# Pregnancy and COVID-19: Lessons so far

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The outbreak of novel coronavirus (COVID-19) that started in December 2019 in Wuhan, China has rapidly become a public health threat (Li et al. 2020). On March 11 2020, the World Health Organization (WHO) recognised COVID-19 as a pandemic since it affected 114 countries with 118,000 cases and 4,291 deaths (WHO 2020a). As of 11 April 2020, there are 6,53,204 cases of COVID-19 reported including 1,02,088 deaths (European Centre for Disease Prevention and Control 2020).

Since COVID-19 is a new disease, we are still learning how it spreads, what the best prevention measures are and how it affects different groups of people including pregnant women (CDC 2020).

What is the risk of COVID-19 for pregnant women?

It is not currently known whether pregnant women are at higher (or lower) risk of getting COVID-19 than the general public. However due to changes in women's immune system during pregnancy it may increase the risk of some infections (CDC 2020). Although women get infected with COVID-19, the risk of severe disease or death in healthy pregnant women and babies is very low (Morris et al. 2020).

The United Kingdom declared pregnant women as a vulnerable patient population on 16th March 2020 based on historical data from other viral infections which have shown that pregnant women are likely to experience from serious illness than the general population if they caught COVID-19 (Morris et al. 2020).

What effects does COVID-19 have on pregnant women and baby?

Currently little is known about the effect of COVID-19 on pregnant women and baby and the evidence of transmitting the virus from mother to baby is inconclusive. While one study has shown some evidence that virus can pass from an infected mother to her baby, no major harmful effects was recorded in the neonates (Zeng et al. 2020). In contrast, the analysis conducted by Schwartz (2020) of 38 pregnant women with Covid-19 in China did not lead to maternal deaths and there was no evidence of COVID-19 transmission from infected pregnant women to their foetuses. The study

conducted by Chen et al. (2020) had the similar findings from a study on clinical characteristics and intrauterine vertical transmission potential of COVID-19 infection in nine pregnant women in China.

How can pregnant women protect themselves from getting COVID-19?

The general advice given to public is also applicable to pregnant women. Some of the preventive measures that can be taken by pregnant women to protect themselves from getting Covid-19 are as follows:

- Social distancing –remain at least six feet away from anyone who doesn't live with you
- Hand washing with soap and water for at least 20 seconds frequently (before and after eating or handling food, after using toilets, when you blow your nose, cough or sneeze)
- Covering cough or sneeze using your elbow
- Avoiding people who are sick or suspected Covid-19 cases
- Drinking plenty of fluid and maintain hydration
- Eating healthy food
- Having adequate rest
- Postponing any social events planned for new coming baby such as baby shower
- Avoiding non-essential use of public transport
- Avoiding touching your eyes, nose, and mouth with unwashed hands (CDC 2020, Morris et al. 2020)

There have also been calls for increasing the number of home births to avoid pregnant women coming into hospital. The safety of homebirth for healthy women having their second or subsequent baby supported by midwives was highlighted in the Birthplace study (Birthplace in England Collaborative Group 2011).

Changes to antenatal care and routine appointments

Maternity care in the UK are making major changes to minimise risk and are including more online appointments. There are fewer face-to-face appointments with their midwife or other health care professionals and more contact by telephone or online. Although routine tests and scans are proceeding as planned, those pregnant women who have signs of COVID-19 or who are self-isolating are advised not to attend their antenatal appointment. Instead they should inform their midwife and follow COVID-19 guidance about when to seek medical assistance. Some routine appointments can be delayed for few weeks and this needs to be discussed with your midwife (Cheyne 2020).

## Current guidance on Mode of Delivery

WHO (2020b) suggest that the mode of delivery should be individualised and based on woman's preferences alongside obstetric indications and that caesarean sections should only be performed where medically justified. Royal college of Obstetricians and Gynaecologists (RCOG) suggests that if a woman choses to give birth at home or in a midwife-led unit that is not co-located with an obstetric

unit, then it is advised to consider the availability of ambulance services to allow for rapid transfer to hospital. Right number of staff should also be present to keep mother and baby safe.

Care during Pregnancy and Child birth

All pregnant women, including those with confirmed or suspected COVID-19 infections, have the right to high quality care before, during and after childbirth that includes antenatal, newborn, postnatal, intrapartum and mental health care (WHO, 2020b).

A safe and positive childbirth experience includes:

- Being treated with respect and dignity;
- Having a companion of choice present during delivery;
- Clear communication by maternity staff;
- Appropriate pain relief strategies;
- Mobility in labour where possible, and birth position of choice. (WHO, 2020b)

## COVID-19 and breastfeeding

There is no evidence at this time that breastfeeding can pass COVID-19 to babies (UNICEF 2020). Breast milk samples were tested after the first lactation from six patients with COVID-19 and the results were negative for COVID-19 in all samples in a study conducted in China by Chen et al. (2020). We must promote, protect and support breastfeeding considering the protection that human milk and breastfeeding offers the baby (UNICEF 2020).

As the cases of COVID-19 are increasing, new evidence will come to light. It is wise to keep any eye on the regular updates posted by the RCOG (Morris et al. 2020) as there have been seven updates (to date 9 April 2020) since the first version appeared on March 9th 2020.

### References

Birthplace in England Collaborative Group. Perinatal and maternal outcomes by planned place of birth for healthy women with low-risk pregnancies: the Birthplace in England national prospective cohort study. BMJ 2011; 343 doi: 10.1136/bmj.d7400.

Centers for Disease Control and Prevention. Coronavirus Disease 2019 (COVID-19). Pregnancy & Breastfeeding.

Chen H, Guo j, Wang C, et al. Clinical characteristics and intrauterine vertical transmission potential of COVID-19 infection in nine pregnant women: a retrospective review of medical records. The Lancet. 2020; 395, 10226:809-1. Accessed: 04 April 2020.

Cheyne H. 2020 Pregnant during the coronavirus crisis? Don't panic. The Conversation. Accessed: 09 April 2020.

European Centre for Disease Prevention and Control. Situation update worldwide, as of 11 April 2020. Accessed: 04 April 2020.

Morris, E., O'Brien, P.,Goodyear, G., Relph, S., Jardine, J., Powell, A., Gilgunn-Jones, E., Mullins, E., Viner, R., Evans, D., Ross-Davie, M., Coronavirus (COVID-19) infection and pregnancy. Information for healthcare professionals Version 7: Published Thursday 9 April 2020 RCOG & RCM. Accessed: 09 April 2020.

Qun L, Guan X, Peng W, Xiaoye W et al. Early Transmission Dynamics in Wuhan, China, of Novel Coronavirus-Infected Pneumonia. N Engl J Med 2020; 382: 1199-1207.

Royal college of Obstetricians and Gynaecology. 2020. Coronavirus infection and Pregnancy. Accessed: 14 April 2020.

Schwartz D. 2020. An Analysis of 38 Pregnant Women with COVID-19, Their Newborn Infants, and Maternal-Fetal Transmission of SARS-CoV-2: Maternal Coronavirus Infections and Pregnancy Outcomes. Archives of Pathology & Laboratory Medicine. Accessed: 04 April 2020.

UNICEF. Infant feeding during the COVID-19 outbreak. Accessed: 04 April 2020.

WHO 2020a. WHO Director-General's opening remarks at the media briefing on COVID-19- 11 March 2020. Accessed: 02 April 2020.

WHO 2020b. Q&A on COVID-19, pregnancy, childbirth and breastfeeding 18 March 2020. Accessed: 14 April 2020.

Zeng L, Xia S, Yuan W et al. Neonatal early-onset infection with SARS-CoV-2 in 33 neonates born to mothers with COVID-19 in Wuhan, China. Pediatrics 2020. doi:10.1001/jamapediatrics.2020.0878AMA.

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