

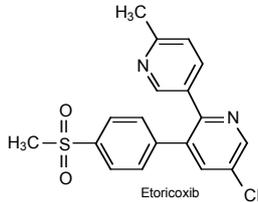
# Starcos<sup>TM</sup>

[ Etoricoxib ]

Tablets 60mg

## DESCRIPTION

Starcos (Etoricoxib) is a member of a new class of arthritis/analgesia medications called Coxibs. Chemically, etoricoxib is described as, 5-Chloro-6'-methyl-3-[p-(methylsulfonyl)phenyl]-2, 3'-bipyridine. The molecular formula is  $C_{18}H_{15}ClN_2O_2S$  & the structural formula is:



## QUALITATIVE & QUANTITATIVE COMPOSITION

Starcos (Etoricoxib) is available for oral administration as:

Starcos Tablets 60mg  
Each film-coated tablet contains:  
Etoricoxib ... 60mg

## CLINICAL PHARMACOLOGY

### Mechanism of Action

Etoricoxib is an oral, selective cyclo-oxygenase-2 (COX-2) inhibitor. Etoricoxib produced dose-dependent inhibition of COX-2 without inhibition of COX-1 at doses up to 150mg daily. Etoricoxib does not inhibit gastric prostaglandin synthesis and has no effect on platelet function. Selective inhibition of COX-2 by etoricoxib decreases the synthesis of prostanoid mediators of pain, inflammation, and fever with decreased potential GI toxicity and effects on platelet aggregation.

### PHARMACOKINETICS

#### Absorption

Etoricoxib is well absorbed from the gastrointestinal tract after oral doses. The absolute bioavailability is 100%. Peak plasma concentrations are reached in about 1 hour in fasted adults.

**Effect of food:** Food delays absorption by about 2 hours, although it has no effect on the extent of absorption.

#### Distribution

Etoricoxib is approximately 92% bound to human plasma protein over the range of concentrations of 0.05 to 5mcg/mL. The volume of distribution at steady state ( $V_{ss}$ ) was approximately 120L.

#### Metabolism

Etoricoxib is extensively metabolized with less than 2% of a dose recovered in the urine as the parent drug. The major route of metabolism is via cytochrome P450 isoenzymes including CYP3A4 to form the 6'-hydroxymethyl derivative of etoricoxib, which is then oxidised to the 6'-carboxylic acid derivative, the major metabolite. Both are inactive or only weak cyclo-oxygenase-2 (COX-2) inhibitors.

#### Excretion

Excretion is mainly via the urine (70%) with only 20% of a dose appearing in the feces, mostly as metabolites. Less than 2% is recovered as unchanged drug. Steady state concentrations of etoricoxib are reached within seven days of once daily administration of 120mg. At steady state the half-life of etoricoxib is about 22hours.

### Special Population

#### Hepatic Impairment

Patients with mild hepatic dysfunction (Child-Pugh score 5-6) administered etoricoxib 60mg once daily has an approximately 16% higher mean AUC as compared to healthy subjects given the same regimen. Patients with moderate hepatic dysfunction (Child-Pugh score 7-9) administered etoricoxib 60mg every other day has similar mean AUC to the healthy subjects given etoricoxib 60mg once daily.

## THERAPEUTIC INDICATIONS

Starcos (Etoricoxib) is indicated for:

- Symptomatic relief of osteoarthritis (OA) and rheumatoid arthritis (RA)
- The management of ankylosing spondylitis (AS)
- Treatment of acute gouty arthritis
- Relief of acute pain
- Relief of chronic musculoskeletal pain
- Treatment of primary dysmenorrhoea
- Treatment of moderate to severe acute post-operative pain associated with dental surgery
- Treatment of moderate to severe acute post-operative pain associated with abdominal gynecological surgery

## DOSAGE & ADMINISTRATION

### Osteoarthritis

The recommended dose is 30mg or 60mg once daily.

### Rheumatoid Arthritis & Ankylosing Spondylitis

The recommended dose is 90mg once daily.

### Acute Gouty Arthritis

The recommended dose is 120mg once daily. Etoricoxib 120mg should be used only for the acute symptomatic period, limited to a maximum of 8 days treatment.

### Acute Pain

The recommended dose is 120mg once daily. Etoricoxib 120mg should be used only for the acute symptomatic period, limited to a maximum of 8 days treatment.

### Chronic Musculoskeletal Pain

The recommended dose is 60mg once daily.

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### Primary Dysmenorrhoea

The recommended dose is 120mg once daily.

### Post-Operative Dental Pain

The recommended dose is 90mg once daily.

### Post-Operative Gynecological Pain

The recommended dose is 90mg once daily. The initial dose should be administered shortly before surgery. The dose can be increased to a maximum 120mg once daily.

Starcos (Etoricoxib) Tablets may be taken with or without food. Cardiovascular risks of etoricoxib 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, especially in patients with osteoarthritis.

### Special Population

#### Hepatic Impairment

Regardless of indication, in patients with mild hepatic dysfunction (Child-Pugh score 5-6) a dose of 60mg once daily should not be exceeded. In patients with moderate hepatic dysfunction (Child-Pugh score 7-9) regardless of indication, the dose of 60mg every other day should not be exceeded; administration of 30mg once daily can also be considered.

## ADVERSE REACTIONS

### Common

Alveolar osteitis, oedema/ fluid retention, dizziness, headache, palpitations, hypertension, gastrointestinal disorders (e.g., abdominal pain, flatulence, heartburn) diarrhea, dyspepsia, epigastric discomfort, nausea, ALT increased, AST increased, ecchymosis, asthenia/fatigue and flu-like disease.

### Uncommon

Gastroenteritis, upper respiratory infection, urinary tract infection, anemia, leukopenia, thrombocytopenia, increase or decrease appetite, weight gain, anxiety, depression, mental acuity decreased, dysgeusia, insomnia, paresthesia/hypaesthesia, somnolence, blurred vision, conjunctivitis, tinnitus, vertigo, atrial fibrillation, congestive heart failure, non specific ECG changes, angina pectoris, myocardial infarction, flushing, cerebrovascular accident, transient ischemic attack, cough, dyspnea, epistaxis, abdominal distention, acid reflux, bowel movement pattern change, constipation, dry mouth, gastroduodenal ulcer, irritable bowel syndrome, oesophagitis, oral ulcer, vomiting, gastritis, facial oedema, pruritus, rash, muscular cramp/spasm, musculoskeletal pain/stiffness, proteinuria, serum creatinine increased, chest pain, blood urea nitrogen increased, creatine phosphokinase increased, hyperkalemia and uric acid increased.

### Rare

Erythema and blood sodium decreased.

### Very Rare

Hypersensitivity reactions including angioedema, anaphylactic/anaphylactoid reactions including shock, confusion, hallucinations, hypertensive crisis, bronchospasm, peptic ulcers including gastrointestinal perforation and bleeding, hepatitis, urticaria, Stevens-Johnson syndrome, toxic epidermal necrolysis and renal insufficiency including renal failure.

## CONTRAINDICATIONS

Etoricoxib is contraindicated in:

- Hypersensitivity to active substance or to any of the excipients.
- Active peptic ulceration or active gastrointestinal (GI) bleeding.
- Patients who have experienced bronchospasm, acute rhinitis, nasal polyps, angioneurotic oedema, urticaria, or allergic-type reactions after taking acetylsalicylic acid or NSAIDs including COX-2 (cyclooxygenase-2) inhibitors.
- Severe hepatic dysfunction (serum albumin <25 g/L or Child-Pugh score ≥10).
- Estimated renal creatinine clearance < 30ml/min.
- Children and adolescents under 16 years of age.
- Inflammatory bowel disease.
- Congestive heart failure (NYHA II-IV).
- Patients with hypertension whose blood pressure is persistently elevated above 140/90mmHg and has not been adequately controlled.
- Established ischemic heart disease, peripheral arterial disease and/or cerebrovascular disease.

### Pregnancy

Etoricoxib is contraindicated in pregnancy. If a woman becomes pregnant during treatment, etoricoxib must be discontinued.

### Nursing Mother

Women who use etoricoxib must not breast feed.

## PRECAUTIONS

### Gastrointestinal effects

Caution is advised with treatment of patients most at risk of developing a gastrointestinal complication with NSAIDs; the elderly, patients using any other NSAID or acetylsalicylic acid concomitantly or patients with a prior history of gastrointestinal disease, such as ulceration and GI bleeding.

### Cardiovascular effects

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

### Aspirin substitution

COX-2 selective inhibitors are not a substitute for acetylsalicylic acid for prophylaxis of cardiovascular thrombo-embolic diseases because of their lack of antiplatelet effect. Therefore antiplatelet therapies should not be discontinued.

### Renal effects

In compromised renal perfusion, administration of etoricoxib may cause a reduction in prostaglandin formation and, secondarily, in renal blood flow and thereby impair renal function. Monitoring of renal function in such patients should be considered. Caution should be used when initiating treatment with etoricoxib in patients with considerable dehydration. It is advisable to rehydrate patients prior to starting therapy with etoricoxib.

### Fluid retention, oedema and hypertension

Fluid retention, oedema and hypertension have been observed in patients taking

etoricoxib. All Nonsteroidal Anti-inflammatory Drugs (NSAIDs), including etoricoxib, can be associated with new onset or recurrent congestive heart failure. Caution should be exercised in patients with a history of cardiac failure, left ventricular dysfunction, or hypertension and in patients with pre-existing oedema from any other reason. Etoricoxib should be stopped if the patient's blood pressure is persistently raised.

**Hepatic effects**

Patients should be monitored with signs and symptoms of liver dysfunction, or with abnormal liver function test. If signs of hepatic insufficiency occur, or if persistently abnormal liver function tests (three times the upper limit of normal) are detected, etoricoxib should be discontinued.

**Hypersensitivity**

Etoricoxib should be used with caution in patients who have previously experienced acute asthmatic attacks, urticaria, or rhinitis precipitated by salicylates or non-selective cyclooxygenase inhibitors.

**General**

Some selective COX-2 inhibitors have been associated with an increased risk of skin reactions in patients with a history of any drug allergy. Etoricoxib should be discontinued at the first appearance of skin rash, mucosal lesions, or any other sign of hypersensitivity.

**Drug Interactions**

**Oral anticoagulants**

Patients receiving chronic warfarin therapy, the administration of etoricoxib 120mg daily is associated with an increase in prothrombin time International Normalized Ratio (INR). Therefore patient receiving oral anticoagulants should be closely monitored for their prothrombin time INR.

**Diuretics, ACE inhibitors and Angiotensin II antagonists**

In patients with compromised renal function the co-administration of an ACE inhibitor or Angiotensin II antagonist and agents that inhibit cyclo-oxygenase may result in further deterioration of renal function, including possible acute renal failure, which is usually reversible. Therefore, the combination should be administered with caution especially in the elderly.

**Acetylsalicylic Acid**

Concomitant administration of low-dose acetylsalicylic acid with etoricoxib may result in an increased rate of GI ulceration or other complications compared to use of etoricoxib alone.

**Ciclosporin and Tacrolimus**

Coadministration of Ciclosporin or Tacrolimus with any NSAID may increase the nephrotoxic effect of Ciclosporin or Tacrolimus.

**Lithium**

NSAIDs decrease lithium renal excretion and therefore increase lithium plasma levels. If necessary, monitor blood lithium closely and adjust the lithium dosage while the combination is being taken and when the NSAID is withdrawn.

**Methotrexate**

Adequate monitoring for methotrexate-related toxicity is recommended when etoricoxib and methotrexate are administered concomitantly.

**Oral contraceptives**

Etoricoxib given concomitantly with oral contraceptive containing ethinyl estradiol and norethindrone increase the steady state AUC of ethinyl estradiol. This increase in concentration should be considered when selecting an appropriate oral contraceptive for use with etoricoxib.

**Hormone Replacement Therapy (HRT)**

Administration of etoricoxib with hormone replacement therapy increases the mean steady state AUC of unconjugated estrone, equilin, and 17- $\beta$ -estradiol. These increase in oestrogenic concentration should be taken into consideration when selecting post menopausal hormone therapy for use with etoricoxib.

**Digoxin**

Coadministration of etoricoxib with digoxin, increase digoxin  $C_{max}$ . Therefore, patients at high risk of digoxin toxicity should be monitored when etoricoxib and digoxin are administered concomitantly.

**Sulfotransferases**

Caution should be considered when administering etoricoxib concurrently with other drugs primarily metabolised by human sulfotransferases (e.g., oral salbutamol and minoxidil).

**Rifampicin**

Coadministration of etoricoxib with rifampicin, decrease etoricoxib plasma concentrations. This interaction may result in recurrence of symptoms when etoricoxib is coadministered with rifampicin.

**OVERDOSAGE**

**Symptoms:**

The most frequently observed adverse experiences are consistent with the safety profile for etoricoxib (e.g., gastrointestinal events, cardiorenal events).

**Treatment:**

In the event of overdose, it is reasonable to employ the usual supportive measures, e.g., remove unabsorbed material from the GI tract, employ clinical monitoring and institute supportive therapy, if required. Etoricoxib is not dialysable by hemodialysis, it is not known whether etoricoxib is dialysable by peritoneal dialysis.

**STORAGE**

Store at 25°C (Excursions permitted between 15°C - 30°C).  
Protect from sunlight and moisture.  
The expiration date refers to the product correctly stored at the required conditions.

**HOW SUPPLIED**

Starcox (Etoricoxib) Tablets 60mg are available in blister pack of 10's.

**Keep out of reach of children.**

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

Please read the contents carefully before use.  
This package insert is continually updated from time to time.

Manufactured by:



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K.I.A., Karachi,  
Pakistan

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