Summary of Product Characteristics

1 NAME OF THE MEDICINAL PRODUCT

Famotidine 40 mg film-coated tablets

2 QUALITATIVE AND QUANTITATIVE COMPOSITION

Each film-coated tablet contains 40 mg famotidine.

For the full list of excipients, see section 6.1.

3 PHARMACEUTICAL FORM

Film-coated tablets
Circular, biconvex, pink to pinkish film-coated tablets with break line on one side.
The tablet can be divided into equal doses.

4 CLINICAL PARTICULARS

4.1 Therapeutic indications

- Duodenal ulcer
- Benign gastric ulcer
- Zollinger-Ellison-Syndrome
- Treatment of mild to moderate reflux oesophagitis

4.2 Posology and method of administration

Posology

Duodenal ulcers and benign gastric ulcers
40 mg of famotidine once before going to sleep

Zollinger-Ellison syndrome
Providing there has not been previous treatment with antisecretory agents, Zollinger-Ellison syndrome treatment can start with the administration of 20 mg of famotidine (film-coated tablets with 20 mg of famotidine are available) every 6 hours. Depending on the acid secretion and the patient's clinical response, a dosage titration should be performed as treatment continues until the desired acid levels have been reached (e.g. < 10 mEq/h in the hour preceding the next dose of famotidine).

If the desired inhibition of acid secretion cannot be attained with a daily dosage of 800 mg, it is recommended that an alternative treatment should be considered to regulate acid secretion, since no long-term experience with dosages of more than 800 mg of famotidine/day have been recorded.

Treatment should be continued for as long as clinically necessary.

Patients who have previously undergone H2 receptor antagonist treatment can start famotidine treatment at a higher dosage than the initial dosage than the one recommended. The dosage depends on the severity of the disease and the dosage of previous medications.

Mild to moderate reflux oesophagitis
In the treatment of mild to moderate reflux oesophagitis, a daily dosage of 40 mg of famotidine twice daily (corresponding to two film-coated tablets of Famotidine 40 mg) is recommended.

Famotidine is primarily eliminated via the kidneys. For patients with impaired renal function in whom creatinine clearance is less than 30 ml/min, the daily dosage of famotidine must be reduced by 50 %.

Dialysis patients should also take dosages that are reduced to 50 %. Famotidine 40 mg must be administered at the end of dialysis or after the since some of the active ingredient is removed via dialysis.

Method and duration of administration
Famotidine 40 mg is for oral use and should be swallowed whole with some liquid. It does not need to be taken at mealtimes.

Duodenal ulcers and benign gastric ulcers
In treating duodenal ulcers and benign gastric ulcers, for the duration of treatment is 4 to 8 weeks. This period, however, may be reduced if endoscopy reveals that the ulcer has healed. If an endoscopic examination does not yield such findings, the treatment should be continued for further 4 weeks.

Zollinger-Ellison syndrome
Treatment should be continued for as long as clinically necessary.

Mild to moderate reflux oesophagitis
Generally, treatment should be conducted for 6 weeks. If 6 weeks treatment does not result in healing, treatment can be continued for another 6 weeks if necessary.

4.3 Contraindications

Hypersensitivity to the active substance or to any of the excipients listed in section 6.1. If symptoms of hypersensitivity develop, administration of famotidine should be discontinued.

There is not sufficientinformation about the safety and efficacy of famotidine in children. Therefore,children should not be treated with famotidine

4.4 Special warnings and precautions for use

Malignancy cannot necessarily be ruled out when treatment with famotidine has a positive effect on the symptoms. Appropriate diagnostic measures should be used to determine the non-malignancy of an ulcer before famotidine treatment is undertaken.

Famotidine is primarily eliminated via the kidneys and partially broken down in the liver. Caution must therefore be exercised in patients with impaired renal function.

The daily dosage should be reduced for patients with impaired renal function (cf posology).

Do not administer famotidine in cases of minor gastrointestinal complaints.

In patients with duodenal ulcers and benign gastric ulcers the H.pylori status should be determined. Whenever possible, patients with H. pylorishould undergo eradication therapy to eliminate the bacteria.

Coadministration of H2-receptor antagonists such as famotidine with atazanavir/ritonavir in combination with tenofovir should be avoided (see section 4.5).

4.5 Interaction with other medicinal products and other forms of interaction

No clinically important metabolic interactions with other drugs or substances have been recorded.

During concomitant use of substances whose absorption is affected by gastric acid levels, a possible change in the absorption of these substances should be considered. The absorption of ketoconazole or itraconazole can be reduced; ketoconazole should be administered two hours before administering famotidine.

Concomitant use of famotidine and antacids can reduce the famotidine absorption and lead to lower plasma levels of famotidine. Therefore, famotidine should be administered 1-2 hours before taking an antacid.

Concomitant use of sucralfate inhibits the absorption of famotidine. Therefore, sucralfate should not be administered within two hours of the famotidine dose.

The administration of probenecid can delay the elimination of famotidine. Concomitant use of probenecid and famotidine should be avoided.

Famotidine has been shown to reduce the bioavailability of atazanavir in dose dependent manner. This can be compensated for by an increased dose of atazanavir. However, when atazanavir/ritonavir combination is taken together with tenofovir, no dose dependency of this reduction is shown. Therefore, it is recommended that patients not taking tenofovir should be treated with maximally 20 mg famotidine, or, of a higher dose is needed, a dose increase of atazanavir should be considered. Patients taking atazanavir/ritonavir combination together with tenofovir should not be treated with famotidine (see section 4.4.).

Risk of loss of efficacy of calcium carbonate when co-administered as phosphate binder with famotidine in haemodialysis patients.

Co-administration of posaconazole oral-suspension with famotidine should be avoided if possible, since famotidine may reduce the absorption of posaconazole oral-suspension during concomitant use.

Co–administration of famotidine with the tyrosine kinase inhibitors (TKIs) dasatinib, erlotinib, gefitinib, pazopanib may decrease plasma concentrations of TKIs resulting in lower efficacy, therefore co-administration of famotidine with these TKIs is not recommended. For further specific recommendations please refer to the product information of individual TKI medicinal products.

4.6 Fertility, pregnancy and lactation

Pregnancy
In clinical practice, a large number of data on pregnant women exposed to famotidine (more than 1,000 pregnancy outcomes) indicates neither malformative nor foetotoxic effects.
Famotidine can be used during pregnancy if necessary.

Breast-feeding
Famotidineis excreted in human milk in small amounts and the amount received by the childcorresponds to about 2 % of the maternal dose adjusted to the weight. Nodeleterious effects in breast-fed children have been reported. Famotidineshould be used during breastfeeding only if clearly necessary.

4.7 Effects on ability to drive and use machines

No studies on the effects on the ability to drive and use machines have been performed.

4.8 Undesirable effects

In this section frequencies of undesirable effects are defined as follows: Very common (≥ 1/10); common (≥ 1/100 to < 1/10); uncommon (≥ 1/1,000 to < 1/100); rare (≥ 1/10,000 to < 1/1,000); very rare (< 1/10,000), not known (cannot be estimated from the available data).

System Organ Class	Common	Uncommon	Rare	Very rare	Not known
Investigations			Increase in laboratory values (transaminases, gamma GT, alkaline phosphatase, bilirubin)		
Blood and lymphatic system disorders				Thrombocytopenia, leukopenia, agranulocytosis, pancytopenia	
				Paraesthesia,	

Nervous system disorders	Headache, dizziness			drowsiness, sleeplessness, epileptic seizures (grand mal)	
Gastrointestinal disorders	Constipation, diarrhoea	Dry mouth, nausea, vomiting, gastrointestinal complaints, flatulence, loss of appetite			
Skin and subcutaneous tissue disorders		Rash, pruritus	Urticaria	Alopecia	Severe skin reactions (Stevens-Johnson syndrome/toxic epidermal necrolysis sometimes fatal)
Musculoskeletal and connective tissue disorders			Arthralgia	Muscle cramps	
General disorders and administration site conditions		Fatigue		Feelings of tightness in the chest	
Immune system disorders			Hypersensitivity reactions (anaphylaxis, angioneurotic oedema, bronchospasm)		
Hepatobiliary disorders			Intrahepatic cholestasis (visible sign: jaundice)		Hepatitis
Reproductive system and breast disorders				Impotence, reduced libido	
Psychiatric disorders				Reversible psychological disturbances (e.g. hallucinations, disorientation, confusion, anxiety, agitation, depression)	

Reporting of suspected adverse reactions
Reporting suspected adverse reactions after authorisation of the medicinal product is important. It allows continued monitoring of the benefit/risk balance of the medicinal product. Healthcare professionals are asked to report any suspected adverse reactions via: HPRA Pharmacovigilance Website: www.hpra.ie

4.9 Overdose

There are no reports of overdosing with famotidine.
If this should occur, efforts should be made to inhibit absorption and relieve symptoms.
The usual measures to remove unabsorbed material from gastro-intestinal tract should be employed together with clinical monitoring and supportive therapy.

5 PHARMACOLOGICAL PROPERTIES

5.1 Pharmacodynamic properties

Pharmacotherapeutic group: Histamine H2 receptor antagonist/gastrointestinal medication, ATC code: A02B A03

Famotidine is a competitive histamine H2 receptor antagonist which leads to the inhibition of gastric acid secretion mediated by the H2 receptors. In addition to the gastric acid levels, the pepsin level is also reduced. To a lesser extent there is also a decrease in the volume of the basal gastric juice and the gastric juice secreted on stimulation. Pharmacological effects on the CNS, immunological, cardiovascular or respiratory parameters have not been observed.

The drug takes effect within an hour of oral administration and reaches its peak efficacy within 1-3 hours.

Individual oral doses of 20 mg and 40 mg effectively inhibited the basal night-time secretion of gastric acid; mean gastric acid secretion was inhibited over a period of 10 hours by 86 % and 94 %, respectively. The same doses, administered in the morning,

inhibited the gastric acid secretion stimulated by eating for 3-5 hours p.a. by a mean of 76 % and 84 %, respectively. 8-10 hours after administration, the levels were at 25 % and 30 %, respectively, although the effect of one 20 mg dose persisted for only 6-8 hours in some of the volunteers. Repeated administration did not lead to an accumulation of the active ingredient.

The basal night-time intragastric pH value was increased to a mean of 5 and 6.4 by evening doses of 20 mg and 40 mg of famotidine, respectively. When famotidine was administered after breakfast, the pH value in both the 20 mg and the 40 mg groups was increased to approximately 5 after 3 and 8 hours.

Famotidine had little or no effect on the fasting and postprandial serum gastrin levels. Gastric emptying and exocrine pancreas function were not affected by famotidine, nor were hepatic and portal blood flow. There was also no effect on endocrine function. Hormone levels of prolactin, cortisone, thyroxin (T4) and testosterone remained unchanged under famotidine treatment.

5.2 Pharmacokinetic properties

Famotidine kinetics are linear.

Famotidine is quickly resorbed after oral administration. Oral bioavailability is about 40 %.

Peak plasma concentrations are achieved 1-3.5 hours after administration. Peak plasma concentrations are approximately 0.04 to 0.06 µg/ml after administration of 20 mg of famotidine and 0.075 to 0.1 µg/ml after administration of 40 mg of famotidine. Repeated administration does not lead to an accumulation of the active ingredient. Famotidine absorption is not influenced by concomitant food intake.

Famotidine is found in the cerebrospinal fluid only to a limited extent. The fluid/plasma ratio 4 hours after administering 40 mg of famotidine was a mean of 0.1.

Famotidine is excreted in maternal milk. 6 hours after oral administration a milk/plasma concentration ratio of 1.78 was reached. The elimination half-life in the plasma is 2.6 to 4 hours.

Up to 30-35 % of the active ingredient is metabolised in the liver; a sulfoxide metabolite is formed.

24 hours after oral administration, 25-30 % of the active ingredient is excreted via the urine unchanged; after intravenous administration, 65-70 % is excreted unchanged in urine. Renal clearance is 250-450 ml/min, which indicates tubular secretion. A slight amount can be eliminated as sulfoxide.

Renal insufficiency:
As renal function declines, renal and total clearance of famotidine decrease without there being an increase in non-renal elimination. The elimination half-life after intravenous injection of a single dose of 20 or 10 mg of famotidine is increased to 4.5-9 hours in moderate renal insufficiency (creatinine clearance 60-30 ml/min), to 10-12 hours in severe renal insufficiency (creatinine clearance < 30 ml/min) and to 18-27 hours in patients with terminal renal insufficiency or anuria. The amount of unchanged famotidine excreted with the urine is reduced to 60 % in patients with moderate renal insufficiency. In cases of severe renal insufficiency it is only 25 %.

Depending on the dialysis procedure (haemofiltration, 5-hour haemodialysis or continuous haemofiltration), dialysis patients have an elimination half-life of 7-14 hours after intravenous administration of 20 mg of famotidine; after oral administration of 20 mg of famotidine, it is 22.5 hours.

Liver function impairment:
The pharmacokinetics of famotidine are unchanged in patients with liver function impairment.

Kinetics among older patients:
Pharmacokinetic studies on older patients showed no signs of any clinically significant age-related changes; however, age-related impairment of renal function should be considered when determining the dosage.

5.3 Preclinical safety data

Preclinical data regarding famotidine reveal no special hazard for humans based on conventional studies of safety pharmacology, repeated dose toxicity, genotoxicity, carcinogenic potential, and toxicity to reproduction.

6 PHARMACEUTICAL PARTICULARS

6.1 List of excipients

Tablet core:

Pregelatinised starch
Microcrystalline cellulose
Talc
Magnesium stearate
Iron oxide red (E172)

Tablet coat:

Hypromellose
Calcium carbonate (E170)
Macrogol
Carmine (E120)

6.2 Incompatibilities

Not applicable

6.3 Shelf life

3 years

6.4 Special precautions for storage

This medicinal product does not require any special storage conditions.

6.5 Nature and contents of container

The film-coated tablets are packed in PVC-Aluminum blister packs. 7, 10, 14, 20, 21, 28, 30, 50, 56, 60, 100 film-coated tablets
Not all pack sizes may be marketed.

6.6 Special precautions for disposal

No special requirements

7 MARKETING AUTHORISATION HOLDER

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8 MARKETING AUTHORISATION NUMBER

PA1142/043/002

9 DATE OF FIRST AUTHORISATION/RENEWAL OF THE AUTHORISATION

Date of first authorisation: 6th July 2026

10 DATE OF REVISION OF THE TEXT

July 2026