

# AIMCOXIB (CELECOXIB)

CAPSULES

ایمکوگزیب

## COMPOSITION

Aimcoxib capsules 100mg-200mg

Each capsule contains Celecoxib ..... 100mg-200mg

## PROPERTIES

Aimcoxib(celecoxib) is chemically designated as 4-[5-(4-methylphenyl)-3- (trifluoromethyl)-1H-pyrazol-1-yl] benzenesulfonamide and is a diaryl substituted pyrazole.

The empirical formula for celecoxib is  $C_{17}H_{14}F_3N_2O_2S$  and the molecular weight is 381.4.

## INDICATIONS

For relief of the signs and symptoms of osteoarthritis.

For relief of the signs and symptoms of rheumatoid arthritis in adults.

For the management of acute pain in adults, including dental pain.

For the treatment of primary dysmenorrhea.

## DOSAGE AND ADMINISTRATION

**Osteoarthritis:**  
The recommended dose is 200mg once daily.

### Rheumatoid Arthritis:

The recommended dose is 200mg once daily; which may be increased to 200mg twice a day as needed.

### Management of Acute Pain and Treatment of Primary Dysmenorrhea:

The recommended dose is 100mg-200mg up to a maximum daily dose of 400mg. Dosing intervals should not be less than 4 Hours.

### Elderly:

No dosage adjustment is necessary.

### Hepatic Impairment:

No dosage adjustment is necessary in patients with mild to moderate hepatic impairment.

There is no clinical experience in patients with severe renal impairment.

### Children:

Aimcoxib has not been studied in subjects under 18 years old.

## MECHANISM OF ACTION

Aimcoxib is a nonsteroidal anti-inflammatory drug that exhibits anti-inflammatory analgesic, and antipyretic activities in animal models. The mechanism of action of Aimcoxib is believed to be due to inhibition of prostaglandin synthesis, primarily via inhibition of cyclooxygenase-2 (cox-2) and at therapeutic concentrations in humans, Aimcoxib does not inhibit the cyclooxygenase-1 (cox-1) isoenzyme.

## PHARMACOKINETICS

The rate of absorption after oral administration is moderate, with peak plasma levels occurring after 2 to 4 hours; the extent of absorption is not known. Celecoxib is extensively bound to plasma proteins. Little drug is excreted unchanged; most is excreted as carboxylic acid and glucuronide metabolites in the urine and feces. The elimination half-life is approximately 11 hours. Plasma concentrations are lower in patients with renal insufficiency, in whom there is a 47% increase in apparent clearance. Plasma concentrations are increased by approximately 40% to 180% in patients with mild and moderate hepatic impairment, respectively. Significant interactions occur with fluconazole and lithium but not with ketoconazole or methotrexate. Celecoxib is metabolized by CYP2C9, so clinical vigilance is necessary during co-administration of other substrates or inhibitors of the enzyme.

## CONTRA-INDICATIONS

Aimcoxib is contraindicated in patients with known hypersensitivity to celecoxib.

Aimcoxib should not be given to patients who have demonstrated allergic-type reactions to sulfonamides.

Aimcoxib should not be given to patients who have experienced asthma, urticaria, or allergic-type reactions after taking aspirin or other nsaid. Severe, rarely fatal, anaphylactic-like reactions to nsaid have been reported in such patients.

## PRECAUTIONS

Aimcoxib can not be expected to substitute for corticosteroids or to treat corticosteroid insufficiency. Abrupt discontinuation of corticosteroids may lead to exacerbation of corticosteroid-responsive illness. Patients on prolonged corticosteroid therapy should have their therapy tapered slowly if a decision is made to discontinue corticosteroids.

Warfarin: anticoagulant activity should be monitored, particularly in the first few days, after initiating or changing Aimcoxib therapy in patients receiving warfarin or similar agents, since these patients are at an increased risk of bleeding complications. The effect of celecoxib on the anticoagulant (warfarin) was studied in a group of healthy subjects receiving daily doses of 2 to 5 mg of warfarin. In these subjects, celecoxib did not alter the anticoagulant effect of warfarin as determined by prothrombin time. However, in post-marketing experience, bleeding events have been reported, predominantly in the elderly, in association with increases in prothrombin. Time in patients receiving Aimcoxib concurrently with warfarin.

The pharmacological activity of Aimcoxib in reducing inflammation, and possibly fever, may diminish the utility of these diagnostic signs in detecting infectious complications of presumed noninfectious, painful conditions. Hepatic effects: borderline elevations of one or more liver tests may occur in up to 15% of patients taking nsaid, and notable elevations of alt or ast (approximately three or more times the upper limit of normal) have been reported in approximately 1% of patients in clinical trials with nsaid. These laboratory abnormalities may progress, may remain

Unchanged, or may be transient with continuing therapy. Rare cases of severe hepatic reactions, including jaundice and fatal fulminant hepatitis, liver necrosis and hepatic failure (some with fatal outcome) have been reported with nsaid. In controlled clinical trials of Aimcoxib, the incidence of borderline elevations of liver tests was 6% for Aimcoxib and 5% for placebo, and approximately 0.2% of patients taking Aimcoxib and 0.3% of patients taking placebo had notable elevations of alt and ast.

A patient with symptoms and/or signs suggesting liver dysfunction, or in whom an abnormal liver test has occurred, should be monitored carefully for evidence of the development of a more severe hepatic reaction while on therapy with Aimcoxib. If clinical signs and symptoms consistent with liver disease develop, or if systemic manifestations occur (e.g. eosinophilia, rash, etc.) Aimcoxib should be discontinued.

**Renal effects:** long term administration of nsaid's has resulted in renal papillary necrosis and other renal injury. Renal toxicity has also been seen in patients in whom renal prostaglandins have a compensatory role in the maintenance of renal perfusion. In these patients, administration of a nonsteroidal anti-inflammatory drug may cause a dose-dependent reduction in prostaglandin formation and secondarily, in renal blood flow, which may precipitate over renal decompensation. Patients at greatest risk of this reaction are those with impaired renal function, heart failure, liver dysfunction, those taking diuretics and ace inhibitors, and the elderly. Discontinuation of nsaid therapy is usually followed by recovery to the pretreatment state. Clinical trials with Aimcoxib have shown renal effects similar to those observed with comparator nsaid's.

Caution should be used when initiating treatment with Aimcoxib in patients with considerable dehydration. It is advisable to rehydrate patients first and then start therapy with Aimcoxib. Caution is also recommended in patients with pre-existing kidney disease.

**Hematological effects:** anemia is sometimes seen in patients receiving Aimcoxib. In controlled clinical trials the incidence of anemia was 0.6% with Aimcoxib and 0.4% with placebo. Patients on long-term treatment with Aimcoxib should have their hemoglobin or hematocrit checked if they exhibit any signs or symptoms of anemia or blood loss. Aimcoxib does not generally affect platelet counts, prothrombin time (pt), or partial thromboplastin time (ptt), and does not appear to inhibit platelet aggregation at indicated dosages.

**Fluid retention and edema:** fluid retention and edema have been observed in some patients taking Aimcoxib. Therefore, Aimcoxib should be used with caution in patients with fluid retention, hypertension, or heart failure.

**Pre-existing asthma:** patients with asthma may have aspirin-sensitive asthma. The use of aspirin in patients with aspirin-sensitive asthma has been associated with severe bronchospasm which can be fatal. Since cross reactivity, including bronchospasm, between aspirin and other nonsteroidal anti-inflammatory drugs has been reported in such aspirin-sensitive patients, Aimcoxib should not be administered to patients with this form of aspirin sensitivity and should be used with caution in patients with preexisting asthma.

#### **LABORATORY TESTS**

Because serious GI tract ulcerations and bleeding can occur without warning symptoms, physicians should monitor for signs or symptoms of GI bleeding.

During the controlled clinical trials, there was an increased incidence of hyperchloremia in patients receiving celecoxib compared with patients on placebo. Other laboratory abnormalities that occurred more frequently in the patients receiving celecoxib included hypophosphatemia; and elevated bun. These laboratory abnormalities were also seen in patients who received comparator nsaid's in these studies. The clinical significance of these, abnormalities has not been established.

#### **ADVERSE EFFECTS**

Adverse effects reported in controlled clinical trials:

**Central Nervous System:** Headache, dizziness.

**Gastrointestinal:** Constipation, nausea, abdominal pain, diarrhoea, dyspepsia, flatulence, vomiting, Serious clinically significant upper gastro-intestinal bleeding has been observed in patients receiving celecoxib, although infrequently. Among 5,285 patients who received celecoxib in controlled clinical trials of 1 to 6 months duration (most were 3 months studies) at a daily dose of 200mg or more, only 2 (0.4%) experienced significant GI bleeding, at 14 and 22 days after initiation of dosing.

**Respiratory:** Bronchitis, coughing, pharyngitis, rhinitis, sinusitis, and upper respiratory tract infection.

**Other:** Arthralgia, back pain, insomnia, myalgia, pain, peripheral pain, pruritus, tooth disorder, - accidental injury, allergy aggravated, flu-like symptoms, peripheral oedema, rash, urinary tract infection.

#### **OVER DOSAGE**

Symptoms following acute nsaid overdoses are usually limited to lethargy, drowsiness, nausea, vomiting, and epigastric pain, which are generally reversible with supportive care. Gastrointestinal bleeding can occur. Hypertension, acute renal failure, respiratory depression and coma may occur, but are rare. Anaphylactic reactions have been reported with therapeutic ingestion of nsaid's, and may occur following an overdose. Patients should be managed by symptomatic and supportive care following an nsaid overdose. There are no specific antidotes. No information is available regarding the removal of celecoxib by hemodialysis, but based on its high degree of plasma protein binding (97%) dialysis is unlikely to be useful in overdose. Emesis and/or activated charcoal (60 to 100 g in adults, 1 to 2 g/kg in children) and/or osmotic cathartic may be indicated in patients seen within 4 hours of ingestion with symptoms or following a large overdose. Forced diuresis, alkalinization of urine, hemodialysis, or hemoperfusion may not be useful due to high protein binding.

#### **INSTRUCTIONS**

-Store in a cool, dry place below 25°C

-Protect from heat & light.

-Do not exceed the expiry date mentioned on the pack.

#### **KEEP ALL MEDICINE AWAY FROM CHILDREN.**

Aimcoxib Capsule 100mg-200mg In pack of 1 x 10 capsules



Manufactured By:  
**Aims Pharmaceuticals**  
Plot # 291, Industrial Triangle, Kahuta Road,  
Islamabad-Pakistan