

# Clopidisel 75mg Tablet

( Clopidogrel )

## COMPOSITION:

Each film coated tablet contains:

Clopidogrel (as Bisulphate) .....75 mg  
(USP Specifications)

## DESCRIPTION

Clopidisel (clopidogrel as sulphate) is an-inhibitor of ADP induced platelet aggregation acting by direct inhibition of adenosine diphosphate (ADP) binding to its receptor and of the subsequent ADP mediated activation of the glycoprotein complex.

## INDICATIONS:

Clopidisel (clopidogrel as Sulphate) is indicated for the reduction of atherothrombotic events as follows:

### Recent MI, Recent Stroke or Established Peripheral Arterial Disease

For patients with a history of recent myocardial infarction (MI), recent stroke, or established peripheral arterial disease, Clopidisel has been shown to reduce the rate of a combined end point of new ischemic stroke (fatal or not), new MI (fatal or not), and other vascular death.

### Acute Coronary Syndrome

For patients with acute coronary syndrome, including patients who are to be managed medically and those who are to be managed with percutaneous coronary intervention, Clopidisel has been shown to decrease the rate of a combined end point of cardiovascular death, MI, or stroke as well as the rate of a combined endpoint of cardiovascular death, MI, stroke, or refractory ischemia.

## CLINICAL PHARMACOLOGY:

### Mechanism of Action

Clopidogrel is an inhibitor of platelet aggregation. A variety of drugs that inhibit platelet function in people with established atherosclerotic cardiovascular disease as evidenced by stroke or transient ischemic attacks, myocardial infarction, or need for bypass angioplasty. This indicates that platelets participate in the initiation and/or evolution of these events and that inhibiting them can reduce the event rate.

### Pharmacokinetics and Metabolism

After repeated 75-mg oral doses of clopidogrel (base), plasma concentrations of the parent compound, which has no platelet inhibiting effect, are very low and are generally below the quantification limit (0.00025 mg/L) beyond 2 hours after dosing. Clopidogrel is extensively metabolized by the liver. The main circulating metabolite is the carboxylic acid derivative, and it too has no effect on platelet aggregation. It represents about 65% of the circulating drug-related compounds in plasma.

Following an oral dose of clopidogrel in human, approximately 50% was excreted in the urine and approximately 46% in the feces in the 5 days after dosing. The elimination half-life of the main circulating metabolite was 8 hours after single and repeated administration. Covalent binding to platelets accounted for 2% of radiolabel with a half-life of 11 days.

**Effect of Food:** Administration of Clopidisel (clopidogrel as sulfate) with meals did not significantly modify the bioavailability of clopidogrel as assessed by the pharmacokinetics of the main circulating metabolite.

**Absorption and Distribution:** Clopidogrel is rapidly absorbed after oral administration of repeated doses of 75 mg clopidogrel (base), with peak plasma levels (=3 mg/L) of the main circulating metabolite occurring approximately 1 hour after dosing. The pharmacokinetics of the main circulating metabolite are linear (plasma concentrations increased in proportion to dose) in the dose range of 50 to 150 mg of clopidogrel. Absorption is at least 50% based on

# کلوپیسیل 75 میلی گرام ٹیبلٹ

( کلوپیڈوگرل )

urinary excretion of clopidogrel-related metabolites. Clopidogrel and the main circulating metabolite bind reversibly in vitro to human plasma proteins (98% and 94%, respectively). The binding is nonsaturable in vitro up to a concentration of 100 ug/mL.

**Metabolism and Elimination:** in vitro and in vivo, clopidogrel undergoes rapid hydrolysis into its carboxylic acid derivative. In plasma and urine, the glucuronide of the carboxylic acid derivative is also observed.

## DOSAGE AND ADMINISTRATION

### Recent MI, Recent Stroke, or Established Peripheral Arterial Disease

The recommended daily dose of Clopidisel is 75 mg once daily.

### Acute Coronary Syndrome

For Patients with acute coronary syndrome (unstable angina/non-O-wave MI), Clopidisel should be initiated with a single 300 mg loading dose and then continued at 75 mg once daily. Aspirin (75 mg-325 mg once daily) should be initiated and continued in combination with Clopidisel. In CURE, most patients with Acute Coronary Syndrome also received heparin acutely

Clopidisel can be administered with or without food. No dosage adjustment is necessary for elderly patients or patients with renal disease.

## CONTRAINDICATIONS

The use of Clopidisel is contraindicated in the following conditions:

- Hypersensitivity to the drug substance or any component of the product.
- Active pathological bleeding such as peptic ulcer or intracranial hemorrhage.

## WARNINGS & PRECAUTIONS:

### Drugs Interactions

Study of specific drug interactions yielded the following results:

### Aspirin:

Aspirin did not modify the clopidogrel - mediated inhibition of ADP induced platelet aggregation. Concomitant administration of 500 mg of aspirin twice a day for 1 day did not significantly increase the prolongation of bleeding time induced by Clopidisel. Clopidisel potentiated the effect of aspirin on collagen - induced platelet aggregation. The safety of chronic concomitant administration of aspirin and Clopidisel has not been established.

### Heparin:

In a study in healthy volunteers, Clopidisel did not necessitate modification of the heparin dose or alter the effect of heparin on coagulation. Coadministration of heparin had no effect on inhibition of platelet aggregation induced by Clopidisel. The safety of this combination has not been established, however, and concomitant use should be undertaken with caution.

### Nonsteroidal Anti-Inflammatory Drugs (NSAIDs):

In healthy volunteers receiving Naproxen, concomitant administration of Clopidisel was associated with increased occult gastrointestinal blood loss. NSAIDs and Clopidisel should be co administered with caution.

### Warfarin:

The safety of the Coadministration of Clopidisel (clopidogrel as sulphate) with warfarin has not been established, consequently, concomitant administration of these two agents should be undertaken with caution.

### Other Concomitant Therapy:

No clinically significant pharmacodynamic interactions were observed when Clopidisel was coadministered with Atenolol, Nifedipine, or both Atenolol and Nifedipine. The

pharmacodynamic activity of Clopidisel was also not significantly influenced by the Coadministration of phenobarbital & cimetidine.

The pharmacokinetics of digoxin or theophylline were not modified by the Coadministration of Clopidisel (clopidogrel as sulphate).

At high concentrations in vitro, clopidogrel inhibits P<sub>1</sub> (2C9) Accordingly, Clopidisel may interfere with the metabolism of Phenytoin Tamoxifen, Tolbutamide, Warfarin, Torsemide, Fluvastatin, and many non-steroidal anti-inflammatory agents, but there are no data with which to predict the magnitude of these interactions. Caution should be used when any of these drugs is coadministered with Clopidisel.

In addition to the above specific interaction studies, patients entered into Carrier received a variety of concomitant medications including diuretics, beta-blocking agents, angiotensin converting enzyme inhibitors, calcium antagonists, cholesterol lowering agents, coronary vasodilators, antidiabetic agents, antiepileptic agents and hormone replacement therapy without evidence of clinically significant adverse interactions.

### Carcinogenesis, Mutagenesis, Impairment of Fertility

There was no evidence of tumorigenicity when clopidogrel was administered for 78 weeks to mice and 104 weeks to rats at dosages up to 77 mg/kg per day, which afforded plasma exposures > 25 times that in humans at the recommended daily dose of 75 mg.

Clopidogrel was not genotoxic in vitro tests (Ames test, DNA- repair test in rat hepatocytes, gene mutation assay in Chinese

hamster fibroblasts, and metaphase chromosome analysis of human lymphocyte) and in one in vivo test (micronucleus test by oral route in mice).

Clopidogrel was found to have no effect on fertility of male and female rats at oral doses up to 400 mg/kg per day (52 times the recommended human dose on a mg/m basis).

### Pregnancy

Pregnancy Category B, Reproduction studies performed in rats and rabbits at doses up to 500 and 300 mg/kg/day (respectively, 55 and 79 times the recommended daily human dose on a mg/m basis), revealed no evidence; of impaired fertility or fetotoxicity due to clopidogrel. There are, however, no adequate and well-controlled studies in pregnant women, Because animal reproduction studies are not always predictive of human response, Clopidisel should be used during pregnancy only if clearly needed.

### Nursing Mothers

Studies in rats have shown that clopidogrel and/or its metabolites are excreted in the milk. It is not known whether this drug is excreted in human milk. Because many drugs are excreted in human milk and because of the potential for serious adverse reactions in nursing infants, a decision should be made whether to discontinue nursing or to discontinue the drug, taking into account the importance of the drug to the nursing woman.

### Pediatric Use

Safety and effectiveness in the pediatric population have not been established.

## WARNINGS:

Thrombotic thrombocytopenic purpura (TTP): TTP has been reported rarely following use of Clopidisel, Sometimes after a short exposure (<2weeks). TTP is a serious condition requiring prompt treatment. It is characterized by thrombocytopenia, microangiopathic hemolytic anemia (schistocytes [fragmented RBCs] seen on peripheral smear), neurological findings, renal dysfunction, and fever. TTP was not seen during clopidogrel's clinical trials, which included over 11,300 clopidogrel-treated patients. In worldwide post marketing experience, however, TTP has been reported at a rate of about four cases per million patients exposed, or about 11 cases per million patient-years. The background rate is thought to be about four cases per million

person-years.

## PRECAUTIONS:

### General:

As with other anti-platelet agents, Clopidisel should be used with caution in patients who may be at risk of increased bleeding from trauma, surgery, or other pathological conditions. If a patient is to undergo elective surgery and an antiplatelet affect is not desired, Clopidisel should be discontinued 7 days prior to surgery.

**GI Bleeding:** Clopidisel prolongs the bleeding time. Clopidisel was associated with a rate of gastrointestinal bleeding of 2.0% v s . 2.7% on aspirin. Clopidisel should be used with caution in patients who have lesions with a propensity to bleed (such as ulcers). Drugs that might induce such lesions (such as aspirin and other nonsteroidal anti-inflammatory drugs [NSAIDs]) should be used with caution in patients taking Clopidisel.

**Use in Hepatically Impaired Patients:** Experience is limited in patients with severe hepatic-disease, who may have bleeding. Clopidisel should be used with caution in this population.

## SIDE EFFECTS:

The most common side effects are nausea, vomiting, and diarrhea. The incidence of blood dyscrasias is lower with clopidogrel. Rare cases of thrombotic thrombocytopenic purpura have been associated with clopidogrel these usually remit when, the drug is stopped.

Side effects reported in clinical trials include (but are not limited to) the following:

- Pruritus (localized or generalized itching)
- Purpura (purple discoloring of the skin)
- Diarrhea
- Rash
- Neutropenia (decrease in white blood cells) is about 0.1%

## OVER DOSAGE:

One case of deliberate overdosage with Clopidisel was reported in the large, controlled clinical study. A 34-year old woman took a single 1.050 mg dose of Clopidisel (equivalent to 14 standard 75mg tablets). There were no associated adverse events. No special therapy was instituted, and she recovered without single.

No adverse events were reported after single oral administration of 600mg (equivalent to 8 standard 75mg tablets) of Clopidisel in healthy volunteers. The bleeding time was prolonged by a factor of 1.7, which is similar to that typically observed with the therapeutic dose of 75mg of Clopidisel per day.

A single oral dose of clopidogrel at 1500 or 2000mg/kg was lethal to mice and to rats and at 3000mg/kg to baboons. Symptoms of acute toxicity were vomiting (in baboons), prostration, difficult breathing, and gastrointestinal hemorrhage in all species.

### Recommendations about specific treatment:

Based on biological plausibility, platelet transfusion may be appropriate to reverse the pharmacological effects of Clopidisel if quick reversal is required.

## STORAGE & INSTRUCTIONS:

Store between 15-25C.

Protect from heat, sunlight & moisture.

Keep away from the reach of children.

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

## HOW SUPPLIED:

Clopidisel 75mg Tablet.

10's, 10x10's tablets.

خوراک و طبیقت استعمال:

ڈاکٹر کی ہدایت کے مطابق استعمال کریں۔

ہدایات:

Manufactured by:

**PHARMA**  
**PRIVATE LIMITED**

Plot # 549, Sundar Industrial Estate,  
Lahore, Pakistan.

دوا کو 15-25 ڈگری سینٹی گریڈ درجہ حرارت کے درمیان رکھیں۔

دھوپ گرمی اور نمی سے بچائیں۔ بچوں کی پہنچ سے دور رکھیں۔

صرف جرزد ڈاکٹر کے نسخے کے مطابق فرزند کریں۔