

COVID-19 and pregnancy - Q&A – September 2022

1. What are the risks to the pregnancy if the woman is triple vaccinated and develops COVID-19?

There is no data on this given the recency of the recommendation of the 3rd dose, and the change in COVID strains. Older data does suggest women remain at increased risk of adverse antenatal outcomes due to COVID, and there is good data that receiving an mRNA vaccine during pregnancy reduces the risk of severe illness from COVID-19. Data out of Melbourne suggests that having been vaccinated with 2 vaccines reduced the risk of catching COVID-19 whilst pregnant, and reduces the risk of preterm birth. It is also clear that vaccination during pregnancy increases antibodies against COVID-19, and that these may provide protection to the baby, both across the placenta and via the breastmilk. A small study demonstrated 57% of infants born to pregnant people who were vaccinated had detectable antibodies, compared to 8% of those who had COVID-19 during pregnancy.

2. Are there differences to the risks depending on what trimester of pregnancy a woman develops COVID-19?

Data from the Wuhan strain, alpha and delta strains suggest pregnant women are more likely to be admitted to an intensive care unit, require invasive ventilation, require ECMO, and have an increased risk of death. Pregnancy risk relates to increased risk of pre-eclampsia, preterm birth and stillbirth. The initial data suggested this was worse in the third trimester, but with the evolution of this virus it appears the risks are reduced compared to the alpha and delta strains. This is likely due to two factors, firstly that omicron appears to be a less severe virus, and secondly that vaccination is still protective against severe disease.

3. A general update on the mRNA COVID-19 vaccine and pregnant women?

Data from vaccine safety monitoring systems from the Centre for Disease Control and FDA in the US have not found any safety concerns for people who received an mRNA COVID-19 vaccine, or for their babies. There is no increased risk for miscarriage among pregnant women who receive the vaccine just before or during early pregnancy, and a study from Chicago demonstrated no increased risk of birth defects detectable on antenatal US. Data from American, European and Canadian studies showed that vaccination with an mRNA COVID-19 vaccine during pregnancy was not associated with an increased risk for pregnancy complications, including preterm birth, stillbirth, and bacterial infection of the placenta and excessive maternal blood loss after birth. Vaccination has demonstrated better perinatal outcomes including lower rates of stillbirth, preterm birth and NICU admissions. New data show that a two-dose primary mRNA COVID-19 vaccine series during pregnancy can help protect babies younger than 6 months old from hospitalization due to COVID-19, with 84% of those babies hospitalized with COVID-19 being born to unvaccinated mothers in one study.

4. Should women over 30 have the 4th vaccine?

Women should follow the recommended ATAGI population guidelines and a 4th dose can be considered. Recent Swedish data suggests those who have had a fourth dose have lower mortality rates but this study was not in a pregnant cohort. It is definitely recommended if there are any medical comorbidities, which is important as the antiviral therapies available are currently contraindicated in pregnancy