Effects of Alogliptin and Placebo on N-Terminal-pro-Brain Natriuretic Peptide in Patients with Type 2 Diabetes and Recent Acute Coronary Syndromes

Alo males, 60.6% vs. 60.9%, p=0.709; placebo males, 60.9% vs. 60.6%, p=0.709; placebo females, 39.1% vs. 39.4%, p=0.857. Sex was self-reported. Note: Data for males and females were combined because no significant differences were found. Non-significant 2-sided P-values are between groups NOT from baseline.

This is a randomized, double-blind, placebo-controlled trial comparing alogliptin to placebo in patients with type 2 diabetes and recent acute coronary syndromes. The primary outcome was the change in NT-pro-BNP level at 6 months compared to baseline. Secondary outcomes included the incidence of cardiovascular events, including hospitalization for heart failure, non-fatal myocardial infarction, and cardiovascular death.

### Results

- **Baseline NT-pro-BNP:** Alogliptin (27,321 pg/ml) vs. Placebo (26,716 pg/ml), p=0.453
- **Change from Baseline:** Alogliptin (52,662 pg/ml) vs. Placebo (46,891 pg/ml), p=0.453

### Conclusion

Alogliptin did not significantly affect NT-pro-BNP levels in patients with type 2 diabetes and recent acute coronary syndromes compared to placebo. Further studies are needed to determine the role of DPP-4 inhibitors in this patient population.

### Methods

This was a multicenter, randomized, double-blind, placebo-controlled trial. Patients were randomized to receive alogliptin or placebo for 6 months following an acute coronary syndrome. The primary endpoint was the change in NT-pro-BNP level at 6 months compared to baseline. Secondary endpoints included cardiovascular outcomes and safety assessments.

### References

- DPS-4: Dipeptidyl Peptidase-4; HDL: High-density lipoprotein; LDL: Low-density lipoprotein; BMI: Body mass index; ACS: Acute coronary syndrome; ACE: Angiotensin-converting enzyme; ARB: Angiotensin receptor blockers; MDRD: Modified Diet in Renal Disease; SD: Standard deviation; MACE: Major adverse cardiovascular events; NT-pro-BNP: N-terminal pro-brain natriuretic peptide; HHF: Heart failure hospitalization; NYHA: New York Heart Association class; SD: Standard deviation; eGFR: Estimated glomerular filtration rate; CI: Confidence interval; 2-sided P-value: Probability value calculated using a two-tailed test; 95% CI: 95% confidence interval; HR: Hazard ratio; AHA: American Heart Association.