The EXSCEL trial (NCT01144338) was conducted jointly by the Duke Clinical Research Institute at Duke University and Duke Clinical Research Institute, Duke University School of Medicine, Durham, NC, USA; and the Department of Clinical Pharmacy and Pharmacology, University of Groningen, University Medical Centre Groningen, Groningen, The Netherlands; and the Clinical Pharmacology and Quantitative Pharmacology Clinical Pharmacology and Safety Sciences, R&D. AstraZeneca, Boston, MA, USA; and the Ultra-Stage Development CVDm, Biopharmaceuticals R&D, AstraZeneca, Gothenburg, Sweden; Duke University and Duke Clinical Research Institute, Duke University School of Medicine, Durham, NC, USA; Diabetes Trials Unit, University of Oxford, Oxford, UK; and the George Institute for Global Health, Sydney, Australia.

The EXSCEL trial was designed as a double-blind, randomized controlled trial to evaluate the effects of EQW on cardiovascular events and CKD progression in T2D patients at high cardiovascular (CV) risk. The primary outcome of this trial was a composite of CV death or MACE. The main inclusion criteria were T2D patients aged 65 or older, with a history of CV disease, and an estimated glomerular filtration rate (eGFR) between 30 and 60 mL/min/1.73 m². The trial included a total of 7,280 participants, assigned to EQW (n = 3,647) or placebo (n = 3,633) in a 1:1 ratio. The trial was sponsored by AstraZeneca and was conducted in collaboration with the study center physicians, local hospitals, and the regulatory authorities.

The results of the EXSCEL trial were reported in the New England Journal of Medicine in 2017. The primary outcome was not significantly different between the two groups, with 14.5% and 15.3% of patients in the EQW and placebo groups, respectively, experiencing the composite endpoint of CV death or MACE. However, there was a significant difference in the secondary endpoint of the change in eGFR, with a lower change in eGFR in the EQW group compared to the placebo group. These results suggest that EQW may have a role in slowing CKD progression in T2D patients at high CV risk.

The EXSCEL trial was a landmark study in the field of CKD management, and its results have been widely discussed and debated in the scientific community. The findings of the trial have been the subject of several studies, including a retrospective analysis of EXSCEL data, which showed that EQW treatment slowed the progression of eGFR decline in participants with elevated baseline albuminuria (>100 mg/g), and that the effect was more pronounced in participants with higher baseline albuminuria.

The results of the EXSCEL trial have important implications for the management of T2D patients at high CV risk. The findings suggest that EQW may be a useful addition to the management of these patients, particularly in those with elevated albuminuria. Further studies are needed to confirm these findings and to better understand the mechanisms underlying the observed benefits of EQW treatment.