HIGHLIGHTS OF PRESCRIBING INFORMATION

These highlights do not include all the information needed to use CRESTOR safely and effectively. See full prescribing information for CRESTOR.

CRESTOR (rosuvastatin calcium) tablets
Initial U.S. Approval: 2003

INDICATIONS AND USAGE

CRESTOR is an HMG Co-A reductase inhibitor indicated for:
- adult patients with primary hyperlipidemia and mixed dyslipidemia as an adjunct to diet to reduce elevated total-C, LDL-C, ApoB, nonHDL-C, and TG levels and to increase HDL-C (1.1)
- pediatric patients 8 to 17 years of age with homozygous familial hypercholesterolemia (HeFH) to reduce elevated total-C, LDL-C and ApoB after failing an adequate trial of diet therapy (1.2)
- pediatric patients 7 to 17 years of age with homozygous familial hypercholesterolemia (HoFH) to reduce LDL-C, total-C, nonHDL-C and ApoB as an adjunct to diet, either alone or with other lipid-lowering treatments (1.2)
- adult patients with hypertriglyceridemia as an adjunct to diet (1.3)
- adult patients with primary dysbetalipoproteinemia (Type III hyperlipoproteinemia) as an adjunct to diet (1.4)
- adult patients with homozygous familial hypercholesterolemia (HoFH) to reduce LDL-C, total-C, and ApoB (1.5)
- slowing the progression of atherosclerosis as part of a treatment strategy to lower total-C and LDL-C as an adjunct to diet (1.6)
- risk reduction of MI, stroke, and arterial revascularization procedures in patients without clinically evident CHD, but with multiple risk factors (1.7)

Limitations of use (1.8): CRESTOR has not been studied in Fredrickson Type I and V dyslipidemias.

DOSAGE AND ADMINISTRATION

- CRESTOR can be taken with or without food, at any time of day. (2.1)
- Dose range: 5-40 mg once daily. Use 40 mg dose only for patients not reaching LDL-C goal with 20 mg. (2.1)
- Adult HoFH: Starting dose 20 mg/day (2.2)
- Pediatric patients with HeFH: 5 to 10 mg/day for patients 8 to less than 10 years of age, and 5 to 20 mg/day for patients 10 to 17 years of age. (2.2)
- Pediatric patients with HoFH: 20 mg/day for patients 7 to 17 years of age. (2.2)

DOSE FORMS AND STRENGTHS

Tablets: 5 mg, 10 mg, 20 mg, and 40 mg (3)

CONTRAINDICATIONS

- Known hypersensitivity to product components (4)
- Active liver disease, which may include unexplained persistent elevations in hepatic transaminase levels (4)
- Pregnancy (4, 8.1, 8.3)
- Lactation (4, 8.2)

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CRESTOR (rosuvastatin calcium) tablets

FULL PRESCRIBING INFORMATION

1 INDICATIONS AND USAGE

1.1 Hyperlipidemia and Mixed Dyslipidemia
CRESTOR is indicated as adjunctive therapy to diet to reduce elevated Total-C, LDL-C, ApoB, non-HDL-C, and triglycerides and to increase HDL-C in adult patients with primary hyperlipidemia or mixed dyslipidemia. Lipid-altering agents should be used in addition to a diet restricted in saturated fat and cholesterol when response to diet and nonpharmacological interventions alone has been inadequate.

1.2 Pediatric Patients with Familial Hypercholesterolemia
CRESTOR is indicated as an adjunct to diet to:
- reduce Total-C, LDL-C and ApoB levels in children and adolescents 8 to 17 years of age with heterozygous familial hypercholesterolemia if after an adequate trial of diet therapy the following findings are present: LDL-C >160 mg/dL or >160 mg/dL along with a positive family history of premature coronary artery disease (CAD) or two or more other CAD risk factors.
- reduce LDL-C, Total-C, non-HDL-C and ApoB in children and adolescents 7 to 17 years of age with homozgyous familial hypercholesterolemia, either alone or with other lipid-lowering treatments (e.g., LDL apheresis).

1.3 Hypertriglyceridemia
CRESTOR is indicated as adjunctive therapy to diet for the treatment of adult patients with hypertriglyceridemia.

1.4 Primary Dysbetalipoproteinemia (Type III Hyperlipoproteinemia)
CRESTOR is indicated as an adjunct to diet for the treatment of adult patients with primary dysbetalipoproteinemia (Type III Hyperlipoproteinemia).

1.5 Adult Patients with Homozygous Familial Hypercholesterolemia
CRESTOR is indicated as adjunctive therapy to other lipid-lowering treatments (e.g., LDL apheresis) or alone if such treatments are unavailable to reduce LDL-C, Total-C, and ApoB in adult patients with homozygous familial hypercholesterolemia.

1.6 Slowing of the Progression of Atherosclerosis
CRESTOR is indicated as adjunctive therapy to diet to slow the progression of atherosclerosis in adult patients as part of a treatment strategy to lower Total-C and LDL-C to target levels.

1.7 Primary Prevention of Cardiovascular Disease
In individuals without clinically evident coronary heart disease but with an increased risk of cardiovascular disease based on age ≥50 years old in men and ≥60 years old in women, hsCRP ≥2 mg/L, and the presence of at least one additional cardiovascular disease risk factor such as hypertension, low HDL-C, smoking, or a family history of premature coronary heart disease, CRESTOR is indicated to:
- reduce the risk of stroke
- reduce the risk of myocardial infarction
- reduce the risk of arterial revascularization procedures

1.8 Limitations of Use
CRESTOR has not been studied in Fredrickson Type I and V dyslipidemias.

2 DOSAGE AND ADMINISTRATION

2.1 General Dosing Information
The dose range for CRESTOR in adults is 5 to 40 mg orally once daily. The usual starting dose in adult patients with homozygous familial hypercholesterolemia is 20 mg once daily.

The maximum CRESTOR dose of 40 mg should be used only for those patients who have not achieved their LDL-C goal utilizing the 20 mg dose [see Warnings and Precautions (5.1)].

CRESTOR can be administered as a single dose at any time of day, with or without food. The tablet should be swallowed whole.

When initiating CRESTOR therapy or switching from another HMG-CoA reductase inhibitor therapy, the appropriate CRESTOR starting dose should first be utilized, and only then titrated according to the patient’s response and individualized goal of therapy.

After initiation or upon titration of CRESTOR, lipid levels should be analyzed within 2 to 4 weeks and the dosage adjusted accordingly.

2.2 Pediatric Dosing
In heterozygous familial hypercholesterolemia, the recommended dose range is 5 to 10 mg orally once daily in patients 8 to less than 10 years of age, and 5 to 20 mg orally once daily in patients 10 to 17 years of age.

In homozygous familial hypercholesterolemia, the recommended dose is 20 mg orally once daily in patients 7 to 17 years of age.

2.3 Dosing in Asian Patients
In Asian patients, consider initiation of CRESTOR therapy with 5 mg once daily due to increased rosuvastatin plasma concentrations. The increased systemic exposure should be taken into consideration when treating Asian patients not adequately controlled at doses up to 20 mg/day [see Use in Specific Populations (8.8) and Clinical Pharmacology (12.3)].

2.4 Use with Concomitant Therapy
Patients taking cyclosporine
The dose of CRESTOR should not exceed 5 mg once daily [see Warnings and Precautions (5.1), Drug Interactions (7.1) and Clinical Pharmacology (12.3)].

Patients taking gemfibrozil
Avoid concomitant use of CRESTOR with gemfibrozil. If concomitant use cannot be avoided, initiate CRESTOR at 5 mg once daily. The dose of CRESTOR should not exceed 10 mg once daily [see Warnings and Precautions (5.1), Drug Interactions (7.2) and Clinical Pharmacology (12.3)].

Patients taking azotanavir and ritonavir, lopinavir and ritonavir, or simvastatin
Initiate CRESTOR therapy with 5 mg once daily. The dose of CRESTOR should not exceed 10 mg once daily [see Warnings and Precautions (5.1), Drug Interactions (7.3) and Clinical Pharmacology (12.3)].

2.5 Dosing in Patients with Severe Renal Impairment
For patients with severe renal impairment (ClCR <30 mL/min/1.73 m²) not on hemodialysis, dosing of CRESTOR should be started at 5 mg once daily and not exceed 10 mg once daily [see Use in Specific Populations (8.6) and Clinical Pharmacology (12.3)].

3 DOSAGE FORMS AND STRENGTHS
5 mg: Yellow, round, biconvex, coated tablets. Debossed “CRESTOR” and “5” on one side of the tablet. 10 mg: Pink, round, biconvex, coated tablets. Debossed “CRESTOR” and “10” on one side of the tablet. 20 mg: Pink, round, biconvex, coated tablets. Debossed “CRESTOR” and “20” on one side of the tablet. 40 mg: Pink, oval, biconvex, coated tablets. Debossed “CRESTOR” on one side and “40” on the other side of the tablet.

4 CONTRAINDICATIONS
CRESTOR is contraindicated in the following conditions:
- Patients with a known hypersensitivity to any component of this product.
- Hypersensitivity reactions including rash, pruritus, urticaria, and angioedema have been reported with CRESTOR [see Adverse Reactions (6.1)].
- Patients with active liver disease, which may include unexplained persistent elevations of hepatic transaminase levels [see Warnings and Precautions (5.2)].
- Pregnancy [see Use in Specific Populations (8.1, 8.3)].
- Lactation. Limited data indicate that CRESTOR is present in human milk. Because statins have the potential for serious adverse reactions in nursing infants, women who require CRESTOR treatment should not breastfeed their infants [see Use in Specific Populations (8.2)].

5 WARNINGS AND PRECAUTIONS
5.1 Skeletal Muscle Effects
Cases of myopathy and rhabdomyolysis with acute renal failure secondary to myoglobinuria have been reported with HMG-CoA reductase inhibitors, including CRESTOR. These risks can occur at any dose level, but are increased at the highest dose (40 mg).

CRESTOR should be prescribed with caution in patients with predisposing factors for myopathy (e.g., age ≥65 years, inadequately treated hypothyroidism, renal impairment).

The risk of myopathy during treatment with CRESTOR may be increased by concurrent administration of some other lipid-lowering therapies (fibrate or niacin), gemfibrozil, cyclosporine, atazanavir/ritonavir, lopinavir/ritonavir or simvastatin [see Dosage and Administration (2) and Drug Interactions (7)].

Cases of myopathy, including rhabdomyolysis, have been reported with HMG-CoA reductase inhibitors, including rosuvastatin, coadministered with colchicine, and caution should be exercised when prescribing CRESTOR with colchicine [see Drug Interactions (7.7)].

CRESTOR therapy should be discontinued if markedly elevated creatine kinase levels occur or myopathy is diagnosed or suspected. CRESTOR therapy should also be temporarily withheld in any patient with an acute, serious condition suggestive of myopathy or predisposing to the development of renal failure secondary to rhabdomyolysis (e.g., sepsis, hypotension, dehydration, major surgery, trauma, severe metabolic, endocrine, and electrolyte disorders, or uncontrolled seizures).

There have been rare reports of immune-mediated necrotizing myopathy (IMNM), an autoimmune myopathy, associated with statin use. IMNM is characterized by: proximal muscle weakness and elevated serum creatine kinase, which persist despite discontinuation of statin treatment; an inflammatory myopathy showing necrotizing myopathy without significant inflammation; improvement with immunosuppressive agents.

All patients should be advised to promptly report to their physician unexplained muscle pain, tenderness, or weakness, particularly if accompanied by malaise or fever or if muscle signs and symptoms persist after discontinuing CRESTOR.

5.2 Liver Enzyme Abnormalities
It is recommended that liver enzyme tests be performed before the initiation of CRESTOR, and if signs or symptoms of liver injury occur.

Increases in serum transaminases (AST (SGOT) or ALT (SGPT)) have been reported with HMG-CoA reductase inhibitors, including CRESTOR. In most cases, the elevations were transient and resolved or improved on continued therapy or after a brief interruption in therapy. There were two cases of jaundice, for which a relationship to CRESTOR therapy could not be determined, which resolved after discontinuation of therapy. There were no cases of liver failure or irreversible liver disease in these trials.

In a pooled analysis of placebo-controlled trials, increases in serum transaminases >3 times the upper limit of normal occurred in 1.1% of patients taking CRESTOR versus 0.5% of patients treated with placebo.

There have been rare postmarketing reports of fatal and non-fatal hepatic failure in patients taking statins, including rosuvastatin. If serious liver injury with clinical symptoms and/or hyperbilirubinemia or jaundice occurs during treatment with CRESTOR, promptly interrupt therapy. If an alternate therapy is not found, do not restart CRESTOR.

CRESTOR should be used with caution in patients who consume substantial quantities of alcohol and/or have a history of chronic liver disease [see Clinical Pharmacology (12.3)]. Active liver disease, which may include unexplained persistent transaminase elevations, is a contraindication to the use of CRESTOR [see Contraindications (4)].

5.3 Concomitant Cumarin Anticoagulants
Caution should be exercised when anticoagulants are given in conjunction with CRESTOR because of its potentiation of the effect of coumarin-type anticoagulants in prolonging the prothrombin time/INR. In patients taking coumarin anticoagulants and CRESTOR concomitantly, INR should be determined before starting CRESTOR and frequently enough during early therapy to ensure that no significant alteration of INR occurs [see Drug Interactions (7.4)].
5.4 Proteinuria and Hematuria
In the CRESTOR clinical trial program, dipstick-positive proteinuria and microscopic hematuria were observed among CRESTOR treated patients. These findings were more frequent in patients taking CRESTOR 40 mg, when compared to lower doses of CRESTOR or comparator HMG-CoA reductase inhibitors, though it was generally transient and was not associated with worsening renal function. Although the clinical significance of this finding is unknown, a dose reduction should be considered for patients on CRESTOR therapy with unexplained persistent proteinuria and/or hematuria during routine urinalysis testing.

5.5 Endocrine Effects
Increases in HbA1c and fasting serum glucose levels have been reported with HMG-CoA reductase inhibitors, including CRESTOR. Based on clinical trial data with CRESTOR, in some instances these increases may exceed the threshold for the diagnosis of diabetes mellitus [see Adverse Reactions (6.1)]. Although clinical studies have shown that CRESTOR alone does not reduce basal plasma cortisol concentration or impair adrenal reserve, caution should be exercised if CRESTOR is administered concomitantly with drugs that may decrease the levels or activity of endogenous steroid hormones such as ketoconazole, spironolactone, and cimetidene.

6 ADVERSE REACTIONS
The following serious adverse reactions are discussed in greater detail in other sections of the label:
- Rhomboid myositis with pyomyositis and acute renal failure and myopathy (including myositis) [see Warnings and Precautions (5.1)]
- Liver enzyme abnormalities [see Warnings and Precautions (5.2)]

6.1 Clinical Studies Experience
Because clinical studies are conducted under widely varying conditions, adverse reaction rates observed in the clinical studies of a drug cannot be directly compared to rates in the clinical studies of another drug and may not reflect the rates observed in clinical practice.

In the CRESTOR controlled clinical trials database (placebo or active-controlled) of 5394 patients with a mean treatment duration of 15 weeks, 1.4% of patients discontinued due to adverse reactions. The most common adverse reactions that led to treatment discontinuation were:
- myalgia
- abdominal pain
- nausea

The most commonly reported adverse reactions (incidence ≥2%) in the CRESTOR controlled clinical trial database of 5394 patients were:
- headache
- myalgia
- abdominal pain
- asthenia
- nausea

Adverse reactions reported in ≥2% of patients in placebo-controlled clinical studies and at a rate greater than placebo are shown in Table 1. These studies had a treatment duration of up to 12 weeks.

Table 1. Adverse Reactions1 Reported in ≥2% of Patients Treated with CRESTOR and > Placebo in Placebo-Controlled Trials (% of Patients)

<table>
<thead>
<tr>
<th>Adverse Reactions</th>
<th>CRESTOR 5 mg N=291</th>
<th>CRESTOR 10 mg N=283</th>
<th>CRESTOR 20 mg N=64</th>
<th>CRESTOR 40 mg N=106</th>
<th>Total CRESTOR 5-40 mg N=744</th>
<th>Placebo N=382</th>
</tr>
</thead>
<tbody>
<tr>
<td>Headache</td>
<td>5.5</td>
<td>4.9</td>
<td>3.1</td>
<td>8.5</td>
<td>5.5</td>
<td>5.0</td>
</tr>
<tr>
<td>Nausea</td>
<td>3.8</td>
<td>3.5</td>
<td>6.3</td>
<td>0</td>
<td>3.4</td>
<td>3.1</td>
</tr>
<tr>
<td>Myalgia</td>
<td>3.1</td>
<td>3.2</td>
<td>6.3</td>
<td>1.9</td>
<td>2.8</td>
<td>1.3</td>
</tr>
<tr>
<td>Asthenia</td>
<td>2.4</td>
<td>3.2</td>
<td>4.7</td>
<td>0.9</td>
<td>2.7</td>
<td>2.6</td>
</tr>
<tr>
<td>Constipation</td>
<td>2.1</td>
<td>2.1</td>
<td>4.7</td>
<td>2.8</td>
<td>2.4</td>
<td>2.4</td>
</tr>
</tbody>
</table>

1 Adverse reactions by COSTART preferred term.

Other adverse reactions reported in clinical studies were abdominal pain, dizziness, hypersensitivity (including rash, pruritus, urticaria, and angioedema) and pancreatitis. Other adverse reactions reported in clinical studies were abdominal pain, dizziness, rash, pruritus, urticaria, angioedema, and pancreatitis. The following laboratory abnormalities have also been reported: dipstick-positive proteinuria and microscopic hematuria (see Warnings and Precautions (5.1)), elevated creatine phosphokinase, transaminases, glucose, glutamyl transpeptidase, alkaline phosphatase, and bilirubin; and thyroid function abnormalities.

6.2 Postmarketing Experience
The following adverse reactions have been identified during postapproval use of CRESTOR: arthralgia, fatal and non-fatal hepatic failure, hepatitis, jaundice, thrombocytopenia, depression, sleep disorders (including insomnia and nightmares), peripheral neuropathy, interstitial lung disease and gynecomastia. Because these reactions are reported voluntarily from a population of uncertain size, it is not always possible to reliably estimate their frequency or establish a causal relationship to drug exposure.

Pediatric Patients with Heterozygous Familial Hypercholesterolemia
In a 12-week controlled study in boys and premenarchal girls 10 to 17 years of age with heterozygous familial hypercholesterolemia with CRESTOR 5 to 20 mg daily [see Use in Specific Populations (8.4) and Clinical Studies (14.7)], elevations in serum creatine phosphokinase (CK) >10 x ULN were observed more frequently in rosuvastatin compared with placebo-treated children. Four of 130 (3%) children treated with rosuvastatin (2 treated with 10 mg and 2 treated with 20 mg) had increased CK–10 x ULN, compared to 0 of 46 children on placebo.

7 DRUG INTERACTIONS
7.1 Cyclosporine
Cyclosporine increased rosuvastatin exposure and may result in increased risk of myopathy. Therefore, in patients taking cyclosporine, the dose of CRESTOR should not exceed 5 mg once daily [see Dosage and Administration (2.4), Warnings and Precautions (5.1) and Clinical Pharmacology (12.3)].

7.2 Gemfibrozil
Gemfibrozil significantly increased rosuvastatin exposure. Due to an observed increased risk of myopathy/rhabdomyolysis, combination therapy with CRESTOR and gemfibrozil should be avoided. If used together, the dose of CRESTOR should not exceed 10 mg once daily [see Clinical Pharmacology (12.3)].

7.3 Protease Inhibitors
Coadministration of rosuvastatin with certain protease inhibitors has differing effects on rosuvastatin exposure and may increase risk of myopathy. Tipranavir, which is a hepatitis C virus (HCV) protease inhibitor, or combinations of atazanavir/ritonavir or lopinavir/ritonavir, which are HIV-1 protease inhibitors, increase rosuvastatin exposure [see Table 4 – Clinical Pharmacology (12.3)]. For these protease inhibitors, the dose of CRESTOR should not exceed 10 mg once daily. The combinations of fosamprenavir/ritonavir or tipranavir/ritonavir, which are HIV-1 protease inhibitors, produce little or no change in rosuvastatin exposure. Caution should be exercised when rosuvastatin is coadministered with protease inhibitors [see Dosage and Administration (2.4), Warnings and Precautions (5.1) and Clinical Pharmacology (12.3)].

7.4 Coumarin Anticoagulants
CRESTOR significantly increased INR in patients receiving coumarin anticoagulants. Therefore, caution should be exercised when coumarin anticoagulants are given in conjunction with CRESTOR. In patients taking coumarin anticoagulants and CRESTOR concomitantly, INR should be determined before starting CRESTOR and frequently enough during early therapy to ensure that no significant alteration of INR occurs [see Warnings and Precautions (5.3) and Clinical Pharmacology (12.3)].

7.5 Niacin
The risk of skeletal muscle effects may be enhanced when CRESTOR is used in combination with lipid-modifying doses (>1 g/day) of niacin; caution should be used when prescribing with CRESTOR [see Warnings and Precautions (5.1)].
7.6 Fenofibrate

When CRESTOR was coadministered with fenofibrate, no clinically significant increase in the AUC of rosuvastatin or fenofibrate was observed. Because it is known that the risk of myopathy during treatment with HMG-CoA reductase inhibitors is increased with concomitant use of fenofibrate, caution should be used when prescribing fenofibrate with CRESTOR [see Warnings and Precautions (5.1) and Clinical Pharmacology (12.3)].

7.7 Colchicine

Cases of myopathy, including rhabdomyolysis, have been reported with HMG-CoA reductase inhibitors, including rosuvastatin, coadministered with colchicine, and caution should be exercised when prescribing CRESTOR with colchicine [see Warnings and Precautions (5.1)].

8 USE IN SPECIFIC POPULATIONS

8.1 Pregnancy

Risk Summary

CRESTOR is contraindicated for use in pregnant women since safety in pregnant women has not been established and there is no apparent benefit to therapy with CRESTOR during pregnancy. Because HMG-CoA reductase inhibitors decrease cholesterol synthesis and possibly the synthesis of other biologically active substances derived from cholesterol, CRESTOR may cause fetal harm when administered to pregnant women. CRESTOR should be discontinued as soon as pregnancy is recognized [see Contraindications (4)]. Limited published data on the use of rosuvastatin in pregnancy is insufficient to determine a drug-associated risk of major congenital malformations or miscarriage. In animal reproduction studies, there were no adverse developmental effects with oral administration of rosuvastatin during organogenesis at systemic exposures equivalent to a maximum recommended human dose (MRHD) of 40 mg/day in rats or rabbits (based on AUC and body surface area, respectively). In rats and rabbits, decreased pup/fetal survival occurred at 12 times and equivalent, respectively, to the MRHD of 40 mg/day [see Data].

The estimated background risk of major birth defects and miscarriage for the indicated population is unknown. In the U.S. general population, the estimated background risk of major birth defects and miscarriage in clinically recognized pregnancies is 2-4% and 15-20%, respectively.

Data

Human Data

Limited published data on rosuvastatin have not shown an increased risk of major congenital malformations or miscarriage. Rare reports of congenital anomalies have been received following intrauterine exposure to other statins. In a review of approximately 100 prospectively followed pregnancies in women exposed to simvastatin or lovastatin, the incidences of congenital anomalies, spontaneous abortions, and fetal deaths/stillbirths did not exceed what would be expected in the general population. The number of cases is adequate to exclude a statistically significant increase in major congenital anomalies above that seen in the general population. In 85% of the prospectively followed pregnancies, drug treatment was initiated prior to pregnancy and was discontinued at some point in the first trimester when pregnancy was identified.

Animal Data

Rosuvastatin crosses the placenta in rats and rabbits and is found in fetal tissue and amniotic fluid at 3% and 20%, respectively, of the maternal plasma concentration following a single 25 mg/kg oral gavage dose on gestation day 16 in rats. A higher fetal tissue distribution (25% maternal plasma concentration) was observed in rabbits after a single oral gavage dose of 1 mg/kg on gestation day 18. Rosuvastatin administration did not indicate a teratogenic effect in rats at ≤25 mg/kg/day or in rabbits ≥3 mg/kg/day (doses equivalent to the MRHD of 40 mg/day based on AUC and body surface area, respectively).

In female rats given 5, 15 and 50 mg/kg/day before mating and continuing through to gestation day 7 resulted in decreased fetal body weight (female pups) and delayed ossification at 50 mg/kg/day (10 times the human exposure at the MRHD of 40 mg/day based on AUC).

In pregnant rats given 2, 10 and 50 mg/kg/day of rosuvastatin from gestation day 7 through lactation day 21 (weaning), decreased pup survival occurred at 50 mg/kg/day (dose equivalent to 12 times the MRHD of 40 mg/day based body surface area).

In pregnant rabbits given 0.1, 1, and 3 mg/kg/day of rosuvastatin from gestation day 6 to day 18, decreased fetal viability and maternal mortality was observed at 3 mg/kg/day (dose equivalent to the MRHD of 40 mg/day based on body surface area).

8.2 Lactation

Risk Summary

Rosuvastatin use is contraindicated during breastfeeding [see Contraindications (4)]. Limited data indicate that CRESTOR is present in human milk. There is no available information on the effects of the drug on the breastfed infant or the effects of the drug on milk production. Because of the potential for serious adverse reactions in a breastfed infant, advise patients that breastfeeding is not recommended during treatment with CRESTOR.

8.3 Females and Males of Reproductive Potential

Contraception

CRESTOR may cause fetal harm when administered to a pregnant woman [see Use in Specific Populations (8.1)]. Advise females of reproductive potential to use effective contraception during treatment with CRESTOR.

8.4 Pediatric Use

In children and adolescents 8 to 17 years of age with heterozygous familial hypercholesterolemia, the safety and effectiveness of CRESTOR as an adjunct to diet to reduce total cholesterol, LDL-C, and ApoB levels when, after an adequate trial of diet therapy, LDL-C exceeds 160 mg/dL or when LDL-C exceeds 180 mg/dL and there is a positive family history of premature CVD or two or more other CVD risk factors, were established in one controlled trial and in one open-label, uncontrolled trial [see Clinical Studies (14.7)]. The long-term efficacy of CRESTOR therapy initiated in childhood to reduce morbidity and mortality in adulthood has not been established.
uptake and catabolism of LDL. Second, rosuvastatin inhibits hepatic synthesis of VLDL, which reduces the total number of VLDL and LDL particles.

12.2 Pharmacodynamics

CRESTOR dose dependently reduces elevated LDL-cholesterol and reduces total cholesterol and triglycerides and increases HDL-cholesterol [see Clinical Studies (14)]. A therapeutic response to CRESTOR is evident within 1 week of commencing therapy and 90% of maximum response is usually achieved in 2 weeks. The maximum response is usually achieved by 4 weeks and is maintained after that. Individualization of drug dosage should be based on the therapeutic response [see Dosage and Administration (2)].

12.3 Pharmacokinetics

Absorption

In clinical pharmacology studies in man, peak plasma concentrations of rosuvastatin were reached 3 to 5 hours following oral dosing. Both Cmax and AUC increased in approximate proportion to rosuvastatin dose. The absolute bioavailability of rosuvastatin is approximately 29%. Administration of CRESTOR with food did not affect the AUC of rosuvastin. The AUC of rosuvastin does not differ following evening or morning drug administration.

Distribution

Mean volume of distribution at steady-state of rosuvastin is approximately 134 liters. Rosuvastatin is 88% bound to plasma proteins, mostly albumin. This binding is reversible and independent of plasma concentrations.

Elimination

Rosuvastin is primarily eliminated by excretion in the feces. The elimination half-life of rosuvastin is approximately 19 hours.

Metabolism

Rosuvastin is not extensively metabolized; approximately 10% of a radiolabeled dose is recovered as metabolite. The major metabolite is N-desmethyl rosuvastatin, which is formed principally by cytochrome P450 2C9, and in vitro studies have demonstrated that N-desmethyl rosuvastatin has approximately one-sixth to one-half the HMG-CoA reductase inhibitory activity of the parent compound. Overall, greater than 90% of active plasma HMG-CoA reductase inhibitory activity is accounted for by the parent compound.

Excretion

Following oral administration, rosuvastatin and its metabolites are primarily excreted in the feces (90%). After an intravenous dose, approximately 28% of total body clearance was via the renal route, and 72% by the hepatic route.

Specific Populations

Racial or Ethnic Groups

A population pharmacokinetic analysis revealed no clinically relevant differences in pharmacokinetics among Caucasian, Hispanic, and Black or Afro-Caribbean groups. However, pharmacokinetic studies, including one conducted in the US, have demonstrated an approximate 2-fold elevation in median exposure (AUC and Cmax) in Asian subjects when compared with a Caucasian control group.

Male and Female Patients

There were no differences in plasma concentrations of rosuvastatin between men and women.

Pediatric Patients

In a population pharmacokinetic analysis of two pediatric trials involving patients with heterozygous familial hypercholesterolemia 10 to 17 years of age and 8 to 17 years of age, respectively, rosuvastatin exposure appeared comparable to or lower than rosuvastatin exposure in adult patients.

Geriatric Patients

There were no differences in plasma concentrations of rosuvastatin between the nonelderly and elderly populations (age ≥65 years).

Patients with Renal Impairment

Mild to moderate renal impairment (CLcr > 30 mL/min/1.73 m²) had no influence on plasma concentrations of rosuvastatin. However, plasma concentrations of rosuvastatin increased to a clinically significant extent (about 3-fold) in patients with severe renal impairment (CLcr < 30 mL/min/1.73 m²) not receiving hemodialysis compared with healthy subjects (CLcr > 80 mL/min/1.73 m²).

Hemodialysis

Hemodialysis patients treated with rosuvastatin doses of 10 mg once daily showed a 70% reduction in rosuvastatin exposure compared to matched non-hemodialysis patients treated with 10 mg once daily. In patients undergoing hemodialysis, the dosing of rosuvastatin must be modified (see Dosage and Administration (2)).

Drug Interactions Studies

Rosuvastatin clearance is not dependent on metabolism by cytochrome P450 3A4 to a clinically significant extent. Rosuvastatin is a substrate for certain transporter proteins including the hepatic uptake transporter organic anion-transporting polypeptide 1B1 (OATP1B1) and efflux transporter breast cancer resistance protein (BCRP). Concomitant administration of CRESTOR with medications that are inhibitors of these transporter proteins (e.g. cyclosporine, certain HIV protease inhibitors) may result in increased rosuvastin plasma concentrations [see Dosage and Administration (2.4)] and Drug Interactions (7.1, 7.3)].

Table 4. Effect of Coadministered Drugs on Rosuvastatin Systemic Exposure

<table>
<thead>
<tr>
<th>Coadministered drug and dosing regimen</th>
<th>Rosuvastatin Mean Ratio (ratio with/without coadministered drug) No Effect = 1.0</th>
<th>Dose (mg)1</th>
<th>Change in AUC</th>
<th>Change in Cmax</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cyclosporine -- stable dose required (75 mg -- 200 mg BID)</td>
<td>10 mg QD for 10 days</td>
<td>7.12</td>
<td>11.32</td>
<td></td>
</tr>
<tr>
<td>Azithromycin/ritonavir combination 300 mg/100 mg BID for 8 days</td>
<td>10 mg</td>
<td>3.12</td>
<td>7.32</td>
<td></td>
</tr>
<tr>
<td>Simeprevir 150 mg QD, 7 days</td>
<td>10 mg, single dose</td>
<td>2.82 (2.3-3.4)2</td>
<td>3.22 (2.6-3.9)2</td>
<td></td>
</tr>
<tr>
<td>Lopinavir/ritonavir combination 400 mg/100 mg BID for 17 days</td>
<td>20 mg QD for 7 days</td>
<td>2.12 (1.7-2.6)2</td>
<td>52 (3.4-6.4)2</td>
<td></td>
</tr>
<tr>
<td>Gemfibrozil 600 mg BID for 7 days</td>
<td>80 mg</td>
<td>1.92 (1.5-2.2)2</td>
<td>2.22 (1.8-2.7)2</td>
<td></td>
</tr>
<tr>
<td>Ertapenem 75 mg QD, 7 days</td>
<td>10 mg</td>
<td>1.6 (1.4-1.7)2</td>
<td>2 (1.8-2.3)2</td>
<td></td>
</tr>
<tr>
<td>Darunavir 600 mg/ritonavir 100 mg BID, 7 days</td>
<td>10 mg QD for 7 days</td>
<td>1.5 (1.0-2.1)2</td>
<td>2.4 (1.6-3.6)2</td>
<td></td>
</tr>
<tr>
<td>Tipranavir/ritonavir combination 500 mg/200 mg BID for 11 days</td>
<td>10 mg</td>
<td>1.4 (1.2-1.6)2</td>
<td>2.2 (1.8-2.7)2</td>
<td></td>
</tr>
<tr>
<td>Dronedarone 400 mg BID</td>
<td>10 mg</td>
<td>1.4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Itraconazole 200 mg QD, 5 days</td>
<td>10 mg or 80 mg</td>
<td>1.4 (1.2-1.6)2</td>
<td>1.4 (1.2-1.5)2</td>
<td></td>
</tr>
<tr>
<td>Tipranavir/ritonavir combination 500 mg/200 mg BID for 11 days</td>
<td>10 mg</td>
<td>1.4 (1.2-1.6)2</td>
<td>1.4 (1.2-1.5)2</td>
<td></td>
</tr>
<tr>
<td>Dronedarone 400 mg BID</td>
<td>10 mg</td>
<td>1.4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Aluminum &amp; magnesium hydroxide combination antacid Administered simultaneously Administered 2 hours apart</td>
<td>40 mg 40 mg</td>
<td>0.52 (0.4-0.5)2</td>
<td>0.52 (0.4-0.6)2</td>
<td></td>
</tr>
<tr>
<td>Ketoconazole 200 mg BID for 7 days</td>
<td>80 mg</td>
<td>1.0 (0.8-1.2)2</td>
<td>1.0 (0.7-1.3)2</td>
<td></td>
</tr>
<tr>
<td>Fluconazole 200 mg QD for 11 days</td>
<td>80 mg</td>
<td>1.1 (1.0-1.3)2</td>
<td>1.1 (0.9-1.4)2</td>
<td></td>
</tr>
<tr>
<td>Erythromycin 500 mg QID for 7 days</td>
<td>80 mg</td>
<td>0.8 (0.7-0.9)2</td>
<td>0.7 (0.5-0.9)2</td>
<td></td>
</tr>
</tbody>
</table>

1 Single dose unless otherwise noted.
2 Clinically significant [see Dosage and Administration (2) and Warnings and Precautions (5)]
3 Mean ratio with 90% CI (with/without coadministered drug, e.g., 1= no change, 0.7=30% decrease, 11=11-fold increase in exposure)

Table 5. Effect of Rosuvastatin Coadministration on Systemic Exposure to Other Drugs

<table>
<thead>
<tr>
<th>Rosuvastatin Dosage Regimen</th>
<th>Coadministered Drug</th>
<th>Mean Ratio (ratio with/without coadministered drug) No Effect = 1.0</th>
<th>Name and Dose</th>
<th>Change in AUC</th>
<th>Change in Cmax</th>
</tr>
</thead>
<tbody>
<tr>
<td>40 mg QD for 10 days</td>
<td>Warfarin1 25 mg single dose</td>
<td>R-Warfarin 1.0 (1-0.1-2)2 S-Warfarin 1.1 (1.01-2)2</td>
<td>R-Warfarin 1.0 (0.9-1.0)2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>40 mg QD for 12 days</td>
<td>Digoxin 0.5 mg single dose</td>
<td>1.0 (0.9-1.2)2</td>
<td>1.0 (0.9-1.2)2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>40 mg QD for 28 days</td>
<td>Oral Contraceptive (ethinyl estradiol 0.035 mg &amp; norgestrel 0.180, 0.215 and 0.250 mg) QD for 21 Days</td>
<td>EE 1.3 (1.2-1.5)2 NG 1.3 (1.2-1.5)2</td>
<td>EE 1.3 (1.2-2.5)2 NG 1.2 (1.1-1.3)2</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

EE = ethinyl estradiol, NG = norgestrel

1 Clinically significant pharmacodynamic effects [see Warnings and Precautions (5.2)]
2 Mean ratio with 90% CI (with/without coadministered drug, e.g., 1= no change, 0.7=30% decrease, 11=11-fold increase in exposure)
12.5 Pharmacogenomics
Disposition of HMG-CoA reductase inhibitors, including rosuvastatin, involves OATP1B1 and other transporter proteins. Higher plasma concentrations of rosuvastatin have been reported in very small groups of patients (n=3 to 5) who have two reduced function alleles of the gene that encodes OATP1B1 (SLCO1B1 rs5217 + C). The frequency of this genotype (i.e., SLCO1B1 rs5217 C/C) is generally lower than 5% in most racial/ethnic groups. The impact of this polymorphism on efficacy and/or safety of rosuvastatin has not been clearly established.

13 NONCLINICAL TOXICOLOGY
13.1 Carcinogenesis, Mutagenesis, Impairment of Fertility
In a 104-week carcinogenicity study in rats at dose levels of 2, 20, 60, or 80 mg/kg/day by oral gavage, the incidence of uterine stromal polyps was significantly increased in females at 80 mg/kg/day at systemic exposure 20 times the human exposure at 40 mg/day based on AUC. Increased incidence of polyps was not seen at lower doses. In a 107-week carcinogenicity study in mice given 10, 60, or 200 mg/kg/day by oral gavage, an increased incidence of hepatocellular adenoma/carcinoma was observed at 200 mg/kg/day at systemic exposures 20 times the human exposure at 40 mg/day based on AUC. An increased incidence of hepatocellular tumors was not seen at lower doses.

Rosuvastatin was not mutagenic or clastogenic with or without metabolic activation in the Ames test with Salmonella typhimurium and Escherichia coli; the mouse lymphoma assay, and the chromosomal aberration assay in Chinese hamster lung cells. Rosuvastatin was negative in the in vivo mouse micronucleus test.

In rat fertility studies with oral gavage doses of 5, 15, 50 mg/kg/day, males were treated for 9 weeks prior to and throughout mating and females were treated 2 weeks prior to mating and throughout mating until gestation day 7. No adverse effect on fertility was observed at 50 mg/kg/day (systemic exposure up to 10 times the human exposure at 40 mg/day based on AUC). In testicles of dogs treated with rosuvastatin at 30 mg/kg/day for one month, spermatid giant cells were seen. Spermatogenic arrest was observed in monkeys after 6-month treatment at 30 mg/kg/day in addition to vaculation of seminiferous tubular epithelium. Exposures in the dog were 20 times and in the monkey 10 times the human exposure at 40 mg/day based on body surface area. Similar findings have been seen with other drugs in this class.

13.2 Animal Toxicology and/or Pharmacology
Central Nervous System Toxicity
CNS vascular lesions, characterized by perivascular hemorrhages, edema, and mononuclear cell infiltration of perivascular spaces, have been observed in dogs treated with several other members of this drug class. A chemically similar drug in this class produced dose-dependent optic nerve degeneration (Wallnerian degeneration of retinogeniculate fibers) in dogs; at a dose that produced plasma drug levels about 30 times higher than the mean drug level in humans taking the highest recommended dose. Edema, hemorrhage, and partial necrosis in the interstitium of the choroid plexus was observed in a female dog sacrificed moribund at day 24 at 90 mg/kg/day by oral gavage (systemic exposure 100 times the human exposure at 40 mg/day based on AUC). Corneal opacity was seen in dogs treated for 52 weeks at 6 mg/kg/day by oral gavage (systemic exposure 20 times the human exposure at 40 mg/day based on AUC). Cataracts were seen in dogs treated for 12 weeks by oral gavage at 30 mg/kg/day (systemic exposure 60 times the human exposure at 40 mg/day based on AUC). Retinal dysplasia and retinal loss were seen in dogs treated for 4 weeks by oral gavage at 90 mg/kg/day (systemic exposure 100 times the human exposure at 40 mg/day based on AUC). Doses ≤30 mg/kg/day (systemic exposures ≤60 times the human exposure at 40 mg/day based on AUC) did not reveal retinal findings during treatment for up to one year.

Juvenile Toxicology Study
In a juvenile study, rats were dosed by oral gavage with 10 or 50 mg/kg/day from weaning for 3 weeks at 60 times higher than the mean drug level in humans taking the highest recommended dose. Edema, hemorrhage, and partial necrosis in the interstitium of the choroid plexus was observed in a female dog sacrificed moribund at day 24 at 90 mg/kg/day by oral gavage (systemic exposure 100 times the human exposure at 40 mg/day based on AUC). Corneal opacity was seen in dogs treated for 52 weeks at 6 mg/kg/day by oral gavage (systemic exposure 20 times the human exposure at 40 mg/day based on AUC). Cataracts were seen in dogs treated for 12 weeks by oral gavage at 30 mg/kg/day (systemic exposure 60 times the human exposure at 40 mg/day based on AUC). Retinal dysplasia and retinal loss were seen in dogs treated for 4 weeks by oral gavage at 90 mg/kg/day (systemic exposure 100 times the human exposure at 40 mg/day based on AUC). Doses ≤30 mg/kg/day (systemic exposures ≤60 times the human exposure at 40 mg/day based on AUC) did not reveal retinal findings during treatment for up to one year.

14 CLINICAL STUDIES
14.1 Hyperlipidemia and Mixed Dyslipidemia
Rosuvastatin was compared with the HMG-CoA reductase inhibitors atorvastatin, simvastatin, and pravastatin in a multicenter, open-label, dose-ranging study of 2240 patients with hyperlipidemia or mixed dyslipidemia. After randomization, patients were treated for 6 weeks with a single daily dose of either CRESTOR, atorvastatin, simvastatin, or pravastatin (Figure 1 and Table 7).
CRESTOR® (rosuvastatin calcium) tablets

14.5 Homozygous Familial Hypercholesterolemia

Dose-Titration Study: In an open-label, forced-titration study, homozygous FH patients (n=40, 8-63 years) were evaluated for their response to CRESTOR 20 mg to 40 mg titrated at a 6-week interval. In the overall population, the mean LDL-C reduction from baseline was 22%. About one-third of the patients benefited from increasing their dose from 20 mg to 40 mg with further LDL lowering of greater than 6%. In the 27 patients with at least a 15% reduction in LDL-C, the mean LDL-C reduction was 30% (median 28% reduction). Among 15 patients with an LDL-C reduction of <15%, 3 had no change or an increase in LDL-C. Reductions in LDL-C of 15% or greater were observed in 3 of 5 patients with known receptor negative status.

14.6 Pediatric Patients with Homozygous Familial Hypercholesterolemia

CRESTOR was studied in a randomized, double-blind, placebo-controlled, multicenter, crossover study in 14 children and adolescents with homozygous familial hypercholesterolemia. The study included a 4-week dietary lead-in phase during which patients received CRESTOR 10 mg daily, a cross-over phase that included two 6-week treatment periods with either CRESTOR 20 mg or placebo in random order, followed by a 12-week open-label phase during which all patients received CRESTOR 20 mg. Patients ranged in age from 7 to 15 years of age (median 11 years), 50% were male, 71% were Caucasian, 21% were Asian, 7% were Black, and no patients were of Hispanic ethnicity. Fifty percent were on apheresis therapy and 57% were taking ezetimibe. Patients who entered the study on apheresis therapy or ezetimibe continued the treatment throughout the entire study. Mean LDL-C at baseline was 416 mg/dL (range 152 to 716 mg/dL). A total of 13 patients completed both treatment periods of the randomized crossover phase; one patient withdrew consent due to inability to have blood drawn during the crossover phase.

CRESTOR 20 mg significantly reduced LDL-C, total cholesterol, ApoB, and non-HDL-C compared to placebo (Table 11).

<table>
<thead>
<tr>
<th>LDL-C (mg/dL)</th>
<th>Placebo (N=11)</th>
<th>CRESTOR 20 mg (N=13)</th>
<th>Percent difference (95% CI)</th>
</tr>
</thead>
<tbody>
<tr>
<td>481</td>
<td>396</td>
<td>-22.3% (-33.5, -9.1)</td>
<td></td>
</tr>
<tr>
<td>539</td>
<td>448</td>
<td>-20.1% (-29.7, -9.1)</td>
<td></td>
</tr>
<tr>
<td>505</td>
<td>412</td>
<td>-22.9% (-33.7, -10.3)</td>
<td></td>
</tr>
<tr>
<td>268</td>
<td>235</td>
<td>-17.1% (-29.2, -2.9)</td>
<td></td>
</tr>
</tbody>
</table>

Difference estimates are based on transformations of the estimated mean difference in log LDL measurements between CRESTOR and placebo using a mixed model adjusted for study period.

14.7 Pediatric Patients with Heterozygous Familial Hypercholesterolemia

In a double-blind, randomized, multicenter, placebo-controlled, 12-week study, 176 (97 male and 79 female) children and adolescents with heterozygous familial hypercholesterolemia were randomized to rosuvastatin 5, 10 or 20 mg or placebo daily. Patients ranged in age from 10 to 17 years (median age of 14 years) with approximately 30% of the patients 10 to 13 years and approximately 17%, 18%, and 40%, and 25% at Tanner stages II, III, IV, and V, respectively. Females were at least 1 year postmenarche. Mean LDL-C at baseline was 233 mg/dL (range of 129 to 399). The 12-week double-blind phase was followed by a 40 week open label dose-titration phase, where all patients (n=173) received 5 mg, 10 mg or 20 mg rosuvastatin daily.

14.8 Slowing of the Progression of Atherosclerosis

In the Measuring Effects on Intima Media Thickness: an Evaluation of Rosuvastatin 40 mg (METEOR) study, the effect of therapy with CRESTOR on carotid atherosclerosis was assessed by B-mode ultrasonography in patients with elevated LDL-C, at low risk (Framingham risk <10% over 10 years) for symptomatic coronary artery disease and with subclinical atherosclerosis as evidenced by carotid intimal-medial thickness (cIMT). In this double-blind, placebo-controlled clinical study 984 patients were randomized (of whom 876 were analyzed) in a 5:2 ratio to CRESTOR 40 mg versus placebo. Ultrasonograms of the carotid walls were used to determine the annualized rate of change per patient from baseline to two years in mean maximum cIMT of 12 measured segments. The estimated difference in the rate of change in the maximum cIMT analyzed over all 12 carotid artery sites between patients treated with CRESTOR and placebo-treated patients was -0.0145 mm/year (95% CI −0.0196, −0.0093; p<0.0001). The annualized rate of change from baseline for the placebo group was +0.0131 mm/year (p<0.0001). The annualized rate of change from baseline for the group treated with CRESTOR was −0.0012 mm/year (p=0.32).

At an individual patient level in the group treated with CRESTOR, 52.1% of patients demonstrated an absence of disease progression (defined as a negative annualized rate of change), compared to 37.7% of patients in the placebo group.

14.9 Primary Prevention of Cardiovascular Disease

In the Justification for the Use of Statins in Primary Prevention: An Intervention Trial Evaluating Rosuvastatin (JUPITER) study, the effect of CRESTOR (rosuvastatin calcium) on the occurrence of major cardiovascular (CV) disease events was assessed in 17,802 men (≥50 years) and women (≥60 years) who had no clinically evident cardiovascular disease, LDL-C levels <130 mg/dL (3.3 mmol/L) and hs-CRP levels ≤2 mg/L. The study population had an estimated baseline coronary heart disease risk of 11.6% over 10 years based on the Framingham risk criteria and included a high percentage of patients with additional risk factors such as hypertension (58%), low HDL-C levels (23%), cigarette smoking (16%), or a family history of premature CHD (12%). Study participants had a median baseline LDL-C of 108 mg/dL and hs-CRP of 4.3 mg/L. Study participants were randomly assigned to placebo (n=8501) or rosuvastatin 20 mg once daily (n=8501) and were followed for a mean duration of 2 years. The JUPITER study was stopped early by the Data Safety Monitoring Board due to meeting predefined stopping rules for efficacy in rosuvastatin-treated subjects.

The primary end point was a composite end point consisting of the time-to-first occurrence of any of the following major CV events: CV death, nonfatal myocardial infarction, nonfatal stroke, hospitalization for unstable angina or an arterial revascularization procedure.

Rosuvastatin significantly reduced the risk of major CV events (252 events in the placebo group vs. 142 events in the rosuvastatin group) with a statistically significant (p<0.001) relative risk reduction of 44% and absolute risk reduction of 1.2% (see Figure 2). The risk reduction for the primary end point was consistent across the following predefined subgroups: age, sex, race, smoking status, family history of premature CHD, body mass index, LDL-C, HDL-C, and hsCRP levels.
The individual components of the primary end point are presented in Figure 3. Rosuvastatin significantly reduced the risk of nonfatal myocardial infarction, nonfatal stroke, and arterial revascularization procedures. There were no significant treatment differences between the rosvastatin and placebo groups for death due to cardiovascular causes or hospitalizations for unstable angina.

Rosuvastatin significantly reduced the risk of myocardial infarction (6 fatal events and 62 nonfatal events in placebo-treated subjects vs. 9 fatal events and 22 nonfatal events in rosvastatin-treated subjects) and the risk of stroke (6 fatal events and 58 nonfatal events in placebo-treated subjects vs. 9 fatal events and 22 nonfatal events in rosvastatin-treated subjects).

In a post-hoc subgroup analysis of JUPITER subjects (n=1405; rosvastatin=725, placebo=680) with a hsCRP ≥2 mg/L and no other traditional risk factors (smoking, BP ≥140/90 or taking antihypertensives, low HDL C, hsCRP, total cholesterol and serum triglyceride levels (p<0.001 for all versus placebo).

At one year, rosvastatin increased HDL C and reduced LDL C, hsCRP, total cholesterol and serum triglyceride levels (p<0.001 for all versus placebo).
PATIENT INFORMATION
CRESTOR® (Kres-tor)
rosuvastatin calcium
Tablets

Read this Patient Information carefully before you start taking CRESTOR and each time you get a refill. If you have any questions about CRESTOR, ask your doctor. Only your doctor can determine if CRESTOR is right for you.

What is CRESTOR?
CRESTOR is a prescription medicine that contains a cholesterol-lowering medicine called rosuvastatin calcium. Most of the cholesterol in your blood is made in the liver. CRESTOR works by reducing cholesterol in two ways: CRESTOR blocks an enzyme in the liver causing the liver to make less cholesterol, and CRESTOR increases the uptake and breakdown by the liver of cholesterol already in the blood.

- CRESTOR is used along with diet to:
  - lower the level of your “bad” cholesterol (LDL)
  - increase the level of your “good” cholesterol (HDL)
  - lower the level of fat in your blood (triglycerides)
  - slow the buildup of fatty deposits (plaque) in the walls of blood vessels

- CRESTOR is used to treat:
  - adults who cannot control their cholesterol levels by diet and exercise alone
  - children 8 to 17 years of age with heterozygous familial hypercholesterolemia (an inherited condition that causes high levels of LDL)
  - children 7 to 17 years of age with homozygous familial hypercholesterolemia (an inherited condition that causes high levels of LDL).

CRESTOR is not approved for use in children with heterozygous familial hypercholesterolemia younger than 8 years of age or for use in children with homozygous familial hypercholesterolemia younger than 7 years of age.

CRESTOR is used to reduce the risk of heart attacks and strokes in men 50 years of age and older and women 60 years of age and older who do not have known heart disease but do have certain additional risk factors.

It is not known if CRESTOR is safe and effective in people who have Friedrickson Type I and V dyslipidemias.

Who should not take CRESTOR?
Do not take CRESTOR if you:
- are allergic to rosuvastatin calcium or any of the ingredients in CRESTOR. See the end of this leaflet for a complete list of ingredients in CRESTOR.
- have liver problems.
- are pregnant or think you may be pregnant, or are planning to become pregnant. CRESTOR may harm your unborn baby. If you become pregnant, stop taking CRESTOR and call your doctor right away. If you are not planning to become pregnant you should use effective birth control (contraception) while you are taking CRESTOR.
- are breastfeeding. Medicines like CRESTOR can pass into your breast milk and may harm your baby.

What should I tell my doctor before and while taking CRESTOR?
Tell your doctor if you:
- have unexplained muscle aches or weakness
- have or have had kidney problems
- have or have had liver problems
- drink more than 2 glasses of alcohol daily
- have thyroid problems
- are 65 years of age or older
- are of Asian descent
- are pregnant or think you may be pregnant, or are planning to become pregnant
- are breastfeeding
Tell your doctor about all the medicines you take, including prescription and over-the-counter medicines, vitamins, and herbal supplements. Talk to your doctor before you start taking any new medicines. Taking CRESTOR with certain other medicines may affect each other causing side effects. CRESTOR may affect the way other medicines work, and other medicines may affect how CRESTOR works.

Especially tell your doctor if you take:
- cyclosporine (a medicine for your immune system)
- gemfibrozil (a fibric acid medicine for lowering cholesterol)
- anti-viral medicines including HIV or hepatitis C protease inhibitors (such as lopinavir, ritonavir, fosamprenavir, tipranavir, atazanavir, or simeprevir)
- certain anti-fungal medicines (such as itraconazole, ketoconazole and fluconazole)
- coumarin anticoagulants (medicines that prevent blood clots, such as warfarin)
- niacin or nicotinic acid
- fibric acid derivatives (such as fenofibrate)
- colchicine (a medicine used to treat gout)

Ask your doctor or pharmacist for a list of these medicines if you are not sure.

How should I take CRESTOR?

- Take CRESTOR exactly as your doctor tells you to take it.
- Take CRESTOR, by mouth, 1 time each day. Swallow the tablet whole.
- CRESTOR can be taken at any time of day, with or without food.
- Do not change your dose or stop CRESTOR without talking to your doctor, even if you are feeling well.
- Your doctor may do blood tests to check your cholesterol levels before and during your treatment with CRESTOR. Your doctor may change your dose of CRESTOR if needed.
- Your doctor may start you on a cholesterol lowering diet before giving you CRESTOR. Stay on this diet when you take CRESTOR.
- Wait at least 2 hours after taking CRESTOR to take an antacid that contains a combination of aluminum and magnesium hydroxide.
- If you miss a dose of CRESTOR, take it as soon as you remember. However, do not take 2 doses of CRESTOR within 12 hours of each other.
- If you take too much CRESTOR or overdose, call your doctor or go to the nearest hospital emergency room right away.

What are the Possible Side Effects of CRESTOR?

CRESTOR may cause serious side effects, including:
- Muscle pain, tenderness and weakness (myopathy). Muscle problems, including muscle breakdown, can be serious in some people and rarely cause kidney damage that can lead to death. Tell your doctor right away if:
  - you have unexplained muscle pain, tenderness, or weakness, especially if you have a fever or feel more tired than usual, while you take CRESTOR.
  - you have muscle problems that do not go away even after your doctor has told you to stop taking CRESTOR. Your doctor may do further tests to diagnose the cause of your muscle problems.

Your chances of getting muscle problems are higher if you:
- are taking certain other medicines while you take CRESTOR
- are 65 years of age or older
- have thyroid problems (hypothyroidism) that are not controlled
- have kidney problems
- are taking higher doses of CRESTOR

- Liver problems. Your doctor should do blood tests to check your liver before you start taking CRESTOR and if you have symptoms of liver problems while you take CRESTOR. Call your doctor right away if you have any of the following symptoms of liver problems:
  - feel unusually tired or weak
  - loss of appetite
  - upper belly pain
  - dark urine
  - yellowing of your skin or the whites of your eyes
The most common side effects may include: headache, muscle aches and pains, abdominal pain, weakness, and nausea.
Additional side effects that have been reported with CRESTOR include memory loss and confusion.
Tell your doctor if you have any side effect that bothers you or that does not go away.
These are not all the possible side effects of CRESTOR. For more information, ask your doctor or pharmacist.
Call your doctor for medical advice about side effects. You may report side effects to FDA at 1-800-FDA-1088.

How should I store CRESTOR?
• Store CRESTOR at room temperature, between 68°F to 77°F (20°C to 25°C) and in a dry place.
• Safely throw away medicine that is out of date or no longer needed.
Keep CRESTOR and all medicines out of the reach of children.

What are the Ingredients in CRESTOR?
Active Ingredient: rosuvastatin as rosuvastatin calcium
Inactive Ingredients: microcrystalline cellulose NF, lactose monohydrate NF, tribasic calcium phosphate NF, crospovidone NF, magnesium stearate NF, hypromellose NF, triacetin NF, titanium dioxide USP, yellow ferric oxide, and red ferric oxide NF.

General Information about the safe and effective use of CRESTOR
Medicines are sometimes prescribed for purposes other than those listed in a Patient Information leaflet. Do not use CRESTOR for a condition for which it was not prescribed. Do not give CRESTOR to other people, even if they have the same medical condition you have. It may harm them.
You can ask your pharmacist or doctor for information about CRESTOR that is written for health professionals.