

IRISH MEDICINES BOARD ACTS 1995 AND 2006

MEDICINAL PRODUCTS(CONTROL OF PLACING ON THE MARKET)REGULATIONS,2007

(S.I. No.540 of 2007)

PPA1447/062/002

Case No: 2071036

The Irish Medicines Board in exercise of the powers conferred on it by the above mentioned Regulations hereby grants to

G & A Licensing Ltd

Ballymurray, Co. Roscommon, Ireland

an authorisation, subject to the provisions of the said Regulations, in respect of the product

Voltarol Retard 100mg film-coated prolonged-release tablets

The particulars of which are set out in Part I and Part II of the attached Schedule. The authorisation is also subject to the general conditions as may be specified in the said Regulations as listed on the reverse of this document.

This authorisation, unless previously revoked, shall continue in force from **08/01/2010**.

Signed on behalf of the Irish Medicines Board this

A person authorised in that behalf by the said Board.

Part II

Summary of Product Characteristics

1 NAME OF THE MEDICINAL PRODUCT

Voltarol Retard 100mg film-coated prolonged-release tablets

2 QUALITATIVE AND QUANTITATIVE COMPOSITION

Each tablet contains 100mg diclofenac sodium.

Excipient: Contains sucrose

For a full list of excipients, see section 6.1.

3 PHARMACEUTICAL FORM

Film-coated, prolonged-release tablets.

Product imported from Greece:

Pale red, round, slightly convex film-coated tablets.

4 CLINICAL PARTICULARS

4.1 Therapeutic Indications

Relief of all grades of pain and inflammation in a wide range of conditions.

Treatment of:

- Inflammatory and degenerative forms of rheumatism: rheumatoid arthritis, ankylosing spondylitis, osteoarthritis and spondylarthritis, psoriatic arthropathy, painful syndromes of the vertebral column, non-articular rheumatis.
- Acute musculo-skeletal disorders such as periarthrititis (e.g. frozen shoulder), tendonitis, tenosynovitis, bursitis.
- Other painful conditions resulting from trauma, including fracture, low back pain, sprains, strains, dislocations, orthopaedic, dental and other minor surgery.
- Post-traumatic and post-operative pain, inflammation, and swelling, e.g. following dental or orthopaedic surgery,.
- Painful and/or inflammatory conditions in gynaecology, e.g. primary dysmenorrhoea or adnexitis and menorrhagia.
- Acute gout.

4.2 Posology and method of administration

Undesirable effects may be minimised by using the lowest effective dose for the shortest duration necessary to control symptoms (see section 4.4).

The tablets should be swallowed whole with liquid, preferably before meals, and must not be divided or chewed.

Adults:

The recommended initial daily dose is 100 to 150mg, administered as 1 tablet of Voltarol prolonged-released 100mg.

This may be administered using a combination of dosage forms, e.g. tablets and suppositories.

The recommended maximum daily dose is 150mg.

In milder cases, as well as for long-term therapy, 100mg daily is usually sufficient.

Where the symptoms are most pronounced during the night or in the morning, Voltarol prolonged-release 100mg should preferably be taken in the evening.

Children and adolescents:

Because of their dosage strength, Voltarol prolonged-release tablets 100mg are not suitable for children and adolescents.

Elderly:

Although the pharmacokinetics of Voltarol are not impaired to any clinically relevant extent in elderly patients, non-steroidal anti-inflammatory drugs should be used with particular caution in such patients who generally are more prone to adverse reactions. In particular it is recommended that the lowest effective dosage be used in frail elderly patients or those with a low body weight (see also 'Precautions').

Treatment should be reviewed at regular intervals and discontinued if no benefit is seen or if intolerance occurs.

4.3 Contraindications

- Known hypersensitivity to the active substance or to any of the excipients.
- History of gastrointestinal bleeding or perforation, related to previous NSAIDs therapy. Active or history of recurrent peptic ulcer/ haemorrhage (two or more distinct episodes of proven ulceration or bleeding).
- Last trimester of pregnancy (see section 4.6 Pregnancy and lactation).
- Severe hepatic, renal or heart failure (see section 4.4 Special warnings and precautions for use).
- Like other non-steroidal anti-inflammatory drugs (NSAIDs), Voltarol is also contraindicated in patients in whom attacks of asthma, urticaria, or acute rhinitis are precipitated by acetylsalicylic acid or other NSAIDs.
- Patients with rare hereditary problems of fructose intolerance, glucose-galactose malabsorption or sucrose-isomaltase insufficiency should not take this medicine.

4.4 Special warnings and precautions for use

Warnings

Undesirable effects may be reduced by using the minimum effective dose for the shortest possible duration. Patients treated with NSAIDs longterm should undergo regular medical supervision to monitor for adverse events.

Gastro-intestinal: Close medical surveillance is imperative in patients with symptoms indicative of gastro-intestinal disorders, with a history suggestive of gastro-intestinal ulceration, with ulcerative colitis or with Crohn's disease.

Gastro-intestinal bleeding ulceration or perforation, which can be fatal has been reported with all NSAIDs and may occur at any time during treatment with or without warning symptoms or a previous history of serious gastrointestinal events. The elderly have an increased frequency of adverse reactions to NSAIDs especially gastrointestinal bleeding and perforation which may be fatal (see section 4.2 Posology and method of administration). When gastro-intestinal bleeding or ulceration occurs in patients receiving Voltarol the drug should be withdrawn.

Hepatic: Close medical surveillance is also imperative in patients suffering from severe impairment of hepatic function.

Hypersensitivity reactions: As with other nonsteroidal anti-inflammatory drugs, allergic reactions, including anaphylactic/anaphylactoid reactions, can also occur without earlier exposure to the drug.

Serious 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, including Voltarol (see section 4.8 Undesirable effects). Patients appear to be at a highest risk of 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. Voltarol should be discontinued at the first appearance of skin rash, mucosal lesions or any other sign of hypersensitivity.

Like other NSAIDs, Voltarol may mask the signs and symptoms of infection due to its pharmacodynamic properties.

The use of diclofenac sodium may impair female fertility and is not recommended in women attempting to conceive. In women who have difficulties conceiving or who are undergoing investigation of infertility, withdrawal of diclofenac sodium should be considered.

Precautions

General

Undesirable effects may be minimised by using the lowest effective dose for the shortest possible duration necessary to control symptoms (see section 4.2 Posology & method of administration and gastrointestinal and cardiovascular risks below).

The concomitant use of Voltarol with systemic NSAIDs including cyclooxygenase-2 selective inhibitors should be avoided due to the absence of any evidence demonstrating synergistic benefits and the potential for additive undesirable effects.

Caution is indicated in the elderly on basic medical grounds. In particular, it is recommended that the lowest effective dosage be used in frail elderly patients or those with a low body weight.

Voltarol prolonged-release tablets contain sucrose and therefore are not recommended for patients with rare hereditary problems of fructose intolerance, glucose-galactose malabsorption or sucrase-isomaltase insufficiency.

Pre-existing asthma

In patients with asthma, seasonal allergic rhinitis, swelling of the nasal mucosa (i.e. nasal polyps), chronic obstructive pulmonary diseases or chronic infections of the respiratory tract (especially if linked to allergic rhinitis-like symptoms), reactions on NSAIDs like asthma exacerbations (so-called intolerance to analgesics/analgesics-asthma), Quincke's oedema or urticaria are more frequent than in other patients. Therefore, special precaution is recommended in such patients (readiness for emergency). This is applicable as well for patients who are allergic to other substances, e.g. with skin reactions, pruritus or urticaria.

Gastrointestinal effects

As with all NSAIDs, close medical surveillance is imperative and particular caution should be exercised when prescribing Voltarol in patients with symptoms indicative of gastrointestinal (GI) disorders, or with a history suggestive of gastric or intestinal ulceration, bleeding or perforation (see section 4.8 Undesirable effects). The risk of GI bleeding, ulceration or perforation is higher with increasing NSAID doses and in patients with a history of ulcer, particularly if complicated with haemorrhage or perforation (see section 4.3 Contra-indications) and in the elderly. These patients should commence treatment on the lowest dose available.

Combination therapy with protective agents (e.g. proton pump inhibitors or misoprostol) should be considered for these patients, and also for patients requiring concomitant use of medicinal products containing low-dose acetylsalicylic acid (ASA)/aspirin or other medicinal products likely to increase gastrointestinal risk (see below and section 4.5 Interactions with other medicinal products and other forms of interaction)..

Patients with a history of GI toxicity, particularly the elderly, should report any unusual abdominal symptoms (especially GI bleeding) particularly at the initial stages of treatment.

Caution is recommended in patients receiving concomitant medications which could increase the risk of ulceration or bleeding, such as oral corticosteroids, anticoagulants such as warfarin, anti-platelet agents such as aspirin or selective serotonin-reuptake inhibitors (see section 4.5 Interaction with other medicinal products and other forms of interaction).

NSAIDs should be given with care to patients with a history of gastrointestinal disease (ulcerative colitis or Crohn's disease), as their condition may be exacerbated (See section 4.8 Undesirable effects).

Cardiovascular and cerebrovascular effects

Appropriate monitoring and advice are required for patients with a history of hypertension and/or mild to moderate congestive heart failure as fluid retention and oedema have been reported in association with NSAID therapy.

Clinical trial and epidemiological data suggest that the use of diclofenac, particularly at high doses (150 mg daily) and in long term treatment may be associated with a small increased risk of arterial thrombotic events (for example myocardial infarction or stroke).

Patients with uncontrolled hypertension, congestive heart failure, established ischaemic heart disease, peripheral arterial disease, and/or cerebrovascular disease should only be treated with diclofenac after careful consideration. Similar consideration should be made before initiating longer-term treatment of patients with risk factors for cardiovascular events (e.g. hypertension, hyperlipidaemia, diabetes mellitus, smoking).

Hepatic effects

Close medical surveillance is required when prescribing Voltarol to patients with impaired hepatic function, as their condition may be exacerbated.

As with other NSAIDs, values of one or more liver enzymes may increase. During prolonged treatments with Voltarol, regular monitoring of hepatic function is indicated as a precautionary measure. If abnormal liver function tests persist or worsen, if clinical signs or symptoms consistent with liver disease develop, or if other manifestations occur (e.g. eosinophilia, rash,) Voltarol should be discontinued. Hepatitis may occur without prodromal symptoms.

Caution is called for when using Voltarol on patients with hepatic porphyria, since it may trigger an attack.

Renal effects

As fluid retention and oedema have been reported in association with NSAID therapy, particular caution is called for in patients with impaired cardiac or renal function, history of hypertension, the elderly, patients receiving concomitant treatment with diuretics or medicinal products that can significantly impact renal function, and in those patients with substantial extracellular volume depletion from any cause, e.g. before or after major surgery (see section 4.3 Contraindications). Monitoring of renal function is recommended as a precautionary measure when using Voltarol in such cases. Discontinuation of therapy is usually followed by recovery to the pre-treatment state.

Haematological effects

During prolonged treatment with Voltarol, as with other NSAIDs, monitoring of the blood count is recommended. Like other NSAIDs, Voltarol may temporarily inhibit platelet aggregation. Patients with defects of haemostasis should be carefully monitored.

Long-term treatment: All patients who are receiving non-steroidal anti-inflammatory agents should be monitored as a precautionary measure e.g. renal function, hepatic function (elevation of liver enzymes may occur) and blood counts. This is particularly important in the elderly.

4.5 Interaction with other medicinal products and other forms of interaction

The following interactions include those observed with Voltarol prolonged-release tablets and/or other pharmaceutical forms of diclofenac.

Lithium: If used concomitantly, diclofenac may raise plasma concentrations of lithium and digoxin. Monitoring of the serum lithium level is recommended.

Digoxin: If used concomitantly, diclofenac may raise plasma concentrations of digoxin. Monitoring of the serum digoxin level is recommended.

Diuretic and antihypertensive agents: Like other NSAIDs, concomitant use of diclofenac with diuretics or antihypertensive agents (e.g. beta- blockers, angiotensin converting enzyme (ACE) inhibitor) may cause a decrease in their antihypertensive effect.

Therefore, the combination should be administered with caution and patients, especially the elderly, should have their blood pressure periodically monitored. Patients should be adequately hydrated and consideration should be given to monitoring of renal function after initiation of concomitant therapy and periodically thereafter, particularly for diuretics and ACE inhibitors due to the increased risk of nephrotoxicity. Concomitant treatment with potassium-sparing drugs may be associated with increased serum potassium levels, which should therefore be monitored frequently (see section 4.4 Special warnings and precautions for use).

Other NSAIDs and corticosteroids: Concomitant administration of diclofenac and other systemic NSAIDs or corticosteroids may increase the risk of gastrointestinal ulceration or bleeding (see section 4.4 Special warnings and precautions for use). Concomitant therapy with aspirin lowers the plasma levels of each, although no clinical significance is known.

Anticoagulants and anti-platelet agents: Caution is recommended since concomitant administration could increase the risk of gastrointestinal bleeding (see section 4.4 Special warnings and precautions for use). Although clinical investigations do not appear to indicate that diclofenac affects the action of anticoagulants, NSAIDs may enhance the effects of anti-coagulants, such as warfarin (see section 4.4.). There are also isolated reports of an increase risk of haemorrhage in patients receiving diclofenac and anticoagulants concomitantly. Close monitoring of such patients is therefore recommended.

Selective serotonin reuptake inhibitors (SSRIs): Concomitant administration of systemic NSAIDs and SSRIs may increase the risk of gastrointestinal bleeding (see section 4.4 Special warnings and precautions for use).

Antidiabetics: Clinical studies have shown that diclofenac can be given together with oral antidiabetic agents without influencing their clinical effect. However, there have been isolated reports of both hypoglycaemic and hyperglycaemic effects necessitating changes in the dosage of the antidiabetic agents during treatment with diclofenac. For this reason, monitoring of the blood glucose level is recommended as a precautionary measure during concomitant therapy.

Methotrexate: Caution is recommended when NSAIDs are administered less than 24 hours before or after treatment with methotrexate, since blood concentrations of methotrexate may rise and the toxicity of this substance be increased.

Ciclosporin: Diclofenac, like other NSAIDs, may increase the nephrotoxicity of ciclosporin due to the effect on renal prostaglandins. Therefore, it should be given at doses lower than those that would be used in patients not receiving ciclosporin.

Quinolone antibacterials: there have been isolated reports of convulsions which may have been due to concomitant use of quinolones and NSAIDs. This may occur in patients with or without a previous history of epilepsy or convulsions. Therefore, caution should be exercised when considering the use of quinolone in patients who are already receiving an NSAID.

4.6 Pregnancy and lactation

Pregnancy

The use of diclofenac in pregnant women has not been studied. Therefore, Voltarol should not be used during the first two trimesters of pregnancy unless the potential benefit to the mother outweighs the risk to the foetus.

As with other NSAIDs, use during the third trimester of pregnancy is contraindicated owing to the possibility of uterine inertia and/or premature closure of the ductus arteriosus (see section 4. 3 Contraindications). Animal studies have not shown any directly or indirectly harmful effects on pregnancy, embryonal/fetal development, parturition or postnatal development (see section 5.3 Preclinical safety data).

Lactation

Like other NSAIDs, diclofenac, passes into the breast milk, but in small amounts. Therefore, Voltarol should not be administered during breast feeding in order to avoid undesirable effects in the infant.

Fertility

As with other NSAIDs, the use of Voltarol may impair female fertility and is not recommended in women attempting to conceive.
In women who have difficulties conceiving or who are undergoing investigation of infertility, withdrawal of Voltarol should be considered.

4.7 Effects on ability to drive and use machines

Patients who experience dizziness, vertigo, somnolence or other central nervous system disturbances, including visual disturbances, while taking NSAIDs should refrain from driving or using machines.

4.8 Undesirable effects

Adverse reactions (Table 1) are ranked under heading of frequency, the most frequent first, using the following convention: common ($\geq 1/100$, $< 1/10$); uncommon ($\geq 1/1,000$, $< 1/100$); rare ($\geq 1/10,000$, $< 1/1,000$); very rare ($< 1/10,000$), including isolated reports. Frequency estimate: frequent $> 10\%$, occasional $> 1\% - 10\%$, rare $> 0.001\% - 1\%$, isolated cases $< 0.001\%$.

The most commonly observed adverse events are gastrointestinal in nature. Peptic ulcers, perforation or GI bleeding, sometimes fatal, particularly in the elderly, may occur (see section 4.4 Special warnings and precautions for use). Nausea, vomiting, diarrhoea, flatulence, constipation, dyspepsia, abdominal pain, melaena, haematemesis, ulcerative stomatitis, exacerbation of coillitis and Crohn’s disease (see section 4.4 Special warnings and precautions for use) have been reported following administration. Less frequently, gastritis has been observed.

The following table of undesirable effects include those reported with Voltarol prolonged release tablets and/or other pharmaceutical forms of diclofenac, with either short-term or long-term use.

Table 1

Blood and lymphatic system disorders	
Very rare:	Thrombocyropenia, leucopenia, anaemia (including haemolytic anaemia and aplastic anaemia) agranulocytosis.
Immune system disorder	
Rare:	Hypersensitivity, anaphylactic and anaphylactoid reactions (including hypotension and shock).
Very rare:	Angioneurotic oedema (including face oedema).
Psychiatric disorders	
Very rare:	Disorientation, depression, insomnia, nightmare, irritability, psychotic disorder.
Nervous system disorders	
Common:	Headache, dizziness.
Rare:	Somnolence.

Very rare:	Paraesthesia, memory impairment, convulsion, anxiety, tremor, aseptic meningitis, taste disturbance, cerebrovascular accident.
Eye disorders	
Very rare:	Visual disturbances (blurred vision, diplopia).
Ear and labyrinth disorders	
Common:	Vertigo.
Very rare:	Tinnitus, hearing impaired.
Cardiac disorders	
Very rare:	Palpitations, chest pain, cardiac failure, myocardial infarction.
Vascular disorders	
Very rare:	hypertension, vasculitis.
Respiratory, thoracic and mediastinal disorders:	
Rare:	Asthma (including dyspnoea).
Very rare:	Pneumonitis.
Gastrointestinal disorders	
Common:	Nausea, vomiting, diarrhoea, dyspepsia, abdominal pain, flatulence, anorexia.
Rare:	Gastritis, gastrointestinal haemorrhage, haematemesis, diarrhoea haemorrhagic, melaena, gastrointestinal ulcer (with or without bleeding or perforation).
Very rare:	Colitis (including haemorrhagic colitis and exacerbation of ulcerative colitis or Crohn's disease), constipation stomatitis, glossitis, oesophageal disorder, diaphragm-like intestinal strictures, pancreatitis.
Hepatobiliary disorders	
Common:	Transaminases increased.
Rare:	Hepatitis, jaundice, liver disorder.
Very rare:	Fulminant hepatitis.
Skin and subcutaneous tissue disorders	
Common:	Rashes.
Rare:	Urticaria.
Very rare:	Bullous eruptions, eczema, erythema, multiforme, Stevens-Johnson syndrome, toxic epidermal, necrolysis (Lyell's syndrome), dermatitis exfoliative, loss of hair, photosensitivity reaction, purpura, including allergic purpura, pruritis.
Renal and urinary disorders	
Very rare:	Acute renal failure haematuria, proteinuria, nephritic syndrome, interstitial nephritis, renal papillary necrosis.
General disorders and administration site conditions	
Rare:	Oedema.

Oedema, hypertension and cardiac failure have been reported in association with NSAID treatment.

Clinical trial and epidemiological data suggest that the use of diclofenac, particularly at high doses (150 mg daily) and in long term treatment may be associated with a small increased risk of arterial thrombotic events (for example myocardial infarction or stroke) (see section 4.4 Special warnings and precautions for use).

4.9 Overdose

Symptoms

There is no typical clinical picture resulting from diclofenac overdosage. Overdosage can cause symptoms such as vomiting, gastrointestinal haemorrhage, diarrhoea, dizziness, tinnitus or convulsions. In the event of significant poisoning, acute renal failure and liver damage are possible.

Therapeutic measures

Management of acute poisoning with NSAIDS consists essentially of supportive measures and symptomatic treatment. Supportive measures and symptomatic treatment should be given for complications such as hypotension, renal failure, convulsions, gastrointestinal disorder, and respiratory depression.

Special measures such as forced diuresis, dialysis, or haemoperfusion are probably unlikely to be helpful in accelerating the elimination of NSAIDs because of their high protein binding rate and extensive metabolism.

Activated charcoal may be considered after ingestion of a potentially toxic overdose, and gastric decontamination (e.g. vomiting, gastric lavage) after ingestion of a potentially life-threatening overdose.

5 PHARMACOLOGICAL PROPERTIES

5.1 Pharmacodynamic properties

Pharmacotherapeutic group: Non-steroidal anti-inflammatory and antirheumatic products, non-steroids, acetic acid derivatives and related substances (NSAID) (ATC code: M01A B05).

Mechanism of action

Voltarol contains diclofenac sodium, a non-steroidal compound with pronounced antirheumatic, anti-inflammatory, analgesic, and antipyretic properties. Inhibition of prostaglandin biosynthesis, which has been demonstrated in experiments, is considered fundamental to its mechanism of action. Prostaglandins play a major role in causing of inflammation, pain, and fever.

Diclofenac sodium *in vitro* does not suppress proteoglycan biosynthesis in cartilage at concentrations equivalent to those reached in humans.

Pharmacodynamic effects

In rheumatic diseases, the anti-inflammatory and analgesic properties of Voltarol elicit a clinical response characterised by marked relief from signs and symptoms such as pain at rest, pain on movement, morning stiffness, and swelling of the joints, as well as by an improvement in function.

In post-traumatic and post-operative inflammatory conditions, Voltarol rapidly relieves both spontaneous pain and pain on movement and reduces inflammatory swelling and wound oedema.

Voltarol 100mg prolonged-release tablets are particularly suitable for patients in whom a daily dose of 100mg is appropriate to the clinical picture. The possibility of prescribing the medicinal product in a single daily dose considerably simplifies long-term treatment and helps to avoid the possibility of dosage errors.

5.2 Pharmacokinetic properties

Absorption:

The same amount of active substance is released and absorbed from Retard tablets as from gastro-resistant tablets.

Mean peak plasma concentrations of diclofenac are reached at 4 hours, $0.508 \pm 0.185 \mu\text{g/ml}$ ($0.5\mu\text{g/mL} \equiv 1.6\mu\text{mol/L}$).

Voltarol Retard 100mg is a modified release preparation and plasma concentrations of diclofenac of 13ng/mL ($40\mu\text{mol/L}$) can be recorded at 24 hours after administration. Absorption is unaffected by food.

Bioavailability:

The systemic availability of diclofenac from the Retard formulations is on average 82% of that achieved with the same dose of gastro-resistant tablets (possibly due to release rate dependent first-pass metabolism). As a result of the slower release of active substance, peak plasma concentrations are lower than for the equivalent gastro-resistant dose.

Pharmacokinetics behaviour does not change on repeated administration. Accumulation does not occur, provided the recommended dosage intervals are observed. Trough levels of diclofenac in the plasma after Voltarol retard 100mg daily are around 22ng/ml (70nmol/l). The plasma concentrations are attained in children given equivalent doses (mg/kg, b.w.) are similar to those obtained in adults.

Distribution:

The active substance is 99.7% protein bound, mainly to albumin (99.4%).

Diclofenac enters the synovial fluid, where maximum concentrations are measured 2-4 hours after the peak plasma values have been attained. The apparent half-life for elimination from the synovial fluid is 3-6 hours. Two hours after reaching the peak plasma values, concentrations of the active substance are already higher in the synovial fluid than they are in the plasma, and remain higher for up to 12 hours.

Metabolism:

Biotransformation of diclofenac takes place partly by glucuronidation of the intact molecule, but mainly by single and multiple hydroxylation and methoxylation, resulting in several phenolic metabolites, most of which are converted to glucuronide conjugates. Two phenolic metabolites are biologically active, but to a much lesser extent than diclofenac.

Elimination:

Total systemic clearance of diclofenac in plasma is $263 \pm 56 \text{ mL/min}$ (mean value $\pm$ SD). The terminal half-life in plasma is 1-2 hours. Four of the metabolites, including the two active ones, also have short plasma half-lives of 1-3 hours. About 60% of the administered dose is excreted in the urine as the glucuronide conjugate of the intact molecule and as metabolites, most of which are also converted to glucuronide conjugates. Less than 1% is excreted as unchanged substance. The rest of the dose is eliminated as metabolites through the bile in the faeces.

Characteristics in patients:

Elderly: No relevant age-dependent differences in drug's absorption, metabolism, or excretion have been observed, other than the finding that in five elderly patients, a 15 minute iv infusion resulted in 50% higher plasma concentrations than expected with young healthy subjects.

Patients with renal impairment: In patients suffering from renal impairment, no accumulation of the unchanged active substance can be inferred from the single-dose kinetics when applying the usual dosage schedule. At a creatinine clearance of $<10 \text{ mL/min}$, the calculated steady-state plasma levels of hydroxy metabolites are about 4 times higher than in normal subjects. However, the metabolites are ultimately cleared through the bile.

Patients with hepatic disease: in patients with chronic hepatitis or non-decompensated cirrhosis, the kinetics and metabolism of diclofenac are the same as in patients without liver disease.

5.3 Preclinical safety data

Preclinical data from acute and repeated dose toxicity studies, as well as from genotoxicity, mutagenicity, and carcinogenicity studies with diclofenac revealed no specific hazard for humans at the intended therapeutic doses. There was no evidence that diclofenac had a teratogenic potential in mice, rats or rabbits.

Diclofenac had no influence on the fertility of the parent animals in rats. The prenatal, perinatal, and postnatal development of the offspring was not affected.

6 PHARMACEUTICAL PARTICULARS

6.1 List of excipients

Sucrose
Cetyl alcohol
Povidone
Magnesium stearate
Colloidal Anhydrous Silica

Tablet coating:
Hypromellose
Talc
Polysorbate 80
Titanium dioxide (E171)
Red iron oxide (E172)
Macrogol 8000

6.2 Incompatibilities

Not applicable.

6.3 Shelf Life

The shelf-life expiry date of this product shall be the date shown on the blister and outer package of the product on the market in the country of origin.

6.4 Special precautions for storage

Do not store above 30°C.
Store in the original package in order to protect from moisture.

6.5 Nature and contents of container

Blister packs of 10 tablets in an overlabelled carton.

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

The tablets should be swallowed whole with liquid preferably with meals.

7 Parallel Product Authorisation Holder

G & A Licensing Limited
Ballymurray
Co. Roscommon

8 Parallel Product Authorisation Number

PPA1447/62/2

9 DATE OF FIRST AUTHORISATION/RENEWAL OF THE AUTHORISATION

Date of first authorisation: 8th January 2010

10 DATE OF REVISION OF THE TEXT