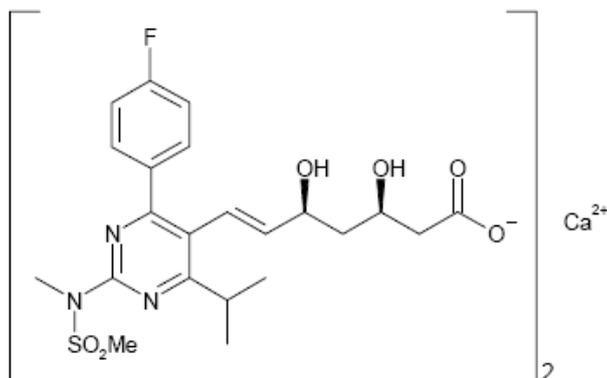


CHEMMART ROSUVASTATIN 5 MG, 10 MG, 20 MG & 40 MG TABLETS**NAME OF THE MEDICINE**

Rosuvastatin calcium.

Chemical Name: *bis* [(3*R*, 5*S*, 6*E*)-7-{4-(4-fluorophenyl)-2-[*N*-methyl(methanesulfonyl)amino]-6-isopropyl-2-pyrimidin-5-yl}-3,5-dihydroxyhept-6-enoic acid] calcium salt

Structural Formula:

Molecular Formula: $(C_{22}H_{27}FN_3O_6S)_2Ca$

Molecular Weight: 1001.14

CAS Registry No: 147098-20-2

DESCRIPTION

Rosuvastatin calcium is a 3-hydroxy-3-methylglutaryl coenzyme A (HMG-CoA) reductase inhibitor for the treatment of dyslipidaemia. Rosuvastatin calcium is an amorphous solid, which is slightly soluble in water (7.8 mg/mL at 37°C) and has a pKa of 4.6. Rosuvastatin calcium is the (3*R*, 5*S*, 6*E*) enantiomer.

Each tablet contains 5 mg, 10 mg, 20 mg or 40 mg rosuvastatin calcium, as the active ingredient. In addition, each tablet contains the following inactive ingredients: lactose, cellulose-microcrystalline, crospovidone, magnesium stearate, colloidal anhydrous silica, hypromellose, hydroxypropylcellulose, macrogol 8000.

PHARMACOLOGY

Rosuvastatin is a fully synthetic competitive inhibitor of HMG-CoA reductase, the rate-limiting enzyme that converts 3-hydroxy-3-methylglutaryl coenzyme A to mevalonate, a precursor of cholesterol. Triglycerides (TG) and cholesterol in the liver are incorporated, with apolipoprotein B (ApoB), into very low density lipoprotein (VLDL) and released into the plasma for delivery to peripheral tissues. VLDL particles are TG-rich. Cholesterol-rich low density lipoprotein (LDL) is formed from VLDL and is cleared primarily through the high affinity LDL receptor in the liver. Rosuvastatin produces its lipid-modifying effects in two ways; it increases the number of hepatic LDL receptors on the cell-surface, enhancing uptake and catabolism of LDL and it inhibits the hepatic synthesis of VLDL, thereby reducing the total number of VLDL and LDL particles.

High density lipoprotein (HDL), which contains ApoA-I, is involved, amongst other functions, in transport of cholesterol from tissues back to the liver (reverse cholesterol transport).

The involvement of LDL-C in atherogenesis has been well documented. Epidemiological studies have established that high LDL-C and TG and low HDL-C and ApoA-I have been linked to a higher risk of

cardiovascular disease. Intervention studies have shown the benefits on mortality and CV event rates of lowering LDL-C and TG or raising HDL-C. More recent data has linked the beneficial effects of HMG-CoA reductase inhibitors to the lowering of non-HDL-C (i.e. all circulating cholesterol not in HDL) and ApoB or reducing the ApoB/ApoA-I ratio.

Pharmacokinetics

A study was conducted which compared this product with the reference product and the two products were shown to be bioequivalent. In this study, the 90% confidence intervals for the ratio of AUC_{0-1} and C_{max} were both found to be between 80% and 125%.

Absorption

Peak plasma levels occur 5 hours after dosing. Absorption increases linearly over the dose range. Absolute bioavailability is 20%. The half-life is 19 hours and does not increase with increasing dose. There is minimal accumulation on repeated once daily dosing.

Distribution

Volume of distribution of rosuvastatin at steady state is approximately 134 litres. Rosuvastatin is approximately 90% bound to plasma proteins, mostly albumin.

Metabolism

Rosuvastatin is not extensively metabolized; approximately 10% of a radio-labelled 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 rosuvastatin. Overall, greater than 90% of active plasma HMG-CoA reductase inhibitory activity is accounted for by rosuvastatin.

Excretion

Rosuvastatin undergoes limited metabolism (approximately 10%), mainly to the N-desmethyl form, and 90% is eliminated as unchanged drug in the faeces, with the remainder being excreted in the urine.

Clinical Efficacy

A therapeutic response (reduction in LDL-C) to rosuvastatin 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.

Special Populations

Race

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 C_{max}) in Asian subjects when compared with a Caucasian control group (see **PRECAUTIONS** and **DOSAGE AND ADMINISTRATION**).

CLINICAL TRIALS

Hypercholesterolaemia and Mixed Dyslipidaemia (Fredrickson Type IIa and IIb)

Rosuvastatin reduces total-C, LDL-C, ApoB, non-HDL-C and TG, and increases HDL-C, in patients with hypercholesterolaemia and mixed dyslipidaemia.

The clinical trial program showed that rosuvastatin was effective in a wide variety of patient populations regardless of race, age or sex and in special populations, such as diabetics or patients with familial hypercholesterolaemia.

Active-Controlled Study: Rosuvastatin was compared with the HMG-CoA reductase inhibitors atorvastatin, simvastatin and pravastatin in a multicentre, open-label, dose-ranging study of 2,239 patients with Type IIa and IIb hypercholesterolaemia. After randomization, patients were treated for 6 weeks with a single daily dose of either rosuvastatin, atorvastatin, simvastatin, or pravastatin (Figure 1

and Table 1). The primary endpoint for this study was the percent change from baseline in LDL-C at week 6.

Figure 1
Percent LDL-C Change by Dose of Rosuvastatin, Atorvastatin, Simvastatin and Pravastatin at Week 6 in Patients with Type IIa / IIb Dyslipidaemia

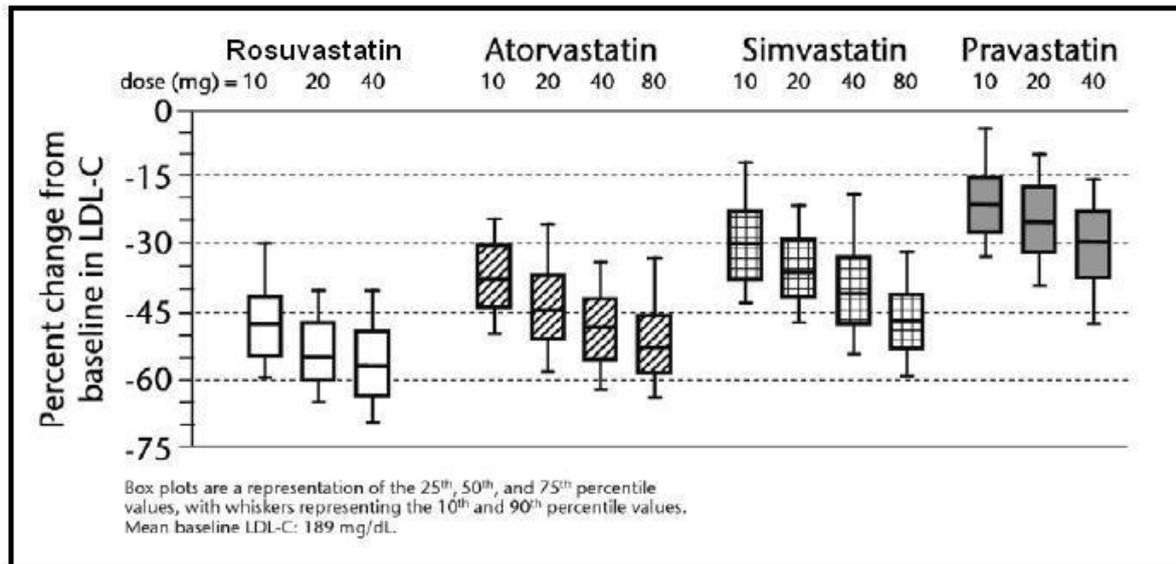


Table 1
Least Squares Mean* % Change in LDL-C from Baseline to Week 6 for Each Statin Treatment Group
n = Number of Patients at Each Dose of Each Statin

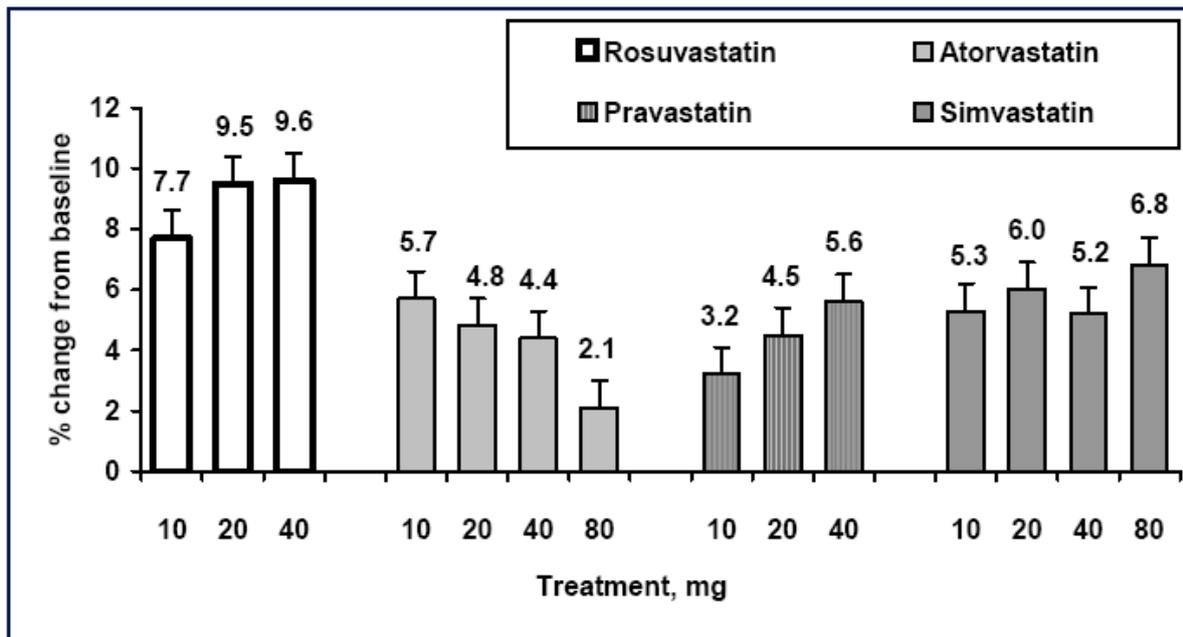
Treatment	Treatment Daily Dose							
	10 mg		20 mg		40 mg		80 mg	
	n	Mean (95% CI)	n	Mean (95% CI)	n	Mean (95% CI)	n	Mean (95% CI)
Rosuvastatin	156	-46 ^a (-48, -44)	160	-52 ^b (-54, -50)	157	-55 ^c (-57, -53)	-	-
Atorvastatin	158	-37 (-39, -35)	154	-43 (-45, -41)	156	-48 (-50, -46)	165	-51 (-53, -49)
Pravastatin	160	-20 (-22, -18)	164	-24 (-26, -22)	161	-30 (-32, -28)	-	-
Simvastatin	165	-28 (-30, -26)	162	-35 (-37, -33)	158	-39 (-41, -37)	163	-46 (-48, -44)

* Corresponding standard errors are approximately 1.00.

- a Rosuvastatin 10 mg reduced LDL-C significantly more than atorvastatin 10 mg; pravastatin 10 mg, 20 mg and 40 mg; simvastatin 10 mg, 20 mg and 40 mg ($p < 0.002$)
b Rosuvastatin 20 mg reduced LDL-C significantly more than atorvastatin 20 mg and 40 mg; pravastatin 20 mg and 40 mg; simvastatin 20 mg, 40 mg and 80 mg ($p < 0.002$)
c Rosuvastatin 40 mg reduced LDL-C significantly more than atorvastatin 40 mg; pravastatin 40 mg; simvastatin 40 mg and 80 mg ($p < 0.002$)

The percentage change from baseline in HDL-C at week 6 is shown in Figure 2 below:

Figure 2
Mean (Least Squares) Percent Change from Baseline in HDL-C to Week 6



p < 0.02 Rosuvastatin 10 mg vs. Pravastatin 10 mg

p < 0.002 Rosuvastatin 20 mg vs. Atorvastatin 20 mg, 40 mg, 80 mg; Pravastatin 20 mg, 40 mg; Simvastatin 40 mg

p < 0.002 Rosuvastatin 40 mg vs. Atorvastatin 40 mg, 80 mg; Pravastatin 40 mg; Simvastatin 40 mg

Data presented as LS means ± SE

The mean percent change in HDL-C from baseline to Week 6 for each statin treatment group represented in Figure 2 is summarized with 95% CI in Table 2.

Table 2
Least Squares Mean % change in HDL-C from Baseline to Week 6 for Each Statin Treatment Group
n = Number of Patients at Each Dose of Each Statin

Treatment	Treatment Daily Dose							
	n	10 mg Mean (95% CI)	n	20 mg Mean (95% CI)	n	40 mg Mean (95% CI)	n	80 mg Mean (95% CI)
Rosuvastatin	156	8 (6, 9)	160	9 (8, 11)	157	10 (8, 11)	-	-
Atorvastatin	158	6 (4, 7)	154	5 (3, 7)	156	4 (3, 6)	165	2 (0, 4)
Pravastatin	160	3 (2, 5)	164	4 (3, 6)	161	6 (4, 7)	-	-
Simvastatin	165	5 (4, 7)	162	6 (4, 8)	158	5 (4, 6)	163	7 (5, 8)

Table 3 below summarizes the pooled lipid variable data for rosuvastatin 5 and 10 mg from 5 Phase III efficacy trials (Trials 24-28).

Table 3
Pooled Lipid Variable Data for Rosuvastatin at 12 Weeks from Trials 24-28.

The data presented as both the mean % and mean absolute change (mg/dL) from baseline with 95% CI for each lipid variable.

n = Number of Patients at Each Dose of Rosuvastatin

Dose	Rosuvastatin 5 mg n = 630		Rosuvastatin 10 mg n = 615	
	% change (95% CI)	Absolute change mg/dL (95% CI)	% change (95% CI)	Absolute change mg/dL (95% CI)
LDL-C	-41 (-42, -40)	-78 (-80, -76)	-47 (-48, -46)	-88 (-90, -86)
TC	-29 (-30, -29)	-81 (-83, -76)	-33 (-34, -32)	-91 (-93, -88)
HDL-C	8 (7, 9)	4 (3, 4)	9 (8, 10)	4 (4, 5)
TG	-16 (-18, -14)	-33 (-37, -29)	-20 (-21, -18)	-37 (-41, -34)
Non HDL-C	-38 (-39, -37)	-85 (-87, -82)	-43 (-44, -42)	-95 (-98, -93)
ApoB	-33 (-33, -32)	-59 (-61, -57)	-37 (-38, -36)	-66 (-68, -93)
ApoA-I	6 (5, 7)	8 (6, 9)	7 (6, 8)	9 (7, 10)

Heterozygous Familial Hypercholesterolaemia

In a study of patients with heterozygous familial hypercholesterolaemia, 435 subjects were given rosuvastatin 20 mg to 80 mg in a force-titration design. All doses of rosuvastatin showed a beneficial effect on lipid parameters and treatment to target goals. Following titration to 40 mg (12 weeks of treatment), LDL-C was reduced by 53%.

Hypertriglyceridaemia (Fredrickson Type IIb & IV)

In a double-blind, placebo-controlled, dose-response study in patients with baseline TG levels from 273 to 817 mg/dL, rosuvastatin given as a single daily dose (5 to 40 mg) over 6 weeks significantly reduced serum TG levels (Table 4).

Table 4
Dose-Response in Patients With Primary Hypertriglyceridaemia Over 6 Weeks Dosing Median (Min, Max) Percent Change From Baseline

Dose	Placebo n = 26	Rosuvastatin 5 mg n = 25	Rosuvastatin 10 mg n = 23	Rosuvastatin 20 mg n = 27	Rosuvastatin 40 mg n = 25
TG	1 (-40, 72)	-21 (-58, 38)	-37 (-65, 5)	-37 (-72, 11)	-43 (-80, -7)
Non HDL-C	2 (-13, 19)	-29 (-43, -8)	-49 (-59, -20)	-43 (-74, -12)	-51 (-62, -6)
VLDL-C	2 (-36, 53)	-25 (-62, 49)	-48 (-72, 14)	-49 (-83, 20)	-56 (-83, 10)
Total-C	1 (-13, 17)	-24 (-40, -4)	-40 (-51, -14)	-34 (-61, -11)	-40 (-51, -4)
LDL-C	5 (-30, 52)	-28 (-71, 2)	-45 (-59, 7)	-31 (-66, 34)	-43 (-61, 3)
HDL-C	-3 (-25, 18)	3 (-38, 33)	8 (-8, 24)	22 (-5, 50)	17 (-14, 63)

Homozygous Familial Hypercholesterolaemia

In a force-titration open label study, 42 patients with homozygous familial hypercholesterolaemia were evaluated for their response to rosuvastatin 20–40 mg titrated at a 6-week interval. In the overall population, the mean LDL-C reduction was 22%. In the 27 patients with at least a 15% reduction by week 12 (considered to be the responder population), the mean LDL-C reduction was 26% at the 20 mg dose and 30% at the 40 mg dose. Of the 13 patients with an LDL-C reduction of less than 15%, 3 had no response or an increase in LDL-C.

High Risk Hypercholesterolaemic Patients

In a 26-week double-blind, forced-titration study, 871 high risk hypercholesterolaemic patients with established coronary heart disease (CHD) or multiple risk factors for CHD, were randomized to receive either rosuvastatin or atorvastatin. Patients in the rosuvastatin arm were titrated to 40 mg, while in the atorvastatin arm patients were titrated to 80 mg. The primary objective of the study was to compare rosuvastatin 40 mg with atorvastatin 80 mg in high risk patients, by measuring the percentage change in LDL-C from baseline to Week 8. Table 5 summarizes the results for the mean percentage change from baseline at 8 weeks in lipid and lipoprotein variables.

Table 5
Summary of the Mean Percentage Changes in Lipid and Lipoprotein Variables
in High Risk Hypercholesterolaemic Patients After 8 Weeks Treatment
with Either Rosuvastatin 40 mg or Atorvastatin 80 mg

Variable	Mean % Change ^a RSV 40 mg N = 432	Mean % Change ^a ATV 80 mg N = 439	Difference in LS mean % changes	95% CI [*]	p value ^b
LDL-C	-55.89	-52.18	-3.71	-5.61 to -1.82	<0.001
HDL-C	9.58	4.35	5.23	3.04 to 7.43	<0.001
TC	-40.40	-39.27	-1.13	-2.63 to 0.36	0.138 ^c
Non HDL-C	-50.75	-48.27	-2.48	-4.25 to -0.72	0.006
ApoB	-44.64	-42.29	-2.35	-4.17 to -0.52	0.012
ApoA-I	4.20	-0.47	4.67	2.71 to 6.63	<0.001
TG	-22.21	-27.02	4.81	1.10 to 8.53	0.011 ^d

a Mean % change from baseline

* 95% confidence interval for the difference between the least squares means

b p < 0.05 was statistically significant

c ns = not significant

d Statistically significant in favour of Atorvastatin

RSV = rosuvastatin; ATV = atorvastatin; LS = least squares

Ultrasonographic Study in Carotid Atherosclerosis

In a multi-centre, double-blind, placebo-controlled clinical study (METEOR), 984 patients between 45 and 70 years of age and at low risk for coronary heart disease (defined as Framingham risk <10% over 10 years), with a mean LDL-C of 4.0 mmol/l (154.5 mg/dL), but with subclinical atherosclerosis (detected by Carotid Intima Media Thickness (CIMT), which is measured using B-mode ultrasonography) were randomized to 40 mg rosuvastatin once daily or placebo for 2 years, using a 5:2 randomisation split (rosuvastatin: placebo).

Rosuvastatin significantly slowed the rate of progression of the maximum CIMT for the 12 carotid artery sites compared to placebo by -0.0145 mm/year (95% confidence interval -0.0196, -0.0093; p < 0.0001). The change from baseline was -0.0014 mm/year [-0.12%/year (non-significant)] for rosuvastatin compared to a progression of +0.0131 mm/year [1.12%/year (p < 0.0001)] for placebo.

There was an absence of disease progression in 52.1% of patients in the rosuvastatin group compared to 37.7% of patients in the placebo group (p = 0.0002). A multi-level fixed effects regression model was used for the statistical analysis and the cited results were calculated using the ITT population.

No direct correlation between CIMT decrease and reduction of the risk of cardiovascular events has yet been demonstrated. The population studied in METEOR is low risk for coronary heart disease and does not represent the target population of rosuvastatin 40 mg. The 40 mg dose should only be prescribed in patients with severe hypercholesterolaemia at high cardiovascular risk (see **DOSAGE AND ADMINISTRATION**).

Prevention of Cardiovascular Events

In the Justification for the Use of Statins in Primary Prevention: An Intervention Trial Evaluating Rosuvastatin (JUPITER) study, the effect of Rosuvastatin calcium on the occurrence of major atherosclerotic 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 < 3.3 mmol/L (130 mg/dL) 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 2.8 mmol/L (108 mg/dL) and hsCRP of 4.3 mg/L. The average age of study participants was 66 years. Study participants were randomly assigned to placebo (n=8901) or rosuvastatin 20 mg once daily (n=8901) 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 endpoint was a composite endpoint consisting of the time-to-first occurrence of any of the following CV events: CV death, non-fatal myocardial infarction, non-fatal stroke, hospitalisation for unstable angina or an arterial revascularization procedure.

Rosuvastatin significantly reduced the risk of 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%; absolute risk reduction of 1.2% (see Figure 3 and Table 6). The benefit was apparent within the first 6 months of treatment (HR 0.62; 95% CI 0.40-0.96; $p = 0.029$). The risk reduction was consistent across multiple predefined population subsets based on assessments of age, sex, race, smoking status, family history of premature CHD, body mass index, LDL-C, HDL-C or hsCRP levels at the time of entry into the study.

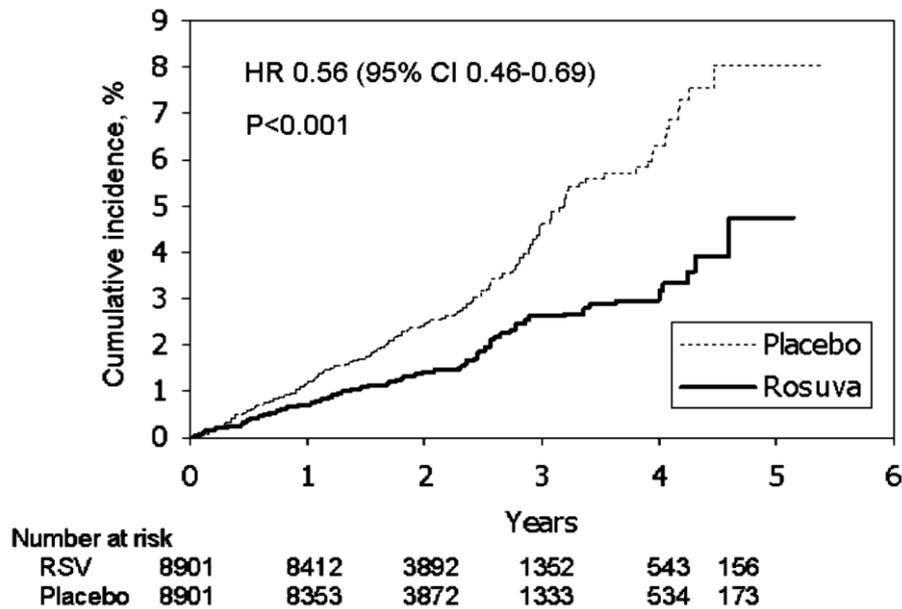
Table 6: Summary of Risk Reductions from JUPITER trial

Endpoint	Placebo N (%)	RSV 20 mg N (%)	HR (95% CI)	RRR* (%)	ARR* (%)
Primary (major cardiovascular event)	252 (2.8)	142 (1.6)	0.56 (0.46-0.69) $p < 0.001$	44	1.2
Secondary					
CV death, stroke and MI	158 (1.8)	83 (0.9)	0.52 (0.40-0.68)	48	0.9
Fatal or non-fatal MI	68 (0.8)	31 (0.3)	0.46 (0.30-0.70)	54	0.3
Fatal or non fatal stroke	64 (0.7)	33 (0.4)	0.52 (0.34-0.79)	48	0.3
Total mortality	247(2.8)	198 (2.2)	0.80 (0.67-0.97)	20	0.6
Venous thromboembolism	46 (0.5)	26 (0.3)	0.57 (0.35-0.91)	43	0.2

HR = Hazard Ratio; RRR = Relative Risk Reduction; ARR = Absolute Risk Reduction * Calculated values were at 1.9 years median follow-up

There were no statistically significant reductions in the rate of non-cardiovascular death or the incidence of bone fractures in the rosuvastatin treated group compared to placebo.

Figure 3. Time to occurrence of major cardiovascular events in JUPITER



The individual components of the primary end-point are presented in Figure 4. Rosuvastatin significantly reduced the risk of nonfatal myocardial infarction, nonfatal stroke, and arterial revascularization procedures. There were no significant treatment differences between the rosuvastatin and placebo groups for death due to cardiovascular causes or hospitalizations for unstable angina.

Figure 4. Major CV events by treatment group in JUPITER

End point	Number of events		HR (95% CI)	P value	Hazard Ratio (---95%---)
	Rosuva 20 mg (n=8901) n (rate*)	Placebo 20 mg (n=8901) n (rate*)			
Primary end point (MCE)	142 (7.6)	252 (13.6)	0.56 (0.46, 0.69)	<0.001	
Cardiovascular death**	35 (1.9)	44 (2.4)	0.80 (0.51, 1.24)	0.315	
Nonfatal Stroke	30 (1.6)	58 (3.1)	0.52 (0.33, 0.80)	0.003	
Nonfatal MI	22 (1.2)	62 (3.3)	0.35 (0.22, 0.58)	<0.001	
Hospitalized unstable Angina	16 (0.9)	27 (1.5)	0.59 (0.32, 1.10)	0.093	
Arterial revascularization	71 (3.8)	131 (7.1)	0.54 (0.41, 0.72)	<0.001	

* event rate/1000-patient years

** Cardiovascular death included fatal MI, fatal stroke, sudden death, and other adjudicated causes of CV death

In a post-hoc subgroup analysis of JUPITER subjects (n=1405; rosuvastatin = 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) other than age, after adjustment for high HDL-C, there was no significant treatment benefit with rosuvastatin treatment.

At one year, rosuvastatin increased HDL-C (1.41 vs 1.34 mmol/L) and reduced LDL-C (1.59 mmol/L vs. 2.82 mmol/L), hsCRP (2.20 vs. 3.50 mg/L), total cholesterol and serum triglyceride levels ($p < 0.001$ for all versus placebo).

In separate studies of patients with established heart failure (CORONA study) and those with end-stage renal disease (AURORA study), rosuvastatin did not reduce cardiovascular events.

INDICATIONS

Rosuvastatin should be used as an adjunct to diet when the response to diet and exercise is inadequate.

Prevention of Cardiovascular Events

Rosuvastatin is indicated for prevention of major cardiovascular events in men ≥ 50 years old and women ≥ 60 years old with no clinically evident cardiovascular disease but with at least two conventional risk factors for cardiovascular disease (hypertension, low HDL-C, smoking, or a family history of premature coronary heart disease).

Rosuvastatin is indicated to:

- Reduce the risk of nonfatal myocardial infarction
- Reduce the risk of nonfatal stroke
- Reduce the risk of coronary artery revascularisation procedures.

In Patients with Hypercholesterolaemia

Rosuvastatin is indicated for the treatment of hypercholesterolaemia (including familial hypercholesterolaemia).

Prior to initiating therapy with Rosuvastatin, secondary causes of hypercholesterolaemia (e.g. poorly controlled diabetes mellitus, hypothyroidism, nephrotic syndrome, dysproteinaemias, obstructive liver disease, other drug therapy, alcoholism) should be identified and treated.

CONTRAINDICATIONS

- Known hypersensitivity to any of the ingredients.
- Patients with active liver disease including unexplained, persistent elevations of serum transaminases and any serum transaminase elevation exceeding 3 x the upper limit of normal (ULN).
- During pregnancy, in nursing mothers and in women of childbearing potential, unless they are taking adequate contraceptive precautions.
- Concomitant use with fusidic acid (see **PRECAUTIONS** and **INTERACTIONS WITH OTHER MEDICINES**).
- Rosuvastatin 40 mg is contraindicated in patients with pre-disposing factors for myopathy/ rhabdomyolysis. Such factors include:
 - hypothyroidism
 - personal or family history of hereditary muscular disorders
 - previous history of muscular toxicity with another HMG-CoA reductase inhibitor or fibrate
 - alcohol abuse
 - situations where an increase in rosuvastatin plasma levels may occur (see **PHARMACOLOGY - Pharmacokinetics**, **PRECAUTIONS** and **INTERACTIONS WITH OTHER MEDICINES**).
 - severe renal impairment ($Cl_{cr} < 30$ mL/min)
 - Asian patients
 - concomitant use of fibrates.

PRECAUTIONS

Liver Effects

HMG-CoA reductase inhibitors, like some other lipid-lowering therapies, have been associated with biochemical abnormalities of liver function. The incidence of persistent elevations ($> 3\times$ the upper limit of normal [ULN] occurring on 2 or more consecutive occasions) in serum transaminases in fixed dose studies was 0.4, 0, 0 and 0.1% in patients who received rosuvastatin 5, 10, 20 and 40 mg, respectively. 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 rosuvastatin 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.

Liver function tests should be performed before initiation of treatment and periodically thereafter. Patients who develop increased transaminase levels should be monitored until the abnormalities have resolved. Should an increase in ALT or AST of $> 3\times$ ULN persist, reduction of dose or withdrawal of rosuvastatin is recommended.

Rosuvastatin should be used with caution in patients who consume substantial quantities of alcohol and/or have a history of liver disease (see **PRECAUTIONS - Special Patient Populations** and **DOSAGE AND ADMINISTRATION**). Active liver disease or unexplained persistent transaminase elevations are contraindications to the use of rosuvastatin (see **CONTRAINDICATIONS**).

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

Myopathy / Rhabdomyolysis

Rare cases of rhabdomyolysis with acute renal failure secondary to myoglobinuria have been reported with rosuvastatin and with other drugs in this class.

Uncomplicated myalgia has been reported in rosuvastatin treated patients (see **ADVERSE EFFECTS**). Creatine kinase (CK) elevations ($> 10\times$ upper limit of normal) occurred in 0.2% to 0.4% of patients taking rosuvastatin at doses up to 40 mg in clinical studies. Treatment-related myopathy, defined as muscle aches or muscle weakness in conjunction with increases in CK values $>10\times$ upper limit of normal, was reported in up to 0.1% of patients taking rosuvastatin doses of up to 40 mg in clinical studies. In clinical trials, the incidence of myopathy and rhabdomyolysis increased at doses of rosuvastatin above the recommended dosage range (5 to 40 mg). In post-marketing experience, effects on skeletal muscle, e.g. uncomplicated myalgia, myopathy and, rarely, rhabdomyolysis have been reported in patients treated with HMG-CoA reductase inhibitors including rosuvastatin. As with other HMG-CoA reductase inhibitors, reports of rhabdomyolysis with rosuvastatin are rare, but higher at the highest marketed dose (40 mg). Factors that may predispose patients to myopathy with HMG-CoA reductase inhibitors include advanced age (≥ 65 years), hypothyroidism and renal insufficiency. The incidence of myopathy increased at doses of rosuvastatin above the recommended dosage range.

Consequently:

1. Rosuvastatin should be prescribed with caution in patients with predisposing factors for myopathy, such as renal impairment, advanced age and hypothyroidism.
2. Patients should be advised to promptly report unexplained muscle pain, tenderness, or weakness, particularly if accompanied by malaise or fever. Rosuvastatin therapy should be discontinued if markedly elevated CK levels occur or myopathy is diagnosed or suspected.
3. The 40 mg dose of rosuvastatin is reserved only for those patients who are not adequately controlled at the 20 mg dose, considering their level of LDL-C and overall CV risk profile.
4. The risk of myopathy during treatment with rosuvastatin may be increased with concurrent administration of other lipid-lowering therapies or cyclosporin (see **INTERACTIONS WITH OTHER MEDICINES**).

The benefit of further alterations in lipid levels by the combined use of rosuvastatin with fibrates or niacin should be carefully weighed against the potential risks of this combination. Combination therapy with rosuvastatin and gemfibrozil should generally be avoided (see **DOSAGE AND ADMINISTRATION** and **INTERACTIONS WITH OTHER MEDICINES**).

5. The risk of myopathy during treatment with rosuvastatin may be increased in circumstances that increase rosuvastatin drug levels (see **PHARMACOLOGY**, **Special Populations** and **PRECAUTIONS**, **Renal Insufficiency**).
6. Rosuvastatin 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, major surgery, trauma, severe metabolic, endocrine and electrolyte disorders, or uncontrolled seizures).

There have been very rare reports of an immune-mediated necrotising myopathy clinically characterised by persistent proximal muscle weakness and elevated serum creatine kinase during treatment or following discontinuation of statins, including rosuvastatin. Additional neuromuscular and serologic testing may be necessary. Treatment with immunosuppressive agents may be required.

In rosuvastatin trials there was no evidence of increased skeletal muscle effects when rosuvastatin was dosed with any concomitant therapy. However, an increase in the incidence of myositis and myopathy has been seen in patients receiving other HMG-CoA reductase inhibitors together with cyclosporin, nicotinic acid, azole antifungals, macrolide antibiotics and fibric acid derivatives including gemfibrozil (see **ADVERSE EFFECTS**, **INTERACTIONS WITH OTHER MEDICINES** and **DOSAGE AND ADMINISTRATION**).

Fusidic acid must not be co-administered with statins. There have been reports of rhabdomyolysis (including some fatalities) in patients receiving this combination (see **CONTRAINDICATIONS**, **ADVERSE EFFECTS** and **INTERACTIONS WITH OTHER MEDICINES**). In patients where the use of systemic fusidic acid is considered essential, rosuvastatin 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. Rosuvastatin therapy may be re-introduced seven days after the last dose of fusidic acid.

Endocrine Effects

Increases in HbA1c and fasting serum glucose levels have been reported with rosuvastatin. Although clinical studies have shown that rosuvastatin alone does not reduce basal plasma cortisol concentration or impair adrenal reserve, caution should be exercised if rosuvastatin is administered concomitantly with drugs that may decrease the levels or activity of endogenous steroid hormones such as ketoconazole, spironolactone, and cimetidine.

Caution in Prevention of Cardiovascular Events

The long term safety and efficacy of rosuvastatin treatment in patients commencing treatment with LDL-C < 3.4 mmol/L who have been assessed to be at risk of cardiovascular events have not been established. There is also uncertainty associated with the safety of long term intensive reduction of LDL-C to very low levels. Data are currently available for up to 2 years for the 20 mg dose only (see **CLINICAL TRIALS - Prevention of Cardiovascular Events**). The risk benefit balance for longer term use of rosuvastatin in this population has therefore not been established. The benefits of longer term treatment should be weighed against safety and tolerability risks (see **ADVERSE EFFECTS**).

Clinically significant benefit in using rosuvastatin in patients without clinically evident cardiovascular disease and who are assessed as having a low risk of cardiovascular events (men ≥ 50 and women ≥ 60 years of age with hsCRP > 2mg/L, but no other cardiovascular disease risk factor) has not been established.

Use of CRP Testing in Prevention of Cardiovascular Effects

Recent studies indicate that elevated levels of C Reactive Protein (≥ 2 mg/L) may be a marker for increased risk of cardiovascular disease. However, elevated CRP is not a widely established marker of

cardiovascular disease and concerns remain over its validity to predict cardiovascular disease risk. The JUPITER trial was conducted in a population with elevated CRP levels however there is no comparative data of rosuvastatin in patients with normal CRP levels or in patients with elevated CRP levels compared to other traditional cardiovascular risk factors. In conjunction with cardiovascular risk assessment, testing for CRP levels may be useful to assist in determining those individuals at higher risk of cardiovascular events. In the JUPITER trial, the hsCRP test was used but this specific test is not widely available. The usCRP test is also suitable for identifying patients with elevated CRP levels and is widely available.

Diabetes Mellitus

Increases in HbA1c and serum glucose levels have been observed in patients treated with rosuvastatin. An increased frequency of diabetes mellitus has been reported with rosuvastatin in patients with risk factors for diabetes mellitus (see **ADVERSE EFFECTS**).

Interstitial Lung Disease

Exceptional cases of interstitial lung disease have been reported with some statins, 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, rosuvastatin therapy should be discontinued.

Special Patient Populations

Renal Insufficiency

Pharmacokinetic evaluation in subjects with varying degrees of renal impairment, determined that mild to moderate renal disease had little influence on plasma concentrations of rosuvastatin. However, subjects with severe impairment ($Cl_{cr} < 30$ mL/min) had a 3-fold increase in plasma concentration compared to healthy volunteers (see **DOSAGE AND ADMINISTRATION**).

Hepatic Dysfunction

Pharmacokinetic evaluation in subjects with varying degrees of hepatic impairment determined that there was no evidence of increased exposure to rosuvastatin other than in 2 subjects with the most severe liver disease (Child-Pugh scores of 8 and 9). In these subjects systemic exposure was increased by at least 2-fold compared to subjects with lower Child-Pugh scores (see **DOSAGE AND ADMINISTRATION**).

Race

The result of a large pharmacokinetic study conducted in the US demonstrated an approximate 2-fold elevation in median exposure in Asian subjects (having either Filipino, Chinese, Japanese, Korean, Vietnamese or Asian-Indian origin) compared with a Caucasian control group. This increase should be considered when making rosuvastatin dosing decisions for Asian patients (see **PHARMACOLOGY - Pharmacokinetics** and **DOSAGE AND ADMINISTRATION**).

Age and Sex

There was no clinically relevant effect of age or sex on the pharmacokinetics of rosuvastatin.

Use in Pregnancy (Category D)

Category D - drugs which have caused, are suspected to have caused or may be expected to cause, an increased incidence of human foetal malformations or irreversible damage. These drugs may also have adverse pharmacological effects.

Cholesterol and other products of cholesterol biosynthesis are essential components for foetal development, including synthesis of steroids and cell membranes. Since HMG-CoA reductase inhibitors decrease cholesterol synthesis, rosuvastatin is contraindicated during pregnancy. The risk of foetal injury outweighs the benefits of HMG-CoA reductase inhibitor therapy during pregnancy.

In two series of 178 and 134 cases where pregnant women took a HMG-CoA reductase inhibitor (statin) during the first trimester of pregnancy serious foetal abnormalities occurred in several cases. These included limb and neurological defects, spontaneous abortions and foetal deaths. The exact risk of injury to the foetus occurring after a pregnant woman is exposed to a HMG-CoA reductase inhibitor has not been determined. The current data do not indicate that the risk of foetal injury in

women exposed to HMG-CoA reductase inhibitors is high. If a pregnant woman is exposed to a HMG-CoA reductase inhibitor she should be informed of the possibility of foetal injury and discuss the implications with her pregnancy specialist.

Use in Lactation

The safety of rosuvastatin while breast-feeding has not been established. It is not known if rosuvastatin is excreted into human milk, but a study in rats showed that unchanged drug and metabolites are excreted in milk at concentrations up to 3× greater than those in maternal plasma. Therefore rosuvastatin is contraindicated in breastfeeding women.

The results of animal and *in vitro* studies of rosuvastatin are summarized below.

Carcinogenicity

Oral administration of rosuvastatin for 2 years to rats and mice increased the development of benign uterine stromal polyps in both species and malignant uterine sarcomas and adenocarcinomas in rats. Systemic concentrations of rosuvastatin (AUC) at the no-effect dose for benign and malignant uterine tumours in either species were lower than or similar to those expected in humans taking 40 mg/day rosuvastatin.

Genotoxicity

Rosuvastatin showed no evidence for mutagenic activity (*in vitro* assays of reverse mutation in bacterial cells and forward mutation in mammalian cells) or clastogenic activity (*in vitro* assay in mammalian cells and *in vivo* in the mouse micronucleus test).

There have been no adequate studies investigating the potential carcinogenic or genotoxic activity of the main human metabolite of rosuvastatin, N-desmethyl rosuvastatin.

Effects on Fertility

In 1 of 3 monkeys treated with rosuvastatin PO at 30 mg/kg/day for 6 months degenerative changes in the testicular epithelium were seen. The no-effect dose of 10 mg/kg/day was associated with rosuvastatin plasma concentrations (AUC) similar to those expected in humans taking 40 mg rosuvastatin daily.

Rosuvastatin had no effect on male or female fertility when administered to rats at PO doses of 50 mg/kg/day (systemic rosuvastatin concentrations (AUC) 4.8–6.6× those expected in humans). The main human metabolite of rosuvastatin, N-desmethyl rosuvastatin, has not been assessed for activity in rat fertility studies.

Animal Studies

Corneal opacity was seen in dogs treated for 52 weeks at 6 mg/kg/day by oral gavage (systemic exposures 20× the human exposure at 40 mg/day based on AUC comparisons). Cataracts were seen in dogs treated for 12 weeks by oral gavage at 30 mg/kg/day (systemic exposures 60× the human exposure at 40 mg/day based on AUC comparisons).

Effects on Ability to Drive and Operate Machinery

Pharmacological testing revealed no evidence of a sedative effect of rosuvastatin. From the safety profile, rosuvastatin is not expected to adversely affect the ability to drive or operate machinery.

INTERACTIONS WITH OTHER MEDICINES

Warfarin and Other Vitamin K Antagonists

Co-administration of rosuvastatin to patients on stable warfarin therapy resulted in clinically significant rises in the International Normalized Ratio (INR) (> 4, baseline 2–3). In patients taking Vitamin K antagonists and rosuvastatin concomitantly, INR should be determined before starting rosuvastatin and frequently enough during early therapy to ensure that no significant alteration of INR occurs.

Once a stable INR has been documented, INR can be monitored at the intervals usually recommended for patients on Vitamin K antagonists. If the dose of rosuvastatin is changed, the same procedure should be repeated. Rosuvastatin therapy has not been associated with bleeding or with changes in INR in patients not taking anticoagulants.

Cyclosporin

Co-administration of rosuvastatin with cyclosporin resulted in no significant changes in cyclosporin plasma concentration. However, rosuvastatin steady state $AUC_{(0-t)}$ increased up to 7-fold over that seen in healthy volunteers administered the same dose. These increases are considered to be clinically significant and require special consideration in the dosing of rosuvastatin (see **DOSAGE AND ADMINISTRATION**).

Digoxin

Co-administration of digoxin with rosuvastatin resulted in no change to digoxin plasma concentrations.

Fenofibrate

Co-administration of fenofibrate with rosuvastatin resulted in no significant changes in plasma concentrations of rosuvastatin or fenofibrate.

Fusidic Acid

The risk of myopathy including rhabdomyolysis may be increased by the concomitant administration of systemic fusidic acid with statins. Coadministration of this combination may cause increased plasma concentrations of both agents. The mechanism of this interaction (whether it is pharmacodynamics or pharmacokinetic, or both) is yet unknown. There have been reports of rhabdomyolysis (including some fatalities) in patients receiving this combination. If treatment with fusidic acid is necessary, rosuvastatin treatment should be discontinued throughout the duration of the fusidic acid treatment (see **CONTRAINDICATIONS, PRECAUTIONS and ADVERSE EFFECTS**).

Gemfibrozil

Concomitant use of rosuvastatin and gemfibrozil resulted in a 2-fold increase in rosuvastatin C_{max} and $AUC_{(0-t)}$. This increase is considered to be clinically significant (see **DOSAGE AND ADMINISTRATION**).

Protease Inhibitors

Increased systemic exposure to rosuvastatin has been observed in subjects receiving rosuvastatin with various protease inhibitors in combination with ritonavir. Consideration should be given both to the benefit of lipid lowering by the use of rosuvastatin in HIV patients receiving protease inhibitors and the potential for increased rosuvastatin plasma concentrations when initiating and up-titrating rosuvastatin doses in patients treated with protease inhibitors.

Antacids

Simultaneous administration of rosuvastatin and an antacid suspension containing aluminium and magnesium hydroxide resulted in a decrease in rosuvastatin plasma concentration of approximately 50%. This effect was mitigated when the antacid was dosed 2 hours after rosuvastatin. The clinical relevance of this interaction has not been studied.

Cytochrome P450 Enzymes

In vitro and *in vivo* data indicate that rosuvastatin clearance is not dependent on metabolism by cytochrome P450 3A4 to a clinically significant extent. This has been confirmed in studies with known cytochrome P450 3A4 inhibitors (ketoconazole, erythromycin, itraconazole).

Ketoconazole:

Co-administration of ketoconazole (200 mg twice daily for 7 days) with rosuvastatin (80 mg) resulted in no change in plasma concentrations of rosuvastatin.

Erythromycin:

Co-administration of erythromycin (500 mg four times daily for 7 days) with rosuvastatin (80 mg) decreased AUC and C_{max} of rosuvastatin by 20% and 31%, respectively. These reductions are not considered clinically significant.

Itraconazole:

Itraconazole (200 mg twice daily for 5 days) resulted in a 39% and 28% increase in AUC of rosuvastatin after 10 mg and 80 mg dosing, respectively. These increases are not considered clinically significant.

Fluconazole:

Co-administration of fluconazole (200 mg twice daily for 11 days) with rosuvastatin (80 mg) resulted in a 14% increase in AUC of rosuvastatin. This increase is not considered clinically significant.

Oral Contraceptives

Co-administration of oral contraceptives (ethinyl estradiol and norgestrel) with rosuvastatin resulted in an increase in plasma concentrations of ethinyl estradiol and norgestrel by 26% and 34%, respectively. This increase is not considered clinically significant.

Other Medications

In clinical studies, rosuvastatin was co-administered with anti-hypertensive agents and anti-diabetic agents. These studies did not produce any evidence of clinically significant adverse interactions.

ADVERSE EFFECTS

Rosuvastatin is generally well tolerated. The adverse events seen with rosuvastatin are generally mild and transient. In controlled clinical trials less than 4% of rosuvastatin treated patients were withdrawn due to adverse events. This withdrawal rate was comparable to that reported in patients receiving placebo.

Adverse reactions within each body system are listed in descending order of frequency:

very common: $\geq 10\%$; common: $\geq 1\%$ and $< 10\%$; uncommon: $\geq 0.1\%$ and $< 1\%$; rare: $\geq 0.01\%$ and $< 0.1\%$; very rare: $< 0.01\%$.

These include the following:

Central Nervous System

Common: Dizziness

Gastrointestinal

Common: Constipation, nausea, abdominal pain

Rare: Pancreatitis

Musculoskeletal

Common: Myalgia, asthenia

Rare: Myopathy (including myositis) and rhabdomyolysis

Skin

Uncommon: Pruritus, rash, urticaria

Rare: Hypersensitivity reactions including angioedema

Miscellaneous

Common: Headache

As with other HMG-CoA reductase inhibitors, the incidence of adverse drug reactions tends to increase with increasing dose.

Skeletal Muscle Effects

Rare cases of rhabdomyolysis, which were occasionally associated with impairment of renal function, have been reported with rosuvastatin. Rhabdomyolysis may be fatal. Examples of signs and symptoms of rhabdomyolysis are muscle weakness, muscle swelling, muscle pain, dark urine, myoglobinuria, elevated serum creatine kinase, acute renal failure, cardiac arrhythmia (see **CONTRAINDICATIONS**, **PRECAUTIONS** and **INTERACTIONS WITH OTHER MEDICINES**).

Effect on Laboratory Tests

As with other HMG-CoA reductase inhibitors, a dose-related increase in liver transaminases, CK, glucose, glutamyl transpeptidase, alkaline phosphatase and bilirubin and thyroid function abnormalities have been observed in a small number of patients taking rosuvastatin. Increases in HbA1c have also been observed in patients treated with rosuvastatin. Proteinuria and microscopic haematuria has been detected by dipstick testing in the clinical trial program in a small number of patients taking rosuvastatin and other HMG-CoA reductase inhibitors at their recommended doses. The proteinuria was mostly tubular in origin and was more frequent in patients on rosuvastatin 40 mg. It was generally transient and not associated with worsening renal function. Although the clinical significance is unknown, dose reduction should be considered in patients on rosuvastatin 40 mg with unexplained persistent proteinuria and/or haematuria.

Other Effects

In a long-term controlled clinical trial rosuvastatin was shown to have no harmful effects on the ocular lens.

In rosuvastatin-treated patients, there was no impairment of adrenocortical function.

In the JUPITER study the safety profile for subjects taking rosuvastatin 20 mg was generally similar to that of subjects taking placebo. There were 6.6% of rosuvastatin and 6.2% of placebo subjects who discontinued study medication due to an adverse event, irrespective of treatment causality. The most common adverse reactions that led to treatment discontinuation were: myalgia (0.3% rosuvastatin, 0.2% placebo), abdominal pain (0.03% rosuvastatin, 0.02% placebo) and rash (0.03% rosuvastatin, 0.03% placebo). In JUPITER, there was a significantly higher frequency of diabetes mellitus reported in patients taking rosuvastatin (2.8%) versus patients taking placebo (2.3%). Mean HbA1c was significantly increased by 0.1% in rosuvastatin-treated patients compared to placebo-treated patients. The number of patients with a HbA1c >6.5% at the end of the trial was significantly higher in rosuvastatin-treated versus placebo treated patients.

In JUPITER, increased hepatic transaminases were observed in 1.9% of rosuvastatin and 1.5% of placebo subjects and renal events were reported in 6.0% of rosuvastatin and 5.4% of placebo subjects. Confusion was reported in 0.2% of rosuvastatin and 0.1% of placebo subjects.

Adverse reactions in JUPITER reported in $\geq 2\%$ of patients and at a rate greater than or equal to placebo were myalgia (7.6% rosuvastatin, 6.6% placebo), arthralgia (3.8% rosuvastatin, 3.2% placebo), constipation (3.3% rosuvastatin, 3.0% placebo) nausea (2.4% rosuvastatin, placebo, 2.3%) and haematuria (2.4% rosuvastatin, placebo 2.0%).

In the METEOR study, involving 981 participants treated with rosuvastatin 40 mg (n=700) or placebo (n=281) with a mean treatment duration of 1.7 years, 5.6% of subjects treated with rosuvastatin versus 2.8% of placebo-treated subjects discontinued due to adverse reactions. The most common adverse reactions that led to treatment discontinuation were: myalgia, hepatic enzyme increased, headache, and nausea.

Adverse reactions in METEOR reported in $\geq 2\%$ of patients and at a rate greater than placebo were myalgia (12.7% rosuvastatin, 12.1% placebo), arthralgia (10.1% rosuvastatin, 7.1% placebo), headache (6.4% rosuvastatin, 5.3% placebo), dizziness (4.0% rosuvastatin, 2.8% placebo), increased CPK (2.6% rosuvastatin, 0.7% placebo), abdominal pain (2.4% rosuvastatin, 1.8 placebo) and ALT>3x ULN (2.2% rosuvastatin, 0.7% placebo).

Post-Marketing Experience

In addition to the above, the following adverse events have been reported during post-marketing experience for rosuvastatin:

Musculoskeletal Disorders

Very rare: Arthralgia
Frequency unknown: Immune-mediated necrotising myopathy

As with other HMG-CoA reductase inhibitors, the reporting rate for rhabdomyolysis in post-marketing use is higher at the highest marketed dose. Rhabdomyolysis may be fatal. Examples of signs and symptoms of rhabdomyolysis are muscle weakness, muscle swelling, muscle pain, dark urine, myoglobinuria,

elevated serum creatine kinase, acute renal failure, cardiac arrhythmia (see **CONTRAINDICATIONS, PRECAUTIONS** and **INTERACTIONS WITH OTHER MEDICINES**).

Haematological Disorders

Frequency unknown: Thrombocytopenia

Hepatobiliary Disorders

Rare: Increased hepatic transaminases

Very rare: Jaundice, hepatitis

Frequency unknown: Hepatic failure

Nervous System Disorder

Very rare: Memory loss

Psychiatric Disorders

Frequency unknown: Depression, sleep disorders (including insomnia and nightmares)

Reproductive System and Breast Disorders

Frequency unknown: Gynaecomastia

DOSAGE AND ADMINISTRATION

Prior to initiating rosuvastatin, the patient should be placed on a standard cholesterol-lowering diet. The dose should be individualised according to the goal of therapy and patient response and should take into account the potential risk for adverse reactions (see **ADVERSE EFFECTS**).

Rosuvastatin may be given at any time of the day, with or without food. Tablets must not be broken or crushed and must be swallowed whole with a glass of water.

Hypercholesterolaemia

The recommended starting dose is 5 mg or 10 mg once per day both in statin naïve patients and in those switched from another HMG-CoA reductase inhibitor. The choice of starting dose should take into account the individual patient's cholesterol level and future cardiovascular risk.

A dose adjustment can be made after 4 weeks of therapy where necessary. The usual maximum dose of rosuvastatin is 20 mg once per day.

A dose of 40 mg once per day should only be considered in patients who are still at high cardiovascular risk after their response to a dose of 20 mg once per day is assessed. This may particularly apply to patients with familial hypercholesterolaemia. It is recommended that the 40 mg dose is used only in patients in whom regular follow-up is planned. A dose of 40 mg must not be exceeded in any patient taking rosuvastatin.

Specialist supervision should be considered when the dose is titrated to 40 mg.

Prevention of Cardiovascular Events

A dose of 20 mg once daily has been found to reduce the risk of major cardiovascular events (see **CLINICAL TRIALS - Prevention of Cardiovascular Events**).

Dosage in Asian Patients

Initiation of rosuvastatin therapy with 5 mg once daily should be considered for Asian patients. The potential for increased systemic exposures relative to Caucasians is relevant when considering escalation of dose in cases where hypercholesterolaemia is not adequately controlled at doses of 5, 10 or 20 mg once daily (see **PHARMACOLOGY - Pharmacokinetics** and **PRECAUTIONS**).

Dosage in Patients Taking Other Drugs

Cyclosporin

In patients taking cyclosporin, rosuvastatin dosage should be limited to 5 mg once daily (see **INTERACTIONS WITH OTHER MEDICINES**).

Gemfibrozil

Increased systemic exposure to rosuvastatin has been observed in subjects taking concomitant rosuvastatin and gemfibrozil (see **INTERACTIONS WITH OTHER MEDICINES**). If rosuvastatin is used in combination with gemfibrozil, the dose of rosuvastatin should be limited to 10 mg once daily.

Use in Children

The safety and efficacy of rosuvastatin in children has not been established. Use of this agent for the treatment of homozygous familial hypercholesterolaemia in this age group is not recommended.

Geriatrics

The usual dose range applies.

Hepatic Insufficiency

The usual dose range applies for patients with mild to moderate hepatic impairment.

Patients with severe hepatic impairment should start therapy with 5 mg rosuvastatin. Increased systemic exposure to rosuvastatin has been observed in patients, therefore the use of doses above 10 mg rosuvastatin should be carefully considered (see **PRECAUTIONS** and **CONTRAINDICATIONS**).

Renal Insufficiency

The usual dose range applies in patients with mild to moderate renal impairment.

For patients with severe renal impairment ($CL_{cr} < 30 \text{ mL/min/1.73m}^2$) not on dialysis the dose of rosuvastatin should be started at 5 mg once daily and not exceed 10 mg once daily (see **PRECAUTIONS**).

OVERDOSAGE

There is no specific treatment for overdose. As in any case of overdose, treatment should be symptomatic and general supportive measures should be utilized. Haemodialysis is unlikely to be of benefit.

Contact the Poison Information Centre on 13 11 26 (Australia) for advice on the management of overdose.

PRESENTATION AND STORAGE CONDITIONS

Chemmart Rosuvastatin 5 mg, 10 mg, 20 mg & 40 mg tablets are intended for oral administration.

5 mg tablets: White, round, biconvex, film coated tablet, engraved "APO" on one side, "ROS" over "5" on the other side.

Blister packs (Aluminium/Aluminium silver foil) of 7 and 30 tablets (AUST R 183063).

10 mg tablets: White, round, biconvex, film-coated tablet, engraved "APO" on one side, "ROS" over "10" on the other side.

Blister packs (Aluminium/Aluminium silver foil) of 7 and 30 tablets (AUST R 183066).

20 mg tablets: White, round, biconvex, film-coated tablet, engraved "APO" on one side, "ROS" over "20" on the other side.

Blister packs (Aluminium/Aluminium silver foil) of 7 and 30 tablets (AUST R 183071).

40 mg tablets: White, oval, biconvex, film-coated tablet, engraved "APO" on one side, "ROS40" on the other side.

Blister packs (Aluminium/Aluminium silver foil) of 7 and 30 tablets (AUST R 183069).

Not all strengths, pack types and/or pack sizes may be available.

Storage

Store below 30°C. Protect from light and moisture.

NAME AND ADDRESS OF THE SPONSOR

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POISONS SCHEDULE OF THE MEDICINE

S4 – Prescription Only Medicine.

Date of first inclusion in the Australian Register of Therapeutic Goods (the ARTG):

17 November 2011

Date of most recent amendment: 7-Apr-2014