

Summary of Product Characteristics

1 NAME OF THE MEDICINAL PRODUCT

Ibuprofen 200mg Soft capsules

2 QUALITATIVE AND QUANTITATIVE COMPOSITION

Each capsule contains ibuprofen 200 mg.

Excipients : sorbitol (E 420), soya lecithin.

For a full list of excipients, see section 6.1

3 PHARMACEUTICAL FORM

Soft capsule

Green translucent, oval soft gelatin capsule printed 'Advil' on one side in white ink.

4 CLINICAL PARTICULARS

4.1 Therapeutic Indications

Ibuprofen is indicated for the relief of mild to moderate pain including rheumatic and muscular pain, backache, headache, dental pain, dysmenorrhoea, feverishness and for the relief of symptoms of cold and influenza

4.2 Posology and method of administration

For oral administration and short-term use only.

The lowest effective dose should be used for the shortest duration necessary to relieve symptoms (see section 4.4).

For all indications:

Adults, older people and children and adolescents between 12-18 years of age.

If in children or adolescents between 12 -18 years of age, this medicinal product is required for more than 3 days, or if symptoms worsen, a doctor should be consulted.

For adults aged 18 years or older the patient should consult a doctor if symptoms persist or worsen, or if the product is required for more than 10 days.

1 or 2 capsules up to three times per day as required. The respective dosing interval should be chosen in line with the observed symptoms and the maximum recommended daily dose. Doses should be given approximately every 6-8 hours, with a minimum interval of 4 hours between each dose. A total dose of 1200 mg of ibuprofen (6 capsules) should not be exceeded in any 24 hour period. The capsules should be taken with water.

Not to be used for children under 12 years of age.

4.3 Contraindications

Hypersensitivity to ibuprofen or any of the other ingredients in the product (see Section 4.4 Special Warnings and Precautions).

Use in patients hypersensitive to aspirin or with bronchospasm, asthma, rhinitis, angioedema or urticaria associated with non-steroidal anti-inflammatory drugs (NSAIDs).

Ibuprofen should not be given to patients with active or history of recurrent peptic ulcer/haemorrhage (two or more distinct episodes of proven ulceration or bleeding).

History of gastrointestinal bleeding or perforation related to previous NSAID therapy.

Cerebrovascular bleeding, other active bleeding, or haematological disease.

Severe hepatic failure, severe renal failure or severe heart failure (NYHA Class IV).

Last trimester of pregnancy (see section 4.6 Fertility, Pregnancy and Lactation).

4.4 Special warnings and precautions for use

Undesirable effects may be minimised by using the lowest effective dose for the shortest duration necessary to control symptoms (see gastrointestinal and cardiovascular risks below).

Older people:

Older people have an increased frequency of adverse reactions to NSAIDs, especially gastrointestinal bleeding and perforation which may be fatal.

Respiratory:

Bronchospasm may be precipitated in patients suffering from or with a previous history of bronchial asthma or allergic disease and Ibuprofen 200 mg Soft Capsules should not be used where other NSAIDs have produced reactions.

Other NSAIDs:

The use of Ibuprofen 200 mg Soft Capsules with concomitant NSAIDs including cyclooxygenase-2 selective inhibitors should be avoided (see section 4.5).

Systemic Lupus Erythematosus (SLE) and mixed connective tissue disease:

Caution should be taken when ibuprofen is given to patients with SLE and autoimmune diseases – increased risk of aseptic meningitis has been reported. (see section 4.8).

Renal, Cardiac and Hepatic:

Caution is required in patients with renal, cardiac or hepatic impairment since renal function may deteriorate (see sections 4.3 and 4.8). The dose should be as low as possible and renal function should be monitored.

There is a risk of renal impairment in dehydrated children or adolescents between 12 -18 years of age.

Cardiovascular and cerebrovascular effects:

Caution (discussion with doctor or pharmacist) is required prior to starting treatment in patients with a history of hypertension and/or heart failure as fluid retention, hypertension and oedema have been reported in association with NSAID therapy.

Clinical studies suggest that use of ibuprofen, particularly at high doses (2400mg/day) may be associated with a small increased risk of arterial thrombotic events (for example myocardial infarction or stroke). Overall, epidemiological studies do not suggest that low dose ibuprofen (e.g. \leq 1200 mg/day) is associated with an increased risk of arterial thrombotic events.

Patients with uncontrolled hypertension, congestive heart failure (NYHA II-III), established ischaemic heart disease, peripheral arterial disease, and/or cerebrovascular disease should only be treated with ibuprofen after careful consideration and high doses (2400 mg/day) should be avoided.

Careful consideration should also be exercised before initiating long-term treatment of patients with risk factors for cardiovascular events (e.g. hypertension, hyperlipidaemia, diabetes mellitus and smoking), particularly if high doses of ibuprofen (2400 mg/day) are required.

Impaired female fertility:

There is limited evidence that drugs which inhibit cyclo-oxygenase/prostaglandin synthesis may cause impairment of female fertility by an effect on ovulation. This is reversible upon withdrawal of treatment.

Gastrointestinal:

NSAIDs should be given with care to patients with a history of gastrointestinal disease (e.g. ulcerative colitis, Crohn's disease) as these conditions may be exacerbated (see section 4.8).

GI bleeding, ulceration or perforation, which can be fatal, has been reported with all NSAIDs at any time during treatment, with or without warning symptoms or a previous history of serious GI events.

The risk of GI bleeding, ulceration or perforation is higher with increasing NSAID doses in patients with a history of ulcer, particularly if complicated with haemorrhage or perforation (see section 4.3), and in the elderly. These patients should commence treatment on the lowest dose available.

Patients with a history of GI toxicity, particularly when elderly, should report any unusual abdominal symptoms (especially GI bleeding), particularly in the initial stages of treatment. Caution should be advised in patients receiving concomitant medications which could increase the risk of ulceration or bleeding, such as oral corticosteroids, anticoagulants such as warfarin, selective serotonin-reuptake inhibitors (SSRIs) or anti-platelet agents such as aspirin (see section 4.5).

When GI bleeding or ulceration occurs in patients receiving ibuprofen, the treatment should be withdrawn.

Dermatological:

Severe skin reactions

Severe skin reactions, some of them fatal, including exfoliative dermatitis, Stevens-Johnson syndrome and toxic epidermal necrolysis, have been reported very rarely in association with the use of NSAIDs (see section 4.8). Patients appear to be at highest risk for these reactions early in the course of therapy, the onset of the reaction occurring in the majority of cases within the first month of treatment. Acute generalised exanthematous pustulosis (AGEP) has been reported in relation to ibuprofen-containing products. Ibuprofen 200 mg Soft Capsules should be discontinued at the first appearance of skin rash, mucosal lesions or any other sign of hypersensitivity.

Exceptionally, varicella can be at the origin of serious cutaneous and soft tissue infectious complications. To date, the contributing role of NSAIDs in the worsening of these infections cannot be ruled out. Thus, it is advisable to avoid use of Ibuprofen 200 mg Soft Capsules in case of varicella.

Masking of symptoms of underlying infections

Ibuprofen 200 mg Soft Capsules can mask symptoms of infection, which may lead to delayed initiation of appropriate treatment and thereby worsening the outcome of the infection. This has been observed in bacterial community acquired pneumonia and bacterial complications to varicella. When Ibuprofen 200 mg Soft Capsules is administered for fever or pain relief in relation to infection, monitoring of infection is advised. In non-hospital settings, the patient should consult a doctor if symptoms persist or worsen.

The pharmacological activity of ibuprofen may reduce fever and inflammation, thus diminishing their utility as diagnostic signs in detecting underlying conditions.

Ibuprofen 200 mg Soft Capsules contain sorbitol E 420.

Patients with rare hereditary problems of fructose intolerance should not take this medicine.

Ibuprofen 200 mg soft Capsules contain soya lecithin. If you are allergic to peanut or soya, do not use this medicinal product.

4.5 Interaction with other medicinal products and other forms of interactions

Ibuprofen should be avoided in combination with:

Aspirin:

Concomitant administration of ibuprofen and aspirin is not generally recommended because of the potential of increased adverse effects.

Experimental data suggest that ibuprofen may competitively inhibit the effect of low dose aspirin on platelet aggregation when they are dosed concomitantly. Although there are uncertainties regarding extrapolation of these data to the clinical situation, the possibility that regular, long-term use of ibuprofen, may reduce the cardioprotective effect of low-dose aspirin cannot be excluded. No clinically relevant effect is considered to be likely for occasional ibuprofen use (see section 5.1).

Other NSAIDs:

Ibuprofen should not be used with other pain relievers such as NSAIDs.

Ibuprofen should be used with caution in combination with:

Anticoagulants: NSAIDs may enhance the effects of anticoagulants such as warfarin (see section 4.4). When taking anticoagulants it should be taken into account that long-term use of ibuprofen may increase the risk of bleeding.

Antihypertensives and diuretics: NSAIDs may diminish the effects of antihypertensives or thiazide diuretics. Diuretics can increase the risk of nephrotoxicity of NSAIDs.

Corticosteroids: When taking corticosteroids and ibuprofen concomitantly there is an increased risk of gastrointestinal ulceration or bleeding. (see section 4.4).

Anti-platelet agents and selective serotonin reuptake inhibitors (SSRIs): Increased risk of gastrointestinal bleeding (see section 4.4)

Cardiac glycosides: Ibuprofen may increase serum digitalis concentrations. Serum digitalis concentrations should therefore be monitored in patients with decreased renal function or congestive heart failure.

Lithium: Increases in serum lithium concentrations following administration of ibuprofen may be clinically significant.

Methotrexate: Concomitant administration of ibuprofen with moderate and high doses of methotrexate may lead to serious and fatal methotrexate toxicity. Patients with reduced renal function may be at additional risk of toxicity from the combination even when low doses of methotrexate (≤ 20 mg/week) are used.

Ciclosporin: Increased risk of nephrotoxicity.

Tacrolimus: Possible increased risk of nephrotoxicity when NSAIDs are given with tacrolimus.

Zidovudine: Increased risk of haematological toxicity when NSAIDs are given with zidovudine. There is evidence of an increased risk of haemarthroses and haematoma in HIV(+) haemophiliacs receiving concurrent treatment with zidovudine and ibuprofen.

Quinolone antibiotics: Animal data indicate that NSAIDs can increase the risk of convulsions associated with quinolone antibiotics. Patients taking NSAIDs and quinolones may have an increased risk of developing convulsions.

Phenytoin: Ibuprofen may increase pharmacologically active free phenytoin. Patients taking ibuprofen for long-term use should be monitored.

Antacids: Certain antacids may increase the gastrointestinal absorption of ibuprofen. This is considered to be of clinical relevance particularly during long-term use of ibuprofen.

4.6 Fertility, pregnancy and lactation

Pregnancy

Inhibition of prostaglandin synthesis may adversely affect the pregnancy and/or the embryo/foetal development. Data from epidemiological studies suggest an increased risk of miscarriage and of cardiac malformation and gastroschisis after use of a prostaglandin synthesis inhibitor in early pregnancy. The absolute risk for cardiovascular malformation was increased from less than 1%, up to approximately 1.5 %. The risk is believed to increase with dose and duration of therapy. In animals, administration of a prostaglandin synthesis inhibitor has been shown to result in increased pre- and post-implantation loss and embryo-foetal lethality. In addition, increased incidences of various malformations, including cardiovascular, have been reported in animals given a prostaglandin synthesis inhibitor during the organogenetic period. During the first and second trimester of pregnancy, ibuprofen should not be given unless clearly necessary. If ibuprofen is used by a woman attempting to conceive, or during the first and second trimester of pregnancy, the dose should be kept as low and duration of treatment as short as possible.

During the third trimester of pregnancy, all prostaglandin synthesis inhibitors may expose the foetus to:

- cardiopulmonary toxicity (with premature closure of the ductus arteriosus and pulmonary hypertension);
- renal dysfunction, which may progress to renal failure with oligo-hydroamniosis;

the mother and the neonate, at the end of pregnancy, to:

- possible prolongation of bleeding time, an anti-aggregating effect which may occur even at very low doses.
- inhibition of uterine contractions resulting in delayed or prolonged labour.

Consequently, ibuprofen is contraindicated during the third trimester of pregnancy.

Lactation

In limited studies, ibuprofen appears in breast milk in very low concentrations. Based upon the low level detected (0.0008% of maternal dose), it is unlikely to affect the breast-fed infant adversely.

Fertility

See section 4.4 regarding female fertility.

4.7 Effects on ability to drive and use machines

No studies on the effect of ability to drive or use machines have been performed.

4.8 Undesirable effects

The following list of adverse effects relates to those experienced with ibuprofen at OTC doses, for short-term use. In the treatment of chronic conditions, under long-term treatment, additional adverse effects may occur.

The adverse effects have been listed in order of decreasing frequency, using the following convention: very common ($\geq 1/10$); common ($\geq 1/100$ to $<1/10$); uncommon ($\geq 1/1,000$ to $<1/100$); rare ($\geq 1/10,000$ to $<1/1,000$); very rare ($<1/10,000$), not known (cannot be estimated from the available data).

Investigations:	Very rare:	Decreased haematocrit and haemoglobin levels.
Cardiac Disorders:	Not known:	Oedema, hypertension, angina pectoris and cardiac failure, have been reported in association with NSAID treatment. Clinical studies suggest that use of ibuprofen, particularly at a high dose (2400mg/day) may be associated with a small increased risk of arterial thrombotic events (for example myocardial infarction or stroke) (see section 4.4).
Blood and Lymphatic System Disorders:	Very rare:	Haematopoietic disorders (anaemia, haemolytic anaemia, aplastic anaemia, leucopenia, thrombocytopenia, pancytopenia, agranulocytosis). First signs are: fever, sore throat, superficial mouth ulcers, influenza-like symptoms, severe exhaustion, unexplained bleeding and bruising.
Nervous System Disorders:	Uncommon:	Headache, dizziness, cerebrovascular accident
	Very rare:	Aseptic meningitis – single cases have been reported very rarely.
Eye Disorders:	Very rare:	Visual impairment.
Ear and Labyrinth Disorders:	Very rare:	Tinnitus and vertigo.
Respiratory, Thoracic and Mediastinal Disorders:	Very rare:	Asthma, bronchospasm, dyspnoea and wheezing.
Gastrointestinal Disorders:		The most commonly-observed adverse events are gastrointestinal in nature.
	Uncommon:	Abdominal pain, abdominal distension, nausea and dyspepsia.
	Rare:	Diarrhoea, flatulence, constipation and vomiting.
	Very rare:	Peptic ulcer, perforation or gastrointestinal

		haemorrhage, melaena, haematemesis, sometimes fatal, particularly in the elderly, ulcerative stomatitis, gastritis, mouth ulcer.
	Not known:	Exacerbation of colitis and Crohn's disease (see section 4.4).
Renal and Urinary Disorders:	Very rare:	Acute renal failure, tubulointerstitial nephritis, nephritic syndrome, papillary necrosis, especially in long-term use, associated with increased serum urea and oedema; haematuria and proteinuria.
Skin and Subcutaneous Tissue Disorders:	Uncommon:	Various skin rashes
	Very rare:	Severe forms of skin reactions such as bullous reactions, including Stevens-Johnson Syndrome, erythema multiforme and toxic epidermal necrolysis can occur.
	Not known:	Drug reaction with eosinophilia and systemic symptoms (DRESS syndrome) <u>Acute generalised exanthematous pustulosis (AGEP)</u> Photosensitivity reactions.
Infections and Infestations:	Not known:	Meningitis, aseptic meningitis.
Vascular Disorders:	Very rare:	Hypertension.
General Disorders and Administration Site Conditions:	Very rare:	Oedema, swelling and peripheral oedema.
Immune System Disorders:	Uncommon:	Hypersensitivity reactions with urticaria and pruritis.
	Very rare:	Severe hypersensitivity reactions. Symptoms could be: facial, tongue and laryngeal swelling, dyspnoea, tachycardia, hypotension (anaphylaxis, angioedema or severe shock).
	Not known:	Non-specific allergic reactions Respiratory tract reactivity (e.g. asthma, aggravated asthma and bronchospasm). Various skin reactions including exfoliative and bullous dermatoses (including epidermal necrolysis and erythema multiforme). In patients with existing auto-immune disorders (such as systemic lupus erythematosus, mixed connective tissue disease) during treatment with ibuprofen, single cases of symptoms of aseptic meningitis, such as stiff neck, headache, nausea, vomiting, fever or disorientation have been observed (see section 4.4).
Hepatobiliary Disorders:	Very rare:	Liver disorders, hepatitis and jaundice.
Psychiatric Disorders:	Very rare:	Nervousness.

Reporting of suspected adverse reactions

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

4.9 Overdose

In children ingestion of more than 400 mg/kg may cause symptoms. In adults the dose response effect is less clear cut. The half-life in overdose is 1.5 – 3 hours.

Symptoms

Most patients who have ingested clinically important amounts of NSAIDs will develop no more than nausea, vomiting, epigastric pain, or more rarely diarrhoea. Tinnitus, headache and gastrointestinal bleeding are also possible. In more serious poisoning, toxicity is seen in the central nervous system, manifesting as drowsiness, occasionally excitation, hypotension and disorientation or coma. Occasionally patients develop convulsions. In serious poisoning metabolic acidosis may occur and the prothrombin time/INR may be prolonged, probably due to interference with the actions of circulating clotting factors. Acute renal failure and liver damage may occur. Exacerbation of asthma is possible in asthmatics.

Management

Management should be symptomatic and supportive and include the maintenance of a clear airway and monitoring of cardiac and vital signs until stable. Consider oral administration of activated charcoal if the patient presents within 1 hour of ingestion of a potentially toxic amount. If frequent or prolonged, convulsions should be treated with intravenous diazepam or lorazepam. Give bronchodilators for asthma.

5 PHARMACOLOGICAL PROPERTIES

5.1 Pharmacodynamic properties

Pharmacotherapeutic group: Propionic acid derivatives

ATC code: M01A E01

Ibuprofen is a propionic acid derivative NSAID that has demonstrated its efficacy by inhibition of prostaglandin synthesis. In humans ibuprofen reduces inflammatory pain, swellings and fever. Furthermore, ibuprofen reversibly inhibits platelet aggregation.

Clinical evidence demonstrates that when 400 mg of ibuprofen are taken, pain relieving effects can last for up to 8 hours.

Experimental data suggest that ibuprofen may competitively inhibit the effect of low dose aspirin on platelet aggregation when they are dosed concomitantly. Some pharmacodynamic studies show that when single doses of ibuprofen 400mg were taken within 8 hours before or within 30 minutes after immediate release aspirin dosing (81mg), a decreased effect of aspirin on the formation of thromboxane or platelet aggregation occurred. Although there are uncertainties regarding extrapolation of these data to the clinical situation, (for) the possibility that regular, long-term use of ibuprofen may reduce cardioprotective effect of low-dose aspirin cannot be excluded. No clinically relevant effect is considered to be likely for occasional ibuprofen use (see section 4.5).

5.2 Pharmacokinetic properties

After oral administration, solubilized ibuprofen (as present in Liquigel Capsules) is quickly absorbed when administered under fasting conditions. C_{max} is achieved within 0.6 hours compared to conventional tablets ($\frac{3}{4}$ – $1\frac{1}{2}$ hours). When taken with food, peak levels are observed after 1-2 hours.

Ibuprofen protein binding is approximately 99%. After an oral dose, ibuprofen is 75 – 85% excreted in the urine during the first 24 hours (mainly in the form of two metabolites), the remainder being eliminated in the faeces following excretion in bile. Excretion is complete within 24 hours.

The half-life of ibuprofen in plasma is approximately 2 hours.

In limited studies, ibuprofen appears in the breast milk in very low concentrations.

5.3 Preclinical safety data

Preclinical data reveal no special hazard for humans based on conventional studies on safety pharmacology, repeated dose toxicity, genotoxicity and carcinogenic potential. No teratogenic effect has been demonstrated in animal experiments, however, use of ibuprofen during pregnancy should, if possible, be avoided.

Preclinical effects were observed only at exposures considered sufficiently in excess of the maximum human exposure, indicating little relevance to clinical use.

6 PHARMACEUTICAL PARTICULARS

6.1 List of excipients

Macrogol600, potassium hydroxide, sorbitol liquid, partially dehydrated, gelatin, quinoline yellow (E104), patent blue (E131), purified water, soya lecithin, triglycerides (medium chain), glyceryl stearate, oleic acid, ascorbyl palmitate, Opacode White ink: titanium dioxide (E171), propylene glycol, polyvinyl acetate phthalate, Macrogol400.

6.2 Incompatibilities

Not applicable

6.3 Shelf life

3 years

6.4 Special precautions for storage

Do not store above 25°C.

6.5 Nature and contents of container

The Liquigel Capsules are packed into blister strips in a cardboard box.

Pack A:

Blister: White opaque thermoformed unplasticised PVC (250 µm) / Polyethylene extrusion coating (30 µm) /PVdC (90 gsm) heat sealed to the foil.

Foil: Hard temper aluminium foil (20 µm) / Heatseal lacquer (7 gsm)

Pack B:

Blister: White opaque thermoformed unplasticised PVC (250 µm) / PVdC coating (60 gsm) heat sealed to the foil.

Foil: Glassine (35 gsm) / Lamination adhesive / Aluminium foil (9 µm) / Heat seal lacquer (7 gsm).

A pack range will consist of packs of 6, 10, 12, 20, 24, 30, 36, 40, 48, 50, 60, 70, 72, 80, 90, 96 and 100 Liquigel capsules.

Not all pack sizes may be marketed.

6.6 Special precautions for disposal of a used medicinal product or waste materials derived from such medicinal product and other handling of the product

No special requirements.

7 MARKETING AUTHORISATION HOLDER

GlaxoSmithKline Consumer Healthcare (Ireland) Limited
12 Riverwalk
Citywest Business Campus
Dublin 24
Ireland

8 MARKETING AUTHORISATION NUMBER

PA0678/146/001

9 DATE OF FIRST AUTHORISATION/RENEWAL OF THE AUTHORISATION

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Date of last renewal: 9th November 2009

10 DATE OF REVISION OF THE TEXT

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