

## Perinatal SARS-CoV-2 Infection and Neonatal COVID-19: A 2021 Update.

Sankaran D, Nakra N, Cheema R, et al. NeoReviews. May 2021.22(5).

**Background** : Neonates and pregnant mothers are particularly vulnerable to get infected and have higher rate of complications because of their unique physiological characters. Also, as fetus/neonate and mother form a unique dyad, we need safe and specific strategies to manage pregnancy, delivery and lactation period for both. This review summarizes impact of Covid 19 infection on pregnant mothers, childbirth, neonatal care and outcome.

# ACADEMIC P.E.A.R.L.S

Pediatric Evidence And Research Learning Snippet



## Perinatal SARS-CoV-2 Infection and Neonatal COVID-19: A 2021 Update

- Covid 19 infected pregnant women are much more likely to require intensive care, ventilation and ECMO along with higher mortality as compared to non pregnant women and should be tested on priority basis.** Presenting symptoms, however remain similar. Placental infection can affect fetus. Covid appropriate behavior remains most important means of prevention. **Maternal vaccination has the potential to transmit IgG antibodies to fetus as well as to neonate through breast milk.**
- Fetal infection through transplacental hematogenous route, ingestion or inhalation of infected amniotic fluid is uncommon. Exposure of baby to maternal secretions and faeces during birth poses a low risk of infection.
- Covid 19 status of mother has no bearing on mode of delivery, ANCS administration, delayed cord clamping, skin to skin contact, resuscitation protocol and breast feeding of baby.** DR/OT should have negative pressure isolation with closed doors and minimum number of personnel with additional resources on standby if required. Full PPE for caregivers and masking of mother is mandatory at all times. Tight seal using both hands prevents aerosol spread in case of mask ventilation. Designated transport route for baby and mother is suggested.
- Baby of Covid positive mother should be tested at least once between 24-48 hrs and asymptomatic positive babies should have a close follow up.
- Mother and baby should not be separated unless clinically indicated. Breast feeding with appropriate precautions is safe and has potential to pass Covid antibodies to baby.** Neonatal infection is mostly acquired through exposure to respiratory secretions of infected caregivers and present beyond 5-7 days of life. Management of symptomatic babies may be just supportive or intensive as per medical condition. Almost 1/3rd of infected babies require respiratory support. Presenting symptoms are similar to those of neonatal sepsis. Viral filter in expiratory limb of ventilator circuit may cut down aerosol spread in NICU. Successful use of Remdesvir, IVIG and Methylprednisolone has been reported in few sick babies. High index of suspicion for MIS -N should be maintained in sick babies.
- Affected babies should be followed up for any long term effects on respiratory physiology, effects of hypoxia, dysbiosis secondary to mother baby separation or denial of breast milk. Asymptomatic neonates may be silent carriers with potential to infect caregivers.

### EXPERT COMMENT

**“New facts about pathophysiology, management, short and long term complications of Covid-19 infection continue to emerge regularly. Pregnant mothers and neonates have a higher rate of complications and mortality as compared to the rest. Management strategies need thorough understanding of their unique needs. Preventive strategies include hand hygiene, mask and social distancing during pregnancy as well as lactation. Vaccination of mothers with informed consent has the potential of protecting fetus/baby indirectly. Breast feeding /EBM use should be supported in all cases.”**

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With warm regards,

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### Reference

Sankaran D, Nakra N, Cheema R, Blumberg D, Lakshminrusimha S. Perinatal SARS-CoV-2 Infection and Neonatal COVID-19: A 2021 Update. Neoreviews. 2021 May;22(5):e284-e295. doi: 10.1542/neo.22-5-e1001.