



AOFOG statement: COVID 19 in pregnancy

Updated on 27th May 2021

There has been a sudden rise of COVID 19 infection in most South Asian countries in the month of April and May 2021 with very high rates of spread seen especially in India. In contrast, some countries in the West which were badly affected by the pandemic at the beginning are now showing improvement in morbidity and mortality. This is likely due to the rapid vaccination roll-out in those countries coupled with public health measures. It is also disturbing to note that several new variants of the virus have been detected in recent months with greater infectivity and virulence. This has had a knock-on effect with hospitals being overwhelmed and healthcare workers overburdened resulting in a significant impact on the management of our pregnant women.

Apart from initiating novel treatment options including telehealth, strict adherence to public health measures and strict protocols for screening and treatment in labour, vaccination offers another avenue to bring this pandemic under control.

Disease severity

- COVID-19 ranges from asymptomatic infection, through to mild disease (no evidence of pneumonia or hypoxia), moderate disease (viral pneumonia), severe disease (severe pneumonia, e.g. with SpO₂ below 90% on room air) and critical disease (Acute Respiratory Distress Syndrome [ARDS], sepsis, septic shock, or complications such pulmonary embolism or acute coronary syndrome). Severe illness, such as that requiring ICU admission, is relatively uncommon in women of reproductive age but can occur.
- Symptomatic pregnant patients with COVID-19 are at increased risk of more severe illness compared with their nonpregnant peers. Although the absolute risk for severe COVID-19 is low, the data indicate an increased risk of ICU admission, need for mechanical ventilation and ventilatory support (ECMO) and death.
- Pregnant patients with co-morbidities (obesity and diabetes) may be at an even higher risk of severe illness consistent with the general population with similar comorbidities.
- Compared with pregnant women without COVID-19, pregnant women with symptomatic COVID-19 requiring hospitalisation have overall worse maternal outcomes, including an increased risk of death, although that risk remains very low (the UK maternal mortality rate from COVID-19 is 2.2 per 100 000 maternities).
- Symptomatic maternal COVID-19 is associated with an increased likelihood of iatrogenic preterm birth. Aside from preterm birth, there is no evidence that COVID-19 infection has an adverse effect on the fetus or on neonatal outcomes.

Vaccination in Pregnancy

An ideal vaccine would be one which is single dose, can be stored at room temperature, safe in pregnant and lactating women and provides long-lasting immunity with simple administration.

The vaccines developed and in current use are “emergency vaccines” that have been approved by the WHO’s Emergency Use Listing (EUL) to reduce the severity of the disease and reduce hospital admissions and deaths.

- COVID-19 vaccine development and regulatory approval are rapidly progressing. Thus, information and recommendations will evolve as more data are collected about these vaccines and their use in specific populations.
- ACOG recommends that pregnant individuals have access to COVID-19 vaccines. COVID-19 vaccines should be offered to lactating individuals similar to non-lactating individuals. Individuals considering a COVID-19 vaccine should have access to available information about the safety and efficacy of the vaccine, including information about data that are not available. A communication between the patient and their clinical team may assist with decisions regarding the use of vaccines approved under Emergency Use Authorization (EUA) [currently Pfizer, Moderna and J&J by FDA in USA only] for the prevention of COVID-19 by pregnant women(1).
- The latest advice from the Joint Committee on Vaccination and Immunisation (JCVI) in United Kingdom is that COVID-19 vaccines should be offered to pregnant women at the same time as the rest of the population, based on their age and clinical risk group. Women should discuss the benefits and risks of having the vaccine with their healthcare professional and reach a joint decision based on individual circumstances(2).

If a breastfeeding woman is part of a group (e.g., health workers) recommended for vaccination, vaccination can be offered; WHO does not recommend discontinuing breastfeeding after vaccination.

- As per the interim Strategic Advisory Group of Experts (SAGE) guidance issued for 5 vaccines that have received WHO Emergency Use Listing (EUL) so far (i.e. Pfizer, Moderna, Janssen, Astra Zeneca, Sinopharm), WHO recommends the use of the COVID-19 vaccine in pregnant women when the benefits of vaccination outweigh the potential risks. These include pregnant women at high risk of exposure to COVID-19 including health care workers and pregnant women with comorbidities that place them in a high-risk group for severe COVID-19.
- Importance of both active and passive surveillance approaches to assess adverse events following immunization (AEFI) during pregnancy is also highlighted.

Pregnant patients who decide to get vaccinated should continue to follow the current guidelines to prevent the spread of COVID-19 after they are vaccinated. Those are:

- Wearing a mask indoors and outdoors
- Staying at least two meters away from others
- Avoiding crowds
- Washing hands with soap and water for 20 seconds or using hand sanitizer with at least 60% alcohol

Efficacy of COVID-19 Vaccines

All currently available COVID-19 vaccines have demonstrated high efficacy among their respective clinical trial end-points. Vaccine efficacy is based on the time and place where the trials were conducted and the circulating SARS-CoV-2 virus (es). Direct comparison of the results of these trials would be inappropriate at this time.

Direct prevention of the following rare conditions of COVID 19 infection have been found among vaccinated pregnant women:

- Maternal ICU admission
- Mechanical ventilation or ECMO
- Maternal death.

Indirect reduction of the following common conditions of COVID 19 infection with vaccination include:

- Iatrogenic preterm birth
- Cesarean delivery
- Stillbirth
- Obstruction to healthcare access
- Mental distress scores.

Mother–infant separation following delivery and perceived risk of transmission and rare postnatal vertical transmission is also reduced.

Interruption of breastfeeding following delivery and perceived risk of transmission or COVID-19 treatment incompatible with nursing have also seen a reduction after vaccination(3).

Efficacy of mRNA vaccines

Based on results from clinical trials, the Pfizer-BioNtech COVID-19 vaccine and the Moderna vaccine had comparable efficacy (95% vs 94.1%) in preventing laboratory-confirmed COVID-19 illness in people who received two doses who had no evidence of previous infection(4).

A prospective cohort study from two academic centers found that vaccinated pregnant and lactating women produced comparable immune responses to non-pregnant controls, and generated higher antibody titers than those observed following SARS-CoV-2 infection in pregnancy. Further, vaccine-generated antibodies were present in umbilical cord blood and breastmilk after maternal vaccination (5).

Each of these vaccines appeared to have high efficacy in clinical trials among people of diverse age, sex, race, and ethnicity categories and among persons with underlying medical conditions.

Efficacy of adenovirus-vector vaccines

Based on the results from clinical trials in the U.S., the Janssen COVID-19 vaccine has been shown to be 66.9% effective at preventing moderate/severe COVID-19 illness and 76.7% effective at preventing severe/critical COVID-19 illness after a single dose. This vaccine also demonstrated 93.1% effective at preventing hospitalizations 14 days following vaccination(6).

Side Effects of COVID-19 Vaccines

Expected side effects should be explained as part of counseling patients, including that they are a normal part of the body's reaction to the vaccine and developing antibodies to protect against COVID-19 illness.

Summary

Given the current situation of rising COVID-19 infections in the region and based on the evidence on the currently available vaccines, AFOG firmly believes that COVID-19 vaccination should not be withheld from pregnant women who have received adequate counselling and clearly understand the uncertainties, minimal potential harms and the likely benefits of these vaccines.

Furthermore, given that the most severe effects of COVID-19 infection are experienced after 28 weeks coupled with the current shortage of vaccines in our region and the uncertainty regarding their safety especially in the first trimester, it is time to decide that it may well be a prudent strategy to immunize all pregnant women after the first trimester of pregnancy.

References

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