press release

Semaglutide reduced major cardiovascular events by 26% in adults with type 2 diabetes at high cardiovascular risk

Munich, Germany, 16 September 2016 – Novo Nordisk today announced that semaglutide, an investigational glucagon-like peptide-1 (GLP-1) analogue administered once-weekly, significantly reduced the risk of the primary composite endpoint of time to first occurrence of either cardiovascular (CV) death, non-fatal myocardial infarction (heart attack) or non-fatal stroke by 26% vs placebo, when added to standard of care in 3,297 adults with type 2 diabetes at high CV risk.[1] These results were based on an accumulation of first major adverse CV events (MACE) in 254 people.[1]

The main results from SUSTAIN 6 were presented today at the 52nd Annual Meeting of the European Association for the Study of Diabetes (EASD) 2016[2] and also published in the *New England Journal of Medicine*.[1]

Furthermore, there was a significant 39% decrease in non-fatal stroke and a non-significant 26% decrease in non-fatal myocardial infarction and a neutral outcome (2% decrease) in CV death after only two years of treatment.[1]

"The reduction in cardiovascular events observed with semaglutide in SUSTAIN 6 is notable given the small study population and the short trial duration," said Dr Steven Marso, SUSTAIN 6 investigator and the lead author for the *New England Journal of Medicine* publication of SUSTAIN 6. "These findings are clinically relevant, as cardiovascular disease is the leading cause of death in people with type 2 diabetes and new treatment options that can also reduce the risk of cardiovascular events are needed."

In this outcomes trial, from an overall mean baseline of 8.7%, semaglutide 0.5 mg and 1.0 mg significantly reduced HbA_{1c} by -1.1% and -1.4% vs -0.4% for both placebo 0.5 mg and 1.0 mg at 104 weeks, when added to standard of care. In addition, from a mean baseline of 92.1 kg, adults treated with semaglutide 0.5 mg and 1.0 mg experienced superior and sustained weight loss of -3.6 kg and -4.9 kg, vs -0.7 kg for placebo 0.5 mg and -0.5 kg for placebo 1.0 mg.[1]

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Fewer serious adverse events were seen with semaglutide vs placebo; however, treatment discontinuation due to adverse events was more frequent with semaglutide, mainly due to gastrointestinal events. The incidence of pancreatitis was lower with semaglutide vs placebo. In terms of microvascular complications, significantly fewer people treated with semaglutide (62 [3.8%]) vs placebo (100 [6.1%]) had new onset or worsening nephropathy while significantly more people treated with semaglutide (50 [3.0%]) vs placebo (29 [1.8%]) experienced diabetic retinopathy complications.[1]

"The results of SUSTAIN 6 support the strong potential of once-weekly semaglutide in type 2 diabetes treatment and we look forward to regulatory submission later this year," said Mads Krogsgaard Thomsen, executive vice president and chief science officer of Novo Nordisk. "The SUSTAIN 6 results further strengthen the clinical evidence for the Novo Nordisk GLP-1 receptor agonist portfolio with the finding of additional benefits beyond glycaemic control and weight loss in adults with type 2 diabetes at high cardiovascular risk."

About semaglutide
Semaglutide is a once-weekly investigational analogue of human glucagon-like peptide-1 (GLP-1) that stimulates insulin and suppresses glucagon secretion in a glucose-dependent manner, while decreasing appetite and food intake.[3] With SUSTAIN 6, semaglutide, administered subcutaneously once-weekly, has completed six phase 3a clinical trials for the treatment of adults with type 2 diabetes.

About SUSTAIN 6
SUSTAIN 6 was a multicentre, international, randomised, double-blind, placebo-controlled pre-marketing CV outcomes trial (CVOT) investigating the long-term effects of semaglutide (0.5 mg and 1.0 mg) administered once-weekly, compared to placebo, when added to standard of care, in adults with type 2 diabetes at high risk of CV events. Standard of care included lifestyle modifications, glucose-lowering treatments and CV medications. The trial was initiated in February 2013 and randomised 3,297 adults with type 2 diabetes from 20 countries that were treated for 104 weeks.[1]

SUSTAIN 6 is the first dedicated pre-marketing CVOT in a type 2 diabetes population to report data. SUSTAIN 6 was designed to assess non-inferiority, i.e. demonstrate no increased risk of major CV events vs placebo, when added to standard of care. Superiority testing was not part of the pre-specified analysis. The primary endpoint was the first occurrence of a composite CV outcome comprising CV death, non-fatal myocardial infarction or non-fatal stroke.[1]

About the SUSTAIN clinical programme
SUSTAIN (Semaglutide Unabated Sustainability in Treatment of Type 2 Diabetes) is a clinical programme for semaglutide, administered once-weekly, that comprises six phase 3a global clinical trials encompassing more than 7,000 adults with type 2 diabetes as well as two Japanese trials encompassing around 1,000 adults with type 2 diabetes.

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Novo Nordisk is a global healthcare company with more than 90 years of innovation and leadership in diabetes care. This heritage has given us experience and capabilities that also enable us to help people defeat other serious chronic conditions: haemophilia, growth disorders and obesity. Headquartered in Denmark, Novo Nordisk employs approximately 42,300 people in 75 countries and markets its products in more than 180 countries. For more information, visit novonordisk.com, Facebook, Twitter, LinkedIn, YouTube

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