

# SIMVATROL (F.C.T)

## Fenofibrate/Simvastatin 145/20, 145/40

**COMPOSITION:** Each film-coated tablet contains : 145 mg of Fenofibrate and 20 mg of Simvastatin or 145 mg of Fenofibrate and 40 mg of Simvastatin.

**EXCIPIENTS:** Butylhydroxyanisole, Lactose monohydrate, Sodium laurilsulfate, Starch pregelatinised (maize), Docusate sodium, Sucrose, Citric acid monohydrate, Hypromellose, Crospovidone, Magnesium stearate, Silicified microcrystalline cellulose (comprised of cellulose, microcrystalline and silica colloidal anhydrous), Ascorbic acid.

**Film-coating:** Poly (vinyl alcohol), partially hydrolysed, Titanium dioxide, Talc, Lecithin (derived from soya bean), Xanthan gum, Iron oxide red.

### MECHANISM OF ACTION:

**Fenofibrate:** Fenofibrate is a fibric acid derivative whose lipid modifying effects reported in humans are mediated via activation of Peroxisome Proliferator Activated Receptor type alpha (PPAR $\alpha$ ).

Through activation of PPAR $\alpha$ , Fenofibrate activates lipoprotein lipase production and reduces production of apoprotein CIII. Activation of PPAR $\alpha$  also induces an increase in the synthesis of apoproteins AI and AII.

**Simvastatin:** Simvastatin, which is an inactive lactone, is hydrolyzed in the liver to the corresponding active beta-hydroxyacid form which has a potent activity in inhibiting HMG-CoA reductase (3 hydroxy - 3 methylglutaryl CoA reductase).

**SIMVATROL:** SIMVATROL contains Fenofibrate and Simvastatin, which have different modes of action as described above.

### PHARMACOKINETICS:

**Absorption:** Maximum plasma concentrations (Cmax) of Fenofibrate occur within 2 to 4 hours after oral administration. Plasma concentrations are stable during continuous treatment in any given individual. Fenofibrate is water-insoluble and must be taken with food to facilitate absorption. Fenofibrate in SIMVATROL may be taken without regard to meals. Simvastatin is well absorbed and undergoes extensive hepatic first-pass extraction. The availability of the beta-hydroxy acid to the systemic circulation following an oral dose of Simvastatin was found to be less than 5% of the dose. Maximum plasma concentration of active inhibitors is reached approximately 1-2 hours after administration of Simvastatin. Concomitant food intake does not affect the absorption.

**Distribution:** Fenofibric acid is strongly bound to plasma albumin (more than 99 %). The protein binding of Simvastatin and its active metabolite is > 95 %.

**Biotransformation and Elimination:** After oral administration, Fenofibrate is rapidly hydrolyzed by esterases to the active metabolite fenofibric acid. No unchanged Fenofibrate can be detected in the plasma. Fenofibrate is not a substrate for CYP 3A4. The drug is excreted mainly in the urine. Practically all the drug is eliminated within 6 days. Fenofibrate is mainly excreted in the form of fenofibric acid and its glucuronide conjugate.

Mean plasma half-life: the plasma elimination half-life of fenofibric acid is approximately 20 hours. Simvastatin is a substrate of CYP 3A4. Simvastatin is taken up actively into the hepatocytes by the transporter OATP1B1. The major metabolites of Simvastatin present in human plasma are the beta-hydroxyacid and four additional active metabolites.

**INDICATIONS:** SIMVATROL is indicated as adjunctive therapy to diet and exercise in high cardiovascular risk adult patients with mixed dyslipidaemia to reduce triglycerides and increase HDL-C levels when LDL-C levels are adequately controlled with the corresponding dose of Simvastatin monotherapy.

### CONTRAINDICATIONS:

- Hypersensitivity to the active substances, peanut, soya or to any of the excipients.
- Known photoallergy or phototoxic reaction during treatment with fibrates or ketoprofen.
- Active liver disease or unexplained persistent elevations of serum transaminases.
- Known gallbladder disease.
- Chronic or acute pancreatitis with the exception of acute pancreatitis due to severe hypertriglyceridaemia.
- Moderate to severe renal insufficiency (estimated glomerular filtration rate < 60 mL / min / 1.73 m<sup>2</sup>).
- Concomitant administration of fibrates, statins, danazol, ciclosporin or potent cytochrome P450 (CYP) 3A4 inhibitors.
- Paediatric population (age below 18 years).
- Pregnancy and breast-feeding.
- Personal history of myopathy and/or rhabdomyolysis with statins and/or fibrates or confirmed creatine phosphokinase elevation above 5 times the upper limit of normal (ULN) under previous statin treatment
- Concomitant administration of amiodarone, verapamil, amlodipine or diltiazem.

### WARNINGS AND PRECAUTIONS:

**Muscle:** Skeletal muscle toxicity, including rare cases of rhabdomyolysis with or without renal failure, has been reported with administration of lipid-lowering substances like fibrates and statins. The risk of myopathy with statins and fibrates is known to be related to the dose of each component and to the nature of the fibrate.

**Reduced function of transport proteins:** Reduced function of hepatic OATP transport proteins can increase the systemic exposure of Simvastatin and increase the risk of myopathy and rhabdomyolysis. Reduced function can occur as the result of inhibition by interacting medicines (eg ciclosporin) or in patients who are carriers of the SLC01B1 c.521T > C genotype.

**Immune-mediated necrotizing myopathy (IMNM):** There have been very rare reports of an immune-mediated necrotizing myopathy (IMNM) during or after treatment with some statins. IMNM is clinically characterized by persistent proximal muscle weakness and elevated serum creatine kinase, which persist despite discontinuation of statin treatment.

**Measures to reduce the risk of myopathy caused by medicinal product interactions:** The risk of muscle toxicity may be increased if SIMVATROL is administered with another fibrate, statin, niacin, fusidic acid or other specific concomitant substances. Physicians contemplating combined therapy with SIMVATROL and lipid-modifying doses ( $\geq 1$  g/day) of niacin (nicotinic acid) or medicinal products containing niacin should carefully weigh the potential benefits and risks and should carefully monitor patients for any signs and symptoms of muscle pain, tenderness, or weakness, particularly during the initial months of therapy and when the dose of either medicinal product is increased.

The risk of myopathy and rhabdomyolysis is significantly increased by concomitant use of Simvastatin with potent inhibitors of (CYP) 3A4.

SIMVATROL must not be co-administered with fusidic acid. There have been reports of rhabdomyolysis (including some fatalities) in patients receiving a statin in combination with fusidic acid. In patients where the use of systemic fusidic acid is considered essential, statin treatment should be discontinued throughout the duration of fusidic acid treatment. The patient should be advised to seek medical advice immediately if they experience any symptoms of muscle weakness, pain or tenderness.

Statin therapy may be re-introduced seven days after the last dose of fusidic acid. In exceptional circumstances, where prolonged systemic fusidic acid is needed e.g. for the treatment of severe infections, the need for co-administration of SIMVATROL and fusidic acid should only be considered on a case by case basis and under close medical supervision.

**Creatine kinase measurement:** Creatine Kinase should not be measured following strenuous exercise or in the presence of any plausible alternative cause of Creatine Kinase increase as this makes value interpretation difficult. If Creatine Kinase levels are significantly elevated at baseline (> 5 x ULN), levels should be re-measured within 5 to 7 days later to confirm the results.

**Before the treatment:** All patients starting therapy, or whose dose of Simvastatin is being increased, should be advised of the risk of myopathy and told to report promptly any unexplained muscle pain, tenderness or weakness.

Caution should be exercised in patients with pre-disposing factors for rhabdomyolysis. A Creatine Kinase level should be measured before starting a treatment in the following situations: Elderly  $\geq 65$  years, Female gender, Renal impairment, Uncontrolled hypothyroidism, Hypoalbuminaemia, Personal or familial history of hereditary muscular disorders, Previous history of muscular toxicity with a statin or a fibrate, Alcohol abuse. In such situations, the risk of treatment should be considered in relation to possible benefit, and clinical monitoring is recommended.

If a patient has previously experienced a muscle disorder on a fibrate or a statin, treatment with a different member of the class should only be initiated with caution. If Creatine Kinase levels are significantly elevated at baseline (> 5 x ULN), treatment should not be started.

If myopathy is suspected for any other reason, treatment should be discontinued. Therapy with SIMVATROL should be temporarily stopped a few days prior to elective major surgery and when any major medical or surgical condition supervenes.

**Hepatic disorders:** Increases in transaminase levels have been reported in some patients treated with Simvastatin or Fenofibrate. In the majority of cases these elevations were transient, minor and asymptomatic without the need for treatment discontinuation. Transaminase levels have to be monitored before treatment begins, every 3 months during the first 12 months of treatment and thereafter periodically. Attention should be paid to patients who develop increase in transaminase levels and therapy should be discontinued if aspartate aminotransferase (AST) or also known as serum glutamic oxaloacetic transaminase (SGOT) and alanine aminotransferase (ALT) or also known as serum glutamic pyruvic transaminase (SGPT) levels increase to more than 3 times the upper limit of the normal range.

When symptoms indicative of hepatitis occur (e.g. jaundice, pruritus) and diagnosis is confirmed by laboratory testing, SIMVATROL therapy should be discontinued. SIMVATROL should be used with caution in patients who consume substantial quantities of alcohol.

**Pancreatitis:** Pancreatitis has been reported in patients taking Fenofibrate. This occurrence may represent a failure of efficacy in patients with severe hypertriglyceridaemia, an induced pancreatic enzymes increase or a secondary phenomenon mediated through biliary tract stone or sludge formation with obstruction of the common bile duct.

**Renal function:** SIMVATROL is contraindicated in moderate to severe renal impairment. SIMVATROL should be used with caution in patients with mild renal insufficiency whose estimated glomerular filtration rate is 60 to 89 mL/min/1.73 m<sup>2</sup>.

Reversible elevations in serum creatinine have been reported in patients receiving Fenofibrate monotherapy or co-administered with statins. Elevations in serum creatinine were generally stable over time with no evidence for continued increases in serum creatinine with long term therapy and tended to return to baseline following discontinuation of treatment.

Treatment should be interrupted when creatinine level is 50% above the upper limit of normal. It is recommended that creatinine is measured during the first 3 months after initiation of treatment and periodically thereafter.

**Interstitial lung disease:** Cases of interstitial lung disease have been reported with some statins and with Fenofibrate, especially with long term therapy. Presenting features can include dyspnoea, non-productive cough and deterioration in general health (fatigue, weight loss and fever). If it is suspected a patient has developed interstitial lung disease, SIMVATROL therapy should be discontinued.

**Diabetes mellitus:** Some evidence suggests that statins as a class raise blood glucose and in some patients, at high risk of future diabetes, may produce a level of hyperglycaemia where formal diabetes care is appropriate. This risk, however, is outweighed by the reduction in vascular risk with statins and therefore should not be a reason for stopping statin treatment. Patients at risk (fasting glucose 5.6 to 6.9 mmol/L, BMI > 30 kg/m<sup>2</sup>, raised triglycerides, hypertension) should be monitored both clinically and biochemically according to national guidelines.

**Veno-thromboembolic events:** The increased risk of venous thrombotic events may be related to the increased homocysteine level, a risk factor for thrombosis and other unidentified factors. The clinical significance of this is not clear. Therefore, caution should be exercised in patients with history of pulmonary embolism.

**Excipients:** As this medicinal product contains lactose, patients with rare hereditary problems of galactose intolerance, Lapp lactase deficiency or glucose-galactose malabsorption should not take this medicinal product.

As this medicinal product contains sucrose, patients with rare hereditary problems of fructose intolerance, glucose-galactose malabsorption or sucrase-isomaltase insufficiency should not take this medicine.

**PREGNANCY:** As Simvastatin is contraindicated during pregnancy, SIMVATROL is contraindicated during pregnancy.

**NURSING MOTHERS:** It is unknown whether Fenofibrate, Simvastatin and/or their metabolites are excreted in human milk. Therefore, SIMVATROL is contraindicated during breast-feeding.

**EFFECTS ON ABILITY TO DRIVE AND USE MACHINES:** Fenofibrate has no or negligible influence on the ability to drive and use machines.

Dizziness has been reported rarely in post-marketing experience with Simvastatin. This adverse reaction should be taken into account when driving vehicles or using machines under SIMVATROL therapy.

### UNDESIRABLE EFFECTS:

**Infections and infestations:** Upper respiratory tract infection, Gastroenteritis

**Blood and lymphatic disorders:** Platelet count increased

**Hepatobiliary disorders:** Alanine- aminotransferase increased

**Skin and subcutaneous tissue disorders:** Dermatitis and eczema

**Investigations:** Blood creatinine increased

**DRUG INTERACTIONS:** No interaction studies have been performed with SIMVATROL.

**Interactions relevant to monotherapies:**

**Inhibitors of CYP 3A4:** Simvastatin is a substrate of cytochrome P450 3A4.

Potent inhibitors of cytochrome P450 3A4 increase the risk of myopathy and rhabdomyolysis. Such inhibitors include itraconazole, ketoconazole, posaconazole, erythromycin, clarithromycin, telithromycin, HIV protease inhibitors (e.g. nelfinavir), and nefazodone.

Combination with itraconazole, ketoconazole, posaconazole, HIV protease inhibitors (e.g. nelfinavir), erythromycin, clarithromycin, telithromycin and nefazodone is contraindicated (see section 4.3). If treatment with itraconazole, ketoconazole, posaconazole, erythromycin, clarithromycin or telithromycin is unavoidable, therapy with SIMVATROL must be suspended during the course of treatment. Caution should be exercised when combining SIMVATROL with certain other less potent CYP 3A4 inhibitors: fluconazole, verapamil, or diltiazem.

**Danazol:** the co-administration of SIMVATROL with danazol is contraindicated.

**Ciclosporin:** The risk of myopathy/rhabdomyolysis is increased by concomitant administration of ciclosporin with Simvastatin. Because the dose of Simvastatin should not exceed 10 mg daily in patients taking ciclosporin, the co-administration of SIMVATROL with ciclosporin is contraindicated.

**Amiodarone, amlodipine, diltiazem and verapamil:** The risk of myopathy and rhabdomyolysis is increased by concomitant use of amiodarone, amlodipine, diltiazem or verapamil with Simvastatin 40 mg per day.

the dose of SIMVATROL should not exceed 145 mg/20 mg daily in patients taking amiodarone, amlodipine, diltiazem or verapamil.

**Other statins and fibrates:** The risk of myopathy and rhabdomyolysis is significantly increased by concomitant use of gemfibrozil with Simvastatin. The risk of rhabdomyolysis is also increased in patients concomitantly receiving other fibrates or statins. Therefore, the co-administration of SIMVATROL with gemfibrozil, other fibrates, or statins is contraindicated.

**Niacin (nicotinic acid):** Cases of myopathy/rhabdomyolysis have been associated with concomitant administration of statins and niacin (nicotinic acid) at lipid-modifying doses ( $\geq 1$  g/day), knowing that niacin and statins can cause myopathy when given alone.

**Fusidic acid:** If treatment with fusidic acid is necessary, SIMVATROL treatment should be discontinued throughout the duration of the fusidic acid treatment.

**Grapefruit juice:** Grapefruit juice inhibits CYP 3A4. Concomitant intake of large quantities (over 1 liter daily) of grapefruit juice and Simvastatin resulted in a 7-fold increase in plasma exposure to Simvastatin acid. Intake of 240 mL of grapefruit juice in the morning and Simvastatin in the evening also resulted in a 1.9-fold increase in plasma exposure to Simvastatin acid. Intake of grapefruit juice during treatment with SIMVATROL should therefore be avoided.

**Colchicine:** There have been reports of myopathy and rhabdomyolysis with the concomitant administration of colchicine and Simvastatin in patients with renal insufficiency. Therefore, close clinical monitoring of such patients taking colchicine and SIMVATROL is advised.



**Vitamin K antagonists:** Fenofibrate and Simvastatin enhance effects of Vitamin K antagonists and may increase the risk of bleeding. It is recommended that the dose of those oral anticoagulants is reduced by about one third at the start of treatment and then gradually adjusted if necessary according to INR (International Normalised Ratio) monitoring. If the dose of SIMVATROL is changed or discontinued, the same procedure should be repeated.

**Glitazones:** Some cases of reversible paradoxical reduction of HDL-C have been reported during concomitant administration of Fenofibrate and glitazones. Therefore, it is recommended to monitor HDL-C if SIMVATROL is co-administered with a glitazone and stopping either therapy if HDL-C is too low.

**Rifampicin:** Because rifampicin is a potent CYP 3A4 inducer that interferes with Simvastatin metabolism, patients undertaking long-term rifampicin therapy (e.g. treatment of tuberculosis) may experience loss of efficacy of Simvastatin. In normal volunteers, the plasma exposure to Simvastatin acid was decreased by 93 % with concomitant administration of rifampicin.

**Effects on the pharmacokinetics of other medicinal products.**

Fenofibrate is a mild to moderate inhibitor of CYP 2C9 and a weak inhibitor of CYP 2C19 and CYP 2A6.

Patients receiving co-administration of SIMVATROL and drugs metabolised by CYP 2C19, CYP 2A6, or especially CYP 2C9 with a narrow therapeutic index should be carefully monitored and, if necessary, dose adjustment of these drugs is recommended. **Interaction between Simvastatin and Fenofibrate:** Whether Fenofibrate had an effect on other active metabolites of Simvastatin was not investigated.

The exact mechanism of interaction is not known. In the available clinical data, the effect on LDL-C reduction was not considered to be significantly different to Simvastatin monotherapy when LDL-C is controlled at the time of initiating treatment.

The repeated administration of Simvastatin 40 or 80 mg, the highest dose registered, did not affect the plasma levels of fenofibric acid at steady state.

**DOSE AND ADMINISTRATION:** Secondary causes of hyperlipidaemia, such as uncontrolled type 2 diabetes mellitus, hypothyroidism, nephrotic syndrome, dysproteinemia, obstructive liver disease, pharmacological treatment (like oral oestrogens), alcoholism should be adequately treated, before SIMVATROL therapy is considered and patients should be placed on a standard cholesterol and triglycerides-lowering diet which should be continued during treatment.

**Posology:** The recommended dose is one tablet per day. Grapefruit juice should be avoided.

Response to therapy should be monitored by determination of serum lipid values (total cholesterol (TC), LDL-C, triglycerides (TG)).

**Elderly patients ( $\geq 65$  years old):** No dose adjustment is necessary. The usual dose is recommended, except for decreased renal function with estimated glomerular filtration rate < 60 mL/min/1.73 m<sup>2</sup> where SIMVATROL is contraindicated.

**Patients with renal impairment:** SIMVATROL is contraindicated in patients with moderate to severe renal insufficiency whose estimated glomerular filtration rate is < 60 mL/min/1.73 m<sup>2</sup>. SIMVATROL should be used with caution in patients with mild renal insufficiency whose estimated glomerular filtration rate is 60 to 89 mL/min/1.73 m<sup>2</sup>.

**Patients with hepatic impairment:** SIMVATROL has not been studied in patients with hepatic impairment and is therefore contraindicated in this population.

**Paediatric population:** SIMVATROL is contraindicated in children and adolescents up to 18 years old.

**Method of administration:** Each tablet should be swallowed whole with a glass of water. The tablets should not be crushed or chewed. They may be taken with or without food.

**OVERDOSE:** SIMVATROL: No specific antidote is known. If an overdose is suspected, symptomatic treatment and appropriate supportive measures should be provided as required.

**Fenofibrate:** Only anecdotal cases of Fenofibrate overdose have been received. In the majority of cases no overdose symptoms were reported. Fenofibrate cannot be eliminated by haemodialysis.

**Simvastatin:** A few cases of Simvastatin overdose have been reported; the maximum dose taken was 3.6 g. All patients recovered without sequelae. There is no specific treatment in the event of overdose. In this case, symptomatic and supportive measures should be adopted.

**PACKAGING:** 30 film coated tablets/carton box.

**STORAGE CONDITIONS:** Store at room temperature, below 30°C.

TPP190000	THIS IS A MEDICAMENT
<ul style="list-style-type: none"> <li>- A medicament is a product but unlike any other products.</li> <li>- A medicament is a product which affects your health, and its consumption contrary to instructions is dangerous for you.</li> <li>- Follow strictly the doctor's prescription, the method of use and the instructions of the pharmacist who sold the medicament. The doctor and the pharmacist are experts in medicine, its benefits and risks.</li> <li>- Do not by yourself interrupt the period of treatment prescribed for you.</li> <li>- Do not repeat the same prescription without consulting your doctor.</li> </ul>	
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