

Baseline data from VALIANT identifies risk factors that compromise survival after heart attack

Largest ARB trial in post-MI survival will report final results later this year

Basel, 1 April 2003 – New data show that 42% of all patients who are hospitalized for heart attack develop heart failure and/or left ventricular systolic dysfunction (LVSD) prior to their being discharged – and that these patients are four times more likely to die in the hospital than heart attack patients who do not develop these complications ($p < 0.001$). This finding is the first report from the VALIANT Registry, which tracked more than 5 500 patients who were consecutively hospitalized for myocardial infarction (MI, or heart attack) at 85 centers in nine countries. The abstract was presented at ACC '03 - the 52nd Annual Scientific Session of the American College of Cardiology by Eric J. Velazquez, MD, Assistant Professor of Medicine in the Division of Cardiology, Department of Medicine, Duke University Medical Center in Durham, North Carolina.

The VALIANT Registry is adjunct to the VALLIANT trial (VALsartan In Acute myocardial iNfarcTion). VALIANT is the largest survival study with an angiotensin II receptor blocker (ARB) ever conducted in people who have experienced MI. The VALLIANT trial involves more than 14 500 patients from approximately 950 clinical sites in 24 countries. The primary investigator of VALIANT is Marc Pfeffer, MD, PhD, Professor of Medicine, Harvard Medical School, and Senior Physician, Brigham & Women's Hospital, Cardiovascular Division. VALIANT is sponsored by Novartis Pharma, AG, who has developed the ARB Diovan[®] (valsartan). While final results expected later this year, both the VALIANT Registry and baseline data from the overall trial are already adding insight into the treatment of people who have suffered heart attacks.

“VALIANT is already offering critical new insight into factors that complicate outcomes in post-MI patients,” said Joerg Reinhardt, Head of Development, Novartis Pharma, AG. “Despite many available therapies, post-MI patients remain at high risk for recurring heart attacks, disabling stroke, heart failure– and death. Better and earlier identification of those at high risk could lead to improved, more aggressive, and more targeted treatment approaches.”

Likelihood of dying much higher in MI patients with diabetes

Another key finding presented at ACC '03 - the 52nd Annual Scientific Session of the American College of Cardiology, from the overall VALIANT study itself, is that the likelihood of dying was much higher in post-MI patients with diabetes than in patients who did not suffer from this disease (hazard ratio 1.2 [1.00, 1.46] 95% CI). VALIANT also showed that a significant percentage of patients hospitalized for acute heart attack were unknown to have diabetes (4% of study patients; $p < 0.001$). Even though patients who were not aware they had diabetes were younger and had fewer clinical signs of heart disease (i.e., hypertension or dyslipidemia), their 30-day mortality rate was similar to patients who knew they had this disease before their heart attack. The abstract was presented by David

Aguilar, MD, Research Fellow in Medicine, Department of Cardiovascular Medicine, Brigham and Women's Hospital, Boston, Massachusetts.

Very elderly heart attack survivors not likely to receive aggressive treatment

Presented by Harvey D. White, DSc, FACC, Director of Coronary Care and Cardiovascular Research, Green Lane Hospital, Auckland, New Zealand, another abstract based on VALIANT baseline data found that outcomes were worse in very elderly heart attack patients (75 years of age and older) with heart failure and/or left ventricular systolic dysfunction – and that these patients were less frequently treated with aspirin, beta-blockers, or reperfusion therapy ($p < 0.0001$). Similarly, additional baseline data from VALIANT presented by Robert M. Califf, MD, FACC, Professor of Cardiology, Division of Cardiology, Department of Medicine, Duke University Medical Center, showed that patients treated early with beta blockers were younger and were associated with lower mortality 30 days after patients were enrolled into the study (hazard ratio 0.74 [0.63-0.88] 95% CI).

About heart attack survivors

On a worldwide basis, 7.3 million people die each year from heart attack.¹ According to the Framingham Heart Study, 25% of men and 38 percent of women die within one year following an initial recognized MI.² Within six years after a recognized heart attack, seven percent of men and six percent of women experience sudden death, 18 percent of men and 35 percent of women have another heart attack and 22% of men and 46% of women will be disabled by heart failure.² Heart failure is currently the fastest growing cardiovascular disease in the world and the most common reason why the elderly are hospitalized.³ An estimated 20 million people worldwide suffer from this devastating condition.

About VALIANT

VALIANT, a study of 14 500 post-MI patients, is investigating which treatment strategy is best for heart attack survivors: Diovan alone, the conventional agent captopril, or Diovan and captopril in combination. ACE inhibitors are recommended for treatment of post-heart attack patients along with several other types of drugs including aspirin and beta blockers. The population of VALIANT is roughly seven times larger than the individual populations of earlier pivotal placebo-controlled studies that established ACE inhibitors as a recommended post-MI treatment (i.e., SAVE, AIRE and TRACE). VALIANT is also investigating whether combination treatment with Diovan and captopril offers additional effects over treatment with captopril alone.

About Diovan

Novartis' top-selling drug, Diovan is approved for first-line treatment of high blood pressure in the US and more than 80 other countries. Diovan is also the only ARB to be approved by the US Food and Drug Administration for the treatment of heart failure in patients who are intolerant of ACE inhibitors. Diovan is the leading ARB in the US, and is one of the fastest growing agents among the top 10 branded prescription antihypertensives on the market today.

Diovan is supported by the world's largest clinical trial program with an ARB, involving more than 45 000 patients, including 8 000 patients with diabetes. Besides VALIANT, several ongoing clinical trials are investigating new applications for Diovan across the cardiovascular disease continuum. These trials include VALUE (high-risk patients with hypertension), NAVIGATOR (patients with impaired glucose tolerance, or pre-diabetes, at

¹ American Heart Association. *International Cardiovascular Disease Statistics*. Dallas, TX. 2002.

² American Heart Association. *Heart Disease and Stroke Statistics – 2003 Update*. Dallas, TX. 2002.

³ National Heart, Lung and Blood Institute. *Data Fact Sheet*. Bethesda, MD. 2002

high risk for cardiovascular events), and the recently completed VAL-HeFT, one of the largest studies ever completed in heart failure.

The foregoing release contains forward-looking statements that can be identified by terminology such as "baseline", "investigating", "new applications", or similar expressions, or by discussions regarding potential new indications or labeling for Diovan, or regarding the long-term impact of a patient's use of Diovan. Such forward-looking statements involve known and unknown risks, uncertainties and other factors that may cause actual results with Diovan to be materially different from any future results, performance or achievements expressed or implied by such statements. There can be no guarantee that Diovan will be approved for any additional indications or labeling in any market. In particular, management's ability to ensure satisfaction of the health authorities' further requirements is not guaranteed and management's expectations regarding commercialization of Diovan could be affected by, among other things, additional analysis of Diovan clinical data; new clinical data; unexpected clinical trial results; unexpected regulatory actions or delays or government regulation generally; the company's ability to obtain or maintain patent or other proprietary intellectual property protection; competition in general; and other risks and factors referred to in the Company's current Form 20-F on file with the US Securities and Exchange Commission. Should one or more of these risks or uncertainties materialize, or should underlying assumptions prove incorrect, actual results may vary materially from those anticipated, believed, estimated or expected.

Novartis AG (NYSE: NVS) is a world leader in pharmaceuticals and consumer health. In 2002, the Group's businesses achieved sales of CHF 32.4 billion (USD 20.9 billion) and a net income of CHF 7.3 billion (USD 4.7 billion). The Group invested approximately CHF 4.3 billion (USD 2.8 billion) in R&D. Headquartered in Basel, Switzerland, Novartis Group companies employ about 72 900 people and operate in over 140 countries around the world. For further information please consult <http://www.novartis.com>.