**Supplementary files**

Table S1. Search strategy.

|  |  |
| --- | --- |
| **Database** | **Search strategy** |
| **PubMed** | 87 results:  ((("isolated hypothyroxinemia"[Title/Abstract] OR "hypothyroxinemia"[Title/Abstract])) AND ("pregnancy"[Title/Abstract] OR "pregnant women"[Title/Abstract] OR "maternal"[Title/Abstract] OR "gestational"[Title/Abstract])) AND ("adverse pregnancy outcomes"[Title/Abstract] OR "pregnancy outcomes"[Title/Abstract] OR "pregnancy complications"[Title/Abstract] OR "abortion"[Title/Abstract] OR "miscarriage "[Title/Abstract] OR "pregnancy loss"[Title/Abstract] OR "fetal death"[Title/Abstract] OR "stillbirth"[Title/Abstract] OR "preeclampsia"[Title/Abstract] OR "gestational hypertension"[Title/Abstract] OR "PIH"[Title/Abstract] OR "gestational diabetes"[Title/Abstract] OR "hemorrhage"[Title/Abstract] OR "postpartum hemorrhage"[Title/Abstract] OR "PPH"[Title/Abstract] OR "Placenta abruption"[Title/Abstract] OR "placenta previa"[Title/Abstract] OR "preterm"[Title/Abstract] OR "premature rupture of membrane"[Title/Abstract] OR "PROM"[Title/Abstract] OR "Intra uterine growth restriction"[Title/Abstract] OR "IUGR"[Title/Abstract] OR "small for gestational age"[Title/Abstract] OR "Low birth weight"[Title/Abstract] OR "LBW"[Title/Abstract] OR "oligohydramnios"[Title/Abstract] OR "Apgar"[Title/Abstract] OR "fetal distress"[Title/Abstract] OR "neonatal distress"[Title/Abstract] OR "RDS"[Title/Abstract] OR "neonatal death"[Title/Abstract] OR "neonatal mortality"[Title/Abstract] OR "neonatal admission"[Title/Abstract] OR "NICU admission"[Title/Abstract] OR "malformation"[Title/Abstract] OR "anomalies"[Title/Abstract]) |
| **Scopus** | 177 results  ( TITLE-ABS-KEY ( ( "isolated hypothyroxinemia" OR "hypothyroxinemia " ) AND ( "pregnancy" OR "pregnant women" OR "maternal" OR "gestational" ) ) ) AND ( ( TITLE-ABS-KEY ( "adverse pregnancy outcomes" OR "pregnancy outcomes" OR "pregnancy complications" OR "abortion" OR "miscarriage " OR "pregnancy loss" OR "fetal death" OR "stillbirth" OR "preeclampsia" OR "gestational hypertension" OR "PIH" ) ) OR ( TITLE-ABS-KEY ( "gestational diabetes" OR "hemorrhage" OR "postpartum hemorrhage" OR "PPH" OR "Placenta abruption" OR "placenta previa" OR "preterm" OR "premature rupture of membrane" OR "PROM" OR "Intra uterine growth restriction" OR "IUGR" OR "small for gestational age" OR "Low birth weight" OR "LBW" OR "oligohydramnios" OR "Apgar" OR "fetal distress" OR "neonatal distress" OR "RDS" OR "neonatal death" OR "neonatal mortality" OR "neonatal admission" OR "NICU admission" OR "malformation" OR "anomalies" ) ) ) AND ( LIMIT-TO ( DOCTYPE , "ar" ) ) AND ( LIMIT-TO ( LANGUAGE , "English" ) ) |
|  |  |

Table S2. Quality assessment of included studies using the Newcastle-Ottawa Quality Assessment Form for Cohort Studies

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Author, years** | **SELECTION** | | | | **COMPARABILITY** | **Outcome** | | | **Total scores** | **quality** |
| Representativeness of the exposed cohort | Selection of the non-exposed cohort | Ascertainment of exposure | Demonstration that outcome of interest was not present at start of study | Comparability of cohorts on the basis of the design or analysis controlled for confounders | Assessment of outcome | Was follow-up long enough for outcomes to occur | Adequacy of follow-up of cohorts |
| **Pop et al. (2004**) | **1** | **1** | **1** | **1** | **0** | **0** | **1** | **1** | **6** | Moderate |
| **Hamme et al., (2009)** | **0** | **0** | **1** | **1** | **2** | **1** | **1** | **1** | **7** | High |
| **Gong et al. (2019)** | **1** | **1** | **1** | **1** | **2** | **1** | **1** | **1** | **9** | High |
| **Su et al.  (2019)** | **0** | **0** | **1** | **1** | **1** | **1** | **1** | **1** | **6** | Moderate |
| **Casey et al. (2007)** | **1** | **1** | **1** | **1** | **2** | **1** | **1** | **1** | **9** | High |
| **Korevaar et al. (2013)** | **1** | **1** | **1** | **1** | **2** | **1** | **1** | **1** | **9** | High |
| **Medici et al., (2014)** | **1** | **1** | **1** | **1** | **2** | **1** | **1** | **1** | **9** | High |
| **Rosario et al., (2018)** | **0** | **0** | **1** | **1** | **1** | **1** | **1** | **1** | **6** | Moderate |
| **Cleary-Goldman et al., (2008)** | **1** | **1** | **1** | **1** | **2** | **1** | **1** | **1** | **9** | High |
| **Leon et al., (2015)** | **1** | **1** | **1** | **1** | **2** | **1** | **1** | **1** | **9** | High |
| **Su et al., (2011)** | **1** | **1** | **1** | **1** | **2** | **1** | **1** | **1** | **9** | High |
| **Mannisto et al., (2010)** | **1** | **1** | **1** | **1** | **2** | **1** | **1** | **1** | **9** | High |
| **Zhu et al., (2018)** | **1** | **1** | **1** | **1** | **2** | **1** | **1** | **1** | **9** | High |
| **Ong et al., (2014)** | **1** | **1** | **1** | **1** | **1** | **1** | **1** | **1** | **8** | High |
| **Breathnach et al. (2013)** | **0** | **0** | **1** | **1** | **1** | **1** | **1** | **1** | **6** | Moderate |

**Figure S1: Risk of bias in Cohort studies**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **type** | **Authors, years** | **Was selection of exposed and non‐exposed cohorts drawn from the same population?** | **Can we be confident in the assessment of exposure?** | **Can we be confident that the outcome of interest was not present at start of study?** | **Did the study match exposed and unexposed for all variables that are associated with the outcome of interest or did the statistical analysis adjust for these prognostic variables?** | **Can we be confident in the assessment of the presence or absence of prognostic factors?** | **Can we be confident in the assessment of outcome?** | **Was the follow up of cohorts adequate?** |
| **Cohort** | **Pop et al. (2004)** |  |  |  |  |  |  |  |
| **Hamme et al., (2009)** |  |  |  |  |  |  |  |
| **Gong et al. (2019)** |  |  |  |  |  |  |  |
| **Su et al. (2019)** |  |  |  |  |  |  |  |
| **Casey et al. (2007)** |  |  |  |  |  |  |  |
| **Korevaar et al. (2013)** |  |  |  |  |  |  |  |
| **Medici et al., (2014)** |  |  |  |  |  |  |  |
| **Rosario et al., (2018)** |  |  |  |  |  |  |  |
| **Cleary-Goldman et al., (2008)** |  |  |  |  |  |  |  |
| **Leon et al., (2015)** |  |  |  |  |  |  |  |
| **Su et al., (2011)** |  |  |  |  |  |  |  |
| **Mannisto et al., (2010)** |  |  |  |  |  |  |  |
| **Zhu et al., (2017)** |  |  |  |  |  |  |  |
| **Ong et al., (2014)** |  |  |  |  |  |  |  |
| **Breathnach et al. (2013)** |  |  |  |  |  |  |  |

**A**

Definitely No (low risk of bias) Probably no Definitely yes (high risk of bias) Probably Yes

**B**