**Supplemental Table S1 –** Descriptions and definitions of variables

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|  | **Descriptions and definitions** |
| **Exclusion criteria** | At or 2 years before index date |
| Preexisting diabetes mellitus | ICD-10: E10-E14, O240-O243, O245, O249 *and/or*  ATC: A10 (except A10BA02) (≥2 redemptions) |
| Preexisting psychiatric morbidity | ICD-10: F00-F99 *and/or*  ATC: N05A, N05B, N06A (≥2 redemptions) |
| **Exposure** |  |
| GDM | ICD-10: O244 (entered as a time-varying exposure in the statistical analyses) |
| **Outcomes** | From 6 weeks after date of delivery |
| *Primary outcome* |  |
| Depression | ICD-10: F32-F33 *and/or*  ATC: N06A (≥2 redemptions) |
| *Secondary outcomes* |  |
| *Psychiatric diagnosis codes*  Any psychiatric diagnosis  Depressive disorders  Anxiety disorders  Bipolar disorders  Psychotic disorders  Substance use disorders  Postpartum psychiatric disease | ICD-10: F10-F19, F20-F29, F30-F31, F32-F33, F40-F41, F53  ICD-10: F32-F33  ICD-10: F40-F41  ICD-10: F30-F31  ICD-10: F20-F29  ICD-10: F10-F19  ICD-10: F53 |
| *Psychopharmacological medication*  Any psychopharmacological medication  Antipsychotics  Anxiolytics  Antidepressants | ATC: N05A, N05B, N06A (≥2 redemptions within each group)  ATC: N05A (≥2 redemptions)  ATC: N05B (≥2 redemptions)  ATC: N06A (≥2 redemptions) |
| **Covariates** | Data from index pregnancy unless stated otherwise |
| Maternal age | Age in years at date of delivery |
| Primiparity  Parity | Firstborn child in index pregnancy  For confounder adjustment, parity was entered as a time-varying confounder in the Cox regression models |
| Pregestational BMI | Based on selfreported data or as measured at first antenatal visit |
| Smoking during pregnancy | Any smoking during pregnancy based on selfreported data |
| No comorbidity | Comorbidity score of 0 according to Charlson Comorbidity Index score |
| *Ethnicity*  Danish  Immigrant, Western  Immigrant, Non-Western  Descendant | Combination of data on ethnicity/immigration status and country of origin and divided into four categories:  Born in Denmark or abroad by parents where at least one parent is born in Denmark and holds Danish citizenship  Born in ‘Other western countries’ by parents born outside of Denmark and without Danish citizenship  Born in ‘Non-western countries’ by parents born outside of Denmark and without Danish citizenship  Born in Denmark by parents born outside of Denmark and without Danish citizenship |
| *Marital status*  Single/not living with a partner  Married/living with a partner | Combination of data on marital status and family type and divided into two categories:  Widow/divorced/unmarried or non-cohabiting  Married or cohabiting |
| Income | In the calendar year prior to delivery based on a format by Statistics Denmark and divided into three categories (low, middle, high) |
| Highest completed education | Based on a format by Statistics Denmark and divided into three categories (lower secondary, upper secondary and post-secondary) |
| Occupation | Based on data on connection to the workforce by Statistics Denmark and divided into four categories (employed, unemployed or on welfare payment, under education, early retirement) |
| Preexisting polycystic ovary syndrome | ICD-10: E282 at or 2 years before index date |
| Preexisting metformin treatment | ATC: A10BA02 (≥2 redemptions) at or 2 years before index date |
| Previous spontaneous abortion(s) | One or more spontaneous abortions prior to index pregnancy |
| Multiple pregnancy | Non-singleton pregnancy |
| Preeclampsia | ICD-10: O11, O14 (diagnosed after gestational week 20) |
| Gestational hypertension | ICD-10: O13, O16 (diagnosed after gestational week 20) |
| Induction of labor | Indicator variable in DMBR |
| Cesarean section | Procedure code in DMBR |
| Gestational age at delivery | Gestational age at delivery in days |
| Preterm delivery | Delivery before gestational week 37 |
| Stillbirth | Indicator variable in DMBR |
| Offspring malformation | Indicator variable in DMBR (ICD-10 Q00-Q99 in offspring diagnosed within 1 year after index delivery) |
| Subsequent diabetes prior to outcome | ICD-10: E10-E14, O24-O243, O245, O249 diagnosed after delivery *and/or*  ATC: A10 (≥2 redemptions) after delivery *and*  no incident outcome prior to date of subsequent diabetes |

ICD-10, International Classification of Diseases, 10th revision, including subgroups; ATC, Anatomical Therapeutic Chemical groups, including subgroups; GDM, gestational diabetes mellitus; DMBR, Danish Medical Birth Register