

|                              | Description   | Details   | Biobank Field   |
|------------------------------|---|---|---|
| Table                        | Age   |   | f.21003.0.0   |
| 2                            | Sex   |   | f.31.0.0  |
|                              | Ethnicity   |   | f.21000.0.0   |
|                              | BMI   |   | f.21001.0.0   |
|                              | Smoking   | Current smoker  | f.20116.0.0   |
|                              | Alcohol   |   | f.20117.0.0   |
|                              | Alcohol Frequency   |   | f.1558.0.0  |
|                              | Townsend Deprivation  |   | f.189.0.0   |
|                              | IMD   |   | f.26410.0.0   f.26426.0.0   f.26427.0.0<br>(Three fields, use later ones if earlier ones missing) |
| Tables<br>2,3                | N022  | HES data: ICD code in any of primary or secondary diagnosis codes | f.41202,f.41204: ICD code in either field   |
|                              | N032  |   |   |
|                              | N042  |   |   |
|                              | N052  |   |   |
|                              | Putative MN   | Any of N022,N032,N042,N052  |   |
|                              | CKD   | Any N18   |   |
|                              | MN diagnosis date   | HES   | HES data: visit date of first event   |
| Follow-up Time               | (Last HES refresh date   date of death)-baseline visit date | min(2019-03-01,f.40000.0.0) - f.53.0.0                            |   |
| Tables<br>4,5,<br>S2, S3, S5 | HLADQ1 (GWAS1)  | rs2187668 Ch 6  | Relevant SNPs extracted from the bulk genetic data (see methods)                                  |
|                              | PLA2R1 (GWAS1)  | rs4664308 Ch 2  |   |
|                              | HLADQ1 (GWAS2)  | rs9272729 Ch 6  |   |
|                              | PLA2R1 (GWAS2)  | rs17830558 Ch 2   |   |
|                              | HLADRB1/DQA1 (GWAS3)  | rs9271573   |   |
|                              | PLA2R1 (GWAS3)  | rs17831251  |   |
|                              | NFKB1 (GWAS3)   | rs230540  |   |
|                              | IRF4 (GWAS3)  | rs9405192   |   |
| Table<br>6                   | NO2: 2005   |   | f.24016.0.0   |
|                              | NO2: 2006   |   | f.24017.0.0   |
|                              | NO2: 2007   |   | f.24018.0.0   |
|                              | NO2: 2010   |   | f.24003.0.0   |
|                              | NO: 2010  |   | f.24004.0.0   |
|                              | PM: <2.5  |   | f.24006.0.0   |
|                              | PM: 2.5-10  |   | f.24008.0.0   |
|                              | PM >10  |   | f.24005.0.0   |
|                              | Distance to main road                                       | reciprocal of Biobank variable                                    | f.24012.0.0   |
| Tables<br>3,<br>S4, S5       | Self-reported Renal Failure                                 | Self-report   | f.20002.0 contains 1192 1193 1194   |
|                              | HES CKD   |   | f.41202,f.41204 HES ICD code N18  |
|                              | HES Renal Disease   |   | f.41202,f.41204 HES ICD code N0*,N1*  |
|                              | Algorithmically derived ESRD                                |   | f.42026.0.0   |
|                              | uACR  | Albumin/Creatinine  | f.30500.0.0,f.30510.0.0   |
|                              | eGFR  |   | computed from above and demographic data  |
|                              | Self-reported Diabetes                                      | Self-report   | f.20002.0 contains 1222 1223 1521   |
|                              | HES Diabetes  | HES   | f.41202;f.41204 HES ICD codes E10,E11,E12,E13,E14   |

|           |                           |             |   |
|-----------|---------------------------|-------------|---|
|           | Self Report Coeliac       | Self-report | f.20002.0 contains 1456   |
|           | HES Coeliac               | HES         | HES ICD code = K900   |
|           | Self-reported RenalBiopsy | Self-report | Any f.20004.0.*=1618  |
|           | OPCS RenalBiopsy          | HES         | HES operation codes:<br>M08.1,M11.1,M11.2,M11.3,M11.8,M11.9,M13.1                                 |
| Table     | Vapours                   |             | Derived from occupation exposure matrix and SOC   |
| S6        | Gases                     |             | codes in f.22617.0.0 (see methods)  |
|           | Dusts                     |             |   |
|           | Biological Dusts          |             |   |
|           | Mineral Dusts             |             |   |
|           | Fumes                     |             |   |
|           | Diesel                    |             |   |
|           | Fibres                    |             |   |
|           | Mists                     |             |   |
|           | Asthmagens                |             |   |
|           | Metals                    |             |   |
|           | Gases or Fumes            |             |   |
|           | VGDF                      |             |   |
|           | VGDFFM                    |             |   |
| Figure S7 | Date of GP diagnosis      |             | Derived from dates of GP records with the relevant<br>Read2/3 codes for putative MN (see methods) |

Table S1 Biobank fields and variable definitions

