

Vonorev

Film coated tablets



Composition: Each film coated tablet contains:

10 mg of Vonoprazan (equivalent to 13.36 mg of Vonoprazan fumarate) and 20 mg of Vonoprazan (equivalent to 26.72 mg of Vonoprazan fumarate).

Excipients:

Mannitol, Microcrystalline Cellulose, Hydroxypropyl cellulose, Ascorbic acid, Croscarmellose Sodium, Magnesium Stearate, HPMC, Titanium Dioxide, Triacetin, PEG, Talc, Tween, Ethanol Absolute, Water.

Indications:

For healing of all grades of erosive esophagitis and relief of heartburn associated with erosive esophagitis in adults.

To maintain healing of all grades of erosive esophagitis and relief of heartburn associated with erosive esophagitis in adults.

For the relief of heartburn associated with non-erosive gastroesophageal reflux disease in adults.

In combination with amoxicillin and clarithromycin for the treatment of *Helicobacter pylori* (*H. pylori*) infection in adults.

In combination with amoxicillin for the treatment of *H. pylori* infection in adults.

Mechanism of Action:

Vonoprazan suppresses basal and stimulated gastric acid secretion at the secretory surface of the gastric parietal cell through inhibition of the H⁺, K⁺-ATPase enzyme system in a potassium-competitive manner. Because this enzyme is regarded as the acid (proton) pump within the parietal cell, Vonoprazan has been characterized as a type of gastric proton-pump inhibitor, in that it blocks the final step of acid production. Vonoprazan does not require activation by acid. Vonoprazan may selectively concentrate in the parietal cells in both the resting and stimulated states. Vonoprazan binds to the active pumps in a noncovalent and reversible manner.

Pharmacokinetics:

Absorption

Vonoprazan exhibits time-independent pharmacokinetics and steady state concentrations are achieved by Day 3 to 4. After multiple doses of Vonoprazan ranging from 10 to 40 mg (twice the maximum recommended dose) once daily for 7 days in healthy subjects, C_{max} and area under the plasma concentration-time curve (AUC) values for Vonoprazan increased in an approximately dose-proportional manner.

There is little accumulation in plasma after once daily multiple doses, with an accumulation index ratio of less than 1.2 based on AUC for doses ranging from 10 to 40 mg (twice the maximum recommended dose).

Effect of Food:

In a food effect study in healthy subjects (N=24) who received Vonoprazan 20 mg, a high-fat meal resulted in a 5% increase in C_{max}, a 15% increase in AUC, and a delay in median T_{max} of 2 hours. These changes are not considered to be clinically significant.

Distribution

Plasma protein binding of Vonoprazan ranged from 85 to 88% in healthy subjects and was independent of concentration from 0.1 to 10 mcg/mL.

Elimination

Metabolism:

Vonoprazan is metabolized to inactive metabolites via multiple pathways by a combination of cytochrome P450 (CYP) isoforms (CYP3A4/5, CYP2B6, CYP2C19, CYP2C9 and CYP2D6) along with sulfo- and glucuronosyl-transferases. CYP2C19 polymorphisms have been evaluated in clinical studies and there were no considerable differences in the pharmacokinetics of Vonoprazan based on CYP2C19 metabolizer status.

Excretion:

Following oral administration of radiolabeled Vonoprazan, approximately 67% of the radiolabeled dose (8% as unchanged

Vonoprazan) was recovered in urine and 31% (1.4% as unchanged Vonoprazan) was recovered in feces.

Interactions:

Cytochrome P450 (CYP450) Enzymes:

In vitro studies have shown that Vonoprazan directly and time-dependently inhibits CYP2B6, CYP2C19, and CYP3A4/5.

Transporter Systems:

Vonoprazan inhibits multidrug and toxin extrusion protein 1 (MATE1) and organic cation transporter 1 (OCT1), but only at concentrations higher than clinically relevant.

Clinical Studies:

Combination Therapy with Vonoprazan, Amoxicillin, and Clarithromycin:

When Vonoprazan 20 mg, amoxicillin 750 mg, and clarithromycin 400 mg were co-administered twice daily for 7 days (N=11), there was no effect on pharmacokinetics of amoxicillin compared to amoxicillin alone. However, Vonoprazan C_{max} and AUC_{0-12h} increased by 87% and 85%, respectively, and clarithromycin C_{max} and AUC_{0-12h} increased by 64% and 45%, respectively, compared to administration of each component alone.

Effect of Vonoprazan on CYP3A4 Substrates:

When a single oral dose of midazolam 2 mg was administered following Vonoprazan 20 mg twice daily for 7 days (N=20), midazolam AUC_{0-inf} increased 93% compared to administration of midazolam alone.

Effect of CYP3A Inhibitors on Vonoprazan:

When a single dose of 40 mg Vonoprazan (twice the maximum recommended dose) was administered with clarithromycin 500 mg twice daily for 7 days (N=16), Vonoprazan AUC_{0-inf} increased 58% compared to administration of Vonoprazan alone.

Coadministration of Vonoprazan with Non-Steroidal Anti-Inflammatory Drugs (NSAIDs) or Low-Dose Aspirin

When a single dose of 40 mg Vonoprazan (twice the maximum recommended dose) was co-administered with diclofenac 25 mg, meloxicam 10 mg, or aspirin 100 mg, there were no clinically meaningful changes in exposure of Vonoprazan, diclofenac, meloxicam, or aspirin compared to administration of each drug alone.

Effect of CYP3A Inducers on Vonoprazan

Vonoprazan exposures are predicted to be 80% lower when co-administered with a strong CYP3A4 inducer such as rifampicin and 50% lower when co-administered with a moderate CYP3A4 inducer such as efavirenz.

Drugs Dependent on Gastric pH for Absorption:

Vonoprazan reduces intragastric acidity, which may alter the absorption of antiretroviral drugs, leading to changes in the safety and/or effectiveness.

Rilpivirine-containing products:

Concomitant use with Vonoprazan is contraindicated.

Atazanavir: Avoid concomitant use.

Other Drugs (e.g., iron salts, erlotinib, dasatinib, nilotinib, mycophenolate mofetil, ketoconazole/itraconazole):

Vonoprazan reduces intragastric acidity decrease the absorption of drugs reducing their effectiveness.

Combination Therapy with Clarithromycin and/or Amoxicillin:

Concomitant administration of clarithromycin with other drugs can lead to serious adverse reactions, including potentially fatal arrhythmias, and is contraindicated.

Amoxicillin also has drug interactions.

Certain CYP3A Substrates Where Minimal Concentration

Changes May Lead to Serious Toxicities:

Vonoprazan is a weak CYP3A inhibitor Vonoprazan may increase exposure of CYP3A4 substrates, which may increase the risk of adverse reactions related to these substrates.

CYP2C19 Substrates (e.g., clopidogrel, citalopram, cilostazol):

Vonoprazan is a CYP2C19 inhibitor Vonoprazan may reduce plasma concentrations of the active metabolite of clopidogrel and may cause reduction in platelet inhibition. Vonoprazan may increase exposure of CYP2C19 substrate drugs (e.g., citalopram, cilostazol).

Chromogranin Test for Neuroendocrine Tumors:

Vonoprazan reduces intragastric acidity which increases CgA levels and may cause false positive results in diagnostic investigations for neuroendocrine tumors.

Interaction with Secretin Stimulation Test:

Hyper-response in gastrin secretion in response to secretin stimulation test, falsely suggesting gastrinoma.

Strong or Moderate CYP3A4 Inducers:

Vonoprazan is a CYP3A substrate. Strong or moderate CYP3A inducers decrease Vonoprazan exposure.

Pregnancy and lactation:

There are no adequate and well-controlled studies of Vonoprazan in pregnant women. Available data from pharmacovigilance reports with Vonoprazan-containing products used in pregnant women are not sufficient to evaluate for a drug-associated risk for major birth defects, miscarriage, or other adverse maternal or fetal outcomes. Because of the potential risk of adverse liver effects shown in animal studies with Vonoprazan, advise patients not to breastfeed during treatment with VONOPRAZAN.

Contraindications:

Vonoprazan is contraindicated in patients with a known hypersensitivity to Vonoprazan or any component of the product. Reactions have included anaphylactic shock.

Vonoprazan is contraindicated with rilpivirine-containing products.

Side effects:

Acute Tubulointerstitial Nephritis

Clostridioides difficile-Associated Diarrhea

Bone Fracture

Severe Cutaneous Adverse Reactions

Vitamin B12 (Cobalamin) Deficiency

Fundic Gland Polyps

Dosage and administration:

Recommended Dosage:

Healing of Erosive Esophagitis:

The recommended adult oral dosage is Vonoprazan 20 mg once daily for 8 weeks for the treatment of healing of erosive esophagitis and relief of associated heartburn.

Maintenance of Healed Erosive Esophagitis:

The recommended adult oral dosage is Vonoprazan 10 mg once daily for up to 6 months for the maintenance of healed erosive esophagitis and relief of associated heartburn.

Relief of Heartburn Associated with Non-Erosive

Gastroesophageal Reflux Disease:

The recommended adult oral dosage is Vonoprazan 10 mg once daily for 4 weeks.

Treatment of *H. pylori* Infection:

Triple Therapy: The recommended adult oral dosage is Vonoprazan 20 mg plus amoxicillin 1,000 mg plus clarithromycin 500 mg, each given twice daily (in the morning and evening, 12 hours apart) for 14 days.

Dual Therapy: The recommended adult oral dose is Vonoprazan 20 mg given twice daily (in the morning and evening) plus amoxicillin 1,000 mg three times daily (in the morning, mid-day, and evening) for 14 days.

Also refer to the amoxicillin and clarithromycin full prescribing information.

Recommended Dosage in Patients with Renal Impairment:

Healing of Erosive Esophagitis:

The recommended dosage of Vonoprazan in adult patients with renal impairment is described in Table 1 below.

Table 1: Recommended Vonoprazan dosage in Patients with

Renal Impairment:

Healing of Erosive Esophagitis:

Estimated glomerular filtration rate (GFR)	Recommended Dosage
30 mL/minute or greater	20 mg once daily
Less than 30 mL/minute	10 mg once daily

Maintenance of Healed Erosive Esophagitis or Relief of Heartburn

Associated with Non-Erosive Gastroesophageal Reflux Disease: The recommended dosage of Vonoprazan in adult patients with renal impairment is the same as for adult patients with normal renal function.

Treatment of *H. pylori* Infection:

The recommended dosage of Vonoprazan in adult patients with renal impairment is described in Table 2 below.

Table 2: Recommended Vonoprazan Dosage in Patients with Renal Impairment: Treatment of *H. pylori* Infection*

Estimated GFR	Recommended Dosage
30 mL/minute or greater	20 mg twice daily
Less than 30 mL/minute	Use is not recommended

*Also refer to the *Dosage and Administration* section of the amoxicillin and clarithromycin prescribing information for dosage recommendations in patients with renal impairment. **Recommended Dosage in Patients with Hepatic Impairment:** **Healing of Erosive Esophagitis:**

The recommended dosage of Vonoprazan in adult patients with hepatic impairment is described in Table 3 below.

Table 3: Recommended Vonoprazan Dosage in Patients with Hepatic Impairment: Healing of Erosive Esophagitis

Classification	Recommended Dosage
Child-Pugh Class A	20 mg once daily
Child-Pugh Class B	10 mg once daily
Child-Pugh Class C	10 mg once daily

Maintenance of Healed Erosive Esophagitis or Relief of Heartburn

Associated with Non-Erosive Gastroesophageal Reflux Disease: The recommended dosage of Vonoprazan in adult patients with hepatic impairment is the same as for patients with normal hepatic function.

Treatment of *H. pylori* Infection:

The recommended dosage of Vonoprazan in adult patients with hepatic impairment is described in Table 4 below.

Table 4: Recommended Vonoprazan Dosage in Patients with Hepatic Impairment: Treatment of *H. pylori* Infection

Classification	Recommended Dosage
Child-Pugh Class A	20 mg twice daily
Child-Pugh Class B	Use is not recommended
Child-Pugh Class C	Use is not recommended

Administration Instructions:

Take Vonoprazan with or without food.

Swallow Vonoprazan tablets whole; do not chew or crush the tablet.

Missed doses:

-For the healing or maintenance of healed erosive esophagitis, or the relief of heartburn associated with non-erosive gastroesophageal reflux disease: If a dose is missed, administer Vonoprazan as soon as possible within 12 hours after the missed dose. If more than 12 hours have passed, skip the missed dose and administer the next dose at the regularly scheduled time.

-For the treatment of *H. pylori* infection: If a dose is missed, administer as soon as possible within 4 hours after the missed dose. If more than 4 hours have passed, skip the missed dose and administer the next dose at the regularly scheduled time. Continue the normal dosing schedule until the treatment is completed.

Storage conditions:

Store at a temperature between 20- 25° C.

Keep out of reach of children.

How supplied:

Carton box contains 14 film coated tablets in two Alu/Alu blisters.

*A medication is a product which affects your health, and it's consumption contrary to instructions is dangerous for you.
- Follow strictly the doctor's prescriptions, the method of use and the instructions of the pharmacist who sold the medication.
- Do not share the pharmacist's expertise in medicine, its benefits and risks.
- Do not repeat the same prescription without consulting your doctor.
KEEP THE MEDICINE OUT OF REACH OF CHILDREN
Council of Arab Health Ministries: Union of Arab Pharmacies

Revva Pharma for Pharmaceutical Industries - Idlib - Syria

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