Ondansetron: Drug information

Contributor Disclosures
(For additional information see "Ondansetron: Patient drug information" and see "Ondansetron: Pediatric drug information")

For abbreviations, symbols, and age group definitions used in Lexicomp (show table)

Brand Names: US

Zofran; Zuplenz [DSC]

Brand Names: Canada

ACCEL-Ondansetron; APO-Ondansetron; ATHENA-Ondansetron ODT; AURO-Ondansetron; Auro-Ondansetron ODT; CCP-Ondansetron [DSC]; JAMP Ondansetron; JAMP-Ondansetron; Mar-Ondansetron; MAR-Ondansetron ODT; MINT-Ondansetron; MINT-Ondansetron ODT; MYLAN-Ondansetron; NAT-Ondansetron; Ondansetron ODT; Ondissolve ODF; PMS-Ondansetron; PMS-Ondansetron ODT; SANDOZ Ondansetron; TEVA Ondansetron; Zofran ODT; Zofran [DSC]

Pharmacologic Category

Antiemetic; Selective 5-HT_3 Receptor Antagonist

Dosing: Adult

Note: Zuplenz has been discontinued in the United States for >1 year. Single IV doses >16 mg are no longer recommended due to the potential for QT prolongation (Ref). Avoid use in patients with congenital long-QT syndrome.

Collapse All

Carcinoid syndrome-associated diarrhea, severe, refractory

Carcinoid syndrome- associated diarrhea, severe, refractory (alternative agent) (off-label use): Based on limited data (case reports):

Oral: 8 mg 3 times daily (Ref) **or** 8 mg twice daily for 3 days, followed by a maintenance dose of 4 to 8 mg/day for 4 to 12 weeks (Ref).

IV: 4 to 8 mg every 8 hours (Ref).

Chemotherapy-induced nausea and vomiting, prevention

Chemotherapy-induced nausea and vomiting, prevention:

Single-day IV chemotherapy regimens:

Highly emetogenic chemotherapy (>90% risk of emesis [eg, cisplatin, breast cancer regimens that include an anthracycline combined with cyclophosphamide]):

Day of chemotherapy: Administer prior to chemotherapy **and** in combination with a neurokinin 1 (NK_1) receptor antagonist, dexamethasone, and olanzapine (Ref).

IV: 8 mg or 0.15 mg/kg as a single dose (Ref). Maximum: 16 mg/dose (Ref).

Oral:

Tablet formulations and oral solution: 8 mg twice daily for 2 doses with the first dose administered prior to chemotherapy administration (Ref) **or** 24 mg as a single dose (Ref).

Oral soluble film: 24 mg (three 8 mg doses given together) as a single dose (Ref).

Post-chemotherapy days: 5-HT_3 receptor antagonist use is **not** necessary (other components of the antiemetic regimen are administered) (Ref).

Moderately emetogenic chemotherapy (30% to 90% risk of emesis): Carboplatin-based regimens:

Day of chemotherapy: Administer prior to chemotherapy **and** in combination with an NK_1 receptor antagonist and dexamethasone (Ref).

IV: 8 mg or 0.15 mg/kg as a single dose (Ref). Maximum: 16 mg/dose (Ref).

Oral: 8 mg twice daily for 2 doses with the first dose administered prior to chemotherapy administration (Ref).

Post-chemotherapy days: 5-HT_3 receptor antagonist use is not necessary (other components of the antiemetic regimen may be administered) (Ref).

Moderately emetogenic chemotherapy (30% to 90% risk of emesis): Non-carboplatin-based regimens (alternative agent):

Note: ASCO guidelines and MASCC/ESMO guidelines do not state a preference for which 5-HT3 receptor antagonist should be used in this setting; however, palonosetron may be preferred (Ref).

Day of chemotherapy: Administer prior to chemotherapy **and** in combination with dexamethasone (Ref).

IV: 8 mg or 0.15 mg/kg as a single dose (Ref). Maximum: 16 mg/dose (Ref).

Oral: 8 mg twice daily for 2 doses with the first dose administered prior to chemotherapy administration (Ref).

Post-chemotherapy days: 5-HT_3 receptor antagonist use is **not** necessary (other components of the antiemetic regimen may be administered) (Ref);

however, if a first-generation 5-HT_3 receptor antagonist (eg, ondansetron, granisetron) was used on day 1 of chemotherapy rather than palonosetron, the first-generation 5-HT_3 receptor antagonist may be continued for post-chemotherapy emetic prophylaxis on days 2 and 3 (Ref).

Low emetogenic risk (10% to 30% risk of emesis):

Note: Single-agent ondansetron is an option for prophylaxis (Ref).

Day of chemotherapy:

IV: 8 mg as a single dose prior to chemotherapy (Ref).

Oral (off-label): 8 mg as a single dose prior to chemotherapy (Ref).

Post-chemotherapy days: Prophylaxis is not necessary on subsequent days (Ref).

Minimal emetogenic risk (<10% risk of emesis): Routine antiemetic prophylaxis is not generally necessary (Ref).

High-dose chemotherapy with stem or bone marrow transplant:

Day of chemotherapy: Administer prior to chemotherapy **and** in combination with a neurokinin 1 (NK_1) receptor antagonist, dexamethasone, with or without olanzapine (Ref).

IV: 8 mg or 0.15 mg/kg as a single dose (Ref). Maximum: 16 mg/dose (Ref).

Oral: 24 mg as a single dose (Ref).

Oral chemotherapy agents:

High/moderate emetogenic risk oral agent (≥30% risk of emesis): Oral: 8 to 16 mg/day administered before chemotherapy and continued daily (Ref).

Low/minimal emetogenic risk oral agent (<30% risk of emesis): Oral: 8 to 16 mg/day on an as-needed basis only (Ref).

Gastroparesis, symptomatic treatment of nausea and vomiting

Gastroparesis, symptomatic treatment of nausea and vomiting (alternative agent) (off-label use):

Note: For patients with persistent symptoms refractory to prokinetic therapy. No data available; recommendations for use and dose are based on expert opinion.

Oral: 4 to 8 mg 3 times daily (Ref).

Nausea and/or vomiting, acute, severe

Nausea and/or vomiting, acute, severe (off-label use):

Note: Use has primarily been evaluated in patients with undifferentiated nausea/vomiting presenting to the emergency department; however, may also use

for nausea/vomiting due to viral gastroenteritis, acute mountain sickness, cyclical vomiting syndrome, palliative care, and a variety of other medical conditions associated with severe, self-limiting acute nausea/vomiting (Ref).

Oral, IV, IM: 4 to 8 mg as a single dose (Ref); may repeat 4 to 8 mg every 4 to 8 hours as needed (Ref). **Note:** For parenteral therapy, IV administration is preferred over IM when possible (Ref).

Nausea and vomiting, pregnancy associated, severe or refractory

Nausea and vomiting, pregnancy associated, severe or refractory (off-label use):

Note: May be considered for adjunctive treatment of nausea and vomiting when symptoms persist following initial pharmacologic therapy (Ref).

Patients without hypovolemia:Oral, IV (bolus): 4 mg every 8 hours, as needed, added to current treatment regimen (Ref). If necessary, some experts increase to a maximum of 8 mg/dose (Ref).

Patients with hypovolemia:

Note: For patients with persistent symptoms despite intravenous fluid replacement:

IV: 8 mg administered over 15 minutes every 12 hours, added to current treatment regimen (Ref). Some experts use 4 to 8 mg administered as an IV bolus every 8 hours until stabilization (Ref).

Postoperative nausea and vomiting, prevention

Postoperative nausea and vomiting, prevention:

Moderate- to high-risk patients:

Note: In patients at moderate risk, may combine ondansetron with other prophylactic interventions (eg, another antiemetic agent from a different pharmacologic class, modification of anesthetic technique, acupuncture); in patients at high risk, combine 3 or more interventions (Ref).

Usual dose: IV: 4 mg as a single dose at the end of surgery (Ref).

Alternative strategy: Oral (oral disintegrating tablet or oral soluble film): 8 mg as a single dose given 30 to 60 minutes prior to surgery (Ref).

Low-risk patients:Although prophylaxis is not always indicated in low-risk patients, consensus guidelines acknowledge that some experts may administer an antiemetic in these patients; however, clinicians are also advised that this strategy comes with the potentially unnecessary risk of rare adverse effects (Ref). If ondansetron is given, the dosing is the same as for moderate- to high-risk patients.

Post-discharge management in high-risk patients: Limited data available; dosage regimen studied in a single clinical trial:

Oral (oral disintegrating tablet or oral soluble film): 8 mg to be taken on discharge and in the morning of postoperative days 1 and 2 (Ref).

Postoperative nausea and vomiting, treatment or rescue therapy

Postoperative nausea and vomiting, treatment or rescue therapy (off-label use):

Note: Rescue therapy should always include an antiemetic from a different class than the one used for prophylaxis, unless a potentially inadequate dose was initially administered or the effect of the first drug has worn off (>6 hours since initial dose for most 5-HT_3 receptor antagonists) (Ref). However, some experts do not recommend repeat administration of a 5-HT_3 antagonist unless no alternatives are available for rescue (Ref).

IV: 4 mg as a single dose when a prophylactic agent was not utilized (treatment) or following failure of an agent utilized as prophylaxis (rescue therapy) (Ref).

Oral (oral disintegrating tablet or oral soluble film): 4 or 8 mg as a single dose when a prophylactic agent was not utilized (treatment) or following failure of an agent utilized as prophylaxis (rescue therapy) (Ref).

Radiation therapy–associated nausea and vomiting, prevention

Radiation therapy–associated nausea and vomiting, prevention:

High-emetogenic risk radiation therapy (total body irradiation):

Radiation day(s):

IV (off-label): 8 mg or 0.15 mg/kg (maximum: 16 mg/dose)(Ref) once daily or twice daily prior to each fraction of radiation; administer in combination with dexamethasone (Ref).

Oral: 8 mg once daily or twice daily administered 1 to 2 hours prior to each fraction of radiation; administer in combination with dexamethasone (Ref) **or**, in one clinical trial of 4 days of hyperfractionated total body irradiation, 8 mg (without dexamethasone) was administered 1.5 hours prior to every fraction of radiation (3 times daily for the first 3 days and twice daily on day 4) (Ref).

Post-radiation days:

IV (off-label), Oral: The appropriate duration of therapy following radiotherapy days is not well defined; ASCO guidelines recommend continuing ondansetron once daily or twice daily on the day after each day of radiation (Ref).

Moderate-emetogenic risk radiation therapy (upper abdomen, craniospinal irradiation) (off-label use):

Radiation day(s):

IV (off-label): 8 mg **or** 0.15 mg/kg (maximum: 16 mg/dose [manufacturer's labeling]) once daily or twice daily prior to each fraction of radiation; may administer with or without dexamethasone before the first 5 fractions (Ref).

Oral: 8 mg once daily or twice daily administered 1 to 2 hours prior to each fraction of radiation; may administer with or without dexamethasone before the first 5 fractions (Ref) **or,** in clinical trials involving upper abdomen radiation (high-dose single exposure or multiple-day fractionated course), 8 mg 3 times daily (without dexamethasone) has been given; doses were administered 1 to 2 hours prior to radiation therapy (Ref).

Low- (brain, head and neck, thorax, pelvis) to minimal- (extremities, breast) emetogenic risk radiation therapy:Routine prophylaxis **not** recommended; however, may use as rescue therapy using the following dosing with consideration of using prophylactically for the remainder of radiation therapy (Ref).

IV: 8 mg or 0.15 mg/kg (Ref) (maximum: 16 mg/dose (Ref)).

Oral: 8 mg (Ref).

Vertigo-associated nausea and vomiting

Vertigo-associated nausea and vomiting (alternative agent) (off-label use):

IV (preferred), IM: 4 to 8 mg once for acute symptoms (Ref).

Oral: 4 mg every 8 to 12 hours as needed (Ref).

Dosage adjustment for concomitant therapy: Significant drug interactions exist, requiring dose/frequency adjustment or avoidance. Consult drug interactions database for more information.

Dosing: Kidney Impairment: Adult

The renal dosing recommendations are based upon the best available evidence and clinical expertise. Senior Editorial Team: Bruce Mueller, PharmD, FCCP, FASN, FNKF; Jason Roberts, PhD, BPharm (Hons), B App Sc, FSHP, FISAC; Michael Heung, MD, MS.

Altered kidney function: IV, Oral: No dose adjustments likely to be necessary, as clearance by the kidney accounts for only 5% of total clearance (Roila 1995; manufacturer's labeling). Unlikely to be significantly dialyzed due to relatively high volume of distribution and plasma protein binding (Ref).

Dosing: Hepatic Impairment: Adult

Mild to moderate impairment: No dosage adjustment necessary.

Severe impairment (Child-Pugh class C):

IV: Day 1: Maximum daily dose: 8 mg; however, according to the manufacturer, there is no experience beyond first-day administration (has not been studied beyond day 1)

Oral: Maximum daily dose: 8 mg

Dosing: Adjustment for Toxicity: Adult

Hypersensitivity: Discontinue ondansetron; manage as clinically indicated.

Serotonin syndrome: Discontinue ondansetron and initiate supportive management.

Dosing: Older Adult

Oral: No dosing adjustment required; refer to adult dosing.

IV: Single IV doses >16 mg are no longer recommended due to the potential for QT prolongation (Ref). In patients ≥75 years, Canadian recommendations place additional restrictions to limit initial IV doses to ≤8 mg due to this risk (Ref).

Dosing: Pediatric

(For additional information see "Ondansetron: Pediatric drug information")
Note: Zuplenz oral film has been discontinued in the United States for >1 year.

Collapse All

Chemotherapy-induced nausea and vomiting, prevention

Chemotherapy-induced nausea and vomiting, prevention: Note: Use in combination with or without dexamethasone and aprepitant or fosaprepitant depending upon patient age, chemotherapy emetogenic potential, and drug-interaction profile (refer to specific protocols or guidelines) (Ref).

Guideline dosing:

Highly emetogenic chemotherapy: Infants, Children, and Adolescents: IV, Oral: 0.15 mg/kg/dose (5 mg/**m^2**/dose); administer first dose before the start of chemotherapy and then every 8 hours (Ref); usual reported maximum dose: 8 mg/dose (Ref).

Moderately emetogenic chemotherapy: Infants, Children, and Adolescents: IV, Oral: 0.15 mg/kg/dose (5 mg/**m^2**/dose); maximum dose: 8 mg/dose; administer first dose before the start of chemotherapy with subsequent doses every 12 hours (Ref).

Low emetogenic chemotherapy: Infants, Children, and Adolescents: IV, Oral: 0.3 mg/kg/dose once (10 mg/**m^2**/dose); maximum dose: 16 mg/dose; administered 30 minutes before the start of chemotherapy (Ref).

Manufacturer's labeling:

IV: *Emetogenic chemotherapy:* Infants, Children, and Adolescents (limited data available for infants <6 months): IV: 0.15 mg/kg/dose every 4 hours for a total of 3 doses beginning 30 minutes before the start of chemotherapy (manufacturer's labeling); maximum daily dose: 32 mg/**day** (Ref).

Oral: *Moderately emetogenic antineoplastic therapy:*

Children 4 to 11 years: Oral: 4 mg beginning 30 minutes before chemotherapy; repeat 4 and 8 hours after initial dose, then 4 mg every 8 hours for 1 to 2 days after chemotherapy completed.

Children ≥12 years and Adolescents: Oral: 8 mg beginning 30 minutes before chemotherapy; repeat dose 8 hours after initial dose, then 8 mg every 12 hours for 1 to 2 days after chemotherapy completed.

Single-dose regimen (low, moderate, or highly emetogenic potential): Limited data available; efficacy results variable:

Infants, Children, and Adolescents: IV: 0.3 mg/kg/dose once daily; maximum dose: 16 mg/dose (Ref); dosing based on a randomized controlled study comparing a single daily IV dose of 0.3 mg/kg to standard therapy administered every 8 hours in 194 patients ages 0 to 18 years; the single daily dose was shown to be as effective as the multidose regimen in patients ≥7 years of age; however, in patients <7 years of age the every-8-hour dosing provided better control of nausea symptoms (Ref).

Cyclic vomiting syndrome, supportive/rescue therapy

Cyclic vomiting syndrome, supportive/rescue therapy: Limited data available:

Children and Adolescents: IV: 0.3 to 0.4 mg/kg/dose every 4 to 6 hours as needed; maximum dose: 8 mg/dose (Ref). Maximum daily dose: 32 mg/**day** (Ref).

Gastroenteritis, acute; treatment

Gastroenteritis, acute; treatment: Note: Routine use of ondansetron is not recommended in most cases of acute gastroenteritis (Ref).

IV: Infants and Children: IV: 0.15 or 0.3 mg/kg/dose once; maximum dose: 16 mg/dose (Ref).

Oral: Infants ≥6 months and Children ≤10 years, weighing ≥8 kg (Ref):

8 to 15 kg: Oral: 2 mg/dose once.

>15 to 30 kg: Oral: 4 mg/dose once.

>30 kg: Oral: 8 mg/dose once.

Postoperative nausea and vomiting, prevention

Postoperative nausea and vomiting, prevention: Administer immediately before or following induction of anesthesia, or postoperatively if the patient is symptomatic. Repeat doses given in response to inadequate control of nausea/vomiting from preoperative doses are generally ineffective.

Infants and Children:

≤40 kg: IV: 0.1 mg/kg/dose as a single dose; maximum dose: 4 mg/dose.

>40 kg: IV: 4 mg/dose as a single dose.

Adolescents: IM, IV: 4 mg/dose as a single dose.

Radiation-induced nausea and vomiting, prevention

Radiation-induced nausea and vomiting, prevention: Limited data available:

Weight-directed dosing: Infants ≥5 months, Children, and Adolescents: Oral: 0.2 mg/kg/dose (maximum dose: 8 mg/dose) administered every 8 hours throughout total body irradiation (TBI) prior to hematopoietic stem cell transplant (HSCT) (n=68; mean age: 6.7 years; range: 5 months to 20 years); doses were generally rounded to 4 mg/dose in children 4 to 11 years and 8 mg/dose in children ≥12 years and adolescents (Ref).

Alternate weight-based dosing: Children and Adolescents: Oral: 0.15 mg/kg/dose administered 3 to 4 times daily throughout TBI (n=33; mean age: 9 years; range: 13 months to 16 years) (Ref).

Fixed dose: **Note:** Derived from rounding weight-based (0.2 mg/kg/dose) doses (Ref).

Children 4 to 11 years: Oral: 4 mg every 8 hours throughout TBI prior to HSCT.

Children ≥12 years and Adolescents: Oral: 8 mg every 8 hours throughout TBI prior to HSCT.

Alternate fixed-dosing: Children ≥9 years and Adolescents: Oral: 8 mg every 12 hours on days of TBI prior to bone marrow transplantation (age range: 9 to 67 years; median age range: 39 to 49 years). **Note:** Administered in combination with dexamethasone (Ref).

Dosage adjustment for concomitant therapy: Significant drug interactions exist, requiring dose/frequency adjustment or avoidance. Consult drug interactions database for more information.

Dosing: Kidney Impairment: Pediatric

IV: No dosage adjustment is necessary.

Oral: No dosage adjustment is necessary; however, there is no experience for oral ondansetron in renal impairment beyond first-day administration (has not been studied beyond day 1)

Dosing: Hepatic Impairment: Pediatric

There are no pediatric-specific recommendations; based on experience in adult patients, no adjustment may be necessary for mild to moderate hepatic impairment; for severe impairment, dosing adjustment suggested.

Adverse Reactions (Significant): Considerations

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Constipation

Ondansetron may commonly cause **constipation** (Ref). Rare cases of **intestinal obstruction** have also been reported (Ref).

Mechanism: Likely due to blockade of 5-HT3 gut receptors which results in decreased motility (Ref). May also occur as a result of decreased colonic transit time (Ref) and inhibition of postprandial increase in tone (Ref).

Onset: Varied; one reported case of constipation occurred the same day as oral ondansetron administration; intestinal obstruction resulted approximately 2 weeks after continuous twice daily dosing (Ref).

Risk factors:

- Preexisting liver disease (Ref)

Headache

Headache is the most reported adverse reaction with ondansetron (Ref). Additional doses and movement (with or without postural changes) have been associated with worsening (Ref). Severe headache has led to discontinuation in reported cases (Ref).

Onset: Rapid; severe headache reported to occur within minutes of administration, often lasting minutes to hours. There have been multiple case reports of children experiencing throbbing headaches for several days following ondansetron and chemotherapy (Ref). One patient reported onset of severe headache occurring within 2 hours of the first dose and continued to occur every 12 hours following repeated administration (Ref).

Risk factors:

- Personal or family history of migraine (Ref)
- Concurrent use of propofol and/or fentanyl (Ref)
- Higher doses (potential risk factor) (Ref)

Hypersensitivity (immediate)

Immediate **hypersensitivity reactions** may occur with ondansetron, including **urticaria**, **angioedema**, **hypotension**, **bronchospasm**, **dyspnea,** and **anaphylaxis** (Ref). Some patients may only present with hypotension, without any accompanying symptoms (Ref). Patients may have more severe reactions on subsequent exposure (Ref).

Mechanism: Non-dose-related; immunologic; likely IgE-mediated (Ref); may be the result of direct mast cell stimulation (in some patients without previous exposure) (Ref).

Onset: Rapid; immediate hypersensitivity reactions generally occur within 1 hour of administration, but may occur up to 6 hours after exposure (Ref). Reactions usually occur after the first dose during the second or third course of chemotherapy (Ref).

Risk factors:

- Adults with cancer (Ref); however, a few isolated cases have been reported in children (Ref)

• IV route of administration; however, anaphylaxis following sublingual administration has been reported (Ref)

• Cross-reaction between serotonin 5-HT_3 antagonists has been described in limited case reports (Ref)

QT prolongation

Increases in ECG intervals (eg, PR, QRS duration, JT); **prolonged QT interval on ECG;** and **bradycardia** have been observed with ondansetron (Ref). Cases of ventricular arrhythmias and **torsades de pointes** have also been reported. Rare cases of fatalities have occurred even at low doses (Ref).

Mechanism: QT prolongation may occur due to HERG K+ channel-blockade (Ref). Suppression of autonomic reflexes may contribute to bradycardia, hypotension, and tachyarrhythmias (Ref).

Onset: Rapid; usually occurs 1 to 2 hours after administration (Ref); however, QT prolongation peaks have been observed within ~5 to 15 minutes following administration (Ref). QTc intervals >500 ms have been recorded within 15 minutes after administration (Ref). May persist >2 hours from administered dose (Ref).

Risk factors:

• IV route of administration (Ref)

• Single doses >16 mg IV (Ref); however, risk should be considered even with low IV doses (Ref)

• Concomitant medications that prolong the QT interval (Ref)

• Females (Ref)

• Hypothermia (Ref)

• Concomitant volatile anesthetics or cumulative high-dose anthracycline therapy (Ref)

• Underlying heart disease including heart failure or acute coronary syndromes (Ref)

• Electrolyte abnormalities (eg, hypokalemia, hypomagnesemia) (Ref)

• History of QT prolongation, bradycardia, tachycardia, or cardiac rhythm disorders (especially ventricular arrhythmia) (Ref)

• Patients receiving ondansetron following anesthesia, while in the intensive care unit, or during hospital admission (Ref)

Adverse Reactions

The following adverse drug reactions and incidences are derived from product labeling unless otherwise specified. Incidence reported in adult patients unless otherwise specified.

>10%:

Gastrointestinal: Constipation (9% to 11%) (table 1)

Nervous system: Fatigue (oral: ≤13%), headache (9% to 24%) (table 2), malaise (oral: ≤13%)

1% to 10%:

Dermatologic: Pruritus (2% to 5%), skin rash (1%)

Gastrointestinal: Diarrhea (oral: 6%; IV: children 1 to 24 months of age: 2%)

Genitourinary: Gynecologic disease (oral: 7%), urinary retention (oral: 5%)

Hepatic: Increased serum alanine aminotransferase (>2 times ULN: 1% to 5%; transient), increased serum aspartate aminotransferase (>2 times ULN: 1% to 5%; transient)

Hypersensitivity: Anaphylaxis (<2%) (Fernando 2009)

Local: Injection site reaction (4%; includes burning sensation at injection site, erythema at injection site, injection site pain)

Nervous system: Agitation (oral: ≤6%), anxiety (oral: ≤6%), dizziness (7%), drowsiness (IV: ≤8%), paresthesia (IV: 2%), sedated state (IV: ≤8%), sensation of cold (IV: 2%)

Respiratory: Bronchospasm (<2%), hypoxia (oral: 9%)

Miscellaneous: Fever (2% to 8%)

<1%:

Cardiovascular: Hypotension

Nervous system: Extrapyramidal reaction (Ritter 2003; Sprung 2003)

Frequency not defined:

Cardiovascular: Angina pectoris, peripheral vascular disease, tachycardia

Endocrine & metabolic: Hypokalemia

Nervous system: Tonic clonic epilepsy

Postmarketing:

Cardiovascular: Atrial fibrillation (Havrilla 2009), bradycardia (Afonso 2009; Rapp 2015), depression of ST segment on ECG, flushing, ischemic heart disease (most commonly due to coronary artery spasm and may occur with oral or IV [predominantly IV]; occurred immediately after IV administration and resolved with treatment), palpitations, prolonged QT interval on ECG (Ganjare 2013; Moffett 2016), second degree atrioventricular block, supraventricular tachycardia, syncope, torsades de pointes (Lee 2017; Patel 2019), ventricular premature contractions, ventricular tachycardia

Dermatologic: Stevens-Johnson syndrome, toxic epidermal necrolysis (Saraogi 2012), urticaria (Bousquet 2005)

Gastrointestinal: Hiccups, intestinal obstruction (Cohen 2014)

Hematologic & oncologic: Positive lymphocyte transformation test

Hepatic: Hepatic failure

Hypersensitivity: Angioedema, fixed drug eruption (Maitra 2017), hypersensitivity reaction (Garcia Nunez 2015; Leung 2013), nonimmune anaphylaxis

Nervous system: Dystonic reaction (Diaz-Parlet 2015), serotonin syndrome (George 2008)

Neuromuscular & skeletal: Laryngospasm

Ophthalmic: Accommodation disturbance, oculogyric crisis (Macachor 2014), transient blindness (lasted ≤48 hours) (Cherian 2005), transient blurred vision (following infusion)

Respiratory: Dyspnea, laryngeal edema, stridor

Contraindications

Hypersensitivity to ondansetron or any component of the formulation; concomitant use with apomorphine

Warnings/Precautions

Concerns related to adverse effects:

• Serotonin syndrome: Serotonin syndrome (SS) has been reported with 5-HT_3 receptor antagonists, predominantly when used in combination with other serotonergic agents (eg, selective serotonin reuptake inhibitors, serotonin and norepinephrine reuptake inhibitors, monoamine oxidase inhibitors, mirtazapine, fentanyl, lithium, tramadol, and/or methylene blue). Some of the cases have been fatal. The majority of serotonin syndrome reports due to 5-HT_3 receptor antagonist have occurred in a postanesthesia setting or in an infusion center. SS has also been reported following overdose of ondansetron. Signs/symptoms of SS include mental status changes (eg, agitation, hallucinations, delirium, coma); autonomic instability (eg, tachycardia, labile BP, diaphoresis, dizziness, flushing, hyperthermia); neuromuscular changes (eg, tremor, rigidity, myoclonus, hyperreflexia, incoordination); GI symptoms (eg, nausea, vomiting, diarrhea); and/or seizures.

Dosage form specific issues:

• Benzyl alcohol and derivatives: Some dosage forms may contain sodium benzoate/benzoic acid; benzoic acid (benzoate) is a metabolite of benzyl alcohol; large amounts of benzyl alcohol (≥99 mg/kg/day) have been associated with a potentially fatal toxicity (“gasping syndrome”) in neonates; the “gasping syndrome” consists of metabolic acidosis, respiratory distress, gasping respirations, CNS dysfunction (including convulsions, intracranial hemorrhage), hypotension, and cardiovascular collapse (AAP ["Inactive" 1997]; CDC 1982); some data suggests that benzoate displaces bilirubin from protein binding sites (Ahlfors 2001); avoid or use dosage forms containing benzyl alcohol derivative with caution in neonates. See manufacturer's labeling.

• Phenylalanine: Orally disintegrating tablets contain phenylalanine.

Other warnings/precautions:

• Chemotherapy-associated emesis: Antiemetics are most effective when used prophylactically (MASCC/ESMO [Roila 2016]). If emesis occurs despite optimal antiemetic prophylaxis, re-evaluate emetic risk, disease status, concurrent morbidities and current medications to assure antiemetic regimen is optimized (ASCO [Hesketh 2020]).

Product Availability

Zuplenz has been discontinued in the United States for >1 year.

Dosage Forms: US

Excipient information presented when available (limited, particularly for generics); consult specific product labeling. [DSC] = Discontinued product

Film, Oral:

Zuplenz: 4 mg (30 ea [DSC]); 8 mg (30 ea [DSC])

Solution, Injection, as hydrochloride [strength expressed as base]:

Generic: 4 mg/2 mL (2 mL); 40 mg/20 mL (20 mL)

Solution, Injection, as hydrochloride [strength expressed as base, preservative free]:

Generic: 4 mg/2 mL (2 mL)

Solution, Oral, as hydrochloride [strength expressed as base]:

Generic: 4 mg/5 mL (5 mL, 50 mL)

Solution Prefilled Syringe, Injection, as hydrochloride:

Generic: 4 mg/2 mL (2 mL)

Tablet, Oral, as hydrochloride [strength expressed as base]:

Zofran: 4 mg, 8 mg [DSC]

Generic: 4 mg, 8 mg, 24 mg

Tablet Disintegrating, Oral:

Generic: 4 mg, 8 mg

Generic Equivalent Available: US

May be product dependent

Pricing: US

Solution (Ondansetron HCl Injection)

4 mg/2 mL (per mL): $0.28 - $1.35

40 mg/20 mL (per mL): $0.30 - $1.25

Solution (Ondansetron HCl Oral)

4 mg/5 mL (per mL): $4.78 - $6.00

Solution Prefilled Syringe (Ondansetron HCl Injection)

4 mg/2 mL (per mL): $1.11

Tablet, orally-disintegrating (Ondansetron Oral)

4 mg (per each): $22.25 - $23.11

8 mg (per each): $36.66 - $38.50

Tablets (Ondansetron HCl Oral)

4 mg (per each): $0.54 - $24.89

8 mg (per each): $0.64 - $41.53

24 mg (per each): $106.51

Disclaimer: A representative AWP (Average Wholesale Price) price or price range is provided as reference price only. A range is provided when more than one manufacturer's AWP price is available and uses the low and high price reported by the manufacturers to determine the range. The pricing data should be used for benchmarking purposes only, and as such should not be used alone to set or adjudicate any prices for reimbursement or purchasing functions or considered to be an exact price for a single product and/or manufacturer. Medi-Span expressly disclaims all warranties of any kind or nature, whether express or implied, and assumes no liability with respect to accuracy of price or price range data published in its solutions. In no event shall Medi-Span be liable for special, indirect, incidental, or consequential damages arising from use of price or price range data. Pricing data is updated monthly.

Dosage Forms: Canada

Excipient information presented when available (limited, particularly for generics); consult specific product labeling. [DSC] = Discontinued product

Film, Oral:

Ondissolve ODF: 4 mg (6 ea, 10 ea, 50 ea); 8 mg (6 ea, 10 ea, 50 ea) [contains levomenthol, polyethylene glycol (macrogol), polysorbate 80]

Solution, Intravenous:

Zofran: 2 mg/mL ([DSC])

Generic: 2 mg/mL (2 mL, 4 mL, 5 mL, 20 mL)

Solution, Oral, as hydrochloride [strength expressed as base]:

Zofran: 4 mg/5 mL ([DSC]) [contains alcohol, usp, sodium benzoate]

Generic: 4 mg/5 mL (50 mL)

Tablet, Oral, as hydrochloride [strength expressed as base]:

Zofran: 4 mg [DSC], 8 mg [DSC]

Generic: 4 mg, 8 mg

Tablet Disintegrating, Oral:

Zofran ODT: 4 mg, 8 mg [contains aspartame, methylparaben sodium, propylparaben sodium]

Generic: 4 mg, 8 mg

Administration: Adult

Oral: Oral dosage forms should be administered 30 minutes prior to chemotherapy; 1 to 2 hours before radiation; 30 to 60 minutes prior to surgery or induction of anesthesia

Orally disintegrating tablets: Do not remove from blister until needed. Peel backing off the blister, do not attempt to push tablet through the foil. Using dry hands, place tablet on tongue and allow to dissolve. Swallow with saliva (no need to administer with liquids).

Oral soluble film: Do not remove from pouch until immediately before use. Using dry hands, place film on top of tongue and allow to dissolve (4 to 20 seconds). Swallow with or without liquid. If using more than one film, each film should be allowed to dissolve completely before administering the next film.

IM: Should be administered undiluted.

IV:

IVPB: Infuse diluted solution over 15 minutes

Chemotherapy-induced nausea and vomiting: Give first dose 30 minutes prior to beginning chemotherapy.

IV push: Prevention of postoperative nausea and vomiting: Single doses may be administered IV injection as undiluted solution over at least 30 seconds but preferably over 2 to 5 minutes

Administration: Pediatric

Oral (all dosage forms): May administer without regard to meals. Administer 30 minutes prior to chemotherapy, 1 to 2 hours prior to radiotherapy, and 1 hour prior to induction of anesthesia.

Orally disintegrating tablet (Zofran ODT): Do not remove from blister until needed. Peel backing off the blister; do not push tablet through foil backing. Using dry hands, place tablet on tongue and allow to dissolve; swallow with saliva (no need to administer with liquids).

Soluble film (Zuplenz): Do not remove from pouch until immediately before use. Using dry hands, place film on top of tongue and allow to dissolve (4 to 20 seconds). Swallow with or without liquid. If using more than one film, allow each film to dissolve completely before administering the next film.

Parenteral:

IV:

IVPB infusion:

Prevention of chemotherapy-induced nausea and vomiting: Infuse over 15 minutes.

Cyclic vomiting syndrome: Infuse over 15 to 30 minutes (Ref).

IV push: May be administered undiluted IV over 2 to 5 minutes for prevention of PONV.

IM: Administer as undiluted injection.

Use: Labeled Indications

Cancer chemotherapy-induced nausea and vomiting:

IV: Prevention of nausea and vomiting associated with initial and repeat courses of emetogenic cancer chemotherapy (including high-dose cisplatin).

Oral:

Prevention of nausea and vomiting associated with highly emetogenic cancer chemotherapy (including cisplatin ≥50 mg/m^2).

Prevention of nausea and vomiting associated with initial and repeat courses of moderately emetogenic cancer chemotherapy.

Postoperative nausea and/or vomiting: IV, IM, Oral: Prevention of postoperative nausea and/or vomiting (PONV). If nausea/vomiting occur in a patient who had not received prophylactic ondansetron, IV ondansetron may be administered to prevent further episodes.

Limitations of use: Routine prophylaxis for PONV in patients with minimal expectation of nausea and/or vomiting is not recommended, although use is recommended in patients when nausea and vomiting must be avoided in the postoperative period, even if the incidence of PONV is low.

Radiotherapy-associated nausea and vomiting: Oral: Prevention of nausea and vomiting associated with radiotherapy in patients receiving either total body irradiation, single high-dose fraction to the abdomen, or daily fractions to the abdomen.

Use: Off-Label: Adult

Carcinoid syndrome-associated diarrhea, severe, refractory; Gastroparesis, symptomatic treatment of nausea and vomiting (alternative agent in patients with persistent symptoms refractory to prokinetic therapy); Nausea and/or vomiting, acute, severe; Postoperative nausea and vomiting, treatment or rescue therapy; Pregnancy-associated nausea and vomiting, severe or refractory; Vertigo-associated nausea and vomiting

Medication Safety Issues

Sound-alike/look-alike issues:

Ondansetron may be confused with dolasetron, granisetron, palonosetron

Zofran may be confused with Zantac, Zosyn

Metabolism/Transport Effects

Substrate of CYP1A2 (minor), CYP2C9 (minor), CYP2D6 (minor), CYP2E1 (minor), CYP3A4 (minor), P-glycoprotein/ABCB1 (minor); **Note:** Assignment of Major/Minor substrate status

based on clinically relevant drug interaction potential

Drug Interactions

(For additional information: Launch drug interactions program) Lexicomp®

Note: Interacting drugs may **not be individually listed below** if they are part of a group interaction (eg, individual drugs within "CYP3A4 Inducers [Strong]" are NOT listed). For a complete list of drug interactions by individual drug name and detailed management recommendations, use the Lexicomp drug interactions program by clicking on the "Launch drug interactions program" link above.

Amiodarone: May enhance the QTc-prolonging effect of Ondansetron. Management: Consider alternatives to this combination. If combined, monitor for QTc interval prolongation and ventricular arrhythmias. Patients with additional risk factors for QTc prolongation may be at even higher risk. *Risk D: Consider therapy modification*

Amisulpride (Oral): May enhance the QTc-prolonging effect of Ondansetron. *Risk C: Monitor therapy*

Apomorphine: Antiemetics (5HT3 Antagonists) may enhance the hypotensive effect of Apomorphine. *Risk X: Avoid combination*

CYP3A4 Inducers (Strong): May decrease the serum concentration of Ondansetron. *Risk C: Monitor therapy*

Dabrafenib: Ondansetron may enhance the QTc-prolonging effect of Dabrafenib. Management: Monitor for QTc interval prolongation and ventricular arrhythmias when these agents are combined. Patients with additional risk factors for QTc prolongation may be at even higher risk. *Risk C: Monitor therapy*

Domperidone: May enhance the QTc-prolonging effect of Ondansetron. Management: Consider alternatives to this drug combination. If combined, monitor for QTc interval prolongation and ventricular arrhythmias. Patients with additional risk factors for QTc prolongation may be at even higher risk. *Risk D: Consider therapy modification*

Fluorouracil Products: Ondansetron may enhance the QTc-prolonging effect of Fluorouracil Products. Management: Monitor for QTc interval prolongation and ventricular arrhythmias when these agents are combined. Patients with additional risk factors for QTc prolongation may be at even higher risk. *Risk C: Monitor therapy*

Haloperidol: Ondansetron may enhance the QTc-prolonging effect of Haloperidol. Management: Monitor for QTc interval prolongation and ventricular arrhythmias when these agents are combined. Patients with additional risk factors for QTc prolongation may be at even higher risk. *Risk C: Monitor therapy*

MetFORMIN: Ondansetron may increase the serum concentration of MetFORMIN. *Risk C: Monitor therapy*

Panobinostat: Ondansetron may enhance the arrhythmogenic effect of Panobinostat. *Risk C: Monitor therapy*

Pentamidine (Systemic): May enhance the QTc-prolonging effect of Ondansetron. Management: Monitor for QTc interval prolongation and ventricular arrhythmias when

these agents are combined. Patients with additional risk factors for QTc prolongation may be at even higher risk. *Risk C: Monitor therapy*

Pimozide: May enhance the QTc-prolonging effect of Ondansetron. *Risk X: Avoid combination*

QT-prolonging Agents (Highest Risk): May enhance the QTc-prolonging effect of Ondansetron. Management: Consider alternatives to this combination. If combined, monitor for QTc interval prolongation and ventricular arrhythmias. Patients with additional risk factors for QTc prolongation may be at even higher risk. *Risk D: Consider therapy modification*

QT-prolonging Antidepressants (Moderate Risk): Ondansetron may enhance the QTc-prolonging effect of QT-prolonging Antidepressants (Moderate Risk). Ondansetron may enhance the serotonergic effect of QT-prolonging Antidepressants (Moderate Risk). This could result in serotonin syndrome. Management: Monitor for QTc interval prolongation, ventricular arrhythmias, and serotonin syndrome when these agents are combined. Patients with additional risk factors for QTc prolongation or serotonin syndrome may be at even higher risk. *Risk C: Monitor therapy*

QT-prolonging Antipsychotics (Moderate Risk): Ondansetron may enhance the QTc-prolonging effect of QT-prolonging Antipsychotics (Moderate Risk). Management: Monitor for QTc interval prolongation, ventricular arrhythmias, including torsades de pointes, when these agents are combined. Patients with additional risk factors for QTc prolongation may be at even higher risk. *Risk C: Monitor therapy*

QT-prolonging Class IA Antiarrhythmics (Highest Risk): May enhance the QTc-prolonging effect of Ondansetron. Management: Consider alternatives to this combination. If combined, monitor for QTc interval prolongation and ventricular arrhythmias. Patients with additional risk factors for QTc prolongation may be at even higher risk. *Risk D: Consider therapy modification*

QT-prolonging Class IC Antiarrhythmics (Moderate Risk): May enhance the QTc-prolonging effect of Ondansetron. Management: Monitor for QTc interval prolongation and ventricular arrhythmias when these agents are combined. Patients with additional risk factors for QTc prolongation may be at even higher risk. *Risk C: Monitor therapy*

QT-prolonging Class III Antiarrhythmics (Highest Risk): May enhance the QTc-prolonging effect of Ondansetron. Management: Consider alternatives to this combination. If combined, monitor for QTc interval prolongation and ventricular arrhythmias. Patients with additional risk factors for QTc prolongation may be at even higher risk. *Risk D: Consider therapy modification*

QT-Prolonging Inhalational Anesthetics (Moderate Risk): Ondansetron may enhance the QTc-prolonging effect of QT-Prolonging Inhalational Anesthetics (Moderate Risk). Management: Monitor for QTc interval prolongation and ventricular arrhythmias, including torsades de pointes when these agents are combined. Patients with additional risk factors for QTc prolongation may be at even higher risk. *Risk C: Monitor therapy*

QT-prolonging Kinase Inhibitors (Moderate Risk): Ondansetron may enhance the QTc-prolonging effect of QT-prolonging Kinase Inhibitors (Moderate Risk). Management: Monitor for QTc interval prolongation and ventricular arrhythmias when these agents are

combined. Patients with additional risk factors for QTc prolongation may be at even higher risk. *Risk C: Monitor therapy*

QT-prolonging Miscellaneous Agents (Moderate Risk): May enhance the QTc-prolonging effect of Ondansetron. Management: Monitor for QTc interval prolongation and ventricular arrhythmias when these agents are combined. Patients with additional risk factors for QTc prolongation may be at even higher risk. *Risk C: Monitor therapy*

QT-prolonging Moderate CYP3A4 Inhibitors (Moderate Risk): Ondansetron may enhance the QTc-prolonging effect of QT-prolonging Moderate CYP3A4 Inhibitors (Moderate Risk). Management: Monitor for QTc interval prolongation and ventricular arrhythmias when these agents are combined. Patients with additional risk factors for QTc prolongation may be at even higher risk. *Risk C: Monitor therapy*

QT-prolonging Quinolone Antibiotics (Moderate Risk): Ondansetron may enhance the QTc-prolonging effect of QT-prolonging Quinolone Antibiotics (Moderate Risk). Management: Monitor for QTc interval prolongation and ventricular arrhythmias when these agents are combined. Patients with additional risk factors for QTc prolongation may be at even higher risk. *Risk C: Monitor therapy*

QT-prolonging Strong CYP3A4 Inhibitors (Moderate Risk): May enhance the QTc-prolonging effect of Ondansetron. Management: Monitor for QTc interval prolongation and ventricular arrhythmias when these agents are combined. Patients with additional risk factors for QTc prolongation may be at even higher risk. *Risk C: Monitor therapy*

Serotonergic Agents (High Risk): Ondansetron may enhance the serotonergic effect of Serotonergic Agents (High Risk). This could result in serotonin syndrome. Management: Monitor for signs and symptoms of serotonin syndrome/serotonin toxicity (eg, hyperreflexia, clonus, hyperthermia, diaphoresis, tremor, autonomic instability, mental status changes) when these agents are combined. *Risk C: Monitor therapy*

Tapentadol: Ondansetron may diminish the analgesic effect of Tapentadol. *Risk C: Monitor therapy*

TraMADol: Ondansetron may enhance the serotonergic effect of TraMADol. This could result in serotonin syndrome. Ondansetron may diminish the therapeutic effect of TraMADol. Management: Monitor for signs and symptoms of serotonin syndrome/serotonin toxicity (eg, hyperreflexia, clonus, hyperthermia, diaphoresis, tremor, autonomic instability, mental status changes) and diminished tramadol efficacy when these agents are combined. *Risk C: Monitor therapy*

Food Interactions

Tablet: Food slightly increases the extent of absorption. Management: Administer without regard to meals.

Pregnancy Considerations

Ondansetron crosses the placenta (Elkomy 2014; Siu 2006).

Ondansetron can be detected in fetal tissue (Siu 2006). The risk of developing a major congenital malformation following first trimester exposure is under study. Risks related to specific birth defects (eg, cardiac anomalies, oral clefts) requires confirmation; available human

data are conflicting (ACOG 2018; Dormuth 2021; Kaplan 2019; Lemon 2020; Lavecchia 2018; Picot 2020). Clearance is decreased immediately after birth in neonates exposed to ondansetron in utero (Elkomy 2014).

Due to pregnancy-induced physiologic changes, clearance of ondansetron may increase as pregnancy progresses (Lemon 2016). Dose adjustment is not needed when administered for the prevention of nausea and vomiting associated with cesarean delivery (Elkomy 2014).

Ondansetron may be considered for the treatment of severe or refractory nausea and vomiting of pregnancy (NVP) when preferred agents have failed (ACOG 2018; Campbell 2016). Until additional information related to fetal safety is available, current guidelines suggest use prior to 10 weeks gestation be individualized (ACOG 2018). Dose-dependent QT-interval prolongation can occur with use; therefore, ECG monitoring is recommended in patients with risk factors for arrhythmia (ACOG 2018); this may include patients with electrolyte abnormalities associated with some cases of NVP (Koren 2012).

Ondansetron may be considered as part of a multimodal approach to prevent nausea and vomiting associated with cesarean delivery. A combination of ≥2 antiemetics with different mechanisms of action is recommended to treat intraoperative and postoperative nausea and vomiting (Bollag 2021; Griffiths 2012; Habib 2013; Jetling 2017; Macones 2019; Zhou 2018).

An international consensus panel recommends that 5-HT_3 antagonists (including ondansetron) can be used when necessary in pregnant patients receiving chemotherapy for the treatment of gynecologic cancers (Amant 2019).

Breastfeeding Considerations

It is not known if ondansetron is present in breast milk.

According to the manufacturer, the decision to breastfeed during therapy should consider the risk of infant exposure, the benefits of breastfeeding to the infant, and the benefits of treatment to the patient.

Dietary Considerations

Some products may contain phenylalanine.

Monitoring Parameters

ECG if applicable (eg, high-risk or elderly patients, concurrent use of other medications known to prolong QT interval, electrolyte abnormalities [hypokalemia or hypomagnesemia], heart failure, bradyarrhythmias, and cumulative high-dose anthracycline therapy); serum potassium and magnesium levels. Monitor for signs/symptoms of serotonin syndrome and hypersensitivity; monitor for decreased bowel activity (particularly in patients at risk for bowel obstruction). Monitor for signs/symptoms of myocardial ischemia.

Mechanism of Action

Ondansetron is a selective 5-HT_3-receptor antagonist which blocks serotonin, both peripherally on vagal nerve terminals and centrally in the chemoreceptor trigger zone

Pharmacokinetics (Adult Data Unless Noted)

Onset of action: ~30 minutes

Absorption: Oral: 100%; nonlinear absorption occurs with increasing oral doses; Zofran ODT tablets are bioequivalent to Zofran tablets; absorption does not occur via oral mucosa

Distribution: V_d:

Infants and Children: Surgical patients:

1 to 4 months: 3.5 L/kg

5 to 24 months: 2.3 L/kg

3 to 12 years: 1.65 L/kg

Children and Adolescents: Cancer patients: 4 to 18 years: 1.9 L/kg

Adults: 1.9 L/kg

Protein binding, plasma: 70% to 76%

Metabolism: Extensively hepatic via hydroxylation, followed by glucuronide or sulfate conjugation; CYP1A2, CYP2D6, and CYP3A4 substrate; some demethylation occurs

Bioavailability: Oral: 50% to 70% due to some first-pass metabolism; in cancer patients (adults), 85% to 87% bioavailability possibly related to changes in metabolism

Half-life elimination:

Children: Cancer patients: Children and Adolescents: 4 to 18 years: 2.8 hours; Surgical patients: Infants 1 to 4 months: 6.7 hours; Infants and Children 5 months to 12 years: 2.9 hours

Adults: 3 to 6 hours; Mild-to-moderate hepatic impairment (Child-Pugh classes A and B): 12 hours; Severe hepatic impairment (Child-Pugh class C): 20 hours

Time to peak: Oral: ~2 hours; Oral soluble film: ~1 hour

Excretion: Urine (44% to 60% as metabolites, ~5% as unchanged drug); feces (~25%)

Clearance:

Cancer patients: Children and Adolescents 4 to 18 years: 0.599 L/kg/hour

Surgical patients: Infants and Children: 1 to 4 months: 0.401 L/kg/hour; 5 to 24 months: 0.581 L/kg/hour; 3 to 12 years: 0.439 L/kg/hour

Adult (normal): 19 to 40 years: 0.381 L/kg/hour; 61 to 74 years: 0.319 L/kg/hour; >75 years: 0.262 L/kg/hour

Pharmacokinetics: Additional Considerations (Adult Data Unless Noted)

Altered kidney function: Mean plasma clearance is reduced by 41% (IV) and 50% (oral) in patients with severe renal impairment (CrCl <30 mL/minute).

Hepatic function impairment: In patients with mild to moderate impairment, clearance is reduced 2-fold and the mean half-life is increased to 11.6 hours (compared to 5.7 hours in subjects with normal hepatic function). Clearance is reduced 2- to 3-fold and the apparent

V_d is increased, and the half-life is increased to 20 hours in patients with severe hepatic impairment (Child-Pugh class C).

Older adult: In elderly patients >75 years of age, there is a reduction in clearance and an increase in elimination half-life.

Sex: The extent and rate of absorption is greater in women than in men. There is slower clearance, a smaller volume of distribution, and higher bioavailability in women.

Brand Names: International

International Brand Names by Country

For country code abbreviations (show table)

(AE) United Arab Emirates: Aurodanz | Danstro | Ondansetron | Tesnad | Vomicure | Vomran | Zofran; (AR) Argentina: Cetron | Dantenk | Emivox | Espasevit | Finaber | Finoxi | Nausedron | Ondansetron fabra | Ondansetron filaxis | Ondansetron gobbi | Ondansetron lazar | Ondansetron martian | Ondansetron northia | Ondansetron vannier | Ondansetron veinfar | Ondasentron Richet | Setron | Zofran; (AT) Austria: Ondansan | Ondansetron | Ondansetron actavis | Ondansetron b braun | Ondansetron b. braun | Ondansetron bluefish | Ondansetron hikma | Ondansetron interpharm | Ondansetron kabi | Ondansetron sandoz | Ondansetron stada | Zofran | Zofran zydis; (AU) Australia: Apo-ondansetron | Ondansetron | Ondansetron alphapharm | Ondansetron an | Ondansetron claris | Ondansetron drla | Ondansetron gh | Ondansetron mylan | Ondansetron mylan odt | Ondansetron odt drla | Ondansetron Rl | Ondansetron sz | Ondansetron sz odt | Ondaz | Onsetron | Zilfojim | Zilfojim ODT | Zofran | Zondan | Zotren odt; (BD) Bangladesh: Anset | Apulset | Avona | Emeren | Emistat | Emiston | Nauset | Ofmit | Ofran | Onaseron | Onaset | Oncodex | Ondagen | Ondamax | Ondason | Onsat | Periset | Seton | Setronax | Vomiset; (BE) Belgium: Ondansetron | Ondansetron accord | Ondansetron eg | Ondansetron hikma | Ondansetron sandoz | Ondansetron teva | Zofran | Zofsetron; (BF) Burkina Faso: Ondamac | Ondansetron denk; (BG) Bulgaria: Emetron | Ondansetron b.braun | Zofran; (BR) Brazil: Ansentron | Bienn | Cloridrato de ondansetrona | Emistop | Enavo odt | Injectrax | Jofix | Listo | Modifical | Nantron | Nausedron | Nautex | Ontrax | Setronax | Volig | Vonau flash | Zofran | Zonax; (CH) Switzerland: Ondansetron accord | Ondansetron b. braun | Ondansetron Braun | Ondansetron fresenius | Ondansetron labatec | Ondansetron Mepha | Ondansetron nycomed | Ondansetron odt sandoz | Ondansetron sandoz | Ondansetron Teva | Ondansetron teva | Zofran; (CI) Côte d'Ivoire: On.setron denk | Onset | Setronax; (CL) Chile: Amilene | Gardoton | Izofran | Levrox | Odatron | Ondanvitae | OTOC | Trorix; (CN) China: An si xin | Ang dan tong | Emeset | En nuo ping | Fu mi ting | Ondansetron | Ou bei | Shu dan | Wei ze | Ya bang bei wei | Yi feng | Zofran | Zudan; (CO) Colombia: Aurodanz | Bryterol | Emenorm | Modifical | Oncoemet | Ondansetron | Ondax | Ostasyn | Zofran; (CZ) Czech Republic: Emeset | Emetron | Novetron | Ondansetron Braun | Ondansetron ratiopharm | Ondansetron sandoz | Ondemet | Zofran; (DE) Germany: Axisetron | Cellondan | Ondansetron | Ondansetron 1 a pharma | Ondansetron accord | Ondansetron Aurobindo | Ondansetron Aurus | Ondansetron b.braun | Ondansetron beta | Ondansetron bluefish | Ondansetron carinopharm | Ondansetron DeltaSelect | Ondansetron dura | Ondansetron ever pharma | Ondansetron Hameln | Ondansetron hexal | Ondansetron kabi | Ondansetron Lindopharm | Ondansetron Orca | Ondansetron pfizer | Ondansetron ratiopharm | Ondansetron sandoz | Ondansetron stada | Ondansetron tillomed | Ondansetron Vipharm | Ondansetron vitane | Ondansetron winthrop | Ondatron | Onsetron denk | Sigondan | Zofran; (DO) Dominican Republic: Modifical | Ondansetron | Onone | Zofran; (EC) Ecuador: Antivon | Bryterol | Modifical | Oncoemet | Ondansetron | Vonau flash | Zofran; (EE) Estonia: Emetron | Ondansetron accord | Ondansetron Bmm | Ondansetron claris | Ondansetron sandoz | Zofran; (EG) Egypt: Danofran | Danset | Emerest | Zofran; (ES) Spain: Carvyx | Helmine | Ondansetron aristo | Ondansetron Aurovitas | Ondansetron bluefish | Ondansetron Braun | Ondansetron domac | Ondansetron fresenius kabi | Ondansetron Ips | Ondansetron Normon | Ondansetron Pharmacia | Ondansetron ratio | Ondansetron sandoz | Ondansetron serraclinics | Ondansetron stada | Ondansetron teva | Yatrox | Zofran; (ET) Ethiopia: Domi Up | Oberem | Ondansetron | Onsetron denk | Vomikind; (FI) Finland: Ondansetron accord | Ondansetron bluefish | Ondansetron bmm pharma | Ondansetron fresenius kabi | Ondansetron Hameln | Ondansetron hexal | Ondansetron stada | Ondansetron Synthon | Zofran; (FR) France: Ondansetron |

Ondansetron Aguettant | Ondansetron arrow | Ondansetron biogaran | Ondansetron Dci | Ondansetron eg | Ondansetron Intas | Ondansetron kabi | Ondansetron Qualimed | Ondansetron ratiopharm | Ondansetron sandoz | Ondansetron Teva | Ondansetron winthrop | Ondansetron Zydus | Zophren; (GB) United Kingdom: Ondansetron | Ondansetron pfizer | Ondansetron teva | Ondemet | Setofilm | Zofran; (GR) Greece: Biosetron | Cruzafen | Dentron | Fedral | Nofail | Onda | Ondameton | Ondansetron Generics | Ondansetron/b.braun | Ondansetron/Generics | Ondansetron/kabi | Ondaren | Setrodan | Trondamet | Zodatron | Zofron; (HK) Hong Kong: Apo ondansetron | Pms-Ondansetron | Setronax | Zofran; (HR) Croatia: Ondanzetron Kabi | Zofran; (HU) Hungary: Antivom | Emetron | Ondansetron ebewe | Ondansetron kabi | Ondansetron pfizer | Ondansetron pharmacenter | Ondansetron pliva | Ondansetron sandoz | Ondansetron-z | Oroset | Vomita | Zentron | Zofran; (ID) Indonesia: Cedantron | Ceteron | Dantroxal | Frazon | Fudanton | Insetron | Invomit | Kliran | Lametic | Narfoz | Odanostin | Ondane | Ondansetron | Ondansetron HCL | Ondarin | Ondavell | Onetic | Prezinton | Vomceran | Vometraz | Vometron | Vomigo | Zantron | Zofran; (IE) Ireland: Emizof | Ondansetron | Ondansetron claris | Ondansetron teva | Ondran | Zofran; (IL) Israel: Zofran; (IN) India: 4 On | Alset | Anset | Danotran | Danset | Deltron | Dioset md | Domi Up | Eden | Emcef | Emekule | Emeran | Emesafe | Emeset | Emestop MD | Emeton | Emetosim | Emigo | Emitino | Emitus | Emnil | Emnil md | Emset | Emsetron | Emtron | Entil | Eterna md | Flatron | Flexi | Glendan | Ht Blok | Isv | Lametic | Levom | Meristron | Mytic | Naucid | Nausedon | Nausehext | Nauseron | Nausitroy | Neomit | Noem | Novatron | O set | O.n.d. | Odanse | Oncotor | Ondace | Ondai | Ondamac | Ondanbic | Ondansetran | Ondanz | Ondar | Ondatab | Ondavom | Ondedom | Ondem | Ondfast md | Ondisolv | Onditron | Ondoprez | Onduro | Ondy md | Onkam | Onmed | Ono | Onset | Onsetrin | Onsett | Onsopil | Onstal | Onswift | Ontic | Ontix md | Oran | Oset | Osetron | Ozotron | Periset | Prospect | Rgnil | Satron | Set nv | Setnorm | Setrona | Setronem | Stop Em | Udan MD | Vegas | Vomalthea | Vomiban | Vomigo | Vomihalt | Vomikind | Vomilife | Vomiof | Vomipen | Vomirek | Vomirest | Vomirid md | Vomisave | Vomiset | Vomiz | Vorast | Vstop | Zenoset | Zofer | Zondan; (IT) Italy: Belofran | Ondansetron | Ondansetron Braun | Ondansetron Crinos | Ondansetron fresenius | Ondansetron hospira | Ondansetrone Dr. Reddy's | Ondansetrone Hikma | Ondansetrone Mylan | Ondansetrone Ranbaxy | Ondansetrone Teva | Zofran; (JO) Jordan: Nordaset | Onda | Ondansetron vianex | Setron-4 | Zemitron | Zofran; (JP) Japan: Ondansetron | Zofran; (KE) Kenya: Aurodanz | Emadon | Emeset | Emitino | Emitron; (KR) Korea, Republic of: Hana ondansetron | Ondant | Ondaron | Onfran | Onseran | Onsetron | Zapron | Zofran | Zofran zydis; (KW) Kuwait: Onda | Zofran; (LB) Lebanon: Apo-ondansetron | Emeset | Nausetron | Nozentrix | Ondansetron | Ondansetron arrow | Ondansetron biogaran | Ondansetron bluefish | Ondansetron hikma | Setron | Trondamet | Zofran; (LT) Lithuania: Emetron | Ondansetron | Ondansetron actiofarma | Ondansetron Aurobindo | Ondansetron Bmm | Ondansetron claris | Ondansetron sandoz | Setronon | Zofran; (LU) Luxembourg: Ondansetron b.braun | Zofran; (LV) Latvia: Emeset | Emetron | Ondansetron claris | Ondansetron kabi | Zofran; (MA) Morocco: Chemoset | Onset | Zofran | Zophren; (MX) Mexico: Antivon | Dosartron | Emistop | Ht Bloc | Krindor | Nevolnost | Ondansetron | Precirux | Setronax | Vylkor | Zincolset | Zofran; (MY) Malaysia: Apo ondansetron | Emeset | Zofran; (NG) Nigeria: Emitino | Ondansetron | Zofran; (NL) Netherlands: Ondansetron | Ondansetron A | Ondansetron actavis | Ondansetron Alpharma | Ondansetron bluefish | Ondansetron cf | Ondansetron ratiopharm | Ondansetron sandoz | Zofran | Zofran 4 zydis; (NO) Norway: Ondansetron | Ondansetron Aurobindo | Ondansetron bluefish | Ondansetron bmm pharma | Ondansetron fresenius kabi | Ondansetron Hameln | Ondansetron mayne | Ondansetron orifarm | Ondansetron pfizer | Zofran; (NZ) New Zealand: Apo-ondansetron | Ondansetron | Ondansetron claris | Ondansetron dr Reddy | Ondansetron kabi | Onrex | Zofran; (PE) Peru: Alencar | Modifical | Ondansetron | Onmek | Ontrona | Zofran; (PH) Philippines: Amnoset | Emistop | Enset 8 | Kabidan | Ondatrix | Onsett | Onsia | Onstal | Onstal forte | Onzet | Vometron | Zofran; (PK) Pakistan: Adosetron | Chemset | Danomed | Danset | Dansetron | Deston | Endtron | Nixvom | Odanex | Ondan | Ondanles | Ondansetron | Ondanz | Ondasave | Ondenles | Ondonix | Onitron | Onrem | Onseron | Onset | Onvin | Osetron | Preset | Prevon | Vemtix | Vominec | Zofran; (PL) Poland: Atossa | Ebesetron | Emetron | Ondalek | Ondansetron accord | Ondansetron bluefish | Ondansetron Braun | Ondansetron claris | Ondansetron kabi | Setronon | Zofran; (PR) Puerto Rico: Ondansetron | Ondansetron HCL | Ondansetron odt | Zofran; (PT) Portugal: Emytron | Nausiend | Ondansetrom | Ondansetrom actavis | Ondansetrom Braun | Ondansetrom Ciclum | Ondansetrom generis | Ondansetrom hikma | Ondansetrom inibsa | Ondansetrom labesfal | Ondansetrom normon | Ondansetrom toLife | Otobrol | Zofran; (PY) Paraguay: Espasevit | Kelme flash | Limine | Metasone | Ondansetron fusa | Ondansetron veinfar | Ondatron; (RO) Romania: Osetron | Zofran; (RU) Russian Federation: Emeset | Emetron | Latran | Lazaran vm | Ondansetron | Ondansetron teva | Ondasol | Ondator | Ondavell | Osetron | Rondaset | Setronon | Vero

ondansetron | Zofran; (SA) Saudi Arabia: Apo ondansetron | Imatox | Ondansetron | Ondansetron medis | Pms Ondansetron | Zemitron | Zofran | Zofran melt | Zoron; (SE) Sweden: Ondansetron accord | Ondansetron alternova | Ondansetron amneal | Ondansetron Aurobindo | Ondansetron b braun | Ondansetron bluefish | Ondansetron bmm pharma | Ondansetron copyfarm | Ondansetron ebb | Ondansetron fresenius kabi | Ondansetron Hameln | Ondansetron hexal | Ondansetron hospira | Ondansetron mylan | Ondansetron nycomed | Ondansetron orifarm | Ondansetron pfizer | Ondansetron sandoz | Ondansetron stada | Ondansetron teva | Ondansetron vian | Zofran; (SG) Singapore: Ondansetron | Ondansetron sandoz | Ondavell | Zofran; (SI) Slovenia: Onilat | Setronon | Zofran; (SK) Slovakia: Ondansetron b. braun | Ondansetron kabi | Ondansetron sandoz | Ondansetron teva | Ondemet | Onsetrogen | Setron | Zofran; (TH) Thailand: Emistop | Nautah | Onsia | Vomitron | Zetron | Zofran; (TN) Tunisia: Ondansetron | Ondansetron Renaudin | Zemitron; (TR) Turkey: Nauzex | Ondaren | Onzyd | Santis | Zofer | Zofran | Zoltem | Zontron | Zophralen; (TW) Taiwan: Ondan | Sopran | Vomiz | Zofran; (UA) Ukraine: Emeset | Emesetron zdorovje | Emetron | Ondansetron | Ondansetron sandoz | Osetron | Setronon | Vomikind md | Zofetron | Zofran; (UG) Uganda: Aurodanz | Emitino | On.setron denk | Onsett | Vomistat | Vomiz; (UY) Uruguay: Dasentron | Emivox | Izofran | Ondansetron | Ondatie | Quimiofran | Setron; (VE) Venezuela, Bolivarian Republic of: Emistop | Ondansetron | Ondasetron | Tructum | Zofran; (VN) Viet Nam: Dloe | Ondanov | Slandom; (ZA) South Africa: Aspetron | Austell ondansetron | Cipla ondansetron | Nausetron | Ondansetron | Vomiz | Zofer | Zofran; (ZM) Zambia: Onsett; (ZW) Zimbabwe: Ondansetron fresenius | Onsett | Zofran

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