AstraZeneca

STUDY REPORT SUMMARY

ASTRAZENECAPHARMACEUTICALS

FINISHED PRODUCT: Crestor
ACTIVE INGREDIENT: Rosuvastatin

Study No: NIS-CHR-CRE-2010/1
Non-interventional study to assess reaching of cholesterol target values in patients treated with HMG-CoA reductase inhibitors in Croatia

Developmental phase: Non-interventional study
Study Completion Date: 15/09/2011
Date of Report: 28/08/2012

OBJECTIVES:

Primary Objective:

- To evaluate the proportion of patients, treated with HMG-CoA reductase inhibitor for at least 6 months, reaching the LDL-C goals according to the Fourth Joint European Task Force guidelines on Cardiovascular disease prevention in clinical practice.

Secondary Objective:

- To evaluate the proportion of patients with high cardiovascular risk (according to definition of Forth Joint European Taskforce), treated with HMG-CoA reductase inhibitor for at least 6 months, reaching the LDL goals according to the Fourth Joint European Task Force guidelines on Cardiovascular disease prevention in clinical practice.
- To evaluate the proportion of patients, treated with HMG-CoA reductase inhibitor for at least 6 months, reaching the total cholesterol goals according to the Fourth Joint European Task Force guidelines on Cardiovascular disease prevention in clinical practice.
- To evaluate the proportion of patients with high cardiovascular risk (according to definition of Forth Joint European Taskforce), treated with HMG-CoA reductase inhibitor for at least 6 months, reaching the total cholesterol goals according to the Fourth Joint European Task Force guidelines on Cardiovascular disease prevention in clinical practice.
- To evaluate the proportion of patients, treated with HMG-CoA reductase inhibitor for at least 6 months, reaching the HDL goals according to the Fourth Joint European Task Force guidelines on Cardiovascular disease prevention in clinical practice.

- To evaluate the proportion of patients with high cardiovascular risk (according to definition of Forth Joint European Taskforce), treated with HMG-CoA reductase inhibitor for at least 6 months, reaching the HDL goals according to the Fourth Joint European Task Force guidelines on Cardiovascular disease prevention in clinical practice
- To evaluate the proportion of patients, treated with HMG-CoA reductase inhibitor for at least 6 months, reaching the tryglicerides goal according to the Fourth Joint European Task Force guidelines on Cardiovascular disease prevention in clinical practice.
- To evaluate the proportion of patients with high cardiovascular risk (according to definition of Forth Joint European Taskforce), treated with HMG-CoA reductase inhibitor for at least 6 months, reaching the triglycerides goals according to the Fourth Joint European Task Force guidelines on Cardiovascular disease prevention in clinical practice.
- To evaluate determinants for not reaching LDL-C or total cholesterol goal values.
- To assess compliance with prescribed therapy

METHODS:

Patient population

This study enrolled male and female patients, aged 18 years or older who have been treated with one HMG-CoA reducatse inhibitor for at least 6 months without changing the dose for the last 4 weeks at least. All patients have signed informed consent form.

Design

This study was non-interventional, observational, cross-sectional study.

All statistical analyses were performed by using the SPSS 13.0 package for evaluation of collected data.

Patients of both sexes aged 18 years or older who were treated with any statin available in Croatia (rosuvastatin, simvastatin, atorvastatin, lovastatin and fluvastatin) for at least last six months and without changing the dose at least for the last 4 weeks were sequentially (up to at least 10 patients) enrolled at the consultations. Patients who were participating in any clinical study during the last 12 months were excluded. All the data were collected from clinical examinations and medical charts from single outpatient visits between January and September 2011.

Information was collected on the following: demographic characteristics (age, gender etc.), serum lipid profile (total and LDL-cholesterol, HDL-cholesterol, triglycerides) and HbA1c at the time of consultation, the name and daily dosage of the current statin as well as the duration of statin treatment but also on patients and/or family medical history of diabetes mellitus and risk factors for CVD.

It was recorded whether patients were at goal levels or not considering their risk level (high or low risk) as well as their compliance with the dosage during the last four weeks but also the cardiologist's advice about further lipid-lowering treatment. According to

the Fourth Joint European task force guidelines on cardiovascular disease prevention in clinical practice patients at high risk were defined as those with pre-existing CVD, diabetes and/or SCORE ≥5% and low-risk patients as those without those conditions or SCORE <5%.

Study was conducted by 154 cardiologist.

This non-interventional study had one study visit.

Each cardiologist enrolled 9-20 patients, aged 18 years or older who have been treated with one HMG-CoA reducatse inhibitor for at least 6 months without changing the dose for the last 4 weeks at least. The study details were explained to patient and he was asked to sign the Informed Consent in line with local regulations.

During the visit investigator filled in Case Report Forms (CRF) with the data obtained from the interview as well as from patient's medical records.

There was one scheduled visit.

During this visit, investigators filled in Case Report Forms for each patient with patient's demographics data, serum lipid profile (total and LDL-cholesterol, HDL-cholesterol, triglycerides) and HbA1c at the time of consultation, the name and daily dosage of the current statin as well as the duration of statin treatment but also on patients and/or family medical history of diabetes mellitus and risk factors for CVD.
It was recorded whether patients were at goal levels or not considering their risk level (high or low risk) as well as their compliance with the dosage during the last four weeks but also the cardiologist's advice about further lipid-lowering treatment. According to the Fourth Joint European task force guidelines on cardiovascular disease prevention in clinical practice patients at high risk were defined as those with pre-existing CVD, diabetes and/or SCORE ≥5% and low-risk patients as those without those conditions or SCORE <5%.

Table 1. Study plan

	Visit 1
ICF	X
Test List	X
• Demographic data (age and gender)	X
• Confirmation of the presence of all the criteria for inclusion in the study, ie, the absence of exclusion criteria for patients in the study	
• The presence of diseases that indicate a high cardiovascular risk according to the Fourth Joint Taskforce European Society of Cardiology in 2007. guidelines	X
• Data on the lipids levels (total cholesterol, LDL cholesterol, HDL cholesterol and triglycerides)	X

• Data on achieving target LDL cholesterol and total cholesterol, and achieving recommended values of HDL cholesterol and triglycerides	X
• HMG-CoA reductase inhibitor treatment data	X
• Compliance with the prescribed treatment	X

Study Drug
HMG-Co reductase inhibitors

Statistical analysis
All statistical analyses were performed by using the SPSS 13.0 package. Descriptive statistical analysis was also used for evaluation.

RESULTS:

Demographics
In total, 1849 patients were enrolled in the study of which 1811 were analyzed. 44.6% were female, 55,4% were male. Mean age was 63.13 years (median 64 years) ranging from 19 to 90 years.
Most patients (81.3%) were at high risk for CVD. 56.9% had pre-existing coronary heart disease (CHD), 14.4% had peripheral artery disease (PAD), 13.1% had cerebrovascular disease and 42.1% had diabetes mellitus.

Treatment data
The most frequently used statin was atorvastatin (42.8% of patients), followed by simvastatin (27.6%) and rosuvastatin (22.8%). Much less patients were taking fluvastatin (5.8%) and lovastatin (only 0.6%) while data for 0.3% of patients were not available.

Therapeutic response

- 35.5% patients had LDL-cholesterol at goal (34.% of those with high CVD risk respectively).
- 34.% of those with high CVD risk respectively had LDL-cholesterol at goal.
- 33.4% achieved total cholesterol target level (32.3% of those with high CVD risk respectively).
- Low HDL-cholesterol and elevated triglycerides had 22.3% and 46.4% of patients on statins respectively (24.0% and 46.8% of those with high CVD risk respectively).

Evaluation of determinants for not reaching LDL-C or total cholesterol goal values:

Patients' adherence, by choosing more potent statins and applying them in appropriate doses, by adequate titration of current statin treatment to higher doses and the use of combination treatment if the goal values could not been achieved because such a treatment increases the likelihood of therapeutic success in patients with dyslipidemia.

Compliance with the prescribed treatment

The compliance of patients in taking the prescribed statin during the last 30 days before visiting their cardiologist was in 51.1% of them 100%, 34.8% were taking more than 70% of prescribed statin, 7.6% were taking between 50% and 70%, 3.0% were taking between 30% and 50%, 1.8% took less than 30% and 1.3% were not taking the prescribed statin at all. For 0.4% the data were missing.

Further treatment advices

Concerning the cardiologists' further treatment advices for patients who did not reach target cholesterol levels, 56.2% of those on fluvastatin and 39.0% of those on simvastatin were recommended to change the type of statin. This was significantly more than 22.5% of patients on atorvastatin or only 18.9% of those on rosuvastatin who got such an advice much more rarely ($p<0.05$). Most of patients on rosuvastatin treatment were advised by their cardiologist to continue with the same statin and without changing the dose (62.2%), while significantly less patients ($p<0.05$) on atorvastatin (54.5%), simvastatin (43.6%) and fluvastatin (41.9%) received such an advice. Only 5.1% of patients taking rosuvastatin and 1.9% taking fluvastatin were advised to change the dose of the drug while 20.1% of those taking atorvastatin and 21.1% taking simvastatin got such an advice ($p<0.05$).

Adverse event

1 (one) adverse event were reported in this study.
AstraZeneca case ID is 2011SE16669.
Suspect drug: Crestor, 10 mg daily.
Reported clinical events were: Erythema and Face oedema.
The report was considered to be non-serious. The reported case causality was yes.