

## **GASTREX**

**Tablets**

### **Composition**

Each tablet contains 40 mg of Famotidine.

### **Action**

Famotidine is a competitive inhibitor of histamine H<sub>2</sub>-receptors. The primary clinically important pharmacologic activity of Famotidine is inhibition of gastric secretion. Both the acid concentration and volume of gastric secretion are suppressed by Famotidine, while changes in pepsin secretion are proportional to volume output.

### **Pharmacokinetics**

Famotidine is incompletely absorbed. The bioavailability of oral doses is 40-45%. Bioavailability may be slightly increased by food, or slightly decreased by antacids; however, these effects are of no clinical consequence. Gastrex undergoes minimal first-pass metabolism. After oral doses, peak plasma levels occur in 1-3 hours. Plasma levels after multiple doses are similar to those after single doses. 15 to 20% of Famotidine in plasma is protein bound. Famotidine has an elimination half-life of 2.5-3.5 hours. Famotidine is eliminated by renal (65-70%) and metabolic (30-35%) routes. Renal clearance is 250-450 ml/min, indicating some tubular excretion. Twenty-five to 30% of an oral dose and 65-70% of an intravenous dose are recovered in the urine as unchanged compound. The only metabolite identified in man is the S-oxide.

There is a close relationship between creatinine clearance values and the elimination half-life of Famotidine. In patients with severe renal insufficiency, i.e., creatinine clearance less than 10 ml/min, the elimination half-life of Famotidine may exceed 20 hours and adjustment of dose or dosing intervals in moderate and severe renal insufficiency may be necessary.

### **Indications**

Gastrex is indicated in:

- Short term treatment of active duodenal ulcer.
- Maintenance therapy for duodenal ulcer patients at reduced dosage after healing of an active ulcer.
- Short term treatment of active benign gastric ulcer.
- Short term treatment of gastroesophageal reflux disease (GERD).
- Treatment of pathological hypersecretory conditions (e.g., Zollinger-Ellison Syndrome, multiple endocrine adenomas).

### **Contraindications**

- Hypersensitivity to any component of these products.
- Cross sensitivity in this class of compounds has been observed. Therefore, Famotidine should not be administered to patients with a history of hypersensitivity to other H<sub>2</sub>-receptor antagonists.

### **Adverse Reactions**

The following adverse reactions have been reported to occur in more than 1% of patients on therapy with Famotidine: headache, dizziness, constipation, and diarrhea.

The following other adverse reactions have been reported infrequently in clinical trials or since the drug was marketed. The adverse reactions are listed in order of decreasing severity:

*Body as a Whole:* fever, asthenia, fatigue

*Cardiovascular:* arrhythmia, AV block, palpitation

*Gastrointestinal:* cholestatic jaundice, liver enzyme abnormalities, vomiting, nausea, abdominal discomfort, anorexia, dry mouth

*Hematologic:* rare cases of agranulocytosis, pancytopenia, leukopenia, thrombocytopenia

*Hypersensitivity:* anaphylaxis, angioedema, orbital, or facial edema, urticaria, rash.

*Musculoskeletal:* musculoskeletal pain including muscle cramps, arthralgia

*Nervous System/Psychiatric:* grand mal seizure; psychic disturbances, which were reversible in cases for which follow-up was obtained, including hallucinations, confusion, agitation, depression, anxiety, decreased libido; paresthesia; insomnia; somnolence

*Respiratory:* bronchospasm

*Skin:* toxic epidermal necrolysis (very rare), alopecia, acne, pruritus, dry skin, flushing *Special Senses:* tinnitus, taste disorder

### **Pediatric Patients**

In a clinical study in 35 pediatric patients <1 year of age with GERD symptoms [e.g., vomiting (spitting up), irritability (fussing)], agitation was observed in 5 patients on Famotidine that resolved when the medication was discontinued.

### **Precautions**

#### **Patients with Moderate or Severe Renal Insufficiency**

Since CNS adverse effects have been reported in patients with moderate and severe renal insufficiency, longer intervals between doses or lower doses may need to be used in patients with moderate (creatinine clearance <50 ml/min) or severe (creatinine clearance <10 ml/min) renal insufficiency to adjust for the longer elimination half-life of Famotidine .

#### **Pregnancy**

##### *Category B*

Animal reproduction studies have failed to demonstrate a risk to the fetus and there are no adequate and well-controlled studies in pregnant women.

#### **Nursing Mothers**

Famotidine is detectable in human milk. Because of the potential for serious adverse reactions in nursing infants a decision should be made whether to discontinue nursing or discontinue the drug, taking into account the importance of the drug to the mother.

#### **Pediatric Patients 1-16 years of age**

A starting dose for pediatric patients 1-16 years of age as follows:

*Peptic ulcer* - 0.5 mg/kg/day p.o. at bedtime or divided b.i.d. up to 40 mg/day.

*Gastroesophageal Reflux Disease with or without esophagitis including erosions and ulcerations* -1.0 mg/kg/day p.o. divided b.i.d. up to 40 mg b.i.d.

#### **Geriatric Use**

No overall differences in safety or effectiveness were observed between geriatrics and younger subjects. However, greater sensitivity of some older individuals cannot be ruled out.

No dosage adjustment is required based on age . This drug is known to be substantially excreted by the kidney, and the risk of toxic reactions to this drug may be greater in patients with impaired renal function. Because elderly patients are more likely to have decreased renal function, care should be taken in dose selection, and it may be useful to monitor renal function. Dosage adjustment in the case of moderate or severe renal impairment is necessary.

### **Dosage and Administration**

#### **Duodenal Ulcer**

*Acute Therapy:* The recommended adult oral dosage for active duodenal ulcer is 40 mg once a day at bedtime. Most patients heal within 4 weeks. A regimen of 20 mg b.i.d. is also effective.

*Maintenance Therapy:* The recommended adult oral dose is 20 mg once a day at bedtime.

#### **Benign Gastric Ulcer**

The recommended adult oral dosage for active benign gastric ulcer is 40 mg once a day at bedtime.

#### **Gastroesophageal Reflux Disease (GERD)**

The recommended oral dosage for treatment of adult patients with symptoms of GERD is 20 mg b.i.d. for up to 6 weeks. The recommended oral dosage for the treatment of adult patients with esophagitis including erosions and ulcerations and accompanying symptoms due to GERD is 20 or 40 mg b.i.d. for up to 12 weeks

#### **Dosage for Pediatric Patients 1-16 years of age**

*Peptic ulcer* - 0.5 mg/kg/day p.o. at bedtime or divided b.i.d. up to 40 mg/day.

*Gastroesophageal Reflux Disease with or without esophagitis including erosions and ulcerations* -1.0 mg/kg/day p.o. divided b.i.d. up to 40 mg b.i.d.

#### **Pathological Hypersecretory Conditions (e.g., Zollinger-Ellison Syndrome, Multiple Endocrine Adenomas)**

The dosage of Gastrex in patients with pathological hypersecretory conditions varies with the individual patient. The recommended adult oral starting dose for pathological hypersecretory conditions is 20 mg q 6 h. in some patients; a higher starting dose may be required. Doses should be adjusted to individual patient needs and should continue as long as clinically indicated. Doses up to 160 mg q 6 h have been administered to some adult patients with severe Zollinger-Ellison Syndrome.

#### **Concomitant Use of Antacids**

Antacids may be given concomitantly if needed.

#### **Dosage Adjustment for Patients with Moderate or Severe Renal Insufficiency**

In adult patients with moderate (creatinine clearance <50 ml/min) or severe (creatinine clearance <10 ml/min) renal insufficiency, the elimination half-life of Gastrex is increased. For patients with severe renal insufficiency, it may exceed 20 hours, reaching approximately 24 hours in anuric patients. Since CNS adverse effects have been reported in patients with moderate and severe renal insufficiency, to avoid excess accumulation of the drug in patients with moderate or severe renal insufficiency, the dose of Gastrex may be reduced to half the dose or the dosing interval may be prolonged to 36-48 hours as indicated by the patient's clinical response.

#### **Over Dosage**

In the event of over dosage, treatment should be symptomatic and supportive. Unabsorbed material should be removed from the gastrointestinal tract, the patient should be monitored, and supportive therapy should be employed.

#### **Presentation**

##### **Gastrex 40**

Box of 30 tablets