# FLOW TRIAL



## **Effects of semaglutide on Chronic Kidney Disease in patients with type 2 diabetes**

### **STUDY OBJECTIVE**

Assessed the efficacy and safety of subcutaneous semaglutide at a dose of 1.0 mg once weekly for the prevention of kidney failure, substantial loss of kidney function, and death from kidney-related or cardiovascular causes in patients with type 2 diabetes and chronic kidney disease

#### **STUDY DESIGN**

#### Randomized, double-blind, parallel-group, multinational phase 3b trial

387 trial locations and 28 countries

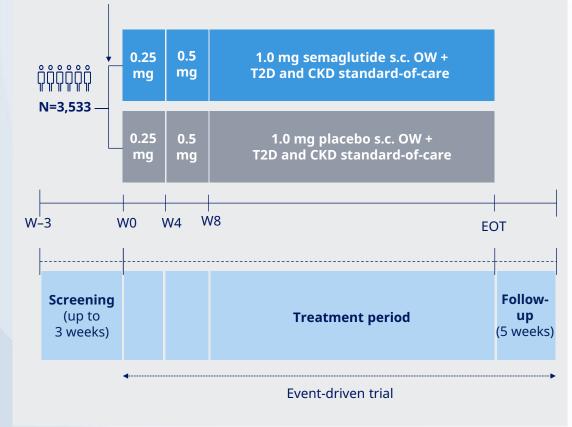
#### 3533 participants

- Adults<sup>¥</sup> with T2D and pre-existing CKD HbA<sub>1c</sub> ≤10 %
- eGFR  $\geq$  50 to  $\leq$ 75 ml/min/1.73 m<sup>2</sup> and UACR >300 to <5000 mg/g or eGFR  $\geq$  25 to  $\leq$ 50 ml/min/1.73 m<sup>2</sup> and UACR >100 to <5000 mg/g

#### **Randomization 1:1**

Ozempic label

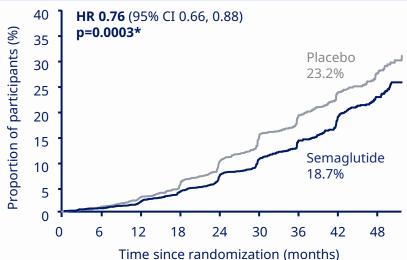
(Stratified by sodium-glucose cotransporter-2 inhibitor use (yes/no).



#### **RESULTS**

#### **01.** First composite primary endpoint

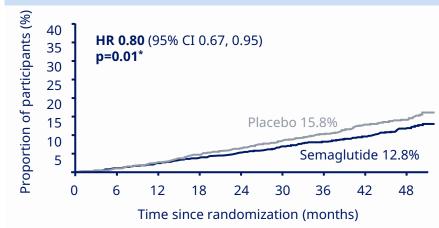
24% risk reduction of the primary composite kidney outcome vs. placebo



#### **02.** Confirmatory secondary endpoints

#### Time to all cause death

- 20% risk reduction in time to occurrence of all-cause death vs.
- 29% risk reduction in time to occurrence of CV death vs. placebo



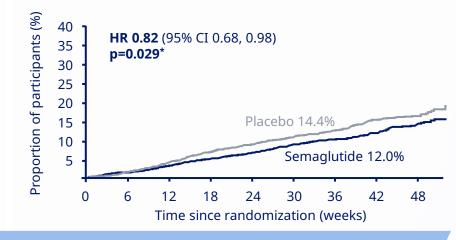
#### **02**. Confirmatory secondary endpoints

#### **Total eGFR slope**

Observed mean (mL/min/1.73m<sup>2</sup>) 42 Placebo eGFR 38 12 52 104

#### Time to first major cardiovascular event

• 18% risk reduction in the time to first MACE vs. placebo<sup>‡</sup>

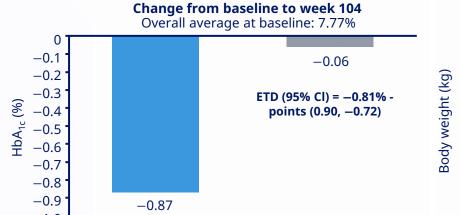


#### **03.** Supportive secondary endpoints

Significant decrease in HbA<sub>1c</sub> vs. placebo (-0.87% vs. -0.06%, respectively)

Time since randomization (weeks)

Significant decrease in body weight vs. placebo (-5.55 kg vs. -1.45 kg, respectively)



#### Change from baseline to week 104 Overall average at baseline: 89.39 Kg (197.07 lbs) -2 -1.45(3.20 lbs) -3 ETD (95% CI) = -4.10 Kg-5 Semaglutide (n=1,767) -6 -5.55Placebo (n=1,766) (12.23 lbs)

#### **04.** Overall safety profile

SAEs were reported less in the semaglutide group (49.6%) vs the placebo group (53.8%)



#### **BASELINE CHARACTERISTICS AND OUTCOMES**



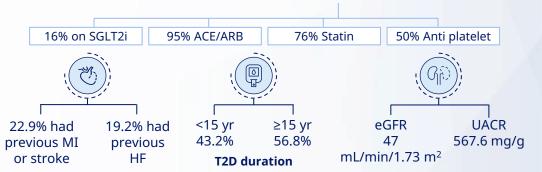






Baseline medication





#### **Composite primary endpoints**

- Onset of persistent ≥50% reduction in eGFR (CKD-EPI) versus baseline
- Onset of kidney failure, defined as initiation of CKRT (dialysis or kidney transplantation) or persistent eGFR <15 ml/min/1.73 m<sup>2</sup> for at least 4 weeks
- Death from kidney failure
- CV death

#### **CONCLUSION**

- Semaglutide at a dose of 1.0 mg once weekly reduced the risk of primary endpoint, by 24%.
- Semaglutide reduced the risk of major cardiovascular events and death from any cause.
- Serious adverse events were reported in fewer participants in the semaglutide group than in the placebo group (49.6% vs. 53.8%)



<sup>\*&</sup>gt;20 years in Japan; \*Superiority if p value <0.032; †eGFR was calculated using the CKD-EPI formula. ‡MACE was defined as a composite of non-fatal myocardial infarction, non-fatal stroke, or cardiovascular death AE, adverse events; CI, confidence interval; CKD, chronic kidney disease; CKRT, Continuous kidney replacement therapy; CV, cardiovascular; eGFR, estimated glomerular filtration rate; ETD, estimated glomerular filtration rate; ETD, estimated treatment difference; HbA<sub>1a</sub> glycated hemoglobin; HF, heart failure; HR, hazard ratio; MI, myocardial infarction; SAE, serious adverse events Perkovic V. et al. N Engl J Med. 2024;391(2):109-121