

HIGHLIGHTS OF PRESCRIBING INFORMATION

These highlights do not include all the information needed to use **IBUPROFEN AND FAMOTIDINE TABLETS** safely and effectively. See full prescribing information for **IBUPROFEN AND FAMOTIDINE TABLETS**.

IBUPROFEN AND FAMOTIDINE tablets, for oral use Initial U.S. Approval: 2011

WARNING: RISK OF SERIOUS CARDIOVASCULAR AND GASTROINTESTINAL EVENTS
See full prescribing information for complete boxed warning.

- **Nonsteroidal anti-inflammatory drugs (NSAIDs) cause an increased risk of serious cardiovascular thrombotic events, including myocardial infarction and stroke, which can be fatal. This risk may occur early in treatment and may increase with duration of use (5.1).**
- **Ibuprofen and famotidine tablets are contraindicated in patients with a recent coronary artery bypass graft (CABG) surgery (4, 5.1)**
- **NSAIDs cause an increased risk of serious gastrointestinal (GI) adverse events including bleeding, ulceration, and perforation of the stomach or intestines, which can be fatal. These events can occur at any time during use and without warning symptoms. Elderly patients and patients with a prior history of gastric ulcer disease and/or GI bleeding are at greater risk for serious GI events (5.2)**

----- PRESENT MAJOR CHANGES -----

- **Warnings and Precautions, Drug Reaction with Eosinophilia and Systemic Symptoms (DRESS) (5.12)**
- **Warnings and Precautions, Fetal Toxicity (5.13)**

----- INDICATIONS AND USAGE -----

Ibuprofen and famotidine tablets, a combination of a nonsteroidal anti-inflammatory drug (NSAID) ibuprofen and the histamine H₂-receptor antagonist famotidine, are indicated for the relief of signs and symptoms of rheumatoid arthritis and osteoarthritis and to decrease the risk of developing upper gastrointestinal ulcers, which in the clinical trials was defined as a gastric and/or duodenal ulcer, in patients who are taking ibuprofen for those indications. The clinical trials primarily enrolled patients less than 65 years of age without a prior history of gastrointestinal ulcer. Controlled trials do not extend beyond 6 months. (1)

----- DOSAGE AND ADMINISTRATION -----

- **One** ibuprofen and famotidine tablet administered orally three times per day. (2)
- Use ibuprofen at the lowest effective dosage for the shortest duration consistent with individual patient treatment goals. (2)
- Do not substitute ibuprofen and famotidine tablets with the single-ingredient products of ibuprofen and famotidine. (2)
- **Tablets:** 800 mg ibuprofen and 26.6 mg famotidine. (3)

----- CONTRAINDICATIONS -----

- Known hypersensitivity to ibuprofen or famotidine or any components of the drug product. (4)
- History of asthma, urticaria, or allergic-type reactions after taking aspirin or other NSAIDs. (4)
- In the setting of CABG surgery. (4)
- Known hypersensitivity to other H₂-receptor antagonists. (4)

----- DRUG INTERACTIONS -----

See full prescribing information for a list of clinically important drug interactions. (7)

----- USE IN SPECIFIC POPULATIONS -----

- **Pregnancy:** Use of NSAIDs during the third trimester of pregnancy increases the risk of premature closure of the fetal ductus arteriosus. Avoid use of NSAIDs in pregnant women starting at 30 weeks gestation. (5.13, 8.1)
- **Females and Males of Reproductive Potential:** NSAIDs are associated with reversible infertility. Consider withdrawal of ibuprofen and famotidine tablets in women who have difficulties conceiving. (8.3)

----- ADVERSE REACTIONS -----

See full prescribing information for a list of clinically important adverse reactions. (6)

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*Sections or subsections omitted from the full prescribing information are not listed.

----- FULL PRESCRIBING INFORMATION -----

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- **Nonsteroidal anti-inflammatory drugs (NSAIDs) cause an increased risk of serious cardiovascular thrombotic events, including myocardial infarction and stroke, which can be fatal. This risk may occur early in treatment and may increase with duration of use [see Warnings and Precautions (5.1)].**
- **Ibuprofen and famotidine tablets are contraindicated in the setting of coronary artery bypass graft (CABG) surgery [see Warnings and Precautions (5.1)].**
- **NSAIDs cause an increased risk of serious gastrointestinal (GI) adverse events including bleeding, ulceration, and perforation of the stomach or intestines, which can be fatal. These events can occur at any time during use and without warning symptoms. Elderly patients and patients with a prior history of gastric ulcer disease and/or GI bleeding are at greater risk for serious GI events [see Warnings and Precautions (5.2)].**

1 INDICATIONS AND USAGE

Ibuprofen and famotidine tablets, a combination of the NSAID ibuprofen and the histamine H₂-receptor antagonist famotidine, are indicated for the relief of signs and symptoms of rheumatoid arthritis and osteoarthritis and to decrease the risk of developing upper gastrointestinal ulcers, which in the clinical trials was defined as a gastric and/or duodenal ulcer, in patients who are taking ibuprofen for those indications. The clinical trials primarily enrolled patients less than 65 years of age without a prior history of gastrointestinal ulcer. Controlled trials do not extend beyond 6 months. [see Clinical Studies (14), Use in Specific Populations (8.5)].

2 DOSAGE AND ADMINISTRATION

Carefully consider the potential benefits and risks of ibuprofen and famotidine tablets and other treatment options before deciding to use ibuprofen and famotidine tablets. Use ibuprofen at the lowest effective dosage for the shortest duration consistent with individual patient treatment goals [see Warnings and Precautions (5)].

The recommended daily dose of ibuprofen and famotidine tablets 800 mg/26.6 mg is a single tablet administered orally three times per day.

Ibuprofen and famotidine tablets should be swallowed whole, and should not be cut to supply a lower dose. Do not chew, divide, or crush tablets.

Patients should be instructed that if a dose is missed, it should be taken as soon possible. However, if the next scheduled dose is due, the patient should not take the missed dose, and should be instructed to take the next dose on time. Patients should be instructed not to take 2 doses at one time to make up for a missed dose.

Do not substitute ibuprofen and famotidine tablets with the single-ingredient products of ibuprofen and famotidine.

3 DOSAGE FORMS AND STRENGTHS

Ibuprofen and famotidine tablets are for oral administration and are available as follows:
800 mg/26.6 mg – Each light blue to blue, oval, biconvex, film-coated tablet imprinted with TEVA 8107 on one side and plain on the other, contains 800 mg ibuprofen, USP and 26.6 mg famotidine, USP.

4 CONTRAINDICATIONS

Ibuprofen and famotidine tablets are contraindicated in the following patients:

- Known hypersensitivity (e.g., anaphylactic reactions and serious skin reactions) to ibuprofen or famotidine or any component of the drug product. [see Warnings and Precautions (5.8, 5.11)].
- History of asthma, urticaria, or other allergic-type reactions after taking aspirin or other NSAIDs. Severe, sometimes fatal, anaphylactic reactions to NSAIDs have been reported in such patients [see Warnings and Precautions (5.8, 5.10)].
- In the setting of coronary artery bypass graft (CABG) surgery [see Warnings and Precautions (5.1)].
- Ibuprofen and famotidine tablets should not be administered to patients with a history of hypersensitivity to other H₂-receptor antagonists. Cross sensitivity with other H₂-receptor antagonists has been observed.

----- WARNINGS AND PRECAUTIONS -----

- **Hepatotoxicity:** Inform patients of warning signs and symptoms of hepatotoxicity. Discontinue if abnormal liver tests persist or worsen or if clinical signs and symptoms of liver disease develop. (5.4)
- **Hypertension:** Patients taking some antihypertensive medications may have impaired response to these therapies when taking NSAIDs. Monitor blood pressure. (5.5, 7)
- **Heart Failure and Edema:** Avoid use of ibuprofen and famotidine tablets in patients with severe heart failure unless benefits are expected to outweigh risk of worsening heart failure. (5.6)
- **Active Bleeding:** Active and clinically significant bleeding from any source can occur; discontinue ibuprofen and famotidine tablets if active bleeding occurs. (5.3)
- **Renal Toxicity:** Monitor renal function in patients with renal or hepatic impairment, heart failure, dehydration, or hypovolemia. Avoid use of ibuprofen and famotidine tablets in patients with advanced renal disease unless benefits are expected to outweigh risk of worsening renal function. (5.7)
- **Anaphylactic Reactions:** Seek emergency help if an anaphylactic reaction occurs. (5.8)
- **Exacerbation of Asthma Related to Aspirin Sensitivity:** Ibuprofen and famotidine tablets are contraindicated in patients with aspirin-sensitive asthma. Monitor patients with preexisting asthma (without aspirin-sensitivity). (5.10)
- **Serious Skin Reactions:** Discontinue ibuprofen and famotidine tablets at first appearance of skin rash or other signs of hypersensitivity. (5.11)
- **Drug Reaction with Eosinophilia and Systemic Symptoms (DRESS):** Discontinue and evaluate clinically. (5.12)
- **Fetal Toxicity:** Limit use of NSAIDs, including ibuprofen and famotidine tablets, between about 20 to 30 weeks in pregnancy due to the risk of oligohydramnios/fetal renal dysfunction. Avoid use of NSAIDs in women at about 30 weeks gestation and later in pregnancy due to the risks of oligohydramnios/fetal renal dysfunction and premature closure of the fetal ductus arteriosus. (5.13, 8.1)
- **Hematologic Toxicity:** Monitor hemoglobin or hematocrit in patients with any signs or symptoms of anemia. (5.14)

----- ADVERSE REACTIONS -----

Most common adverse reactions (greater than or equal to 1% and greater than ibuprofen alone) are: nausea, diarrhea, constipation, upper abdominal pain, and headache. (6.1)

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- **Nonsteroidal anti-inflammatory drugs (NSAIDs) cause an increased risk of serious cardiovascular thrombotic events, including myocardial infarction and stroke, which can be fatal. This risk may occur early in treatment and may increase with duration of use (5.1).**
- **Ibuprofen and famotidine tablets are contraindicated in the setting of coronary artery bypass graft (CABG) surgery (4, 5.1)**
- **NSAIDs cause an increased risk of serious gastrointestinal (GI) adverse events including bleeding, ulceration, and perforation of the stomach or intestines, which can be fatal. These events can occur at any time during use and without warning symptoms. Elderly patients and patients with a prior history of gastric ulcer disease and/or GI bleeding are at greater risk for serious GI events (5.2)**

1 INDICATIONS AND USAGE

Ibuprofen and famotidine tablets, a combination of the NSAID ibuprofen and the histamine H₂-receptor antagonist famotidine, are indicated for the relief of signs and symptoms of rheumatoid arthritis and osteoarthritis and to decrease the risk of developing upper gastrointestinal ulcers, which in the clinical trials was defined as a gastric and/or duodenal ulcer, in patients who are taking ibuprofen for those indications. The clinical trials primarily enrolled patients less than 65 years of age without a prior history of gastrointestinal ulcer. Controlled trials do not extend beyond 6 months. [see Clinical Studies (14), Use in Specific Populations (8.5)].

2 DOSAGE AND ADMINISTRATION

Carefully consider the potential benefits and risks of ibuprofen and famotidine tablets and other treatment options before deciding to use ibuprofen and famotidine tablets. Use ibuprofen at the lowest effective dosage for the shortest duration consistent with individual patient treatment goals [see Warnings and Precautions (5)].

The recommended daily dose of ibuprofen and famotidine tablets 800 mg/26.6 mg is a single tablet administered orally three times per day.

Ibuprofen and famotidine tablets should be swallowed whole, and should not be cut to supply a lower dose. Do not chew, divide, or crush tablets.

Patients should be instructed that if a dose is missed, it should be taken as soon possible. However, if the next scheduled dose is due, the patient should not take the missed dose, and should be instructed to take the next dose on time. Patients should be instructed not to take 2 doses at one time to make up for a missed dose.

Do not substitute ibuprofen and famotidine tablets with the single-ingredient products of ibuprofen and famotidine.

3 DOSAGE FORMS AND STRENGTHS

Ibuprofen and famotidine tablets are for oral administration and are available as follows:
800 mg/26.6 mg – Each light blue to blue, oval, biconvex, film-coated tablet imprinted with TEVA 8107 on one side and plain on the other, contains 800 mg ibuprofen, USP and 26.6 mg famotidine, USP.

4 CONTRAINDICATIONS

Ibuprofen and famotidine tablets are contraindicated in the following patients:

- Known hypersensitivity (e.g., anaphylactic reactions and serious skin reactions) to ibuprofen or famotidine or any component of the drug product. [see Warnings and Precautions (5.8, 5.11)].
- History of asthma, urticaria, or other allergic-type reactions after taking aspirin or other NSAIDs. Severe, sometimes fatal, anaphylactic reactions to NSAIDs have been reported in such patients [see Warnings and Precautions (5.8, 5.10)].
- In the setting of coronary artery bypass graft (CABG) surgery [see Warnings and Precautions (5.1)].
- Ibuprofen and famotidine tablets should not be administered to patients with a history of hypersensitivity to other H₂-receptor antagonists. Cross sensitivity with other H₂-receptor antagonists has been observed.

5 WARNINGS AND PRECAUTIONS

- **Hepatotoxicity:** Inform patients of warning signs and symptoms of hepatotoxicity. Discontinue if abnormal liver tests persist or worsen or if clinical signs and symptoms of liver disease develop. (5.4)
- **Hypertension:** Patients taking some antihypertensive medications may have impaired response to these therapies when taking NSAIDs. Monitor blood pressure. (5.5, 7)
- **Heart Failure and Edema:** Avoid use of ibuprofen and famotidine tablets in patients with severe heart failure unless benefits are expected to outweigh risk of worsening heart failure. (5.6)
- **Active Bleeding:** Active and clinically significant bleeding from any source can occur; discontinue ibuprofen and famotidine tablets if active bleeding occurs. (5.3)
- **Renal Toxicity:** Monitor renal function in patients with renal or hepatic impairment, heart failure, dehydration, or hypovolemia. Avoid use of ibuprofen and famotidine tablets in patients with advanced renal disease unless benefits are expected to outweigh risk of worsening renal function. (5.7)
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- **Drug Reaction with Eosinophilia and Systemic Symptoms (DRESS):** Discontinue and evaluate clinically. (5.12)
- **Fetal Toxicity:** Limit use of NSAIDs, including ibuprofen and famotidine tablets, between about 20 to 30 weeks in pregnancy due to the risk of oligohydramnios/fetal renal dysfunction. Avoid use of NSAIDs in women at about 30 weeks gestation and later in pregnancy due to the risks of oligohydramnios/fetal renal dysfunction and premature closure of the fetal ductus arteriosus. (5.13, 8.1)
- **Hematologic Toxicity:** Monitor hemoglobin or hematocrit in patients with any signs or symptoms of anemia. (5.14)

----- ADVERSE REACTIONS -----

Most common adverse reactions (greater than or equal to 1% and greater than ibuprofen alone) are: nausea, diarrhea, constipation, upper abdominal pain, and headache. (6.1)

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- **Nonsteroidal anti-inflammatory drugs (NSAIDs) cause an increased risk of serious cardiovascular thrombotic events, including myocardial infarction and stroke, which can be fatal. This risk may occur early in treatment and may increase with duration of use (5.1).**
- **Ibuprofen and famotidine tablets are contraindicated in the setting of coronary artery bypass graft (CABG) surgery (4, 5.1)**
- **NSAIDs cause an increased risk of serious gastrointestinal (GI) adverse events including bleeding, ulceration, and perforation of the stomach or intestines, which can be fatal. These events can occur at any time during use and without warning symptoms. Elderly patients and patients with a prior history of gastric ulcer disease and/or GI bleeding are at greater risk for serious GI events (5.2)**

1 INDICATIONS AND USAGE

Ibuprofen and famotidine tablets, a combination of the NSAID ibuprofen and the histamine H₂-receptor antagonist famotidine, are indicated for the relief of signs and symptoms of rheumatoid arthritis and osteoarthritis and to decrease the risk of developing upper gastrointestinal ulcers, which in the clinical trials was defined as a gastric and/or duodenal ulcer, in patients who are taking ibuprofen for those indications. The clinical trials primarily enrolled patients less than 65 years of age without a prior history of gastrointestinal ulcer. Controlled trials do not extend beyond 6 months. [see Clinical Studies (14), Use in Specific Populations (8.5)].

2 DOSAGE AND ADMINISTRATION

Carefully consider the potential benefits and risks of ibuprofen and famotidine tablets and other treatment options before deciding to use ibuprofen and famotidine tablets. Use ibuprofen at the lowest effective dosage for the shortest duration consistent with individual patient treatment goals [see Warnings and Precautions (5)].

The recommended daily dose of ibuprofen and famotidine tablets 800 mg/26.6 mg is a single tablet administered orally three times per day.

Ibuprofen and famotidine tablets should be swallowed whole, and should not be cut to supply a lower dose. Do not chew, divide, or crush tablets.

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- History of asthma, urticaria, or other allergic-type reactions after taking aspirin or other NSAIDs. Severe, sometimes fatal, anaphylactic reactions to NSAIDs have been reported in such patients [see Warnings and Precautions (5.8, 5.10)].
- In the setting of coronary artery bypass graft (CABG) surgery [see Warnings and Precautions (5.1)].
- Ibuprofen and famotidine tablets should not be administered to patients with a history of hypersensitivity to other H₂-receptor antagonists. Cross sensitivity with other H₂-receptor antagonists has been observed.

5 WARNINGS AND PRECAUTIONS

- **Hepatotoxicity:** Inform patients of warning signs and symptoms of hepatotoxicity. Discontinue if abnormal liver tests persist or worsen or if clinical signs and symptoms of liver disease develop. (5.4)
- **Hypertension:** Patients taking some antihypertensive medications may have impaired response to these therapies when taking NSAIDs. Monitor blood pressure. (5.5, 7)
- **Heart Failure and Edema:** Avoid use of ibuprofen and famotidine tablets in patients with severe heart failure unless benefits are expected to outweigh risk of worsening heart failure. (5.6)
- **Active Bleeding:** Active and clinically significant bleeding from any source can occur; discontinue ibuprofen and famotidine tablets if active bleeding occurs. (5.3)
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- **Drug Reaction with Eosinophilia and Systemic Symptoms (DRESS):** Discontinue and evaluate clinically. (5.12)
- **Fetal Toxicity:** Limit use of NSAIDs, including ibuprofen and famotidine tablets, between about 20 to 30 weeks in pregnancy due to the risk of oligohydramnios/fetal renal dysfunction. Avoid use of NSAIDs in women at about 30 weeks gestation and later in pregnancy due to the risks of oligohydramnios/fetal renal dysfunction and premature closure of the fetal ductus arteriosus. (5.13, 8.1)
- **Hematologic Toxicity:** Monitor hemoglobin or hematocrit in patients with any signs or symptoms of anemia. (5.14)

----- ADVERSE REACTIONS -----

Most common adverse reactions (greater than or equal to 1% and greater than ibuprofen alone) are: nausea, diarrhea, constipation, upper abdominal pain, and headache. (6.1)

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- **Ibuprofen and famotidine tablets are contraindicated in the setting of coronary artery bypass graft (CABG) surgery (4, 5.1)**
- **NSAIDs cause an increased risk of serious gastrointestinal (GI) adverse events including bleeding, ulceration, and perforation of the stomach or intestines, which can be fatal. These events can occur at any time during use and without warning symptoms. Elderly patients and patients with a prior history of gastric ulcer disease and/or GI bleeding are at greater risk for serious GI events (5.2)**

1 INDICATIONS AND USAGE

Ibuprofen and famotidine tablets, a combination of the NSAID ibuprofen and the histamine H₂-receptor antagonist famotidine, are indicated for the relief of signs and symptoms of rheumatoid arthritis and osteoarthritis and to decrease the risk of developing upper gastrointestinal ulcers, which in the clinical trials was defined as a gastric and/or duodenal ulcer, in patients who are taking ibuprofen for those indications. The clinical trials primarily enrolled patients less than 65 years of age without a prior history of gastrointestinal ulcer. Controlled trials do not extend beyond 6 months. [see Clinical Studies (14), Use in Specific Populations (8.5)].

2 DOSAGE AND ADMINISTRATION

Carefully consider the potential benefits and risks of ibuprofen and famotidine tablets and other treatment options before deciding to use ibuprofen and famotidine tablets. Use ibuprofen at the lowest effective dosage for the shortest duration consistent with individual patient treatment goals [see Warnings and Precautions (5)].

The recommended daily dose of ibuprofen and famotidine tablets 800 mg/26.6 mg is a single tablet administered orally three times per day.

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- Ibuprofen and famotidine tablets should not be administered to patients with a history of hypersensitivity to other H₂-receptor antagonists. Cross sensitivity with other H₂-receptor antagonists has been observed.

5 WARNINGS AND PRECAUTIONS

- **Hepatotoxicity:** Inform patients of warning signs and symptoms of hepatotoxicity. Discontinue if abnormal liver tests persist or worsen or if clinical signs and symptoms of liver disease develop. (5.4)
- **Hypertension:** Patients taking some antihypertensive medications may have impaired response to these therapies when taking NSAIDs. Monitor blood pressure. (5.5, 7)
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- **Hematologic Toxicity:** Monitor hemoglobin or hematocrit in

Stop taking ibuprofen and famotidine tablets and call your healthcare provider right away if you get any of the following symptoms:

- nausea
- more tired or weaker than usual
- diarrhea
- itching
- your skin or eyes look yellow
- indigestion or stomach pain
- flu-like symptoms
- vomit blood
- there is blood in your bowel movement or it is black and sticky like tar
- unusual weight gain
- skin rash or blisters with fever
- swelling of the arms, legs, hands, and feet

If you take too many ibuprofen and famotidine tablets, call your poison control center at 1-800-222-1222.

These are not all the possible side effects of ibuprofen and famotidine tablets. Call your doctor for medical advice about side effects. You may report side effects to FDA at 1-800-FDA-1088.

Other information about NSAIDs

- Aspirin is an NSAID but it does not increase the chance of a heart attack. Aspirin can cause bleeding in the brain, stomach, and intestines. Aspirin can also cause ulcers in the stomach and intestines.

- Some NSAIDs are sold in lower doses without a prescription (over-the-counter). Talk to your healthcare provider before using over-the-counter NSAIDs for more than 10 days.

General information about the safe and effective use of ibuprofen and famotidine tablets

Medicines are sometimes prescribed for purposes other than those listed in a Medication Guide. Do not use ibuprofen and famotidine tablets for a condition for which they were not prescribed. Do not give ibuprofen and famotidine tablets to other people, even if they have the same symptoms that you have. It may harm them.

You can ask your pharmacist or healthcare provider for information about NSAIDs that is written for health professionals.

What are the ingredients in ibuprofen and famotidine tablets?

Active ingredients: ibuprofen and famotidine

Inactive ingredients: colloidal silicon dioxide, croscarmellose sodium, FD&C Blue #2/Indigo Carmine Aluminum Lake, hypromellose 2910, lactose monohydrate, magnesium stearate, microcrystalline cellulose, polyvinyl alcohol-part hydrolyzed, polyethylene glycol 400, polyethylene glycol 3350, polyethylene glycol 8000, talc, and titanium dioxide. The imprinting ink contains ammonium hydroxide, iron oxide black, propylene glycol, and shellac.

Manufactured In Canada By: **Teva Canada Limited**, Toronto, Canada M1B 2K9
Manufactured For: **Teva Pharmaceuticals USA, Inc.**, Parsippany, NJ 07054
For more information, call Teva Pharmaceuticals USA, Inc. at 1-888-838-2872.

This Medication Guide has been approved by the U.S. Food and Drug Administration. Iss. 5/2021

Premature Closure of Fetal Ductus Arteriosus: Use of NSAIDs, including ibuprofen and famotidine tablets, at about 30 weeks gestation or later in pregnancy increases the risk of premature closure of the fetal ductus arteriosus.

Oligohydramnios/Neonatal Renal Impairment: Use of NSAIDs at about 20 weeks gestation or later in pregnancy has been associated with cases of fetal renal dysfunction leading to oligohydramnios, and in some cases, neonatal renal impairment.

There are no available data on ibuprofen and famotidine tablets use in pregnant women to inform a drug-associated risk for major birth defects and miscarriage; however, there are published studies with each individual component of ibuprofen and famotidine tablets.

Ibuprofen: Based on observational studies regarding potential embryofetal risks of NSAID use in women in the first or second trimesters of pregnancy are inconclusive. In animal reproduction studies, there were no clear developmental effects at doses up to 0.4- times the maximum recommended human dose (MRHD) in the rabbit and 0.5-times in the MRHD rat when dosed throughout gestation. In contrast, an increase in membranous ventricular septal defects was reported in rats treated on Gestation Days 9 & 10 with 0.8-times the MRHD. Based on animal data, prostaglandins have been shown to have an important role in endometrial vascular permeability, blastocyst implantation, and decidualization. In animal studies, administration of prostaglandin synthesis inhibitors such as ibuprofen, resulted in increased pre- and post-implantation loss. Prostaglandins also have been shown to have an important role in fetal kidney development. In published animal studies, prostaglandin synthesis inhibitors have been reported to impair kidney development when administered at clinically relevant doses.

Famotidine: Limited published data do not report an increased risk of congenital malformations or other adverse pregnancy effects with use of H₂-receptor antagonists, including ibuprofen and famotidine tablets, during pregnancy; however, these data are insufficient to adequately determine a drug-associated risk. Reproductive studies with famotidine have been performed in rats and rabbits at oral doses of up to 2,000 and 500 mg/kg/day (approximately 243 and 122 times the recommended human dose, respectively, based on body surface area) and in both species at intravenous (i.v.) doses of up to 200 mg/kg/day, and have revealed no significant evidence of impaired fertility or harm to the fetus due to famotidine. The estimated background risk of major birth defects and miscarriage for the indicated population is unknown. All pregnancies have a background risk of birth defect, loss, or other adverse outcomes. In the general U.S. population, the estimated background risk of major birth defects and miscarriage in clinically recognized pregnancies is 2% to 4% and 15% to 20%, respectively.

Clinical Considerations

Fetal/Neonatal Adverse Reactions

Premature Closure of Fetal Ductus Arteriosus:

Avoid use of NSAIDs in women at about 30 weeks gestation and later in pregnancy, because NSAIDs, including ibuprofen and famotidine tablets, can cause premature closure of the fetal ductus arteriosus (see Data).

Oligohydramnios/Neonatal Renal Impairment

If an NSAID is necessary at about 20 weeks gestation or later in pregnancy, limit the use to the lowest effective dose and shortest duration possible. If ibuprofen and famotidine tablets treatment is needed for a pregnant woman, consider monitoring with ultrasound for oligohydramnios. If oligohydramnios occurs, discontinue ibuprofen and famotidine tablets and follow up according to clinical practice (see Data).

Labor or Delivery

There are no studies on the effects of ibuprofen and famotidine tablets during labor or delivery. In animal studies, NSAIDs, including ibuprofen, inhibit prostaglandin synthesis, cause delayed parturition, and increase the incidence of stillbirth.

Data

Human Data

When used to delay preterm labor, inhibitors of prostaglandin synthesis, including NSAIDs such ibuprofen, may increase the risk of neonatal complications such as necrotizing enterocolitis, patent ductus arteriosus and intracranial hemorrhage. Ibuprofen treatment given in late pregnancy to delay parturition has been associated with persistent pulmonary hypertension, renal dysfunction and abnormal prostaglandin E levels in preterm infants.

Ibuprofen

Premature Closure of Fetal Ductus Arteriosus:

Published literature reports that the use of NSAIDs at about 30 weeks of gestation and later in pregnancy may cause premature closure of the fetal ductus arteriosus.

Oligohydramnios/Neonatal Renal Impairment:

Published studies and postmarketing reports describe maternal NSAID use at about 20 weeks gestation or later in pregnancy associated with fetal renal dysfunction leading to oligohydramnios, and in some cases, neonatal renal impairment. These adverse outcomes are seen, on average, after 2 to 4 weeks of treatment, although oligohydramnios has been infrequently reported as soon as 48 hours after NSAID initiation. In many cases, but not all, the decrease in amniotic fluid was transient and reversible with cessation of the drug. There have been a limited number of case reports of maternal NSAID use and neonatal renal dysfunction without oligohydramnios, but these outcomes are reversible. Some cases of neonatal renal dysfunction required treatment with invasive procedures, such as exchange transfusion or dialysis.

Methodological limitations of these postmarketing studies and reports include lack of a control group; limited information regarding dose, duration, and timing of drug exposure; and concomitant use of other medications. These limitations preclude establishing a reliable estimate of the risk of adverse fetal and neonatal outcomes with maternal NSAID use. Because the published safety data on neonatal outcomes involved mostly preterm infants, the generalizability of certain reported risks to the full-term infant exposed to NSAIDs through maternal use is uncertain.

When used to delay preterm labor, inhibitors of prostaglandin synthesis, including NSAIDs such as ibuprofen, may increase the risk of other neonatal complications such as necrotizing enterocolitis and intracranial hemorrhage. Ibuprofen treatment given in late pregnancy to delay parturition has been associated with persistent pulmonary hypertension, renal dysfunction, and abnormal prostaglandin E levels in preterm infants.

Animal Data

Animal reproduction studies have not been conducted with ibuprofen and famotidine tablets.

Ibuprofen

In a published study, female rabbits given 7.5, 20, or 60 mg/kg ibuprofen (0.04, 0.12, or 0.36-times the maximum recommended human daily dose of 3,200 mg of ibuprofen based on body surface area) from Gestation Days 1 to 29, no clear treatment-related adverse developmental effects were noted. Doses of 20 and 60 mg/kg were associated with significant maternal toxicity (stomach ulcers, gastric lesions). In the same publication, female rats were administered 7.5, 20, 60, 180 mg/kg ibuprofen (0.02, 0.06, 0.18, 0.54-times the maximum daily dose) did not result in clear adverse developmental effects. Maternal toxicity (gastrointestinal lesions) was noted at 20 mg/kg and above.

In a published study, rats were orally dosed with 300 mg/kg ibuprofen (0.912-times the maximum human daily dose of 3,200 mg based on body surface area) during Gestation Days 9 and 10 (critical time points for heart development in rats). Ibuprofen treatment resulted in an increase in the incidence of membranous ventricular septal defects. This dose was associated with significant maternal toxicity including gastrointestinal toxicity. One incidence each of a membranous ventricular septal defect and gastroschisis was noted in fetuses from rabbits treated with 500 mg/kg (3-times the maximum human daily dose) from Gestation Day 9 to 11.

Famotidine

Reproductive studies with famotidine have been performed in rats and rabbits at oral doses of up to 2,000 and 500 mg/kg/day (approximately 243 and 122 times the recommended human dose of 80 mg per day, respectively, based on body surface area) and in both species at intravenous doses of up to 200 mg/kg/day (about 24 and 49 times the recommended human dose of 80 mg per day, respectively, based on body surface area), and have revealed no significant evidence of harm to the fetus due to famotidine. While no direct fetotoxic effects have been observed, sporadic abortions occurring only in mothers displaying marked decreased food intake were seen in some rabbits at oral doses of 200 mg/kg/day (approximately 49 times the recommended human dose of 80 mg per day, respectively, based on body surface area) or higher. Animal reproduction studies are not always predictive of human response.

8.2 Lactation

Risk Summary

No studies have been conducted with the use of ibuprofen and famotidine tablets in lactating women. Limited data from published literature report famotidine is present in human milk in low amounts. Published literature also reports the presence of ibuprofen in human milk in low amounts. No information is available on the effects of famotidine or ibuprofen on milk production or on a breastfed infant. Famotidine is present in the milk of lactating rats (see Data). The developmental and health benefits of breastfeeding should be considered along with the mother's clinical need for ibuprofen and famotidine tablets and any potential adverse effects on the breastfed infant from ibuprofen and famotidine tablets or from the underlying maternal condition.

Data

A transient growth depression was observed in young rats suckling from mothers treated with maternotoxic doses of at least 300 times the usual human dose of famotidine.

8.3 Females and Males of Reproductive Potential

Infertility

Females

Based on the mechanism of action, the use of prostaglandin-mediated NSAIDs, including ibuprofen and famotidine tablets, may delay or prevent rupture of ovarian follicles, which has been associated with reversible infertility in some women. Published animal studies have shown that administration of prostaglandin synthesis inhibitors has the potential to disrupt prostaglandin-mediated follicular rupture required for ovulation. Small studies in women treated with NSAIDs have also shown a reversible delay in ovulation. Consider withdrawal of NSAIDs, including ibuprofen and famotidine tablets, in women who have difficulties conceiving or who are undergoing investigation of infertility.

8.4 Pediatric Use

Safety and effectiveness of ibuprofen and famotidine tablets in pediatric patients have not been established.

8.5 Geriatric Use

Elderly patients, compared to younger patients, are at greater risk for NSAID-associated serious cardiovascular, gastrointestinal, and/or renal adverse reactions. If the anticipated benefit for the elderly patient outweighs these potential risks, start dosing at the low end of the dosing range, and monitor patients for adverse effects [see *Warnings and Precautions* (5.1, 5.2, 5.4, 5.7, 5.16)].

The clinical trials primarily enrolled patients less than 65 years of age. Of the 1,022 patients in clinical studies of ibuprofen and famotidine tablets, 18% (249 patients) were 65 years of age or older. Efficacy results in patients who are greater than or equal to 65 years of age are summarized in the CLINICAL STUDIES section [see *Clinical Studies* (14)].

Famotidine 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 adjusting dose interval, and it may be useful to monitor renal function [see *Warnings and Precautions* (5.7)].

8.6 Renal Insufficiency

In adult patients with renal insufficiency (creatinine clearance less than 50 mL/min), the elimination half-life of famotidine is increased. Since CNS adverse effects have been reported in patients with creatinine clearance less than 50 mL/min and the dosage of the famotidine component in ibuprofen and famotidine tablets is fixed, ibuprofen and famotidine tablets are not recommended in these patients [see *Warnings and Precautions* (5.7)].

10 OVERDOSAGE

Symptoms following acute NSAID overdosages have been typically limited to lethargy, drowsiness, nausea, vomiting, and epigastric pain, which have been generally reversible with supportive care. Gastrointestinal bleeding has occurred. Hypertension, acute renal failure, respiratory depression, and coma have occurred, but were rare [see *Warnings and Precautions* (5.1, 5.2, 5.5, 5.7, 5.9)].

No data are available with regard to overdose of ibuprofen and famotidine tablets. Findings related to the individual active substances are listed below.

Ibuprofen

Approximately 1 1/2 hours after the reported ingestion of from 7 to 10 ibuprofen tablets (400 mg), a 19-month-old child weighing 12 kg was seen in the hospital emergency room, apneic and cyanotic, responding only to painful stimuli. This type of stimulus, however, was sufficient to induce respiration.

Oxygen and parental fluids were given; a greenish-yellow fluid was aspirated from the stomach with no evidence to indicate the presence of ibuprofen. Two hours after ingestion the child's condition seemed stable; she still responded only to painful stimuli and continued to have periods of apnea lasting from 5 to 10 seconds. She was admitted to intensive care and sodium bicarbonate was administered as well as infusions of dextrose and normal saline. By 4 hours post-ingestion she could be aroused easily, sit by herself, and respond to spoken commands. Blood level of ibuprofen was 102.9 mcg/mL approximately 8.5 hours after accidental ingestion. At 12 hours she appeared to be completely recovered.

In two other reported cases where children (each weighing approximately 10 kg) accidentally, acutely ingested approximately 120 mg/kg, there were no signs of acute intoxication or late sequelae. Blood level in one child 90 minutes after ingestion was 700 mcg/mL—about 10 times the peak levels seen in absorption-excretion studies.

A 19-year-old male who had taken 8,000 mg of ibuprofen over a period of a few hours complained of dizziness, and myastalgus was noted. After hospitalization, parental history confirmed 3 days bed rest, he recovered with no reported sequelae.

Famotidine

The adverse reactions in overdose cases are similar to the adverse reactions encountered in normal clinical experience. Oral doses of up to 640 mg/day have been given to adult patients with pathological hypersensitivity conditions with no serious adverse effects.

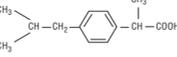
Manage patients with symptomatic and supportive care following an NSAID overdose, including ibuprofen and famotidine tablet overdose. There are no specific antidotes. Consider emesis and/or activated charcoal (60 to 100 grams in adults, 1 to 2 grams per kg of body weight in pediatric patients) and/or osmotic cathartic in symptomatic patients seen within four hours of ingestion or in patients with a large overdose (5 to 10 times the recommended dose). Forced diuresis, alkalization of urine, hemodialysis, or hemoperfusion may not be useful due to high protein binding.

If over-exposure occurs, call your poison control center at 1-800-222-1222 for current information on the management of poisoning or over-exposure.

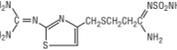
11 DESCRIPTION

Ibuprofen and famotidine tablets are supplied as film-coated tablets for oral administration which combine the nonsteroidal anti-inflammatory drug, ibuprofen USP, and the histamine H₂-receptor antagonist, famotidine, USP.

Ibuprofen, USP is (+)-2-(p-isobutylphenyl)propionic acid. Its chemical formula is C₁₃H₁₈O₂ and molecular weight is 206.28. Ibuprofen, USP is a white powder that is very slightly soluble in water (less than 1 mg/mL) and readily soluble in organic solvents such as ethanol and acetone. Its structural formula is:



Famotidine, USP is *N*-(aminosulfonyl)-3-[[[2-[(diaminomethylamino)-4-thiazolyl]methyl]thio]propanimidamide, its chemical formula is C₁₁H₁₄N₄O₂S₂ and molecular weight is 337.45. Famotidine, USP is a white to pale yellow crystalline compound in the form of hydrochloric acid, slightly soluble in methanol, very slightly soluble in water, and practically insoluble in ethanol. Its structural formula is:



Each film-coated tablet contains ibuprofen, USP (800 mg) and famotidine, USP (26.6 mg). The inactive ingredients in ibuprofen and famotidine tablets include: colloidal silicon dioxide, croscarmellose sodium, FD&C Blue #2/Indigo Carmine Aluminum Lake, hypromellose 2910, lactose monohydrate, magnesium stearate, microcrystalline cellulose, polyvinyl alcohol-part hydrolyzed, polyethylene glycol 400, polyethylene glycol 3350, polyethylene glycol 8000, talc, and titanium dioxide. The imprinting ink contains ammonium hydroxide, iron oxide black, propylene glycol, and shellac.

12 CLINICAL PHARMACOLOGY

12.1 Mechanism of Action

Ibuprofen and famotidine tablets are a fixed-combination tablet of ibuprofen and famotidine. The ibuprofen component has analgesic, anti-inflammatory, and antipyretic properties. The mechanism of action of the ibuprofen component of ibuprofen and famotidine tablets, like that of other NSAIDs, is not completely understood but involves inhibition of cyclooxygenase (COX-1 and COX-2).

Ibuprofen is a potent inhibitor of prostaglandin synthesis *in vitro*. Ibuprofen concentrations reached during therapy have produced *in vivo* effects. Prostaglandins sensitize afferent nerves and potentiate the action of bradykinin in inducing pain in animal models. Prostaglandins are mediators of inflammation. Because ibuprofen is an inhibitor of prostaglandin synthesis, its mode of action may be due to an increase of prostaglandins in peripheral tissues.

Famotidine is a competitive inhibitor of histamine H₂-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.

Systemic effects of famotidine in the CNS, cardiovascular, respiratory, or endocrine systems were not noted in clinical pharmacology studies. Also, no antiandrogenic effects were noted. Serum hormone levels, including prolactin, cortisol, thyroxine (T₄), and testosterone, were not altered after treatment with famotidine.

12.2 Pharmacodynamics

In a healthy volunteer study, ibuprofen 400 mg given once daily, administered 2 hours prior to immediate-release aspirin (81 mg) for 6 days, showed an interaction with the antiplatelet activity of aspirin as measured by % serum thromboxane B₂ (TxB₂) inhibition at 24 hours following the day-6 aspirin dose (55%). An interaction was still observed, but minimized, when ibuprofen 400 mg given once-daily was administered as early as 8 hours prior to the immediate-release aspirin dose (90.7%). However, there was no interaction with the antiplatelet activity of aspirin when ibuprofen 400 mg, given once daily, was administered 2 hours after (but not concomitantly, 15 min, or 30 min after) the immediate-release aspirin dose (99.2%).

In another study, when immediate-release aspirin 81 mg was administered once daily with ibuprofen 400 mg given three times daily (2, 7, and 13 hours post-aspirin dose) for 10 consecutive days, the mean % serum thromboxane B₂ (TxB₂) inhibition suggested no interaction with the antiplatelet activity of aspirin (98.3%). However, there were individual subjects with serum TxB₂ inhibition below 95%, with the lowest being 90.2%.

When a similarly designed study was conducted with enteric-coated aspirin, where healthy subjects were administered enteric-coated aspirin 81 mg once daily for 6 days and ibuprofen 400 mg three times daily (2, 7, and 12 h post-aspirin dose) for 6 days, there was an interaction with the antiplatelet activity at 24 hours following the day-6 aspirin dose (67%) [see *Drug Interactions* (7)].

12.3 Pharmacokinetics

Absorption: Ibuprofen and famotidine are rapidly absorbed after a single dose administration of ibuprofen and famotidine tablets. Mean C_{max} values for ibuprofen are 45 mcg/mL and are reached approximately 1.9 hours after oral administration of ibuprofen and famotidine tablets. The C_{max} and AUC_{0-24hours} values for the 800 mg of ibuprofen contained in a ibuprofen and famotidine tablet are bioequivalent to the values for 800 mg of ibuprofen administered alone. C_{max} values for famotidine were 61 ng/mL and are reached at approximately 2 hours after oral administration of ibuprofen and famotidine tablets.

A high-fat meal reduced famotidine C_{max} and AUC by approximately 15% and 11%, respectively, and reduced ibuprofen AUC by approximately 14% but did not change C_{max}. Food delayed famotidine T_{max} and ibuprofen T_{max} by approximately 1 hour and 0.2 hour, respectively.

Distribution

Ibuprofen is extensively bound to plasma proteins.

Fifteen to 20% of famotidine in plasma is protein bound.

Elimination

Metabolism

The only metabolite of famotidine identified in man is the S-oxide.

Excretion

Ibuprofen is eliminated from the systemic circulation with a mean half-life (t_{1/2}) value of 2 hours following administration of a single dose of ibuprofen and famotidine tablets.

Ibuprofen is rapidly metabolized and eliminated in the urine. The excretion of ibuprofen is virtually complete 24 hours after the last dose.

Studies have shown that following ingestion of the drug, 45% to 79% of the dose was recovered in the urine within 24 hours as metabolite A (25%), (+)-2-[p-(2-hydroxymethyl-propyl) phenyl] propionic acid and metabolite B (37%), (+)-2-[p-(2-carboxypropyl)phenyl] propionic acid; the percentages of free and conjugated ibuprofen were approximately 1% and 14%, respectively.

Famotidine is eliminated from the systemic circulation with a mean t_{1/2} value of 4 hours following administration of a single dose of ibuprofen and famotidine tablets.

Famotidine is eliminated by renal (65% to 70%) and metabolic (30% to 35%) routes. Renal clearance is 250 mL/min to 450 mL/min, indicating some tubular excretion. Twenty-five to 30% of an oral dose and 65% to 70% of an intravenous dose are recovered in the urine as unchanged compound.

Specific Populations

Pediatrics: The pharmacokinetics of ibuprofen or famotidine after administration of ibuprofen and famotidine tablets have not been evaluated in a pediatric population considering the doses of ibuprofen and famotidine in ibuprofen and famotidine tablets are targeted for use in an adult population.

Hepatic impairment: The effects of hepatic impairment on the pharmacokinetics of ibuprofen or famotidine after administration of ibuprofen and famotidine tablets have not been evaluated [see *Warnings and Precautions* (5.4)].

Renal impairment: There is a close relationship between creatinine clearance values and the elimination t_{1/2} of famotidine, which is a component of ibuprofen and famotidine tablets. In patients with creatinine clearance less than 50 mL/min, the elimination t_{1/2} of famotidine is increased and may exceed 20 hours. Therefore, ibuprofen and famotidine tablets are not recommended in patients with creatinine clearance less than 50 mL/min [see *Warnings and Precautions* (5.7)].

Drug Interaction Studies

Coadministration of ibuprofen (800 mg) and famotidine (400 mg) increased ibuprofen C_{max} by 15.6% but did not affect its AUC, and increased famotidine AUC by 16% and 22%, respectively.

Aspirin: When NSAIDs were administered with aspirin, the protein binding of NSAIDs were reduced, although the clearance of free NSAID was not altered. The clinical significance of this interaction is not known. See Table 3 for clinically significant drug interactions of NSAIDs with aspirin [see *Drug Interaction* (7)].

Probenecid, an inhibitor of Organic Anion Transporter 1 (OAT1) and OAT3

In vitro studies indicate that famotidine is a substrate for OAT1 and OAT3. Following coadministration of probenecid (1,500 mg) with a single oral 20 mg dose of famotidine in 8 healthy subjects, the serum AUC_{0-10h} of famotidine increased from 424 to 768 ng•hr/mL and the maximum serum concentration (C_{max}) increased from 23 to 113 ng/mL. Renal clearance, urinary excretion rate and amount of famotidine excreted unchanged in urine were decreased. The clinical relevance of this interaction is unknown.

Metformin: Famotidine is a selective inhibitor of multidrug and toxin extrusion transporter 1 (MATE-1) but not clinical significant interaction with metformin, a substrate for MATE-1, was observed.

13 NONCLINICAL TOXICOLOGY

13.1 Carcinogenesis, Mutagenesis, Impairment of Fertility

Carcinogenesis

Studies to evaluate the potential effects of ibuprofen and famotidine on carcinogenicity, mutagenicity, or impairment of fertility have not been conducted.

In a 106-week study in rats and a 92-week study in mice, famotidine was given at oral doses of up to 2,000 mg/kg/day (approximately 122 and 243 times the recommended human dose, respectively, based on body surface area). There was no evidence of carcinogenic potential for famotidine.

Mutagenesis

Famotidine was negative in the microbial mutagen test (Ames test) using *Salmonella typhimurium* and *Escherichia coli* with or without rat liver enzyme activation at concentrations up to 10,000 mcg/plate. In *in vivo* mouse micronucleus test and a chromosomal aberration test with famotidine, no evidence of a mutagenic effect was observed.

In published studies, ibuprofen was not mutagenic in the *in vitro* bacterial reverse mutation assay (Ames assay).

Impairment of Fertility

In studies of famotidine in rats at oral doses of up to 2,000 mg/kg/day (approximately 243 times the recommended human dose, based on body surface area), fertility and reproductive performance were not affected.

In a published study, dietary administration of ibuprofen to male and female rats 8-weeks prior to and during mating at dose levels of 20 mg/kg (0.06-times the MRHD based on body surface area comparison) did not impact male or female fertility or litter size.

In other studies, adult mice were administered ibuprofen intraperitoneally at a dose of 5.6 mg/kg/day (0.0085-times the MRHD based on body surface area comparison) for 35 or 60 days in males and 35 days in females. There was no effect on sperm motility or viability in males but decreased ovulation was reported in females.

14 CLINICAL STUDIES

Two multicenter, double-blind, active-controlled, randomized, 24-week studies of ibuprofen and famotidine tablets were conducted in patients who were expected to require daily administration of an NSAID for at least the coming 6 months for conditions such as the following: osteoarthritis, rheumatoid arthritis, chronic low back pain, chronic regional pain syndrome, and chronic soft tissue pain. Patients were assigned randomly, in approximately a 2:1 ratio, to treatment with either ibuprofen and famotidine tablets or ibuprofen (800 mg) three times a day for 24 consecutive weeks. A total of 1,533 patients were enrolled and ranged in age from 29 to 80 years (median age 55 years) with 68% females. Race was distributed as follows: 79% Caucasian, 18% African-American, and 3% Other. Approximately 15% of the patients in Studies 301 and 303 were taking concurrent low-dose aspirin (less than or equal to 325 mg daily), 18% were 65 years of age or older, and 6% had a history of previous upper gastrointestinal ulcer. Although H. pylori status was negative at baseline, H. pylori status was not reassessed during the trials. Studies