



## REVIEW ON: PERINATAL AND NEONATAL MANAGING HEALTH CONCERNS OF THE MOTHER AND FOETUS IN THE PANDEMIC SITUATION OF COVID-19.

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### ABSTRACT

Since January 2020, the COVID-19 infection has been prevailing in India. Due to immaturity of immune function and the chance of mother-fetal transmission, neonates are particularly prone to COVID-19. The perinatal-neonatal divisions should collaborate closely and take combined approaches, and the neonatal intensive care unit should arrange the emergency plan for COVID-19 infection as far as possible, so as to ensure the optimal management and treatment of possible victims. According to the latest COVID-19 national management Protocol and the actual situation in India.

**KEYWORDS:** COVID-19, Neonates, Perinatal, New-Borns.

### INTRODUCTION

From the time when January 2020, new category of coronavirus infection. The clinical epidemiological features of rapid spread have appeared, and the population is widespread. People are at risk, and its pathogen belongs to a new nature of coronavirus of the genus, COVID-19, its genetic features are Severe acute respiratory syndrome coronavirus. By breathing Path droplet transmission is the main way of spread, and it can also be through contact of spread. A case of COVID-19 infection in pregnant women has been found. The youngest child patient reported so far is 9 months, so far there are no reports of perinatal fetal infections and neonatal infections. In view of the special immunity of COVID-19 infection for new-borns. People with low epidemics may cause harm, according to the coronavirus infection Historical documents and the latest information on the COVID-19 infection, Based on national statutory Class B infectious diseases and managed as Class A infectious diseases. Features, collective with the infectious disease prevention and control law and the latest World Health Organization on the principles of handling COVID-19 infection, India The corona infection prevention management protocol working group proposed the new-born COVID-19 infection prevention and control management.

### Ethics of perinatal management of suspected and positive mother

#### The Procedure of new-borns suspected of COVID-19 infection by mothers

1. The obstetrics department and the neonatology department maintain communication, if prenatal for suspected cases, notify the neonatology department and inform high-risk mothers.
2. If the obstetric department finds a suspected case during delivery, call ahead Call a gynaecologist to allow enough time to wear personal protection.
3. Prepare for delivery in the delivery room, and the gynaecologist must fully protection. (Hats, goggles, clothing, gloves and N95 Masks, etc.).
4. If a pregnant woman is suspected of having a negative COVID-19 test, New-borns are generally in safe state, so they can with the mother. If born baby response is poor, and there is paediatric observation. If a pregnant woman is suspected to be consequently tested for COVID-19 Positive.
5. Then after immediately new-born enters the isolation ward for isolation diagnosis and treatment.

### Basic management of suspected and positive new-borns

#### Diagnosis

The symptoms of neonates after infection may be similar to those of adults. Like, it is displayed as asymptomatic infection, mild infection and severe infection, the symptoms of neonates, It is specific and requires watchful observation and monitoring. Latent period one

It is generally 3 to 7 days, and the longest generally 14 days. Need to confirm the infection breathing on upper respiratory tract specimens (swabs) or lower breathing Tract specimens (sputum, alveolar lavage fluid, tracheal intubation suction secretions).

### 1. Suspected cases of infection

14 days before delivery and lactating mother with a history of COVID-19 infection within 28 days of new-borns, or directly exposed to others during the new-born period contacts with a history of covid infection (including family members, medical staff, Visitors), with or without symptoms, should consider suspected cases of infection.

### 2. Confirmed cases of infection

For suspected cases, if available one of the following pathogenic evidences can be confirmed:

1. Reverse Transcription Polymerase Chain Reaction for respiratory tract specimens or blood specimens Detection of COVID-19 nucleic acid positive.
2. Respiratory tract specimen is sequenced, which is highly homologous to the known COVID-19.

### Basic care for Prevention

1. If the child has a history of contact to COVID-19 patients, the bed has fever, and the chest X-ray shows images of lung infiltration a change in study is a positive case. Clinical tests for, respiratory tract related Pathogen, blood culture. The COVID-19 Reverse Transcription Polymerase Chain Reaction test confirmed the diagnosis.
2. If the mother is suspect to COVID-19 Reverse Transcription Polymerase Chain Reaction test, New-borns need to enter the neonatal ward for isolation, monitoring, and Confirmed by COVID-19 Reverse Transcription Polymerase Chain Reaction test.

### Therapeutic aspects

To date, there are no specific vaccines or medicines for COVID-19. Treatments are under investigation, and will be tested through clinical trials. To say by World Health Organization There is no effective anti-coronavirus drug.

1. All positive new-born cases should be paid as possible surveillance and treatment in neonatal ward, clinically symptomatic and supportive treatment mainly, maintain the internal physical environment balance and try to avoid operation in the airway. Implement effective room placement and achieve contact isolation and droplet isolation.
2. Treatment of severe neonatal cases, in symptomatic treatment On the basis of prevention and treatment of complications, and effective organ function support hold. High-frequency oscillatory ventilation may have therapeutic effect. Essential for special critical cases it is required to implement.

### Discharge Standard

#### 1. Asymptomatic infection

Collect upper respiratory tract signs every two days. This (nasal swab and throat swab) test COVID-19, two consecutive negative results were obtained at least 24 hours apart.

#### 2. Upper respiratory tract infection

Body temperature returned to normal within three days symptom improvement, two consecutive collection Specimens of upper respiratory tract secretions (nasal swab and throat swab) testing for COVID-19 was negative.

#### 3. Pneumonia

Body temperature returned to normal for more than five days, respiratory tract Symptoms better, lung imaging indicated obvious absorption of inflammation, Upper respiratory tract specimens collected two consecutive times and lower respiratory tract specimen examination tests for COVID-19 were all negative.

### Prevention and control of covid-19

Strictly follow the World Health Organisation Guidelines for the Prevention and Control of Novel Coronavirus Infection and medical prevention in the pneumonia from new coronavirus.

### During delivery

- Delivery rooms or operating rooms must be specially prepared, preferably with negative pressure.
- Delivery rooms must be prepared with personal protective equipment, disinfectant solution and quick hand sanitizer.
- Health professionals must use all the individual protection equipment recommended during service such as cap, safety glasses or visor type face shield, long sleeve disposable cloak, gloves, N95 masks, among others.
- Pregnant women should use a surgical mask as a precautionary measure during labour.
- The choice of delivery mode and the time of delivery should be individualized based on obstetric indications.
- In the case of cesarean section, operating rooms must have positive pressure off.
- Skin-to-skin contact after delivery should be discontinued.
- Timely umbilical cord clamping is recommended.
- The presence of an asymptomatic companion and non-home contact with people with flu-like syndrome or proven respiratory infection is recommended.
- It is suggested that samples of swab pharyngeal, peripheral and cord blood, amniotic fluid, breast milk and placental tissue be stored for investigation.

### Breastfeeding

- Breastfeeding should be postponed until NBs receive hygiene care and preventive measures for contamination by covid.

- Breastfeeding should be encouraged.
- When breastfeeding their children, women should use a face mask and clean their hands and utensils use for the extraction and supply of breast milk, before and after contact with each feeding.

#### Neonatal postpartum care

- Keep NBs in a private room for 14 days after birth and monitor them for clinical and laboratory manifestations of the infection.
- Precautions for joint accommodation consist of maintaining a minimum distance of one meter between the mother's bed and the NB's crib.
- Private accommodation with NBs is suggested, and distance of 1 meter between the mother's bed and the NB's crib must be respected or using physical barriers to maintain distance.
- Isolation of mothers with their babies should be done on a case-by-case basis, using shared decision-making between them and the staff.
- Mothers and families should be made aware of the importance of hand hygiene and the use of a face mask in care of NBs and the importance of social distancing.
- Visits should be restricted to parents or legal guardians for these patients, as long as they do not have a suspicious condition or are confirmed for COVID-19 or have home contact with a person with the flu syndrome. It is strongly recommended that grandparents do not visit their grandchildren.
- Diagnostic and treatment equipment for suspected or confirmed NBs with the infection, such as a stethoscope and thermometer, for instance, must be for individual use.

#### Staff care

- Adoption of standard precautionary measures for aerosols in all procedures that can produce them, such as endotracheal intubation, non-invasive ventilation, manual ventilation before intubation, bronchoscopy, among others.
- The staff must adopt strict hand hygiene before and after assisting NBs.
- A minimum number of people working in the isolation of suspected or confirmed NBs should be selected.
- It is recommended that the discussion at the bedside be suspended by the staff providing assistance, as well as any and all collective activities carried out at the Neonatal Unit.

#### Hospitalization sector

- In shared accommodation between hospitalized healthy mothers, whose distance between beds in the binomial does not obey at least one meter, visits and the presence of companions should be suspended to avoid agglomerations.

- The neonatal sector should be divided into transition, quarantine and general wards during the pandemic.
- Implementation of social distancing strategies, covering the mouth when coughing or sneezing with disposable tissues, intensifying the cleaning and disinfection efforts of objects and equipment for NB care are essential.
- When receiving a NB with suspected COVID-19 infection, the investigation should be carried out based on family and clinical history and tested in case of exposure to infected people, regardless of their symptoms.
- SARS-CoV-2 positive neonates should be isolated and clinically monitored for 14 days, but this does not necessarily require admission to the NICU.
- Pressure rooms or rooms in which the exhaust is filtered through high-efficiency particulate air filters for infants with confirmed infection should be used.
- There must be a minimum distance of one meter between incubators, common cribs and/or heated cribs.
- Objects for personal use of NBs with suspicion or confirmation by COVID-19 should not be shared with others in the hospitalization area, including toys in paediatrics.
- Symptomatic parents or home contacts of a person with the virus should not enter the NICU. until the SARS-CoV-2 transmission period has ended (14 days).
- Professionals should not talk at the bedside and should avoid collective activities carried out in the sector.

#### Principles for handling suspected or confirmed suspected cases during observation

If the child is suspected or diagnosed during the observation period 2020- For symptoms of corona infection, the following measures need to be taken:

1. Quarantine immediately, According to the prescribed procedures, it should be treated with effective isolation conditions and protection Conditional designated hospitals for isolation and treatment.
2. The room where the children are located Other children in the room need to be medically isolated for observation, waiting for suspected If the COVID-19 infection is excluded, the isolation will be lifted, If the diagnosis is confirmed, it needs to be observed for 14 days.

#### CONCLUSION

In present review on Perinatal and neonatal managing health concerns of the mother and foetus in the pandemic situation of COVID-19. Reported regarding the main measures for preventing and controlling neonatal infection by COVID-19. It is believed that, through strict compliance with these actions, it is potential to reduce the consequences of this pandemic for new-borns. The

objective behind review are to assisting new-borns managing health concerns of the mother and foetus in the pandemic situation, as well as in Primary Health Care. Among the main measures found, the use of masks by infected people in contact with healthy new-born stands out, hand hygiene before and after each care and each feeding, and also hygiene of the tools used in milking the breasts, essential care to be developed in partnership with families. It is indispensable to use protective equipment by health professionals in neonatology and Primary Health Care services. During hospitalization, it is necessary to care a private room for infected neonates or to use physical barriers.

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