

**Infection Prevention & Control (IPC) Protocols
and Sick New-born Care Management
Guidelines During COVID-19 Pandemic Situation**

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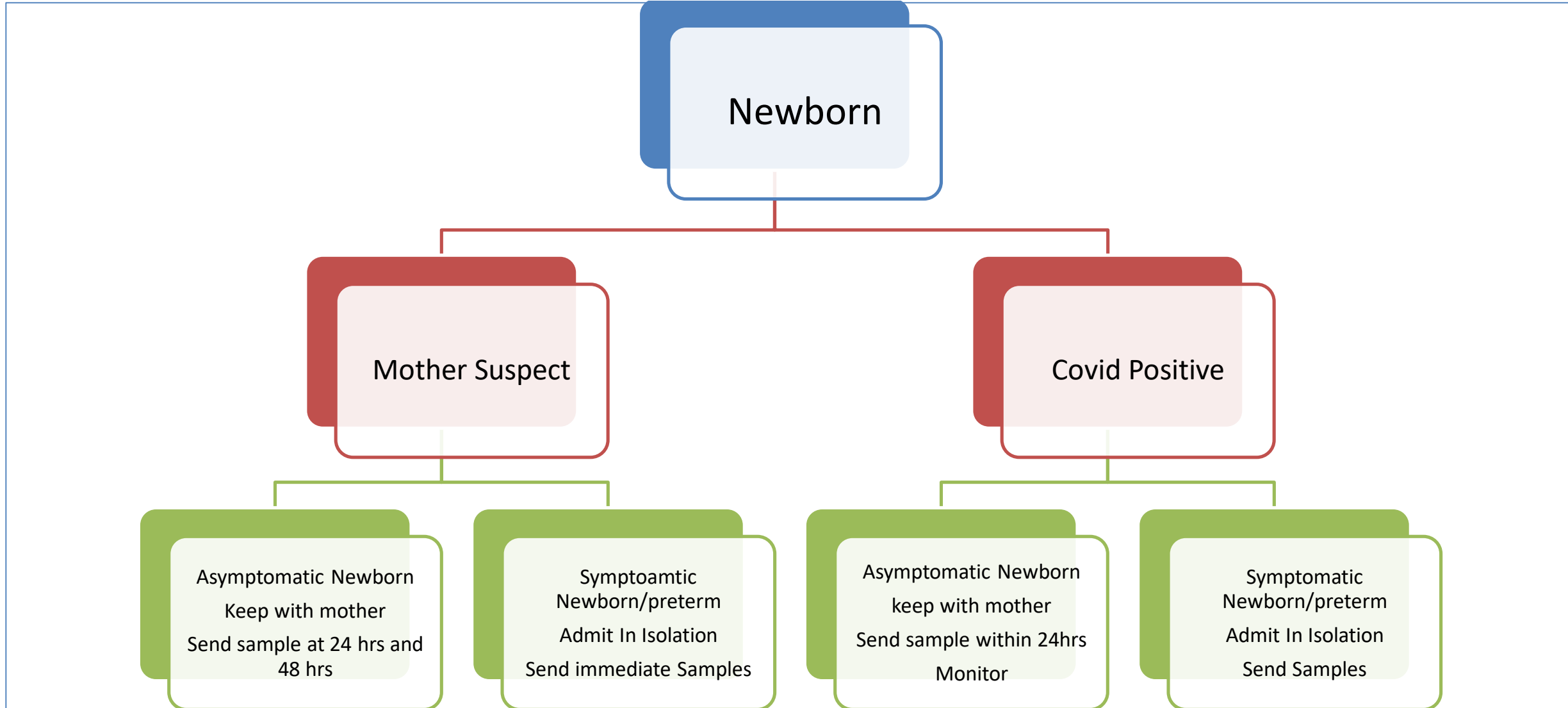
When to suspect Newborn for COVID-19 ?

- 👉 **Mother COVID-19 Positive within two weeks prior to delivery or 28 days after delivery.**
- 👉 **Neonates born to a mother suspected infection or to a mother from containment area.**
- 👉 **Postnatal exposure to infected mother or another person (including family members, caregivers, medical staff, and visitors).**
- 👉 **Presenting with respiratory distress with or without fever and cough, onset beyond 48-72 hrs of age and no other alternative explanation for the illness**
- 👉 **They should be managed as patients under investigation (PUI) irrespective of whether they are symptomatic or not**

Confirmed case

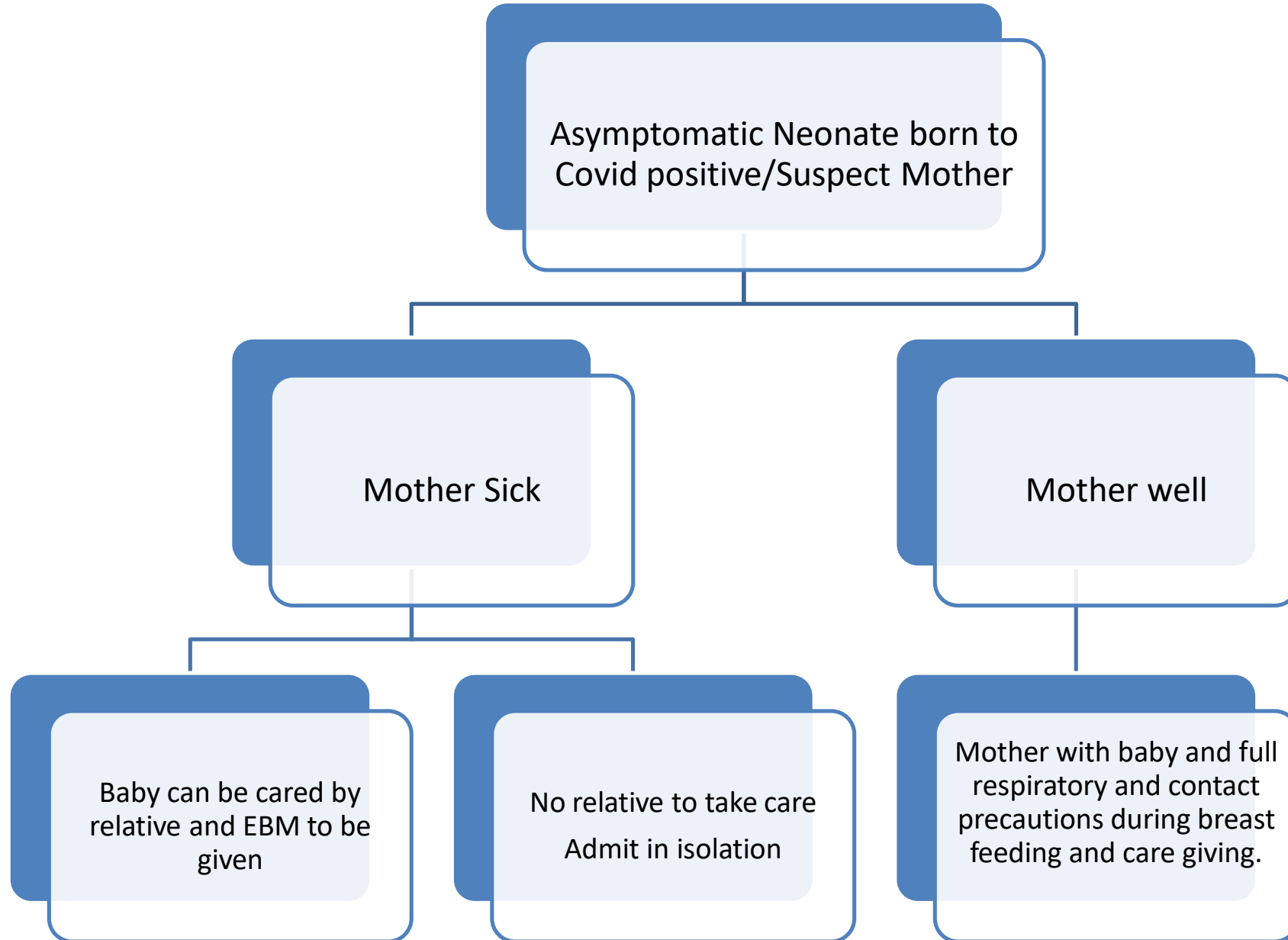
A Newborn/Child with laboratory confirmation of COVID-19 infection

Neonatal Covid-19 protocol



Any Neonate born to suspect or Covid Positive Mother Is to be kept In Isolation if symptomatic.

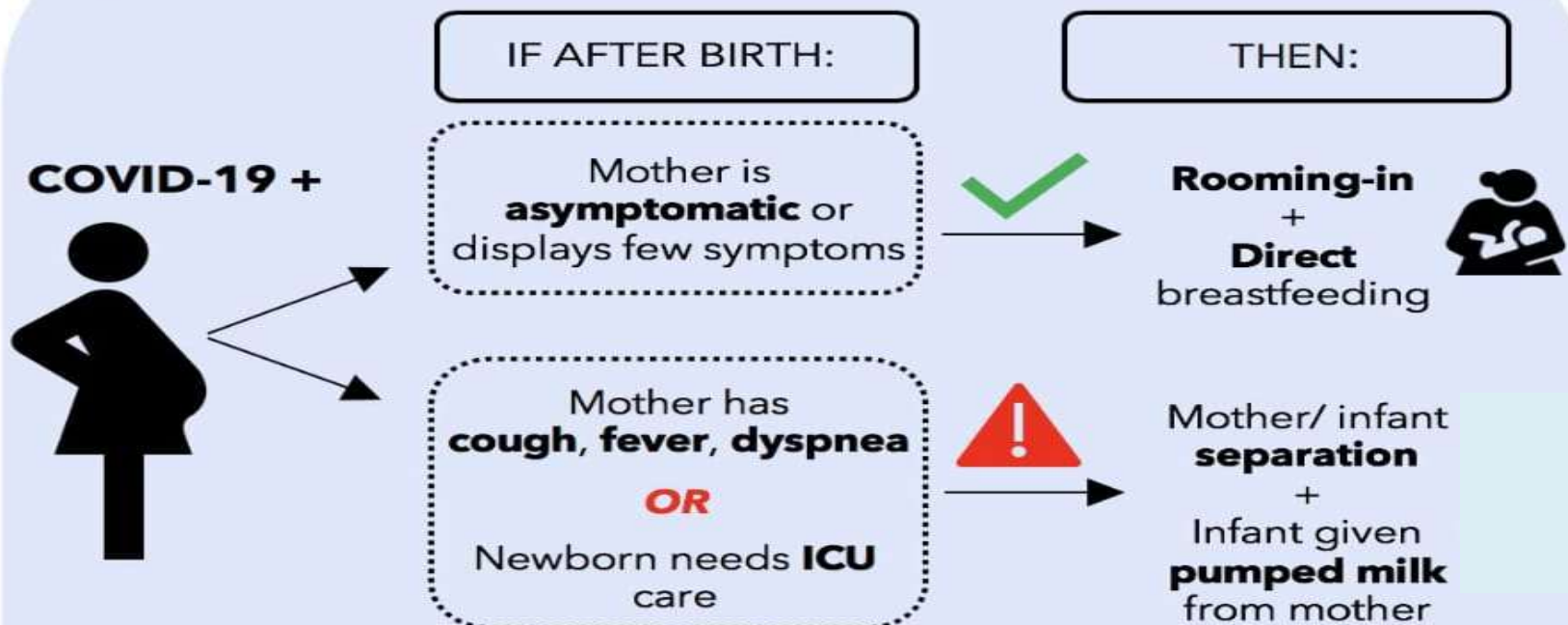
Asymptomatic Neonate born to COVID-19 positive/Suspect Mother



COVID-19: Breastfeeding in COVID-19 (+) mothers

4/15/20

Maternal recommendations



- Still recommended:**
- ❖ Handwashing prior to handling infant
 - ❖ Mask during breastfeeding/contact
 - ❖ 6-foot distance when not feeding
 - ❖ Suspend visitors



There is **no evidence of transmission** of SARS-COV2 through breast milk reported to date and **expressed breast milk should be given** as mother can pass antibodies via breast milk.

Infant recommendations



Born to COVID + mothers should have:

1

RT-PCR RNA of pharyngeal swab for SARS-CoV-2 weekly until **28 days** old



2

1-week observation in hospital after birth is *preferable**



* If hospital census at capacity, may require earlier discharge with close follow up with PCP

LIMITATIONS:

- ❖ Experts in China advise separation and use of formula or donor milk However:
 - No justification given
 - Benefits of breast milk not addressed

Case study recommended



Child Health Services during Covid-19

- 👉 The early initiation of breastfeeding/ KMC services are promoted irrespective of Covid-19 status. If mother is Covid-19 positive, she can also breastfed the newborn by using mask and hand hygiene.
- 👉 Immunization services should be continued at facility and community level as per guideline issued by state
- 👉 ASHAs should inform telephonically to households with children as per immunization schedule and facilitate access to immunization services at the nearest CHC/PHC/VHSND(Village Health Sanitation & Nutrition Day)

Post-discharge Follow up

- 👉 **SNCU Facility Follow up** – Only for Critical Cases- Routine Follow up 1st, 7th, 28th day, and 3, 6, 9 and 12 months at facility – To be done at nearest PHC/CHC (Others to be followed telephonically till the pandemic is over or vaccinated with Co-SRS-2 vaccine)
- 👉 Babies with **critical*** and danger signs to be – brought back to facility SNCU for Follow up , Rest to be followed by telephonic counseling by DEO and Staff nurse to reduce exposure- Milestones and routine checklist for danger signs at nearby PHC/CHC
- 👉 **Community Follow up-** Continue Home Based care by ASHA , weight, critical signs, nose, eyes, umbilical cord after proper hand washing, use of mask and respiratory hygiene and social distancing
- 👉 Continue breast feeding for all
- 👉 For COVID-19 exposed mothers use mask, hand hygiene and respiratory hygiene continue Breast feeding, KMC at home

Critical disease- ARDS, Sepsis, Septic shock

Recommendations for Neonatal Resuscitation:

In Labor Room/NBCC: (In case of SNCU always do in separate Isolation room)

- **Resuscitation of neonate should be done in a physically separate adjacent room earmarked for this purpose. If not feasible, the resuscitation warmer should be physically separated from the mother's delivery area by a distance of at least 2 meters.**
- **Minimum number of personnel (2) should attend and wear a full set of personal protective equipment including N95 mask. One personnel should be standby in adjacent room.**
- **Mother should perform hand hygiene and wear triple layer mask.**
- **The umbilical cord should be clamped promptly.**
(Delayed cord clamping- not earlier than 1 min after birth -WHO guidelines)
- **Delivery team member should bring over the neonate to the resuscitation area for assessment by the neonatal team.**
- **Neonatal resuscitation should follow standard guidelines. If PPV is needed, self-inflating bag and mask may be preferred over T-piece resuscitator. Viral filter proximal to mask.**

NICU/ SNCU CARE

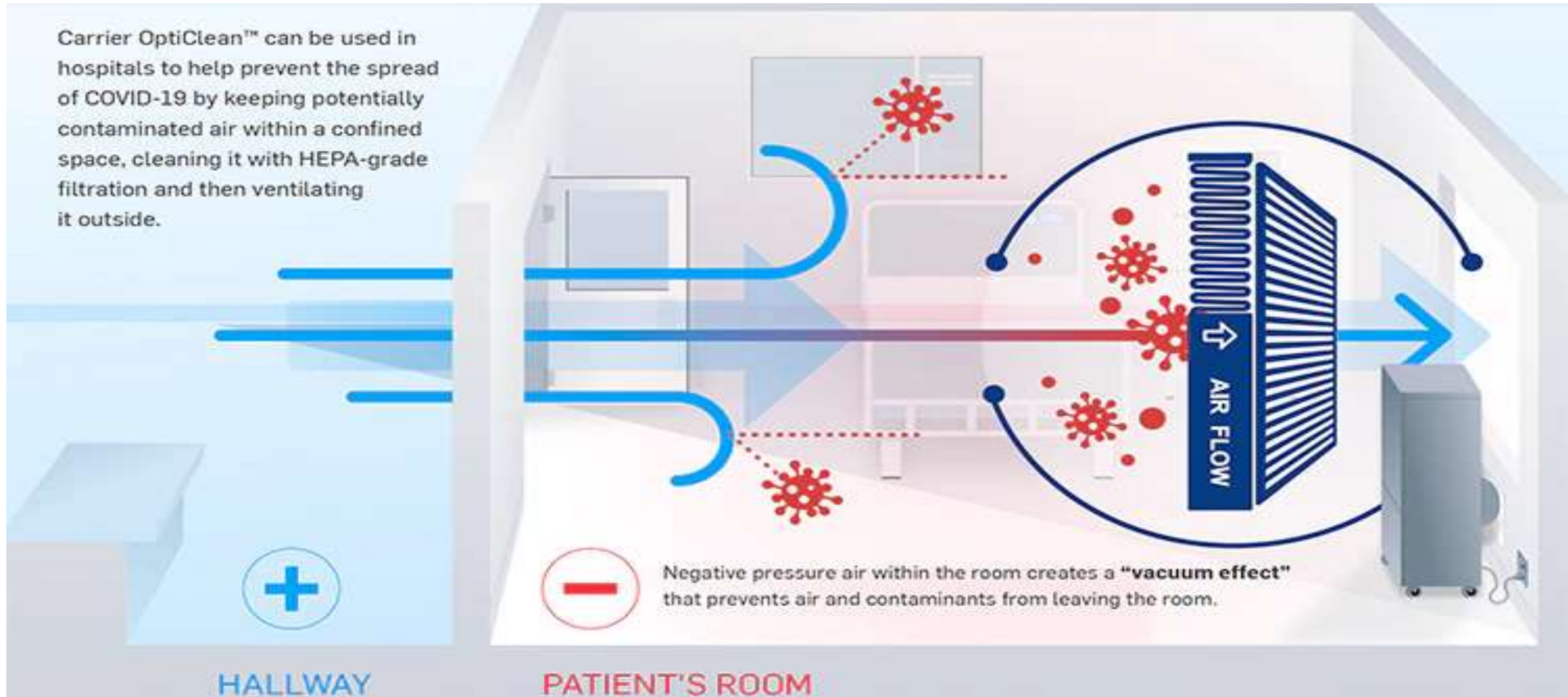
- Neonates who are symptomatic/ sick and are born to a mother with suspected or proven COVID-19 infection should be managed in separate isolation facility.
- This area should be separate from the NICU/SNCU with a transitional area in-between. These single rooms can be single closed rooms.
- In case if enough single rooms are not available, closed incubators (preferred) or radiant warmers could be placed in a common isolation ward for neonates.
- Suspected COVID-19 cases and confirmed COVID-19 cases should ideally be managed in separate isolations. If not feasible to have separate facilities and the neonates with suspected and confirmed infection are in a single isolation facility, they should be segregated by leaving enough space between the two cohorts.
- Negative pressure isolation rooms are preferred for patients requiring aerosolization procedures (respiratory support, suction, nebulization). If not available, negative pressure could also be created by 2-4 exhaust fans driving air out of the room.
- Isolation rooms should have adequate ventilation. If room is air-conditioned, ensure 12 air changes/ hour and filtering of exhaust air. These areas should not be a part of the central air-conditioning.
- The doctors, nursing and other support staff working in these isolation rooms should be separate from the ones who are working in regular NICU/SNCU. The staff should be provided with adequate supplies of PPE.
- If these facilities are not available. Refer to the nearby medical college/facility where all the services are available. Complete safety and PPE policies and precautions must be followed during transport.

Precautions to be taken while providing respiratory support to neonates exposed to COVID-19 infection:

- **Respiratory support for neonates with suspected/proven COVID-19 infection is guided by principles of lung protective strategy including use of non-invasive ventilation.**
- **NIPPV and High Flow Nasal cannulas should preferably be avoided.**
- **Healthcare providers should practice contact and droplet isolation and wear N95 mask with PPE while providing care in the area where neonates with suspected/proven COVID-19 infection are being provided respiratory support.**
- **The area providing respiratory support should be a negative air pressure area.**

Dedicated Delivery room/Operation Theater (Negative Pressure Room).

Carrier OptiClean™ can be used in hospitals to help prevent the spread of COVID-19 by keeping potentially contaminated air within a confined space, cleaning it with HEPA-grade filtration and then ventilating it outside.



TREATMENT OF SYMTOMATIC NEONATES :

(In case of perinatal exposure and case of confirmed infection with COVID-19)

- **Specific anti-COVID-19 treatment - antivirals or chloroquine/hydroxychloroquine - is NOT recommended in symptomatic neonates with confirmed or suspected COVID-19.**
- **Adjunctive therapy such as systemic corticosteroids and intravenous gamma globulin is NOT recommended in symptomatic neonates with confirmed or suspected COVID-19.**
- **Treatment should be as per FBNC/SNCU/NICU Treatment guidelines**

Disinfection practices in NICU/SNCU:

Disinfection of Surfaces in the childbirth/neonatal care areas for patients with suspected or confirmed Coronavirus infection are similar to usual Labor room/OT/NICU/SNCU areas and should include the following:

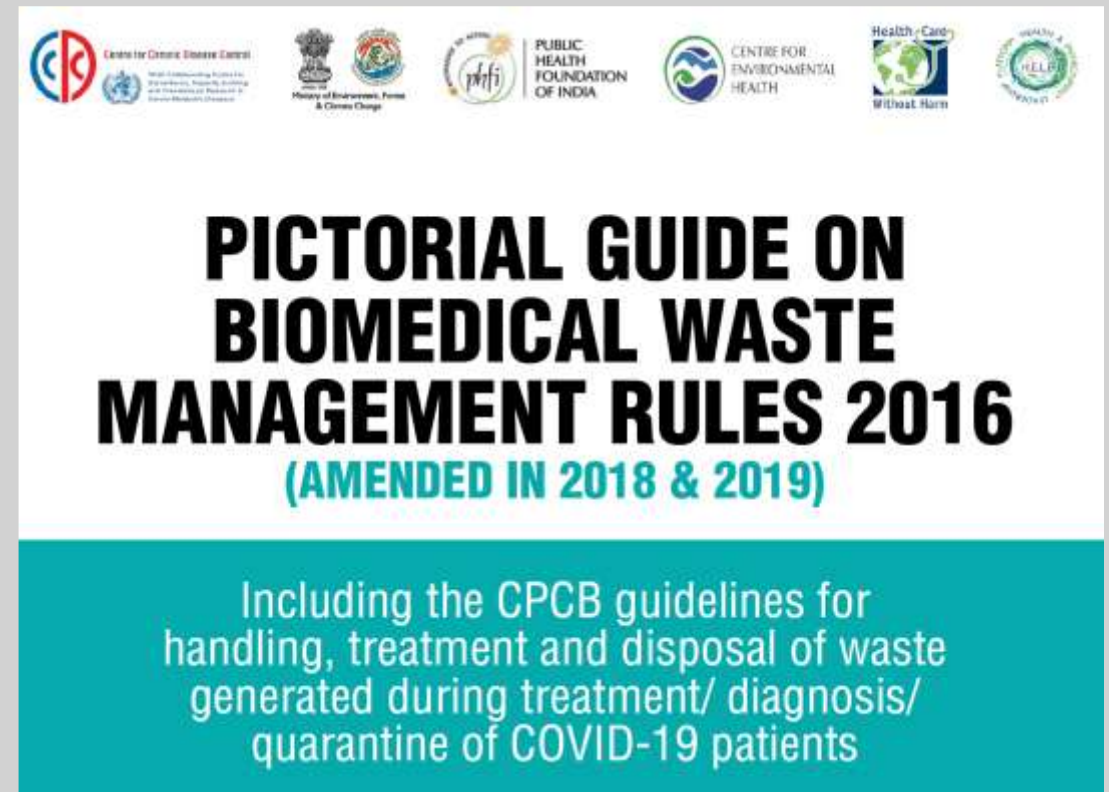
- **Wear personal protective equipment before disinfecting**
- **0.5% to 1% sodium hypochlorite can be used to disinfect surfaces like floors and walls at least once per shift and for cleaning after a patient is transferred out of the area.**
- **Bacillocid /70% ethyl alcohol can be used to disinfect small areas between uses, such as reusable dedicated equipment.**
- **Hydrogen peroxide (dilute 100 ml of H₂O₂ 10% v/v solution with 900 ml of distilled water) can be used for surface cleaning of incubators, open care systems, infusion pumps, weighing scales, standby equipment-ventilators, monitors, phototherapy units, and shelves. Use H₂O₂ only when equipment is not being used for the patient. Contact period of 1 hour is needed for efficacy of H₂O₂.**

Protocols for personal protective equipment:


Protection	Suggested PPE
Respiratory Protection	Triple layered surgical mask N95 facemasks are needed only when performing an aerosol-generating procedure or in an area where neonates are being provided respiratory support by CPAP device/ventilator.
Eye Protection	Goggles or face shield
Body Protection	Long-sleeved water-resistant gown
Hand Protection	Gloves

Protocols for biomedical waste disposal while managing a suspected or confirmed case of COVID-19:

- Routine biomedical waste disposal handling, segregation, transport and final disposal guidelines as prescribed by the Government of India should be practiced.



Visitation policy and preventive measures for visitors during the COVID-19 outbreak:

- **Parents should be aware of and understand the isolation, monitoring, diagnostic and treatment plans of the mothers/babies and be given a periodic update about the health condition.**
 - **Visitors to both routine and COVID-19 specific childbirth/neonatal care areas should be screened for symptoms of COVID-19 infection.**
 - **Persons (including parents) with suspected or confirmed COVID-19 infection should not be allowed entry in the childbirth/neonatal care area where care to parturient women/sick neonates is being provided.**
 - **For neonates roomed in with mother having suspect/confirmed COVID-19 infection, one healthy family member following contact and droplet precautions should be allowed to stay with her to assist in baby care activities.**
 - **IPC protocols and Social Distancing Protocols strictly adhered**
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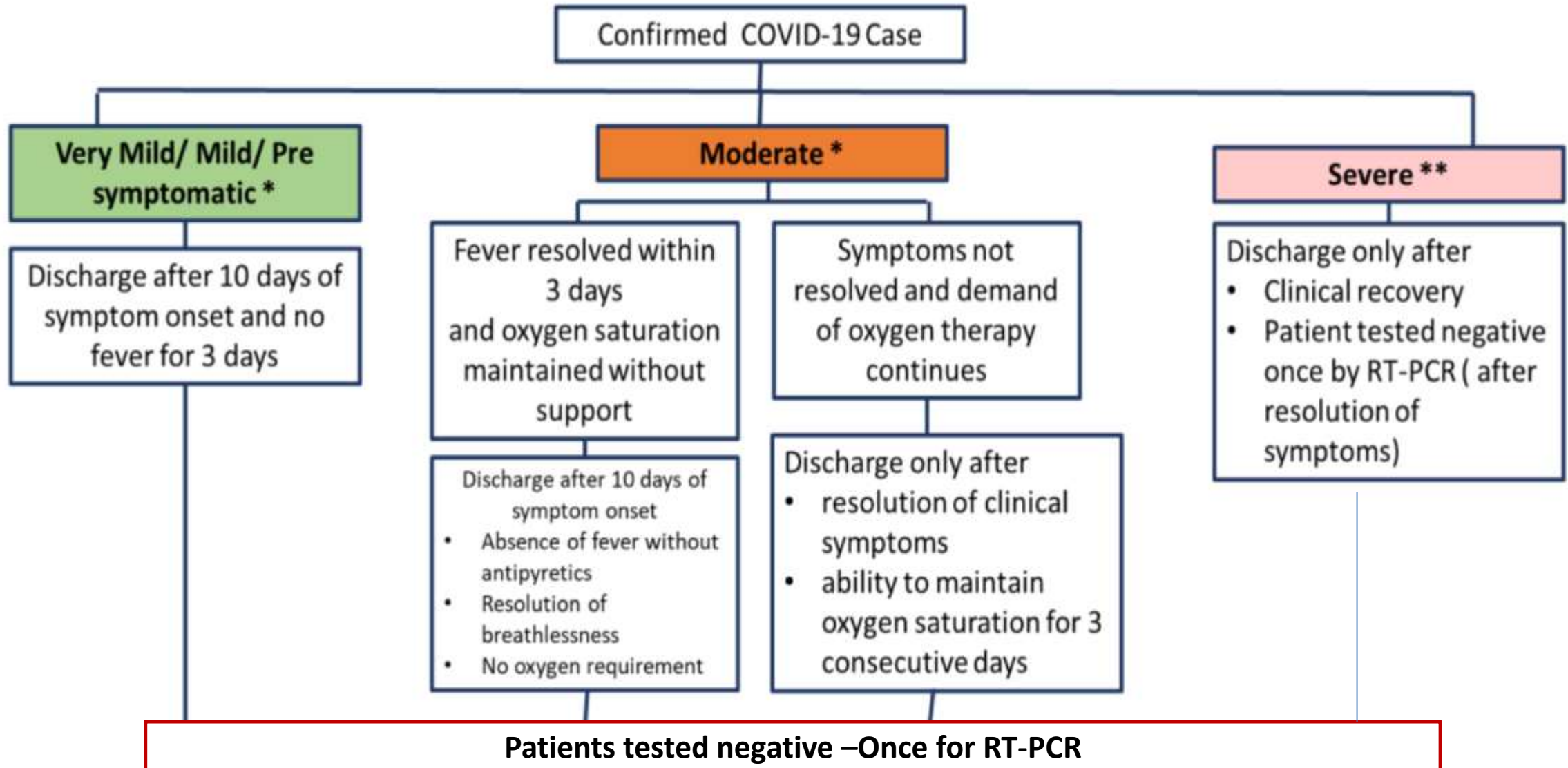
**The discharge
policy of
neonates born
to suspected
or confirmed
COVID-19
mothers:**

- ❖ Test the baby for SARS-CoV-2(nasal and oropharyngeal swabs) 24 hours after delivery.
- ❖ Test should be repeated at 48 hrs of the infants age.
- ❖ For extremely sick infants- additional rectal swab testing may be considered.
- ❖ Consider expressed breast milk.
- ❖ Mother should wear the face mask and should be managed based on routine local protocols.
- ❖ All test for SARS-CoV2 in breast milk were negative in 6 mothers reported by **Chen et al.**

- ❖ However there is insufficient evidence regarding the safety of breastfeeding and the need for mother-baby separation.
- ❖ Healthy and neonate with two negative SARS-CoV-2 tests 24 hours apart should be discharged to their mother with contact and droplet precautions until mother has two negative tests.

(CDC guidelines)

Revised discharge policy for nCOVID-19 cases as per Govt Of Bihar



*At the time of discharge, the patient will be advised to isolate himself at home and self-monitor their health for further 7 days.

** Clinical categorization of patients as per guidelines (<https://www.mohfw.gov.in/pdf/FinalGuidanceonMangaementofCovidcasesversion2.pdf>)

** including immunocompromised (HIV patients, transplant recipients, malignancy)

The immunization policy with respect to neonates born to women with suspected or confirmed COVID-19 infection:

- No clinical trials or specific information is available about vaccination of these neonates.**
- Follow routine immunization policy in healthy neonates born to mothers with suspected/proven COVID-19 infection.**
- In neonates with suspected/proven infection, vaccination should be completed before discharge from the hospital as per existing policy.**



**TOGETHER WE CAN
CONTINUE TO SAVE
NEWBORNS**

THANK YOU