

Patients who switched from established Lipitor therapy to simvastatin experienced a significant 30 percent increase in relative risk of cardiovascular events or death, new observational study shows

VIENNA, Austria, September 5 – An observational study of a large United Kingdom primary care database showed that switching patients from Pfizer's Lipitor® (atorvastatin calcium) Tablets to simvastatin was associated with a 30 percent increase in the relative risk of major cardiovascular events, including heart attacks, strokes and certain types of heart surgeries, or death compared to patients who remained on Lipitor therapy.

This analysis was presented today at the European Society of Cardiology Congress 2007 and is also in press at *The British Journal of Cardiology*.

The data, which included records from October 1997 to June 2005, were generated from a retrospective analysis of a medical database of anonymous patient records entered by general practitioners in the United Kingdom known as The Health Improvement Network (THIN).

The analysis included 11,520 patients (2,511 patients who had taken Lipitor for six months or more and were switched to simvastatin vs. 9,009 patients who were taking Lipitor for six months or more and then remained on Lipitor therapy). Reasons for switching were not available from the database. Since patients were not randomly assigned to each group, the two treatment groups were matched based on certain risk factors and statistical adjustments were made to address any residual imbalances. As with all observational studies, the findings should be regarded as hypothesis generating.

"Today, many health care payors including governments and managed care companies are encouraging patients who are well-established on one therapy to switch to a different statin therapy," said Dr. Michael Berelowitz, senior vice president of Pfizer's global medical division. "This

study raises concerns about those policies. It suggests the potential for poorer cardiovascular outcomes associated with switching patients from established Lipitor therapy to simvastatin."

A secondary analysis of the same data showed that patients who were switched from Lipitor to simvastatin were more than twice as likely to discontinue their treatment compared to those who remained on Lipitor therapy (20.5 percent versus 7.62 percent, $p < 0.001$). The reasons for discontinuation were not available from the database, though disruption in treatment has been associated with poor adherence in previous studies of statins and other medications.

"The results of this analysis complement the large body of evidence from multiple clinical trials demonstrating the cardiovascular benefits of Lipitor," said Dr. Berelowitz. "Observational studies



help the medical community better appreciate what is really happening in doctors' offices, and are commonly used by healthcare payors to set medical practice guidelines. This analysis highlights the need to carefully consider individual patient circumstances and cardiovascular risk because indiscriminate switching may adversely affect some patients."

Additional Study Information

The primary endpoint was time to a first major cardiovascular event, defined as heart attack, stroke, or coronary revascularization (a type of heart surgery), or all-cause death. There was a statistically significant 30 percent increase in the relative risk of the primary endpoint ($p=0.03$).

- The individual components making up the primary endpoint were analyzed as secondary endpoints. Compared with patients who did not switch therapy, switching was associated with the following:
 - Significant 43 percent increase in the relative risk of major cardiovascular events ($p=0.008$)
 - No difference in all-cause death ($p=0.369$)
- The two treatment groups were matched based on the following: gender, history of heart attack, diabetes, time since last statin exposure and general practitioner treatment center.

- The following statistical adjustments were made to address any residual imbalances: age, gender, prior statin exposure, time since last statin exposure, diabetes, history of heart attack, and baseline cholesterol levels.
- Relative risk is the ratio of the risk of major cardiovascular events or death occurring in the group who switched from Lipitor to simvastatin versus the risk in the group who remained on Lipitor.

About Lipitor

Lipitor is the only statin with all the following criteria most important for many physicians, patients and payors: significant and proven cardiovascular event reductions, impressive average LDL lowering of 39 percent to 60 percent, and a proven safety profile across a broad range of patients.

Lipitor is the most prescribed cholesterol-lowering therapy in the world, with nearly 139 million patient-years of experience. It is supported by an extensive clinical trial program involving more than 400 ongoing and completed trials with more than 80,000 patients. There have been more than ten cardiovascular outcomes trials with more than 50,000 patients.

Important Safety Information

Lipitor is a prescription medication. It is used in patients with multiple risk factors for heart disease such as family history, high

blood pressure, age, low HDL ("good" cholesterol) or smoking to reduce the risk of heart attack, stroke, certain kinds of heart surgery, and chest pain. When diet and exercise alone are not enough, Lipitor is used along with a low-fat diet and exercise to lower cholesterol.

Lipitor is also used in patients with type 2 diabetes and at least one other risk factor for heart disease such as high blood pressure, smoking or complications of diabetes, including eye disease and protein in urine, to reduce the risk of heart attack and stroke.

Lipitor is not for everyone. It is not for those with liver problems. And it is not for women who are nursing, pregnant or may become pregnant.

Patients taking Lipitor should tell their doctors if they feel any new muscle pain or weakness. This could be a sign of rare but serious muscle side effects. Patients should tell their doctors about all medications they take. This may help avoid serious drug interactions. Doctors should do blood tests to check liver function before and during treatment and may adjust the dose. The most common side effects are gas, constipation, stomach pain and heartburn. They tend to be mild and often go away.

For additional product information, visit www.Lipitor.com or contact: Gavin Perumal 011 320 6000

TNT

For those already at risk with known CHD it pays to lower their cholesterol even more.

Intensive lipid-lowering therapy with Lipitor 80 mg in patients with stable CHD and LDL-C levels < 3.6 mmol/L provides significant clinical benefits compared to Lipitor 10 mg:

- a highly significant **22%** reduction in major CV events ($p<0.001$)
- a significant **25%** reduction in stroke ($p=0.02$)
- a significant **26%** reduction in hospitalisation for CHF ($p=0.01$)



**Power. Evidence.
Confidence.**

Reference: 1. LaRosa JC, Grundy SM, Waters DD *et al.* Intensive Lipid Lowering with Atorvastatin in Patients with Stable Coronary Disease. *N Eng J Med* 2005;352(14):1425-1435.

[S4] Lipitor 10, Lipitor 20, Lipitor 40, Lipitor 80 Tablets. Each Lipitor 10, 20, 40 and 80 tablets contains atorvastatin calcium trihydrate, equivalent to 10 mg, 20 mg, 40 mg and 80 mg atorvastatin respectively. Reg. Nos.: Lipitor 10: 31/7.5/0357, Lipitor 20: 31/7.5/0358, Lipitor 40: 31/7.5/0359, Lipitor 80: 31/7.5/0210. **Pharmacological Classification:** A: 7.5 Serum-cholesterol reducers. **Indications:** Lipitor is indicated as an adjunct to diet for reduction of elevated total-cholesterol, LDL-cholesterol, apolipoprotein-B, and triglyceride levels in patients with primary hypercholesterolaemia; mixed dyslipidaemia; and heterozygous familial hypercholesterolaemia. **Contra-indications:** Hypersensitivity to any component of this medication. Active liver disease or unexplained persistent elevations of serum transaminases. Lipitor is contra-indicated in pregnancy, in breast feeding mothers and in women of childbearing potential not using adequate contraceptive measures. An interval of one month should be allowed from stopping Lipitor treatment to conception in the event of planning a pregnancy. Safety and efficacy have not yet been established in children. **Warnings:** **Liver Effects:** Persistent elevations (> 3 times the upper limit of normal (ULN) occurring on 2 or more occasions) in serum transaminases occurred in 0.7% of patients who received atorvastatin in clinical trials. Active liver disease or unexplained persistent transaminase elevations are contra-indications to the use of Lipitor (see **Contra-Indications**). **Skeletal Muscle:** Rhabdomyolysis with or without renal impairment has been reported with the use of HMG-CoA reductase inhibitors. Myalgia has been reported in patients treated with Lipitor (see **Adverse Reactions**). The patient should be placed on a standard cholesterol-lowering diet before receiving Lipitor and should continue on this diet during treatment with Lipitor. The usual starting dose is 10 mg once a day. Doses should be individualised according to the baseline LDL-C levels, the goal of therapy, and patient response. Adjustment of dosage should only be made after an interval of 4 weeks or more. The maximum recommended dose is 40 mg once a day. The maximum dose for treating patients with homozygous FH is 80 mg. Doses may be given at any time of day with or without food. **Side-Effects and Special Precautions:** The most frequent adverse effects associated with Lipitor therapy, in patients participating in controlled clinical studies were: diarrhoea, constipation, flatulence, dyspepsia, abdominal pain, headache, nausea, myalgia, arthralgia, asthenia, insomnia and rash. The following side-effects have also been reported in clinical trials: muscle cramps, myositis, myopathy, paraesthesia, peripheral neuropathy, pancreatitis, hepatitis, cholestatic jaundice, anorexia, vomiting, alopecia, pruritus, impotence, hyperglycaemia and hypoglycaemia. Allergic reactions have been reported rarely. Lipitor may cause elevation of creatine phosphokinase and dose-related increases in transaminase levels may occur (see **Warnings**). **Licence Holder:** Pfizer Laboratories (Pty) Ltd, Reg No 1954/000781/07, PO Box 783720, Sandton, 2196. Tel: 0860 PFIZER (0860 734 937). Please refer to detailed package insert for full prescribing information. PI REF 06/1997 79/LIP/10/2006/JA