

PREVENTIVE MEASURES AND MANAGEMENT OF COVID-19 IN ANC AND PNC PERIOD: A REVIEW STUDY

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ABSTRACT

Corona virus (COVID-19) pandemic has been declared by the World Health Organization after it has gripped many countries of the world. The exponential increase in the number of cases has resulted in panic and confusion among healthcare workers and the vulnerable population. Pregnant and lactating mothers are a vulnerable group and need evidence-based advice to protect the health of the mother and the child. Healthcare workers can play an important role in dispelling the myths and misconceptions among pregnant and lactating mothers regarding COVID-19, if they are equipped with scientific information on antenatal care, care at birth, and breastfeeding. This review attempts to summarize the published evidence related to antenatal care, care at birth and breastfeeding during the COVID-19 pandemic.

KEYWORDS: COVID-19, ANC and PNC care.

INTRODUCTION

COVID-19 is a global public health emergency, and could cause devastating health issues during pregnancy. Pregnant women have a high propensity to acquire this infection due to their altered physiological and immunological function.^[1] Pregnant woman and lactating mother were placed in a vulnerable group because we know that some viral infections are worse in pregnant woman ; however, all available evidence suggests that pregnant women are at no greater risk of becoming seriously unwell than other healthy adults if they develop corona virus.^[2]

But study also found that pregnant women from black, Asian and minority ethnic backgrounds were more likely than other women to be admitted to hospital for corona virus. pregnant women over the age of 35, those who were overweight or obese, and those who had pre-existing medical problems, such as high blood pressure and diabetes, were also at higher risk of developing severe illness.^[3]

So here this is commentary reviews the available information on managing COVID-19 during pregnancy to preserve the health of mothers and children in this critical situation.

Symptoms and Diagnosis of covid-19

The onset of symptoms is usually within 14 days of exposure. COVID-19 symptoms range from mild to severe, and commonly include shortness of breath, cough, myalgia, fever and severe pneumonia. Injury to vital organs (kidney, heart, liver) has also been observed.^[10] The severity of infection may depend on the underlying health of the individual,^[11] with patients with pre-existing illnesses, such as diabetes and lung disease, as well as the elderly, being more prone to the rapid development of COVID- 19.

Diagnosis of COVID-19 is mainly based on computed tomography (CT) scans and reverse transcription polymerase chain reaction (RT-PCR). This test is routinely employed for the detection of viruses responsible for respiratory illnesses.^[12] In the RT-PCR technique, viral isolates are used as a primary substrate to perform an assay that identifies a specific virus and its gene sequence.^[13] A CT scan is considered more sensitive than RT-PCR, and can be used to confirm a positive RT-PCR test.^[14] To conduct RT-PCR, a sample taken from throat swabs, urine, saliva or stool can be used. Usually the nucleic acid test is repeated for a single patient in order to get accurate results. Two tests are performed successively at a gap of 24 h when the virus is not observed in the throat swab sample. If RT-PCR is not available, a serological test could also be use for diagnostic examination.^[15]

The expectant mother & covid-19

If an expectant mother is asymptomatic and uninfected, the first thing she can do to stay safe is to cancel her routine visits to the hospital/clinic/doctor. A pregnant woman is more vulnerable to infection and it's in her best interest to avoid places where she is likely to be with others. However, there are certain routine checks that are unavoidable. The most important ones among them are the scans to be done at 12 weeks and 19-20 weeks. Every pregnant woman must undergo these procedures. Also, note fetal movements regularly. After

the scan at 19 weeks, the next one that requires to be attended is at 32 weeks.

The following rules, known as 'Do the Five', are devised to help expectant mothers to stay safe.

Home

Stay home as much as possible. Step out only in the event of infection or pregnancy-related needs. As of now, the Medical Council of India has permitted telephonic consultations. Make use of it. Restrict the number of people who come home including maids and homecare personnel.

Hands

Wash your hands thoroughly for at least 20 seconds using soap and water. Use an alcohol-based hand rub to sanitize your hands.

Respiratory hygiene etiquette

Maintain respiratory hygiene by covering the nose with bend elbow, handkerchief or tissue while coughing/ sneezing.

Face

Avoid touching face, eyes, nose and mouth with hands.

Space

Keep a distance of at least 1 meter with the next person whether you're at home or outside.

Precautionary measures during pregnancy

Preventive measures, including frequent hand washing, refraining from excessive outdoor activities unless an emergency, and avoiding infected individuals, crowded places and public gatherings, should be strictly followed by pregnant women. They should check their temperature regularly and immediately inform their doctor if they experience shortness of breath, cough or fever.^[16] Moreover, women who have a travel history or COVID-19 symptoms should be kept in isolation for at least 14 days. The National Health Commission of China proposed that neonates from mothers who are confirmed or suspected cases should be kept under observation and not breastfed.^[17] However, no evidence is currently available to confirm the transfer of 2019-nCoV to breast milk.

Pregnant women should closely monitor their vital signs (pulse rate, respiration rate and temperature). Importantly, they should inform their maternity-care provider regarding their health status and seek advice regularly. Extracorporeal membrane oxygenation and oxygen inhalation (60–100% concentration with a flow rate of 40 L/min) should be used if hypoxia occurs.^[18]

Mother-to-child transmission

As of now, there's no evidence of mother-to-child transmission when a mother is infected during the third trimester. Samples taken from amniotic fluid, cord blood, vaginal discharge, neonatal throat swabs, or breast milk are negative. One should report immediately to the doctors in case of reduced fetal movements, pain or bleeding.

As far as the mode of birth is concerned, it should be individualized considering the obstetric condition of the person.

In matters of routine antenatal, postpartum or post-abortion care, you're advised to stick to the normal way of doing things.

Newborn care

2019-nCoV is extremely contagious.^[4] It may have a disastrous health impact on neonates, causing symptoms such as respiratory distress (shortness of breath), high heart rate and gastrointestinal distress. Reportedly, initial symptoms of neonates from infected mothers were shortness of breath, cough and fever, but vertical transmission of infection (the transfer of the pathogen from infected mother to infant during the period before or after birth, particularly via germ cell and placental blood) has not been confirmed.^[5,6] Based on the results of a retrospective study of ten neonates born to nine pregnant women with confirmed COVID-19 in China, vertical transmission of 2019-nCov to neonates has not yet been confirmed.^[7] To decrease the risk of vertical transmission, delayed cord clamping (DCC) is not recommended. Moreover, mother–baby contact is also not advisable.^[8] However, as a precautionary measure, neonates should be kept isolated for 14 days. When breastfeeding, it is advisable to use a breast pump to minimize the risk of transmitting the infection.^[9]

Maintain respiratory hygiene while feeding. Use a medical mask while near / being with the newborn. Wash hands thoroughly before and after breastfeeding or any other contact with the child. Clean and disinfect surfaces which the symptomatic mother has been in contact with.

As we've already stated, pregnancy is a time when a woman needs extra care. Covid-19, against which the entire world is fighting a tough battle, warrants pregnant women and those around to adopt stringent measures in order to stay safe. Let's stay home, let's stay optimistic.

Take home messages

Keep up to date with the latest COVID-19 information and guidelines from the CDC and WHO.

- Take preventive measures, specifically in pregnant women, to control further spread of COVID- 19.
- Focus on symptomatic treatment, as there is no recommended treatment for COVID-19.
- Promote effective communication between healthcare professionals to detect suspected COVID- 19 during pregnancy.
- Provide prioritized care for pregnant women, thereby preventing further promulgation of the infection in neonates.

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