage nausea and vomiting associated with minimal emetic risk radiation therapy?

- Patients should receive rescue therapy with either a dopamine receptor antagonist or a 5-HT₃ receptor antagonist. Prophylactic antiemetics should continue throughout radiation treatment if a patient experiences RINV while receiving rescue therapy.

*2011 recommendations are pending a full update to the guideline.

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Summary of Guideline Recommendations*

What is the optimal treatment to manage nausea and vomiting during concurrent radiation and chemotherapy?

- Patients should receive antiemetic prophylaxis according to the emetogenicity of chemotherapy, unless the emetic risk with the planned radiotherapy is higher.

*2011 recommendations are pending a full update to the guideline.

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Cost Considerations

• Formal cost-effectiveness analyses of NEPA are not yet available.
• Because NEPA is an all-oral regimen, it will require patients to both fill and pay for a prescription.
• The out-of-pocket costs will vary by insurance plan, and this point should be discussed with patients.
• The value of NEPA will be influenced by the cost and effectiveness of other antiemetic options, and these will be explored more fully in the planned, comprehensive update of the ASCO antiemetic guideline.
Additional Resources

More information, including a Methodology Supplement, slide sets, and clinical tools and resources, is available at

www.asco.org/antiemetics

Patient information is available at www.cancer.net
# ASCO Guideline Panel Members

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