

Zofran

What is it for?

Zofran is an antiemetic that can be used to treat nausea and vomiting following highly or moderately emetogenic cancer chemotherapy, repeat courses of emetogenic cancer chemotherapy, radiotherapy, and post operative nausea and vomiting.

What is the mechanism of action?

Zofran blocks serotonin receptors centrally in the brain and peripherally at the vagal nerve terminals in the intestine to block serotonin release in the small intestine and block signals to the central nervous system. By doing so Zofran blocks the signals in the body that trigger nausea and vomiting.

What is an expected response?

An expected response to Zofran is that the patient will feel relief from the nausea they are experiencing. By relieving nausea, the patient will be more likely to consume and retain vital nutrients.

What assessment data do you need to review? What are some red flags/relevant data?

Before administering Zofran, it is important to discuss whether a patient has any known allergies or if they might be pregnant. No studies have been conducted with Zofran to confirm whether it is safe for fetuses and Zofran should only be given to a pregnant woman if it has been confirmed that the benefit to the mother will outweigh the risk to the fetus. Zofran can also mask the signs of progressive adynamic ileus along with gastric distention and the patient should be monitored for signs of this (gas, abdominal pain, belching), as well as signs of a hypersensitivity reaction (anaphylaxis, bronchospasm). Zofran should not be taken along with tramadol as it can interfere with the pain control it provides.

What route is this medication given?

Zofran can be administered orally (disintegrating tablets, oral solution, or oral soluble film), through I.V. infusion, I.V. injection, or I.M. injection.

- Highly emetogenic cancer treatments are treated with orally administered disintegrating films/tablets, oral solutions, or with I.V. infusions.
- Moderately emetogenic cancer treatments are treated with orally administered disintegrating films/tablets or oral solutions.
- Repeat courses of emetogenic therapy are treated with I.V. infusion.
- Radiotherapy is treated with orally administered disintegrating films/tablets or oral solutions.
- Postoperative nausea and vomiting are treated with orally administered disintegrating tablets/films, oral solutions, I.V injection, or I.M. injection.

What is a safe dose for this medication?

The following dose is a safe dose for an adult preparing to undergo a session of highly emetogenic cancer chemotherapy.

Orally administered disintegrating tablets and films: 24mg should be given 30 minutes before the chemotherapy session begins. Films and tablets are given as three 8mg doses, with each tablet or film being allowed to disintegrate completely before the next is given.

I.V. infusion: Three 0.15-mg/kg doses. The first 0.15-mg/kg dose should be given 30 minutes prior to the chemotherapy session, the second 0.15-mg/kg dose should be given 4 hours after the first dose, and the third 0.15-mg/kg dose should be given 8 hours after the first dose. The maximum dose allowed is 16mg per dose.

What are the generic/brand names for this medication?

The generic name for Zofran is ondansetron hydrochloride, but ondansetron is also sold as Zofran ODT or Zuplenz.

What is the pharmacologic and therapeutic class for this medication?

Pharmacologic class: Selective serotonin (5-HT₃) receptor antagonist

Therapeutic class: antiemetic

What are some common side effects of the medication?

- Headaches

- Fatigue
- Light headedness
- Constipation
- Diarrhea
- Anxiety
- Fever
- Hypotension
- Arrhythmias
- Chest pain
- Blurred vision
- Transient blindness
- Stridor
- Dry mouth
- Flushing
- Rash
- Muscle spasm

Jones & Bartlett Learning. (2024). *2024 Nurse's Drug Handbook*. (pp. 1020-1023).