

Supplemental Methods

Collected clinical information

The data showcase of the UK Biobank consortium is available online (URL: <https://www.ukbiobank.ac.uk/data-showcase/>), and the information is identified by field IDs. The amounts of alcohol use were self-reported via a touchscreen questionnaire, including a picture of a standard drink size.

We summed the self-reported average weekly intake of each alcohol type at the baseline visit: red wine (Field ID 1568), champagne plus white wine (Field ID 1578), beer plus cider (Field ID 1588), spirits (Field ID 1598), and fortified wine (Field ID 1608), and we calculated the total average amount of alcohol use per week. Age was determined by subtracting the year of baseline visit (Field ID 54) with year of birth (Field ID 34). Raw data provided by the UK Biobank were used to determine sex (Field ID 31), smoking history (Field ID 20116), body mass index (Field ID 21001), waist circumference (Field ID 48), total cholesterol (Field ID 30690), HDL cholesterol (Field ID 30760), LDL cholesterol (Field ID 30780), number of household members (Field ID 709), average income level of a household before tax (Field ID 738, categorized as <£18,000, £18,000–£30,999, £31,000–£51,999, £52,000–£99,999, >£100,000) and self-reported frequency of moderate physical activity per week (Field ID 884). A history of cardiovascular disease was identified by angina, stroke or heart attack diagnosed by a doctor (Field ID 6150). Hypertension was determined by self-reporting of a history of treatment with hypertension medication, and dyslipidemia was determined in the same manner (Field ID 6177 and 6153). A history of diabetes mellitus was determined by self-reporting (Field ID 2443). Systolic and diastolic BP were determined by the average of two automated measurements (Field ID 4080 and 4079), and a single missing measurement was considered to constitute missing data. The number of self-reported noncancer illnesses (Field ID 135) and treatments/medications received (Field ID 137) were collected to represent the overall disease burden of the participants.

Details regarding the statistical analyses for clinical investigation

Descriptive statistics are presented as numbers (%) for categorical variables and medians [interquartile ranges] for continuous variables. The clinical associations between the ordinal alcohol use category and prevalent CKD were investigated by logistic regression analysis. The risk of incident ESKD was analyzed by Cox regression analysis. For multivariable analysis, the first model included age, sex, hypertension, and diabetes mellitus, which are well-known factors related to kidney function. The second multivariable model included all collected covariates. When assessing the risk of incident ESKD, baseline eGFR was added to the multivariable models. All clinical analyses were performed as complete case methods, and as we excluded those with missing information for the assessed covariates, there was no missing information in the regression analysis. All statistical analyses were performed using R (version 3.6.2, the R foundation), and two-sided p-values of <0.05 were considered significant.