Ranitidine is a drug from the group of H₂ antihistamines. It acts by reducing nocturnal gastric acid secretion, and is therefore used in the treatment of the following diseases:

- Zollinger-Ellison syndrome
- GERD (gastroesophageal reflux disease)
- Ulcers in the stomach or duodenum
- Heartburn

**Precautions**

The only contraindication to the use of Ranitidine is a known allergy to this drug.

Since Ranitidine may mask symptoms of gastric cancer, it is important to exclude cancer as a possible diagnosis before the therapy starts.

Ranitidine may cause acute dystonia (prolonged involuntary muscle contractions)¹ and use of this drug should be discontinued immediately if you notice this side effect.

Although rare, this medicine can cause thrombocytopenia² (so far there are only 29 cases reported, which is consider as very low incidence, considering the fact that millions of people take this medicine every day). Thrombocytopenia is low platelet count, and is characterized by blood clotting disorders. Characteristic symptoms of thrombocytopenia are easy bruising and prolonged bleeding. The platelet count does not drop drastically, but by 20-25% and quickly returns within normal value after cessation of treatment.
Cases of hepatitis caused by using this medicine have also been reported. Patients who already have impaired liver function should apply this medicine with caution.

Ranitidine-associated bradycardia (slow heartbeat) has also been reported. Patients who have atrioventricular block or take medications that may slow the heartbeat (e.g. propranolol, metoprolol, bisoprolol, verapamil and diltiazem) should not use Ranitidine.

Avoid increased exposure to sunlight while being treated with this medicine, because Ranitidine is associated with the occurrence of photosensitivity.

Ranitidine should be used with caution in the following conditions:

- In patients with acute intermittent porphyria
- In patients with diabetes
- In patients with respiratory diseases
- In patients with autoimmune diseases
- In patients older than 60 years

**Ranitidine, pregnancy and breastfeeding**

AU TGA and FDA classify this drug in group B - group of drugs for which limited information is available on the use in humans, but animal studies have shown that the drug is safe for use during pregnancy. In one study which included 335 pregnant women who were taking Ranitidine during pregnancy, there were no Ranitidine-associated side effects on the fetus.

It is assumed that the use of this drug during breastfeeding is safe, but caution is advised when taking Ranitidine during breastfeeding.

**Dosage**

Ranitidine exists in the form of tablets at a dose of 150 mg. The usual dose in the treatment of heartburn, GERD and ulcer is 150 mg two times a day (in the morning and in the evening) or 300 mg at bedtime. Therapy usually lasts 4-8 weeks.

For the treatment of Zollinger-Ellison syndrome, Ranitidine is used at a dose of 150 mg three times a day, or up to 300 mg three times a day.

**Interactions**

Ranitidine may enter into a major interactions with the following drugs:

- **Atazanavir** (drug used to treat AIDS). Ranitidine reduces the absorption of this drug which can lead to reduced efficiency of Atazanavir.
- **Dasatinib** (a drug used in the treatment of leukemia). Ranitidine reduces the absorption of this drug and decreases its efficiency.
- **Pazopanib** (a drug used in the treatment of renal carcinoma and soft tissue sarcoma). Ranitidine reduces the pH value in the stomach, which directly affects the absorption of this drug. By reducing the absorption of this drug, Ranitidine decreases the concentration of pazopanib in the blood which significantly reduce its effectiveness.
- **Loperamide** (a drug used to treat diarrhea). Ranitidine may increase loperamide level in the blood which increases the risk of side effects, such as: arrhythmia and cardiac arrest.
Side effects

Side effects of the Ranitidine include:

- Mild gastrointestinal disturbances (*diarrhea, constipation and nausea*)
- Tiredness
- Dizziness
- Headache
- Elevated levels of liver enzymes in the blood
- Hepatitis
- Thrombocytopenia
- Agranulocytosis
- Bradycardia
- Photosensitivity
- Leukopenia
- Pancytopenia
- Vasculitis
- Impotence
- Alopecia
- Gynecomastia
- Galactorrhea
- Pancreatitis
- Dystonia
- Hallucinations
- Allergic reactions including anaphylactic shock

References

1. NCBI link 1
2. NCBI link 2
3. NCBI link 3
4. NCBI link 4
5. NCBI link 5
6. NCBI link 6