



[Diclofenac Sodium + Omeprazole Modified-Release Capsules]

75mg+20mg Capsules

WARNING:

RISK OF SERIOUS CARDIOVASCULAR AND GASTROINTESTINAL EVENTS

CARDIOVASCULAR THROMBOTIC EVENTS • 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 • Diclofenac sodium is contraindicated in the setting of coronary artery bypass graft (CABG) surgery. **GASTROINTESTINAL BLEEDING, ULCERATION, AND PERFORATION** • 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 peptic ulcer disease and/or GI bleeding are at greater risk for serious GI events.

COMPOSITION

Each modified-release capsule contains:

Diclofenac Sodium 75mg
(25mg as gastro-resistant pellets and 50mg as prolonged-release pellets)
Omeprazole 20mg
(as gastro-resistant pellets)
(Product complies to innovator specifications)

CLINICAL PARTICULARS

Therapeutic indications

Diclofenac Sodium + Omeprazole is indicated for symptomatic treatment of rheumatoid arthritis, osteoarthritis and ankylosing spondylitis in adult patients at risk of developing NSAID associated gastric and/or duodenal ulcers, who are adequately controlled with diclofenac and omeprazole.

Posology and method of administration

Posology

Adults

The dose is one capsule daily (diclofenac 75 mg/ omeprazole 20 mg).

If symptoms are not controlled by a once daily dosing, the therapy regime must be changed by switching to one or more alternative products. Patients should not take more than one capsule of Diclofenac Sodium + Omeprazole per day, as this would lead to over-exposure to omeprazole.

Undesirable effects may be minimised by using the shortest duration necessary to control symptoms. Treatment should be continued to achieve individual treatment goals, reviewed at regular intervals and discontinued if no benefit seen.

Special populations

Patients with renal impairment

In patients with mild to moderate renal impairment Diclofenac Sodium + Omeprazole should be used cautiously and renal function should be monitored closely.

Diclofenac Sodium + Omeprazole is contraindicated in patients with severe renal impairment.

Patients with hepatic impairment

In patients with mild to moderate hepatic impairment Diclofenac Sodium + Omeprazole should be used cautiously and hepatic function should be monitored closely.

Diclofenac Sodium + Omeprazole is contraindicated in patients with severe hepatic impairment.

Elderly (> 65 years)

The elderly are at increased risk of the serious consequences of adverse reactions. If an NSAID is considered necessary, the lowest effective dose should be used and for the shortest possible duration. The patient should be monitored regularly for GI bleeding during NSAID therapy.

Pediatric population (≤ 18 years)

Diclofenac Sodium + Omeprazole is not recommended for use in children, due to lack of data on safety and efficacy.

Method of administration

Diclofenac Sodium + Omeprazole should be swallowed whole with a liberal quantity of liquid.

Diclofenac Sodium + Omeprazole should be taken preferably with food.

Contraindications

Hypersensitivity to the active substances, substituted benzimidazoles or to any of the Excipients listed in section.

Previous hypersensitivity reactions (eg asthma, urticaria, angioedema or rhinitis) in response to ibuprofen, aspirin or other NSAIDs.

Severe hepatic, renal and cardiac failure. During the last trimester of pregnancy.

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 NSAIDs therapy.

Diclofenac Sodium + Omeprazole, like other proton pump inhibitors (PPIs) containing medicine must not be used concomitantly with nelfinavir.

Established congestive heart failure (NYHA II-IV), ischemic heart disease, peripheral arterial disease and/or cerebrovascular disease.

Special warnings and precautions for use

Diclofenac (NSAIDs)

In all patients:

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

As with other NSAIDs, allergic reactions, including anaphylactic/anaphylactoid reactions, can also occur in rare cases without previous exposure to the drug. Hypersensitivity reactions can also progress to Kounis syndrome, a serious allergic reaction that can result in myocardial infarction. Presenting symptoms of such reactions can include chest pain occurring in association with an allergic reaction to diclofenac. Diclofenac Sodium + Omeprazole 75 mg / 20 mg modified-release hard capsules may mask the signs and symptoms of infection due to its pharmacodynamic properties.

The use of Diclofenac Sodium + Omeprazole with concomitant NSAIDs including cyclo-oxygenase 2 selective inhibitors should be avoided due to the absence of any evidence demonstrating synergistic benefits and the potential for additive undesirable effects .

Elderly:

Caution is indicated on basic medical grounds. The elderly have an increased frequency of adverse reactions to NSAIDs especially gastrointestinal bleeding and perforation which may be fatal. It is recommended that the lowest effective dose be used in frail elderly patients or those with a low body weight.

Respiratory disorders:

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 to 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 a medicalemergency). This is also applicable to patients who are known to be allergic to other substances and have previously presented with skin reactions, pruritus or urticaria.

Cardiovascular, Renal and Hepatic Impairment:

Patients with significant risk factors for cardiovascular events (e.g. hypertension, hyperlipidaemia, diabetes mellitus, smoking) should only be treated with diclofenac after careful consideration.

As the cardiovascular risks of diclofenac may increase with dose and duration of exposure, the shortest duration possible and the lowest effective daily dose should be used. The patient's need for symptomatic relief and response to therapy should be re-evaluated periodically.

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

As with other NSAIDs, treatment with Diclofenac can be associated with a rise in liver enzymes. During prolonged treatment with Diclofenac, regular monitoring of hepatic function is indicated as a precautionary measure. If abnormal liver function tests persist or worsen, or if clinical signs or symptoms consistent with liver disease develop, or if other manifestations occur (e.g. eosinophilia, rash), Diclofenac should be discontinued. Hepatitis may occur without prodromal symptoms. Caution is called for in patients with hepatic porphyria, since it may trigger an attack.

Fluid retention and oedema have been reported with NSAID therapy, including diclofenac; particular caution is called for in patients with impaired cardiac or renal function, a 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. Monitoring of renal function is recommended as a precautionary measure when using Diclofenac in such cases. Discontinuation of therapy is usually followed by recovery to the pre-treatment state.

The administration of an NSAID may cause a dose dependent reduction in prostaglandin formation and precipitate renal failure. Patients at greatest risk of this reaction are those with impaired renal function, cardiac impairment, liver dysfunction, those taking diuretics and the elderly. Renal function should be monitored in these patients.

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 use of diclofenac, particularly at high dose (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 (eg hypertension, hyperlipidaemia, diabetes mellitus, smoking).

Gastrointestinal bleeding, ulceration and perforation:

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, and in the elderly. To reduce the risk of GI toxicity in these patients the treatment should be initiated and maintained at the lowest effective dose.

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 medicinal products which could increase the risk of ulceration or bleeding, such as systemic corticosteroids, anticoagulants such as warfarin, selective serotonin reuptake inhibitors or anti-platelet agents such as acetylsalicylic acid.

When GI bleeding or ulceration occurs in patients receiving Diclofenac Sodium + Omeprazole, the treatment should be withdrawn.

Close medical surveillance and caution should also be exercised in patients with ulcerative colitis or Crohn's disease, as their condition may be exacerbated.

NSAIDs, including diclofenac, may be associated with increased risk of gastro-intestinal anastomotic leak. Close medical surveillance and caution are recommended when using diclofenac after gastro-intestinal surgery.

As with all NSAIDs, including diclofenac, close medical surveillance is imperative and particular caution should be exercised when prescribing diclofenac in patients with symptoms indicative of gastrointestinal (GI) disorders or with a history suggestive of gastric or intestinal ulceration, bleeding or perforation.

SLE and mixed connective tissue disease:

In patients with systemic lupus erythematosus (SLE) and mixed connective tissue disorders there may be an increased risk of aseptic meningitis.

Dermatological:

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 . 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. Diclofenac Sodium + Omeprazole capsules should be discontinued at the first appearance of skin rash, mucosal lesions, or any other sign of hypersensitivity.

Haematological Effects:

Like other NSAIDs, diclofenac may temporarily inhibit platelet aggregation. Patients with defects of haemostasis should be carefully monitored.

Use of Diclofenac Sodium + Omeprazole is recommended only for short term treatment. During prolonged treatment with diclofenac, as with other NSAIDs, monitoring of the blood count is recommended.

Omeprazole

In the presence of any alarm symptom (e.g. significant unintentional weight loss, recurrent vomiting, dysphagia, haematemesis or melena) and when gastric ulcer is suspected or present, malignancy should be excluded, as treatment may alleviate symptoms and delay diagnosis.

Co-administration of atazanavir with proton pump inhibitors is not recommended. If the combination of atazanavir with a proton pump inhibitor is judged unavoidable, close clinical monitoring (e.g virus load) is recommended in combination with an increase in the dose of atazanavir to 400 mg with 100 mg of ritonavir; omeprazole 20 mg should not be exceeded.

Omeprazole, as all acid-blocking medicines, may reduce the absorption of vitamin B12 (cyanocobalamin) due to hypo- or achlorhydria. This should be considered in patients with reduced body stores or risk factors for reduced vitamin B12 absorption on long-term therapy.

Omeprazole is a CYP2C19 inhibitor. When starting or ending treatment with omeprazole, the potential for interactions with drugs metabolised through CYP2C19 should be considered. An interaction is observed between clopidogrel and omeprazole. The clinical relevance of this interaction is uncertain. As a precaution, concomitant use of omeprazole and clopidogrel should be discouraged.

Severe hypomagnesaemia has been reported in patients treated with proton pump inhibitors (PPIs) like omeprazole for at least three months, and in most cases for a year. Serious manifestations of hypomagnesaemia such as fatigue, tetany, delirium, convulsions, dizziness and ventricular arrhythmia

can occur but they may begin insidiously and be overlooked. In most affected patients, hypomagnesaemia improved after magnesium replacement and discontinuation of the PPI. For patients expected to be on prolonged treatment or who take PPIs with digoxin or drugs that may cause hypomagnesaemia (e.g. diuretics), healthcare professionals should consider measuring magnesium levels before starting PPI treatment and periodically during treatment.

Proton pump inhibitors, especially if used in high doses and over long durations (>1 year), may modestly increase the risk of hip, wrist and spine fracture, predominantly in the elderly or in presence of other recognised risk factors. Observational studies suggest that proton pump inhibitors may increase the overall risk of fracture by 10-40%. Some of this increase may be due to other risk factors. Patients at risk of osteoporosis should receive care according to current clinical guidelines and they should have an adequate intake of vitamin D and calcium.

Subacute cutaneous lupus erythematosus (SCLE)

Proton pump inhibitors are associated with very infrequent cases of SCLE. If lesions occur, especially in sun-exposed areas of the skin, and if accompanied by arthralgia, the patient should seek medical help promptly and the health care professional should consider stopping Diclofenac / Omeprazole. SCLE after previous treatment with a proton pump inhibitor may increase the risk of SCLE with other proton pump inhibitors.

Treatment with proton pump inhibitors may lead to slightly increased risk of gastrointestinal infections such as Salmonella and Campylobacter.

As in all long-term treatments, especially when exceeding a treatment period of 1 year, patients should be kept under regular surveillance.

Interference with laboratory tests

Increased Chromogranin A (CgA) level may interfere with investigations for neuroendocrine tumours. To avoid this interference, omeprazole treatment should be stopped for at least 5 days before CgA measurements. If CgA and gastrin levels have not returned to reference range after initial measurement, measurements should be repeated 14 days after cessation of proton pump inhibitor treatment.

Interaction with other medicinal products and other forms of interaction

Diclofenac (NSAIDs)

Other analgesics including cyclo-oxygenase-2 selective inhibitors:

Avoid concomitant use of two or more NSAIDs (including acetylsalicylic acid) as this may increase the risk of adverse effects.

Diuretics, ACE inhibitors and Angiotensin-II Antagonists:

Reduced diuretic and anti-hypertensive effect may be seen.

The combination should be administered with caution, and patients, especially the elderly, should have their blood pressure monitored. Patients should be adequately hydrated and renal function monitored after initiation of concomitant therapy and periodically thereafter, particularly for those patients on diuretics and ACE inhibitors, due to the increased risk of nephrotoxicity.

Diuretics can increase the risk of nephrotoxicity of NSAIDs. Concomitant treatment with potassium-sparing diuretics may be associated with increased serum potassium levels, hence serum potassium should be monitored.

Cardiac glycosides:

NSAIDs may exacerbate cardiac failure, reduced GFR (Glomerular Filtration Rate) and increase plasma glycoside levels.

Lithium:

Decreased elimination of lithium, may occur and monitoring of serum lithium levels is necessary.

Ciclosporin:

Increased risk of nephrotoxicity, therefore diclofenac should be given at doses lower than those that would be used in patients not receiving ciclosporin.

Mifepristone:

NSAIDs should not be used for 8-12 days after mifepristone administration as NSAIDs can reduce the effect of mifepristone.

Corticosteroids:

Increased risk of gastrointestinal ulceration or bleeding.

Anticoagulants and anti-platelet agents:

Caution is recommended since concomitant administration could increase the risk of bleeding. Although clinical studies do not appear to indicate that diclofenac affects the action of anticoagulants, there are isolated reports of an increased risk of haemorrhage in patients receiving concomitant diclofenac and anticoagulants. Close monitoring of such patients is therefore recommended.

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.

Selective serotonin reuptake inhibitors (SSRIs):

Increased risk of gastrointestinal bleeding.

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.

Colestipol and cholestyramine:

These agents can induce a delay or decrease in absorption, therefore, it is recommended that diclofenac is administered at least one hour before or 4 to 6 hours after administration of colestipol/cholestyramine.

Potent CYP2C9 inhibitors:

Caution recommended when co-prescribing diclofenac with potent CYP2C9 inhibitors (such as sulfinpyrazone and voriconazole), which could result in a significant increase in peak plasma concentration and exposure to diclofenac due to inhibition of diclofenac metabolism.

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. Therefore, monitoring of the blood glucose level is recommended as a precautionary measure during concomitant therapy.

Omeprazole

Effects of omeprazole on the pharmacokinetics of other active substances

Active substances with pH dependent absorption

The decreased intragastric acidity during treatment with omeprazole might increase or decrease the absorption of active substances with a gastric pH dependent absorption.

Nelfinavir, atazanavir:

The plasma levels of nelfinavir and atazanavir are decreased in case of co-administration with omeprazole.

Concomitant administration of omeprazole with nelfinavir is contraindicated. Co- administration of omeprazole (40 mg once daily) reduced mean nelfinavir exposure by ca. 40% and the mean exposure of the pharmacologically active metabolite M8 was reduced by ca. 75 –90%. The interaction may also involve CYP2C19 inhibition.

Concomitant administration of omeprazole with atazanavir is not recommended . Concomitant administration of omeprazole (40 mg once daily) and atazanavir 300 mg/ritonavir 100 mg to healthy volunteers resulted in a 75% decrease of the atazanavir exposure. Increasing the atazanavir dose to 400 mg did not compensate for the impact of omeprazole on atazanavir exposure. The co- administration of omeprazole (20 mg once daily) with atazanavir 400 mg/ritonavir 100 mg to healthy volunteers resulted in a decrease of approximately 30% in the atazanavir exposure as compared to atazanavir 300 mg/ritonavir 100 mg once daily.

Clopidogrel:

In a crossover clinical study, clopidogrel (300 mg loading dose followed by 75 mg/day) alone and with omeprazole (80 mg at the same time as clopidogrel) were administered for 5 days. The exposure to the active metabolite of clopidogrel was decreased by 46% (Day 1) and 42% (Day 5) when clopidogrel and omeprazole were administered together. Mean inhibition of platelet aggregation (IPA) was diminished by 47% (24 hours) and 30% (Day 5) when clopidogrel and omeprazole were administered together. In another study it was shown that administering clopidogrel and omeprazole at different times did not prevent their interaction that is likely to be driven by the inhibitory effect of omeprazole on CYP2C19.

Inconsistent data on the clinical implications of this PK/PD interaction in terms of major cardiovascular events have been reported from observational and clinical studies. As a precaution, concomitant use of omeprazole and clopidogrel should be discouraged.

Other active substances:

The absorption of posaconazole, erlotinib, ketoconazole and itraconazole is significantly reduced and thus clinical efficacy may be impaired. For posaconazole and erlotinib concomitant use should be avoided.

Active substances metabolised by CYP2C19:

Omeprazole is a moderate inhibitor of CYP2C19, the major omeprazole metabolising enzyme. Thus, the metabolism of concomitant active substances also metabolised by CYP2C19, may be decreased and the systemic exposure to these substances increased. Examples of such drugs are R-warfarin and other vitamin K antagonists, cilostazol, diazepam and phenytoin.

Cilostazol:

Omeprazole, given in doses of 40 mg to healthy subjects in a cross-over study, increased C_{max} and AUC for cilostazol by 18% and 26% respectively, and one of its active metabolites by 29% and 69% respectively.

Unknown mechanism**Saquinavir:**

Concomitant administration of omeprazole with saquinavir/ritonavir resulted in increased plasma levels up to approximately 70% for saquinavir associated with good tolerability in HIV-infected patients.

Effects of other active substances on the pharmacokinetics of omeprazole**Inhibitors CYP2C19 and/or CYP3A4:**

Since omeprazole is metabolised by CYP2C19 and CYP3A4, active substances known to inhibit CYP2C19 or CYP3A4 (such as clarithromycin and voriconazole) may lead to increased omeprazole serum

levels by decreasing omeprazole's rate of metabolism. Concomitant voriconazole treatment resulted in more than doubling of the omeprazole exposure. As high doses of omeprazole have been well-tolerated adjustment of the omeprazole dose is not generally required. However, dose adjustment should be considered in patients with severe hepatic impairment and if long-term treatment is indicated.

Inducers of CYP2C19 and/or CYP3A4:

Active substances known to induce CYP2C19 or CYP3A4 or both (such as rifampicin and St John's wort) may lead to decreased omeprazole serum levels by increasing omeprazole's rate of metabolism.

Diclofenac Sodium + Omeprazole 75 mg / 20 mg modified-release hard capsules

Digoxin:

Concomitant treatment with Diclofenac Sodium + Omeprazole and digoxin may increase the bioavailability of digoxin. Digoxin toxicity has been rarely reported. However caution should be exercised when diclofenac and omeprazole are given in elderly patients. Therapeutic drug monitoring of digoxin should be then be reinforced.

Methotrexate:

When given together with proton pump inhibitors and/or NSAIDs, methotrexate levels have been reported to increase in some patients. In high dose methotrexate administration a temporary withdrawal of Diclofenac Sodium + Omeprazole may need to be considered.

Tacrolimus:

Concomitant administration of Diclofenac Sodium + Omeprazole may increase the serum levels of tacrolimus. A reinforced monitoring of tacrolimus concentrations as well as renal function (creatinine clearance) should be performed, and dosage of tacrolimus adjusted if needed.

Phenytoin:

Monitoring phenytoin plasma concentration is recommended during the first two weeks after initiating the treatment due to an expected increase in phenytoin levels. If a phenytoin dose adjustment is made, monitoring and a further dose adjustment should occur upon ending of the treatment.

Fertility, pregnancy and lactation**Diclofenac****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 death.

In addition, increased incidences of various malformations, including cardiovascular malformations, have been reported in animals given a prostaglandin synthesis inhibitor during the organogenetic period. During the first and second trimester of pregnancy, diclofenac should not be given unless absolutely necessary. If diclofenac is used by a woman attempting to conceive, or during the first and second trimester of pregnancy, the dose and durations should be kept as low and as short as possible.

During the third trimester of pregnancy, all prostaglandin synthesis inhibitors may cause the following in the foetus:

- cardiopulmonary toxicity (with premature closure of the ductus arteriosus and pulmonary hypertension);
- renal dysfunction, which may progress to renal failure with oligo-hydroamniosis; In the mother and the neonate, at the end of pregnancy:
- an anti-aggregating effect which may occur even at very low doses leading to possible prolongation of bleeding times;
- inhibition of uterine contractions resulting in delayed or prolonged labour.

Consequently, Diclofenac Sodium + Omeprazole 75 mg / 20 mg modified-release hard capsules is contraindicated during the third trimester of pregnancy.

Breast-feeding:

In limited studies so far available, NSAIDs can appear in breast milk in very low concentrations. NSAIDs should not be administered during breast-feeding in order to avoid undesirable effects in the infant.

Fertility:

The use of diclofenac 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 + Omeprazole should be considered.

Omeprazole

Pregnancy:

Results from three prospective epidemiological studies (more than 1000 exposed outcomes) indicate no adverse effects of omeprazole on pregnancy or on the health of the foetus/newborn child. Omeprazole can be used during pregnancy.

Breast-feeding:

Omeprazole is excreted in breast milk but is not likely to influence the child when therapeutic doses are used.

Fertility

Animal studies with the racemic mixture omeprazole, given by oral administration do not indicate effects with respect to fertility.

Effects on ability to drive and use machines

Undesirable effects such as dizziness, drowsiness, fatigue, and visual disturbances, vertigo, somnolence or other central nervous system disturbances are possible after taking NSAIDs. Dizziness and visual disturbances may occur after taking omeprazole . If affected, patients should not drive or operate machinery.

Undesirable effects

Diclofenac

If serious side-effects occur, Diclofenac Sodium + Omeprazole should be withdrawn. The most commonly observed adverse events are gastrointestinal in nature.

Adverse reactions from diclofenac in clinical trials and epidemiological data are summarised in the table below.

The following terminologies have been used in order to classify the occurrence of adverse reactions:

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 ($< 1/10,000$)

MedDRA	Adverse reactions	Frequency
System Organ Class		
Blood and lymphatic system disorders	Leucopenia, neutropenia, thrombocytopenia, haemolytic anaemia, aplastic anaemia, agranulocytosis.	Very rare

Immune system disorders	Non-specific allergic reactions, anaphylactoid reactions (including hypotension and shock) and anaphylaxis. Respiratory tract reactivity comprising asthma, aggravated asthma, bronchospasm or dyspnoea.	Rare
	Angioedema, angioneurotic oedema (including face oedema).	Very rare
Psychiatric disorders	Depression, disorientation, insomnia, irritability, psychotic reactions, nightmares.	Very rare
Nervous system disorders	Headache, dizziness.	Common
	Somnolence.	Rare
	Memory disturbance, paraesthesia, aseptic meningitis (especially in patients with existing auto-immune disorders, such as lupus erythematosus, mixed connective tissue disease) with symptoms such as stiff neck, headache, nausea, vomiting, fever or disorientation. Confusion, hallucinations, malaise, fatigue and drowsiness, taste disturbances, tremor, convulsions, anxiety, cerebrovascular accident.	Very rare
Eye disorders	Visual disturbance (blurred vision), diplopia, optic neuritis.	Very rare
Ear and labyrinth disorders	Vertigo.	Common
	Impaired hearing, tinnitus.	Very rare
Cardiac disorders	Oedema.	Rare
	Hypertension, vasculitis, palpitations, chest pain, cardiac failure.	Very rare
	Kounis syndrome	Not known
Vascular disorders	Small increased risk of arterial thrombotic events (for example myocardial infarction or stroke).	Very rare
Respiratory, thoracic and mediastinal disorders	Asthma (including dyspnoea).	Rare
	Pneumonitis.	Very rare
Gastrointestinal disorders	Nausea, vomiting, diarrhoea, dyspepsia, abdominal pain, flatulence, anorexia.	Common

MedDRA	Adverse reactions	Frequency
System Organ Class		
	Gastritis, haematemesis, haemorrhagic diarrhoea, melaena, gastrointestinal ulcer (with or without bleeding or perforation), peptic ulcers, perforation or GI bleeding, sometimes fatal, particularly in the elderly.	Rare

	Exacerbation of colitis and Crohn's disease, constipation, ulcerative stomatitis, glossitis, oesophageal disorder, diaphragm like intestinal strictures, pancreatitis.	Very rare
Hepatobiliary disorders	Increased transaminases.	Common
	Jaundice, abnormal liver function, hepatitis (in isolated cases fulminant).	Rare
	Hepatic necrosis, hepatic failure.	Very rare
Skin and subcutaneous tissue disorders	Rash.	Common
	Urticaria.	Rare
	Photosensitivity, skin eruptions, Bullous eruptions, eczema, erythema multiforme, Stevens-Johnson syndrome, toxic epidermal necrolysis (Lyell's syndrome), loss of hair, dermatitis exfoliative, purpura, allergic purpura, pruritus.	Very rare
Renal and urinary disorders	Nephrotoxicity in various forms, including interstitial nephritis, proteinuria, renal papillary necrosis, nephrotic syndrome, acute renal failure, urinary abnormalities (e.g. haematuria).	Very rare

Clinical trial and epidemiological data consistently point towards an increased risk of arterial thrombotic events (for example myocardial infarction or stroke) associated with the use of diclofenac, particularly at high dose (150mg daily) and in long term treatment.

Omeprazole

The most common side effects (1-10% of patients) are headache, abdominal pain, constipation, diarrhoea, flatulence and nausea/vomiting.

The following adverse drug reactions have been identified or suspected in the clinical trials programme for omeprazole and post-marketing. None was found to be dose-related. Adverse reactions listed below are classified according to frequency and System Organ Class (SOC). Frequency categories are defined according to 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).

MedDRA System Organ Class	Adverse reactions	Frequency
Blood and lymphatic system disorders	Leukopenia, thrombocytopenia	Rare
	Agranulocytosis, pancytopenia	Very rare
MedDRA System Organ Class	Adverse reactions	Frequency
Immune system disorders	Hypersensitivity reactions e.g. fever, angioedema and anaphylactic reaction/shock	Rare
Metabolism and nutrition disorders	Hyponatraemia	Rare
	Hypomagnesaemia, severe hypomagnesaemia may result in hypocalcaemia	Not known
Psychiatric disorders	Insomnia	Uncommon
	Agitation, confusion, depression	Rare

	Aggression, hallucinations	Very rare
Nervous system disorders	Headache	Common
	Dizziness, paraesthesia, somnolence	Uncommon
	Taste disturbance	Rare
	Blurred vision	Rare
Eye disorders	Blurred vision	Rare
Ear and labyrinth disorders	Vertigo	Uncommon
Vascular disorders		
Respiratory, thoracic and mediastinal disorders	Bronchospasm	Rare
Gastrointestinal disorders	Abdominal pain, constipation, diarrhoea, flatulence, nausea/vomiting, Fundic gland polyps (benign)	Common
	Dry mouth, stomatitis, gastrointestinal candidiasis	Rare
	Microscopic colitis	Not known
	Increased liver enzymes	Uncommon
Hepatobiliary disorders	Hepatitis with or without jaundice	Rare
	Hepatic failure, encephalopathy in patients with preexisting liver disease	Very rare
Skin and subcutaneous tissue disorders	Dermatitis, pruritus, rash, urticaria	Uncommon
	Alopecia, photosensitivity	Rare
	Erythema multiforme, Stevens-Johnson syndrome, toxic epidermal necrolysis (TEN)	Very rare
	Subacute cutaneous lupus erythematosus	Not known
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Renal and urinary disorders	Interstitial nephritis	Rare
Musculoskeletal and connective tissue disorders	Fracture of the hip, wrist or spine	Uncommon
	Arthralgia, myalgia	Rare
	Muscular weakness	Very rare
Reproductive system and breast disorders	Gynaecomastia	Very rare
General disorders and administration site conditions	Malaise, peripheral oedema	Uncommon
	Increased sweating	Rare

Reporting of suspected adverse reactions

Reporting suspected adverse reactions after authorisation of the medicinal product is important. It allows continued monitoring of the benefit/risk balance of the medicinal product. Healthcare professionals are asked to report any suspected adverse reactions via pv@searlecompany.com

Overdose

Diclofenac

Symptoms:

Symptoms include headache, nausea, vomiting, epigastric pain, gastrointestinal bleeding, rarely diarrhoea, disorientation, excitation, coma, drowsiness, dizziness, tinnitus, fainting and occasionally convulsions. In cases of significant poisoning, acute renal failure and liver damage are possible.

Treatment:

Management of acute poisoning with NSAIDs essentially consists of supportive and symptomatic measures. Within one hour of ingestion of a potentially toxic amount, activated charcoal should be considered. Alternatively, in adults, gastric lavage should be considered within one hour of ingestion of a potentially life-threatening overdose.

Good urine output should be ensured.

Renal and liver function should be closely monitored.

Patients should be closely monitored for at least four hours after ingestion of potentially toxic amounts. Frequent or prolonged convulsions should be treated with intravenous diazepam.

Other measures may be indicated by the patient's clinical condition. Specific therapies such as forced diureses, dialysis or haemoperfusion are probably of no help in eliminating NSAIDs due to their high rate of protein binding and extensive metabolism.

Supportive measures and symptomatic treatment should be given for complications such as hypotension, renal failure, convulsions, gastrointestinal disorder, and respiratory depression.

Omeprazole

There is limited information available on the effects of overdoses of omeprazole in humans. In the literature, doses of up to 560 mg have been described, and occasional reports have been received when single oral doses have reached up to 2,400 mg omeprazole (120 times the usual recommended clinical dose). Nausea, vomiting, dizziness, abdominal pain, diarrhoea and headache have been reported. Also apathy, depression and confusion have been described in single cases.

The symptoms described have been transient, and no serious outcome has been reported. The rate of elimination was unchanged (first order kinetics) with increased doses. Treatment, if needed, is symptomatic.

PHARMACOLOGICAL PROPERTIES

Pharmacodynamic properties

Pharmacotherapeutic group: Acetic acid derivatives and related substances ATC code: M01AB55 (diclofenac, combinations)

Diclofenac

Diclofenac is a non-steroidal agent with marked analgesic/anti-inflammatory properties. It is an inhibitor of prostaglandin synthetase (cyclo-oxygenase).

Omeprazole Mechanism of action

Omeprazole, a racemic mixture of two enantiomers reduces gastric acid secretion through a highly targeted mechanism of action. It is a specific inhibitor of the acid pump in the parietal cell. It is rapidly acting and provides control through reversible inhibition of gastric acid secretion with once daily dosing.

Omeprazole is a weak base and is concentrated and converted to the active form in the highly acidic environment of the intracellular canaliculi within the parietal cell, where it inhibits the enzyme $H^+ K^+$ -ATPase - the acid pump. This effect on the final step of the gastric acid formation process is dose-dependent and provides for highly effective inhibition of both basal acid secretion and stimulated acid secretion, irrespective of stimulus.

Pharmacodynamic effects

All pharmacodynamic effects observed can be explained by the effect of omeprazole on acid secretion.

Effect on gastric acid secretion:

Oral dosing with omeprazole once daily provides for rapid and effective inhibition of daytime and night-time gastric acid secretion with maximum effect being achieved within 4 days of treatment. With omeprazole 20 mg, a mean decrease of at least 80% in 24-hour intragastric acidity is then maintained in duodenal ulcer patients, with the mean decrease in peak acid output after pentagastrin stimulation being about 70% 24 hours after dosing.

Oral dosing with omeprazole 20 mg maintains an intragastric pH of ≥ 3 for a mean time of 17 hours of the 24-hour period in duodenal ulcer patients.

As a consequence of reduced acid secretion and intragastric acidity, omeprazole dose-dependently reduces/normalizes acid exposure of the esophagus in patients with gastro-esophageal reflux disease. The inhibition of acid secretion is related to the area under the plasma concentration-time curve (AUC) of omeprazole and not to the actual plasma concentration at a given time.

No tachyphylaxis has been observed during treatment with omeprazole.

Other effects related to acid inhibition:

During long-term treatment gastric glandular cysts have been reported in a somewhat increased frequency. These changes are a physiological consequence of pronounced inhibition of acid secretion, are benign and appear to be reversible.

Decreased gastric acidity due to any means including proton pump inhibitors, increases gastric counts of bacteria normally present in the gastrointestinal tract. Treatment with acid-reducing drugs may lead to slightly increased risk of gastrointestinal infections such as Salmonella and Campylobacter.

During treatment with antisecretory medicinal products serum gastrin increases in response to the decreased acid secretion. Also CgA increases due to decreased gastric acidity. The increased CgA level may interfere with investigations for neuroendocrine tumours.

Available published evidence suggests that proton pump inhibitors should be discontinued between 5 days and 2 weeks prior to CgA measurements. This is to allow CgA levels that might be spuriously elevated following PPI treatment to return to reference range.

An increased number of ECL cells possibly related to the increased serum gastrin levels, have been observed in some patients (both children and adults) during long term treatment with omeprazole. The findings are considered to be of no clinical significance.

Pharmacokinetic properties

Diclofenac

Diclofenac sodium is rapidly absorbed from the gut and is subject to first-pass metabolism. Therapeutic plasma concentrations occur about ½ hour after administration of diclofenac. The active substance is 99.7% protein bound and the plasma half-life for the terminal elimination phase is 1-2 hours.

Approximately 60% of the administered dose is excreted via the kidneys in the form of metabolites and less than 1% in unchanged form. The remainder of the dose is excreted via the bile in metabolised form.

Following rapid gastric passage, the gastro-resistant pellet component of diclofenac ensures quick availability of the active component in the blood stream. The prolonged release pellets cause a delayed release of the active component, which means one single daily dose is usually sufficient.

Special populations

Patients with renal impairment

Diclofenac is known to be substantially excreted by the kidney therefore the risk of toxic reactions to Diclofenac Sodium + Omeprazole may be greater in patients with impaired renal function.

Omeprazole Absorption

Omeprazole and omeprazole magnesium are acid labile and are therefore administered orally as enteric-coated granules in capsules or tablets. Absorption of omeprazole is rapid, with peak plasma levels occurring approximately 1-2 hours after dose. Absorption of omeprazole takes place in the small intestine and is usually completed within 3-6 hours. Concomitant intake of food has no influence on the bioavailability. The systemic availability (bioavailability) from a single oral dose of omeprazole is approximately 40%. After repeated once-daily administration, the bioavailability increases to about 60%.

Distribution

The apparent volume of distribution in healthy subjects is approximately 0.3 l/kg body weight. Omeprazole is 97% plasma protein bound.

Metabolism

Omeprazole is completely metabolised by the cytochrome P450 system (CYP). The major part of its metabolism is dependent on the polymorphically expressed CYP2C19, responsible for the formation of hydroxyomeprazole, the major metabolite in plasma. The remaining part is dependent on another specific isoform, CYP3A4, responsible for the formation of omeprazole sulphone. As a consequence of high affinity of omeprazole to CYP2C19, there is a potential for competitive inhibition and metabolic drug-drug interactions with other substrates for CYP2C19. However, due to low affinity to CYP3A4, omeprazole has no potential to inhibit the metabolism of other CYP3A4 substrates. In addition, omeprazole lacks an inhibitory effect on the main CYP enzymes.

Approximately 3% of the Caucasian population and 15-20% of Asian populations lack a functional CYP2C19 enzyme and are called poor metabolisers. In such individuals the metabolism of omeprazole is probably mainly catalysed by CYP3A4. After repeated once-daily administration of 20 mg omeprazole, the mean AUC was 5 to 10 times higher in poor metabolisers than in subjects having a functional CYP2C19

enzyme (extensive metabolisers). Mean peak plasma concentrations were also higher, by 3 to 5 times. These findings have no implications for the posology of omeprazole.

Elimination

The plasma elimination half-life of omeprazole is usually shorter than one hour both after single and repeated oral once-daily dosing. Omeprazole is completely eliminated from plasma between doses with no tendency for accumulation during once-daily administration. Almost 80% of an oral dose of omeprazole is excreted as metabolites in the urine, the remainder in the faeces, primarily originating from bile secretion.

The AUC of omeprazole increases with repeated administration. This increase is dose-dependent and results in a non-linear dose-AUC relationship after repeated administration. This time- and dose-dependency is due to a decrease of first pass metabolism and systemic clearance probably caused by an inhibition of the CYP2C19 enzyme by omeprazole and/or its metabolites (e.g. the sulphone).

No metabolite has been found to have any effect on gastric acid secretion.

Special populations

Impaired hepatic function

The metabolism of omeprazole in patients with liver dysfunction is impaired, resulting in an increased AUC. Omeprazole has not shown any tendency to accumulate with once daily dosing.

Impaired renal function

The pharmacokinetics of omeprazole, including systemic bioavailability and elimination rate, are unchanged in patients with reduced renal function.

Elderly

The metabolism rate of omeprazole is somewhat reduced in elderly subjects (75-79 years of age).

Preclinical safety data

Diclofenac

There are no pre-clinical data of relevance to the prescriber which are additional to that already included in other sections of the SmPC.

Omeprazole

Gastric ECL-cell hyperplasia and carcinoids, have been observed in life-long studies in rats treated with omeprazole. These changes are the result of sustained hypergastrinaemia secondary to acid inhibition. Similar findings have been made after treatment with H₂-receptor antagonists, proton pump inhibitors and after partial fundectomy. Thus, these changes are not from a direct effect of any individual active substance.

PRESENTATION

Lovanzo-D MR 75mg + 20mg capsules are available in Alu-Alu blister in a pack size of 20's (2x10's) capsules.

INSTRUCTIONS

To be sold on the prescription of a registered medical practitioner only.

Protect from sunlight, moisture and heat.

Do not store and transport above 30°C.

Keep all medicines out of sight & reach of children.

REGISTRATION NUMBER

Lovanzo-D MR 75mg + 20mg capsules : 120191

Manufacturing License Number : 000016

Manufactured by:

Manufactured by:

The Searle Company Limited

F-319, S.I.T.E., Karachi - Pakistan.

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