

Drug, Dose & Schedule Recommendations for Antiemetic Regimens

Emetic
Risk

High

◆ Chemotherapy-Induced

Carmustine, Cisplatin, Cyclophosphamide ≥ 1500 mg/m², Dacarbazine, Dactinomycin, Mechlorethamine, Streptozotocin

Day 1

5-HT₃ Serotonin Receptor Antagonist

Dolasetron (Oral: 100 mg) (IV: 100 mg or 1.8 mg/kg)

Granisetron (Oral: 2 mg) (IV: 1 mg or 0.01 mg/kg)

Ondansetron (Oral: 24 mg) (IV: 8 mg or 0.15 mg/kg)

Palonosetron (IV: 0.25 mg)

Tropisetron (Oral or IV: 5 mg)

Dexamethasone (12 mg)

Aprepitant (125 mg)

Day 2

Dexamethasone (8 mg)

Aprepitant (80 mg)

Day 3

Dexamethasone (8 mg)

Aprepitant (80 mg)

Day 4

Dexamethasone (8 mg)

◆ Radiation-Induced (Total Body)

Prophylaxis with a 5-HT₃ serotonin receptor antagonist \pm dexamethasone before each fraction and for at least 24 hours after.

Moderate

◆ Chemotherapy-Induced

Carboplatin, Cyclophosphamide < 1500 mg/m², Cytarabine > 1 gm/m², Daunorubicin, Doxorubicin, Epirubicin, Idarubicin, Ifosfamide, Irinotecan, Oxaliplatin

Day 1

5-HT₃ Serotonin Receptor Antagonist

Dolasetron (Oral: 100 mg) (IV: 100 mg or 1.8 mg/kg)

Granisetron (Oral: 2 mg) (IV: 1 mg or 0.01 mg/kg)

Ondansetron (Oral: 16 mg [8 mg twice daily]) (IV: 8 mg or 0.15 mg/kg)

Palonosetron (IV: 0.25 mg)

Tropisetron (Oral or IV: 5 mg)

Dexamethasone (8 mg)

Day 2

5-HT₃ Serotonin Receptor Antagonist

OR

Dexamethasone (8 mg)

Day 3

5-HT₃ Serotonin Receptor Antagonist

OR

Dexamethasone (8 mg)

◆ Anthracycline + Cyclophosphamide

Day 1

5-HT₃ Serotonin Receptor Antagonist (Doses listed above)

Dexamethasone (12 mg)

Aprepitant (125 mg)

Day 2

Aprepitant (80 mg)

When Aprepitant not given -

Dexamethasone (8 mg)

Day 3

Aprepitant (80 mg)

When Aprepitant not given -

Dexamethasone (8 mg)

◆ Radiation-Induced (Upper Abdomen)

Prophylaxis with 5-HT₃ serotonin receptor antagonist before each fraction.

Low

◆ Chemotherapy-Induced

5-Fluorouracil, Bortezomib, Cetuximab, Cytarabine ≤ 1000 mg/m², Docetaxel, Etoposide, Gemcitabine, Methotrexate, Mitomycin, Mitoxantrone, Paclitaxel, Pemetrexed, Topotecan, Trastuzumab

Day 1

Dexamethasone (8 mg)

◆ Radiation-Induced (Lower Thorax and Pelvis, Cranium (radiosurgery) and Craniospinal)

Prophylaxis or rescue with 5-HT₃ serotonin receptor antagonist before each fraction.

Minimal

◆ Chemotherapy-Induced

2-Chlorodeoxyadenosine, Bevacizumab, Bleomycin, Busulfan, Fludarabine, Rituximab, Vinblastine, Vincristine, Vinorelbine

As Needed

Prescribe a single dose of dexamethasone 8 mg. Prescribing oral metoclopramide, or a phenothiazine is common.

◆ Radiation-Induced (Head and Neck, Extremities, Cranium, Breast)

Rescue with dopamine receptor antagonist or 5-HT₃ serotonin receptor antagonist (as needed); continue prophylactically for each remaining radiation treatment day.

Combination Chemotherapy	The Update Committee suggests that, when combination chemotherapy is given, the patient should be given antiemetics appropriate for the chemotherapeutic agent of greatest emetic risk.
Multiple Consecutive Days of Chemotherapy	It is suggested that antiemetics appropriate for the risk class of the chemotherapy, as outlined above, be administered for each day of the chemotherapy and afterward for agents with emetic potential for multiple days, i.e., cisplatin.
Anticipatory Emesis	Anticipatory or conditioned emesis occurs in patients who have had poor control of vomiting with prior chemotherapy. A history of motion sickness predisposes patients to this condition. The best way to prevent anticipatory emesis is to use the most effective antiemetic regimen appropriate for the chemotherapy at all times. The optimal antiemetic regimen should be used with the initial chemotherapy rather than after assessing the patient's emetic response with less effective treatment. If anticipatory emesis occurs, behavioral therapy with systematic desensitization is effective and is suggested. Because of their amnestic and antianxiety effects, alprazolam and lorazepam have been used to treat and prevent anticipatory symptoms.
Emesis in Pediatric Oncology Patients	The combination of a 5-HT ₃ 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 antagonists than those used in adults may be required for antiemetic protection. Dopamine antagonists, especially when given over several consecutive days, cause a high incidence of dystonic reactions and are not a good choice for general multiple-day use in the pediatric patients.
High-Dose Chemotherapy	A 5-HT ₃ serotonin receptor antagonist antiemetic combined with a corticosteroid is suggested. Aprepitant should be considered although evidence is lacking to support its use specifically in these patients.
Vomiting and Nausea Despite Recommended Prophylaxis	The Update Committee suggests that clinicians: (1) Conduct a careful evaluation of emetic risk, chemotherapy, disease status, concurrent illness, and medications; (2) Ascertain that the best regimen is being given for the emetic risk; (3) Consider adding lorazepam or alprazolam to the regimen; and, (4) Consider substituting high-dose intravenous metoclopramide for the 5-HT ₃ antagonist or adding a dopamine antagonist to the regimen.

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.