

German Chronic Kidney Disease (GCKD-Study): National Cohort Study on Chronic Kidney Disease

Speaker

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Aims and structure

The GCKD-study has started in 2009 as the largest cooperation project in the field of nephrology in Germany. Up to that time, controlled clinical studies were rarer in this field than in other disciplines. Managed by FAU, scientists from the universities of Aachen, Berlin, Freiburg, Hannover, Heidelberg, Innsbruck, Jena, München, Regensburg, and Würzburg cooperated with about 150 licensed nephrologists in Germany to include 5,000 patients with chronic kidney disease (CKD) in this large, prospective, observational cohort study and to observe them over a period of up to ten years. In the meanwhile, GCKD has enrolled 5,217 patients with CKD. Thus, the study is the largest cohort study worldwide prospectively monitoring patients with CKD.

Using modern analytical approaches, GCKD aims at identifying new risk factors, diagnostic and therapeutic possibilities in order to better understand the factors underlying the progression of CKD to end progression of the loss of function of the kidneys and the prevent cardiovascular complications.

The GCKD Study was originally funded by the KfH Foundation of Preventive Medicine and by BMBF (2009 – 2015). In the meanwhile, it is supported by a number of collaborative projects with industry partners. The GCKD study is also actively contributing to international consortia, such as the „Chronic Kidney Disease Prognosis Consortium“ and the EU-consortium Biomarker Enterprise to Attack Diabetic Kidney Disease.

Research

Chronic kidney disease is an increasing health problem, affecting more than 10% of the population. Chronic kidney disease can progress to end stage renal disease with requirement for dialysis or transplantation. Patients suffering

from chronic kidney disease also have a disproportionate risk of cardiovascular diseases including myocardial infarction and stroke. However, the risk to loose kidney function and develop cardiovascular disease in the setting of renal disease is highly variable. Factors determining progression and complication rates are to a large extent unknown.

Observations on the course of the disease, symptoms, and complications will be correlated with genetic information and findings from other bioanalytical approaches applying modern biostatistical methods of data analysis. A large central biobank has been established in Erlangen. The study aims at establishing valid associations between biomarkers and progression. It will also provide novel insights to the question why patients with kidney disease have a tremendously increased risk of cardiovascular diseases.

Another research focus of the GCKD study is placed on the implications and consequences of kidney impairment on general health and quality of life. These findings on disease course and associated complications will hopefully help to improve the overall prognosis and postpone or avoid onset of dialysis.

