



The 5-HT3 antagonists are a class of drugs often recommended as first-choice options for preventing nausea and vomiting in people undergoing cancer treatments. Both problems are common side effects of chemotherapy and radiation. If not controlled, they can lead to other problems, such as dehydration and weight loss, and even interfere with cancer treatments.

To help you and your doctor choose which 5-HT3 antagonist may be best for you, Consumer Reports has evaluated the drugs in this category based on their effectiveness, safety, and price. This 2-page brief is a summary of a 19-page report you can access on the Internet at ConsumerReportsHealth.org/BestBuyDrugs. You can also learn about other drugs we've analyzed on this free Web site.

DO YOU NEED A 5-HT3 ANTAGONIST?

Not all chemotherapy or radiation regimens require treatment with an anti-nausea/vomiting medication, also called antiemetics. Many chemotherapy drugs pose only a low or minimal risk of nausea and vomiting. Your doctor may prescribe an antiemetic drug only if you receive chemotherapy drugs with a moderate to high risk of those side effects (see the list in the full report). The risk of those side effects with radiation treatments depends on the dose of radiation and the area of the body that's undergoing treatment.

You may also want to talk with your doctor about nondrug treatments—such as hypnosis, biofeedback, guided imagery, electroacupuncture, and other techniques—that may help control your nausea and vomiting. Modifying your diet may also help—avoiding foods that are unappealing (which can change daily when you're undergoing cancer treatments); eating and drinking bland items that are easy on your stomach, such as ginger ale, toast, and crackers; and eating small meals throughout the day.

Our Recommendations

The drugs in the 5-HT3 antagonist class that are available in pill form are roughly equivalent in effectiveness and safety, so choosing one may come down to price. Taking the evidence for effectiveness, safety, cost, and other factors into account, we have chosen the following as *Consumer Reports Best Buy Drugs* if you need medication to control nausea and vomiting due to chemotherapy or radiation treatments:

- Generic ondansetron tablet
- Generic ondansetron dissolvable tablet

Ondansetron, either as a tablet or a dissolvable tablet, has been proven to significantly reduce severe nausea and vomiting associated with radiation treatments or chemotherapy drugs with a moderate or high risk for causing those side effects. It is available as an inexpensive generic tablet that is just as effective and safe as more expensive brand-name medicines.

Choosing generic ondansetron tablets could save you \$100 or more per chemotherapy course compared with the most expensive brand-name 5-HT3 antagonists. The dissolvable tablet is an option for those who have trouble swallowing pills. It is slightly less expensive than the generic tablets, so this option could save you even more money.

Most people will experience at least one side effect from this class of drugs. The most common include constipation, dizziness, fatigue, headache, muscle cramps, nervousness, and sleepiness.



The information in this brief was released in November 2009.

General Effectiveness of 5-HT3 Antagonist Drugs

| Generic Name | Brand Name | Percentage of patients who had complete prevention of 'acute' vomiting, within 24 hours following chemotherapy with a moderate risk of nausea or vomiting ¹ |
|--|------------|--|
| Dolasetron tablet | Anzemet | 60% to 76% |
| Granisetron tablet | Kytril | 60% to 84% |
| Granisetron patch | Sancuso | 60% |
| Ondansetron tablet | Zofran | 52% to 72% |
| Ondansetron orally disintegrating tablet | Zofran ODT | 72% |

1. These figures come from different studies, so the differences should not be taken to mean that one drug is superior to another. When the available evidence is considered all together, the drugs appear to be about equal in terms of effectiveness and safety.

5-HT3 Antagonist Drugs — Cost Comparison

| Generic Name and Dose ¹ | Brand Name | Number of doses per course of chemotherapy | Average cost per course of chemotherapy ² | Average cost per 5 consecutive courses of chemotherapy ² |
|--|------------|--|--|---|
| Dolasetron 100 mg tablet | Anzemet | One | \$106 | \$530 |
| Granisetron 1 mg tablet | Generic | Two | \$136 | \$680 |
| Granisetron 1 mg tablet | Kytril | Two | \$178 | \$890 |
| Granisetron 3.1 mg patch | Sancuso | One | \$484 | \$484 |
|  Ondansetron 8 mg tablet | Generic | Two – Three | \$57 - \$85 | \$285 - \$425 |
| Ondansetron 8 mg tablet | Zofran | Two – Three | \$121 - \$181 | \$605 - \$905 |
|  Ondansetron 8 mg orally disintegrating tablet | Generic | Two – Three | \$50 - \$76 | \$250 - \$380 |
| Ondansetron 8 mg orally disintegrating tablet | Zofran ODT | Two – Three | \$111 - \$166 | \$555 - \$830 |

1. As typically prescribed. The dose ranges are derived from the drugs' labeling.

2. Prices reflect nationwide retail average for July 2009, rounded to the nearest dollar. Information derived by *Consumer Reports Best Buy Drugs* from data provided by Wolters Kluwer Health, Pharmaceutical Audit Suite®. Wolters Kluwer Health is not involved in our analysis or recommendations.

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Our independent evaluations are based on scientific reviews conducted by the Oregon Health and Science University-based Drug Effectiveness Review Project. Grants from the Engelberg Foundation and the National Library of Medicine help fund *Consumer Reports Best Buy Drugs*. These materials were made possible by a grant from the state Attorney General Consumer and Prescriber Education Grant Program, which is funded by the multi-state settlement of consumer fraud claims regarding the marketing of the prescription drug Neurontin (gabapentin).

People Who May Have Higher Risk of Nausea and Vomiting

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| Women |
| Those under the age of 50 |
| Women who had morning sickness during pregnancy |
| Previous history of nausea and vomiting due to chemotherapy |
| People with a history of motion sickness |
| People with anxiety |
| Those who drink little or no alcohol |

Side Effects of 5-HT3 Antagonists

| | |
|--------------|-----------------------------------|
| Constipation | Increased liver enzymes (AST/ALT) |
| Diarrhea | Muscle cramps |
| Dizziness | Nervousness |
| Fatigue | Sleepiness |
| Headache | |

Source: American Cancer Society