# Size : 146 x 288 mm

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**PANTAKIND-40**

(Pantoprazole Sodium Delayed-Release Tablets USP 40 mg)

**1. NAME OF MEDICINAL PRODUCT**

**PANTAKIND-40** (Pantoprazole Sodium Delayed-Release Tablets USP 40 mg)

**2. QUALITATIVE AND QUANTITATIVE COMPOSITION**

**PANTAKIND-40**: Each Enteric coated tablet contains Pantoprazole Sodium USP equivalent to Pantoprazole 40 mg.

Excipients: For a full list of excipients, please refer Section 6.1.

**3. PHARMACEUTICAL FORMS**

**PANTAKIND-40**: Light brown coloured, round shape enteric coated tablet plain on both sides.

**4. CLINICAL PARTICULARS**

**4.1 Therapeutic Indications**

Benign Gastric Ulcer

Gastro-oesophageal Reflux Disease

Duodenal Ulcer

Duodenal Ulcer associated with Helicobacter pylori

Prophylaxis of Non Steroidal Anti Inflammatory Drugs (NSAID)- associated gastric & duodenal ulcer in patients with an increased risk of gastroduodenal complications who require continued NSAID treatment.

Zollinger-Ellison syndrome

**4.2 Dosage & Administration**

Benign Gastric Ulcer

ADULT over 18 years, 40-80 mg daily in the morning for 4 weeks, continued for further 4 weeks if not fully healed.

Gastro-oesophageal Reflux Disease

ADULT & CHILD over 12 years, 20-80 mg daily in the morning for 4 weeks, continued for further 4 weeks if not fully healed; maintenance 20 mg daily, increased to 40 mg if symptoms return.

Duodenal Ulcer

ADULT over 18 years, 40-80 mg daily in the morning for 2 weeks, continued for further 2 weeks if not fully healed.

Prophylaxis of NSAID- associated gastric & duodenal ulcer in patients with an increased risk of gastroduodenal complications who require continued NSAID treatment.

ADULT over 18 years, 20 mg daily.

Zollinger-Ellison syndrome (and other hypersecretory conditions)

ADULT over 18 years, initially 80 mg once daily and adjusted according to response (Elderly max. 40 mg daily); daily doses above 80 mg given in 2 divided doses.

**Mode of Administration**: For oral use

Tablet should be swallowed as whole with or without food & it should not be split, chewed, or crushed.

**4.3 Contraindications**

**PANTAKIND-40** is contraindicated in patients with known hypersensitivity to any component of the formulation or any substituted benzimidazole.

**4.4 Special Warnings & Precautions for use**

In patients with severe hepatic impairment, the liver enzymes should be monitored regularly during treatment with Pantoprazole, particularly for long-term use.

In the presence of any alarm symptom (e. g. significant unintentional weight loss, recurrent vomiting, dysphagia, haematemesis, anaemia or melaena) and when gastric ulcer is suspected or present, malignancy should be excluded, as treatment with Pantoprazole may alleviate symptoms and delay diagnosis. Further investigation is to be considered if symptoms persist despite adequate treatment.

Co-administration of atazanavir with proton pump inhibitors is not recommended. If the combination of atazanavir with a proton pump inhibitor is judged unavoidable, close clinical monitoring (e.g virus load) is recommended in combination with an increase in the dose of atazanavir to 400 mg with 100 mg of ritonavir. A Pantoprazole dose of 20 mg per day should not be exceeded.

In patients with Zollinger-Ellison syndrome and other pathological hypersecretory conditions requiring long-term treatment, Pantoprazole, as all acid-blocking medicines, may reduce the absorption of vitamin B12 (cyanocobalamin) due to hypo- or achlorhydria. This should be considered in patients with reduced body stores or risk factors for reduced vitamin B12 absorption on long-term therapy or if respective clinical symptoms are observed.

In long-term treatment, especially when exceeding a treatment period of 1 year, patients should be kept under regular surveillance.

Pantoprazole, like all proton pump inhibitors (PPIs), might be expected to increase the counts of bacteria normally present in the upper gastrointestinal tract. Treatment with Pantoprazole 40 mg may lead to a slightly increased risk of gastrointestinal infections caused by bacteria such as *Salmonella and Campylobacter*.

Several published observational studies suggest that proton pump inhibitor (PPI) therapy may be associated with an increased risk for osteoporosis-related fractures of the hip, wrist, or spine. The risk of fracture was increased in patients who received high-dose, defined as multiple daily doses, and long-term PPI therapy (a year or longer). Patients should use the lowest dose and shortest duration of PPI therapy appropriate to the condition being treated.

**4.5 Interactions with other medicinal products and other form of interaction**

Because of profound and long lasting inhibition of gastric acid secretion, Pantoprazole may reduce the absorption of medicinal drugs with a gastric pH-dependent bioavailability (e.g. some azole antifungals such as ketoconazole, itraconazole posaconazole and other medicines such as erlotinib).

Co-administration of atazanavir and other HIV medications whose absorption is pH-dependent with proton-pump inhibitors might result in a substantial reduction in the bioavailability of these HIV medications and might impact the efficacy of these medicines. Therefore, co-administration of proton-pump inhibitors with atazanavir is not recommended.

There have been post-marketing reports of increased INR and prothrombin time in patients receiving proton pump inhibitors, including Pantoprazole and warfarin concomitantly. Increase in INR and prothrombin time may lead to abnormal bleeding and even death. Patients treated with proton pump inhibitors and warfarin concomitantly should be monitored for increases in INR and prothrombin time.

**4.6 Pregnancy and Lactation**

Use in Pregnancy

*Pregnancy Category B*. There are no adequate and well-controlled studies of Pantoprazole in pregnant women. Pantoprazole should be used during pregnancy only if the potential benefit justifies the potential risk to the foetus.

Use in Lactation

There are no adequate and well-controlled studies of Pantoprazole in pregnant women and hence should be used only if clearly indicated.

**4.7 Effect on ability to drive and use machines**

Adverse drug reactions such as dizziness and visual disturbances may occur. If affected, patients should not drive or operate machines

**4.8 Undesirable Effects**

Side-effects of the proton pump inhibitors include gastro-intestinal disturbances including nausea, vomiting, abdominal pain, flatulence, diarrhoea, constipation, and headache. Less frequent side-effects include dry mouth, peripheral oedema, dizziness, sleep disturbances, fatigue, paraesthesia, arthralgia, myalgia, rash, and pruritus. Other side-effects reported rarely or very rarely include taste disturbance, stomatitis, hepatitis, jaundice, hypersensitivity reactions (including anaphylaxis, bronchospasm), fever, depression, hallucinations, confusion, gynaecomastia, interstitial nephritis, hyponatraemia, blood disorders (including leucopenia, leucocytosis, pancytopenia, thrombocytopenia), visual disturbances, sweating, photosensitivity, alopecia, Stevens- Johnson syndrome, and toxic epidermal necrolysis. By decreasing gastric acidity, proton pump inhibitors may increase the risk of gastro-intestinal infections (including *Clostridium difficile* infection).

**4.9 Overdosage**

Experience in patients taking very high doses of Pantoprazole ( > 240 mg) is limited. Pantoprazole is not removed by hemodialysis. In case of overdosage, treatment should be symptomatic and supportive.

Single oral doses of pantoprazole at 709 mg/kg, 798 mg/kg, and 887 mg/kg were lethal to mice, rats, and dogs, respectively.

The symptoms of acute toxicity were hypoactivity, ataxia, hunched sitting, limb-splay, lateral position, segregation, absence of ear reflex, and tremor.

## 5. PHARMACOLOGICAL PROPERTIES

**5.1 Pharmacodynamics Properties**

**Pharmacotherapeutic group: Proton Pump Inhibitors, ATC Code: A02B C02**

Pantoprazole is a substituted benzimidazole which inhibits gastric acid secretion of hydrochloric acid in the stomach by specific blockage of the proton pumps of the parietal cells.

Pantoprazole is converted to its active form in the acidic environment in the parietal cells where it inhibits the H+, K+-ATPase enzyme, i.e. the final stage in the production of hydrochloric acid in the stomach. The inhibition is dose-dependent and affects both basal and stimulated acid secretion. As with other proton pump inhibitors and H2 receptor inhibitors, treatment with Pantoprazole reduces acidity in the stomach, and thereby increases gastrin in proportion to the reduction in acidity. The increase in gastrin is reversible. Since Pantoprazole binds to the enzyme distal to the cell receptor level, it can inhibit hydrochloric acid secretion independently of stimulation by other substances (acetylcholine, histamine, gastrin).

**5.2 Pharmacokinetics Properties**

Pantoprazole is rapidly absorbed and peak plasma pantoprazole concentrations are achieved about 2 to 2.5 hours after an oral dose. The oral bioavailability is about 77% with the enteric-coated tablet formulation, and does not vary after single or multiple doses. Pantoprazole is about 98% bound to plasma proteins. It is extensively metabolised in the liver, primarily by the cytochrome P450 isoenzyme CYP2C19, to desmethylpantoprazole; small amounts are also metabolised by CYP3A4, CYP2D6, and CYP2C9. Metabolites are excreted mainly (about 80%) in the urine, with the remainder being excreted in faeces via the bile. The terminal elimination half-life is about 1 hour, and is prolonged in hepatic impairment; the half-life in patients with cirrhosis was 3 to 6 hours. Although the elimination half-life has been reported to be 3.5 to 10 hours in slow metabolisers , minimal accumulation occurs with once-daily dosing.

**5.3 Pre-Clinical Safety Data**

Preclinical data reveal no special hazard to humans based on conventional studies of safety pharmacology, repeated dose toxicity and genotoxicity.

## 6. PHARMACEUTICAL PARTICULARS

**6.1 List of Excipients**

Sodium Carbonate Anhydrous, Mannitol, Sucrose, Purified Water, Silicon Dioxide, Talc, Calcium Stearate, Hypromellose, Macrogol, Methacrylic Acid-Ethyl Acrylate Copolymer (1:1) dispersion 30% [Eudragit L30 d55], Titanium Dioxide, Iron Oxide Black, Iron Oxide Red and Triethyl Citrate.

**6.2 Incompatibilities**

Not Applicable

**6.3 Shelf Life**

24 months from the date of manufacture.

**6.4 Special Precautions for Storage**

Do no store above 30° C. Protect from light & moisture.

Keep all medicines out of the reach of children.

**6.5 Nature and Contents of Container**

10 Tablets packed in a Alu/Alu Blister. 6 such blisters are packed in a carton along with a package insert.

**6.6 Special Precautions for Disposal**

No special requirements.

## 7. DATE OF PUBLICATION OF INSERT

Jan' 2018

Mankind

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