**Supplementary file - The effect of SARS-CoV-2 infection and COVID-19 vaccination during pregnancy on neonatal outcomes**

**Figure S1.** Number of childbirths per month



**Table S1**. Outcome descriptives stratified for SARS-CoV-2 infection during pregnancy, by trimester

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | **No (n=126)** | **Yes (n=109)** | **Yes, 1st trimester (n=33)** | **Yes, 2nd trimester (n=45)** | **Yes, 3rd trimester (n=37)** |
| Gestational age in weeks, mean (SD) | 39.7 (2.0) | 39.8 (1.4) | 40.1 (1.4) | 39.5 (1.6) | 40.0 (1.2) |
| Birth weight in grams, mean (SD) | 3571 (572) | 3605 (467) | 3596 (445) | 3667 (510) | 3553 (446) |
| Apgar score1, median (IQR) | 10 (1) | 9 (1) | 9 (1) | 9 (1) | 9 (1) |
| Gave birth in hospital, n (%) | 93 (73.8) | 89 (81.7) | 25 (75.8) | 39 (86.7) | 27 (73.0) |
| Stayed night in hospital, n (%) | 50 (53.8) | 48 (53.9) | 14 (56.0) | 24 (61.5) | 12 (44.4) |
| Due to child’s health  | 20 (40.0) | 13 (27.1) | 5 (35.7) | 4 (16.7) | 5 (41.7) |
| Due to mother’s health  | 17 (34.0) | 16 (33.3) | 5 (35.7) | 9 (37.5) | 3 (25.0) |
| Due to mother and child’s health | 13 (26.0) | 19 (39.6) | 4 (28.6) | 11 (45.8) | 4 (33.3) |
| Reason when due to child’s health, n (%)  |
| Jaundice | 1 (3.0) | 1 (3.1) | 0 (0.0) | 1 (6.7) | 0 (0) |
| Blood sugar problems | 5 (15.2) | 5 (15.6) | 2 (22.2) | 2 (13.3) | 1 (11.1) |
| Breathing disorder | 1 (3.0) | 3 (9.4) | 1 (11.1) | 0 (0) | 3 (33.3) |
| Infection | 2 (6.1) | 1 (3.1) | 0 (0.0) | 0 (0) | 1 (11.1) |
| Other | 24 (72.3) | 22 (68.8) | 6 (66.7) | 12 (80.0) | 4 (44.4) |
| NICU admission, n (%) | 6 (4.8) | 4 (3.7) | 0 (0.0) | 2 (4.4) | 2 (5.4%) |
| Neonatal death, n (%) | 0 (0) | 0 (0) | 0 (0) | 0 (0) | 0 (0) |

1 Apgar score was missing for 32 newborns.

**Table S2**. Outcome descriptives stratified for SARS-CoV-2 infection during pregnancy, by first and repeat infection

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | **No (n=126)** | **Yes (n=109)** | **Yes, first infection1 (n=86)** | **Yes, repeat infection1 (n=23)** |
| Gestational age in weeks, mean (SD) | 39.7 (2.0) | 39.8 (1.4) | 39.8 (1.3) | 40.0 (1.8) |
| Birth weight in grams, mean (SD) | 3571 (572) | 3605 (467) | 3610 (431) | 3586 (591) |
| Apgar score2, median (IQR) | 10 (1) | 9 (1) | 9 (0) | 9 (1) |
| Gave birth in hospital, n (%) | 93 (73.8) | 89 (81.7) | 70 (81.4) | 19 (82.6) |
| Stayed night in hospital, n (%) | 50 (53.8) | 48 (53.9) | 36 (51.4) | 12 (63.2) |
| Due to child’s health  | 20 (40.0) | 13 (27.1) | 8 (22.2) | 5 (41.7) |
| Due to mother’s health  | 17 (34.0) | 16 (33.3) | 13 (36.1) | 3 (25.0) |
| Due to mother and child’s health | 13 (26.0) | 19 (39.6) | 15 (44.7) | 4 (33.3) |
| Reason when due to child’s health, n (%)  |
| Jaundice | 1 (3.0) | 1 (3.1) | 1 (4.3) | 0 (0) |
| Blood sugar problems | 5 (15.2) | 5 (15.6) | 2 (8.7) | 3 (33.3)  |
| Breathing disorder | 1 (3.0) | 3 (9.4) | 2 (8.7) | 1 (11.1) |
| Infection | 2 (6.1) | 1 (3.1) | 0 (0) | 1 (11.1) |
| Other | 24 (72.3) | 22 (68.8) | 18 (78.3) | 4 (44.4) |
| NICU admission, n (%) | 6 (4.8) | 4 (3.7) | 4 (4.7) | 0 (0) |
| Neonatal death, n (%) | 0 (0) | 0 (0) | 0 (0) | 0 (0) |

1 Six women reported two infections during pregnancy. They were included in this table only once. Four women had a first and repeat infection and included as “Yes, first infection”. Two women reported two repeat infections and were included as “Yes, repeat infection”. 2 Apgar score was missing for 32 newborns.

**Table S3**. Outcome descriptives stratified for SARS-CoV-2 infection during pregnancy, by vaccination status

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | **No (n=126)** | **Yes (n=109)** | **Yes, infection before vaccination1 (n=13)** | **Yes, breaktrough infection1 (n=96)** |
| Gestational age in weeks, mean (SD) | 39.7 (2.0) | 39.8 (1.4) | 40.1 (1.4) | 39.8 (1.4) |
| Birth weight in grams, mean (SD) | 3571 (572) | 3605 (467) | 3707 (480) | 3591 (466) |
| Apgar score2, median (IQR) | 10 (1) | 9 (1) | 9 (1) | 9 (1) |
| Gave birth in hospital, n (%) | 93 (73.8) | 89 (81.7) | 10 (76.9) | 79 (82.3) |
| Stayed night in hospital, n (%) | 50 (53.8) | 48 (53.9) | 4 (40.0) | 44 (55.7) |
| Due to child’s health  | 20 (40.0) | 13 (27.1) | 2 (20.0) | 11 (25.0) |
| Due to mother’s health  | 17 (34.0) | 16 (33.3) | 1 (10.0) | 15 (34.1) |
| Due to mother and child’s health | 13 (26.0) | 19 (39.6) | 1 (10.0) | 18 (40.9) |
| Reason when due to child’s health, n (%)  |
| Jaundice | 1 (0.8) | 1 (0.9) | 0 (0) | 1 (3.4) |
| Blood sugar problems | 5 (4) | 5 (4.6) | 0 (0) | 5 (17.2) |
| Breathing disorder | 1 (0.8) | 3 (2.8) | 0 (0) | 3 (10.3) |
| Infection | 2 (1.6) | 1 (0.9) | 0 (0) | 1 (3.4) |
| Other | 24 (19) | 22 (20.2) | 3 (100) | 19 (65.5) |
| NICU admission, n (%) | 6 (4.8) | 4 (3.7) | 0 (0) | 4 (4.2) |
| Neonatal death, n (%) | 0 (0) | 0 (0) | 0 (0) | 0 (0) |

1 Six women reported two infections during pregnancy. They were included in this table only once. Five women were vaccinated before these infections. One was not vaccinated before these infections. 2 Apgar score was missing for 32 newborns.

**Table S4**. Outcome descriptives stratified for COVID-19 vaccination during pregnancy, by trimester

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | **No (n=68)** | **Yes (n=167)** | **Yes, 1st trimester (n=75)** | **Yes, 2nd trimester (n=59)** | **Yes, 3rd trimester (n=62)** |
| Gestational age in weeks, mean (SD) | 39.7 (2.4) | 39.8 (1.5) | 39.7 (1.4) | 39.6 (1.5) | 40.1 (1.3) |
| Birth weight in grams, mean (SD) | 3511 (606) | 3618 (486) | 3646 (447) | 3602 (568) | 3652 (441) |
| Apgar score1, median (IQR) | 9 (1) | 9 (1) | 9 (1) | 9 (1) | 9 (1) |
| Gave birth in hospital, n (%) | 56 (82.4) | 126 (75.4) | 60 (80%) | 42 (71.2) | 45 (72.6) |
| Stayed night in hospital, n (%) | 31 (55.3) | 67 (53.2) | 30 (50.0) | 23 (54.8) | 21 (46.7) |
| Due to child’s health  | 16 (51.6) | 17 (25.4) | 5 (16.7) | 10 (43.5) | 6 (28.6) |
| Due to mother’s health  | 5 (16.1) | 28 (41.8) | 14 (46.7) | 7 (30.4) | 8 (38.1) |
| Due to mother and child’s health | 10 (32.3) | 22 (32.8) | 11 (36.7) | 6 (26.1) | 7 (33.3) |
| Reason when due to child’s health, n (%)  |  |  |  |
| Jaundice | 2 (7.7) | 0 (0) | 0 (0) | 0 (0) | 0 (0) |
| Blood sugar problems | 1 (3.8) | 9 (23.1) | 4 (25.0) | 4 (25.0) | 1 (7.7) |
| Breathing disorder | 2 (7.7) | 2 (5.1) | 1 (6.3) | 1 (6.3) | 0 (0) |
| Infection | 1 (3.8) | 2 (5.1) | 1 (6.3) | 2 (12.5) | 0 (0) |
| Other | 20 (76.9) | 26 (66.7) | 10 (62.5) | 9 (56.3) | 12 (92.3) |
| NICU admission, n (%) | 3 (4.4) | 7 (4.2) | 2 (2.7) | 3 (5.1) | 2 (3.2) |
| Neonatal death, n (%) | 0 (0) | 0 (0) | 0 (0) | 0 (0) | 0 (0) |

1 Apgar score was missing for 32 newborns.