

A DIFFERENT VIEW

Setting realistic goals for feeding infants when their mothers have suspected or confirmed COVID-19

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The pandemic is a stressful time for everyone, including mothers and healthcare providers who are concerned about the best and safest way to feed babies born to mothers with suspected or confirmed COVID-19. There is lack of consensus regarding mother-infant contact, unless the mother definitely has COVID-19 and even then there is a distinct lack of data to devise protocols for everyday clinical practice.^{1,2}

The UK Royal College of Obstetricians and Gynaecologists advises that women and healthy infants who have COVID-19, but do not require neonatal care, should be kept together in the immediate postpartum period.³ Liang⁴ recommends temporarily separating them for at least 2 weeks to minimise the risk of viral transmission from prolonged close contact. The American College of Obstetricians and Gynecologists has adopted the USA Centers for Disease Control and Prevention (CDC) recommendations. These state that facilities should consider temporarily separating infants from mothers with confirmed or suspected COVID-19 until her transmission-based precautions are discontinued.²

Regardless of the segregation issue, mothers with suspected or confirmed COVID 19 should adopt full precautions to avoid spreading the virus to their infants. These include the following: inter-personal distancing, handwashing before direct breastfeeding or pumping, wearing a face mask during breastfeeding, avoiding direct contact with the baby during breastfeeding and proper pump cleaning measures after breast milk expression.^{1,2}

Maternal milk supply is established during the first weeks postpartum, which is a critical time for lactation. To date, no study has found the live severe acute respiratory syndrome coronavirus-2 (SARS-CoV-2) that causes COVID-19, in breast milk.⁵ However, newborn infants can still acquire COVID-19 postnatally through respiratory droplets from virus-positive mothers who are symptomatic or asymptomatic carriers.⁶ Having said that, breast milk may provide infants with protective factors if the mother has COVID-19. While breastfeeding should be encouraged, the mother should not be made to feel she has a duty to breast feed. It should be weighed

against the risk of SARS-CoV-2 transmission and not regimentally and morally enforced as the absolute nutritional strategy.

There is conflicting, and very limited, research evidence about the role of breastfeeding in mothers with COVID-19. Breast milk samples of six women with COVID-19 pneumonia in the third trimester, were tested using a kit (BioGerm, Shanghai, China), recommended by the CDC and a real-time polymerase chain reaction assay (Invitrogen, Darmstadt, Germany). None of the samples tested positive for the virus.⁵ More recently, Grob et al⁷ detected viral RNA in the milk of a mother with mild COVID-19 symptoms with a SARS-CoV-2-positive test in her newborn. It is unclear whether the child was infected through breastfeeding or another modality. These findings neither confirm, nor refute, the safety of breastfeeding, and a well-balanced discussion with the mother should address a number of issues. These include the following: the risks and benefits of breastfeeding with a COVID-19 diagnosis, the limited data available on viral excretion through breast milk and the potential presence of protective viral antibodies acquired through breast milk. The discussion should also cover the risks of infection transmitted by neonatal healthcare providers, the care required while handling the neonate to avoid infection and alternative feeding options such as expressed breast milk (EBM) and infant formula. Ultimately a parent-driven informed choice should be adopted, after weighing up EBM, donor breast milk, if available and easily accessible and, or, formula.⁸

1 | INFANT BORN TO A CONFIRMED COVID MOTHER

Infants born to mothers with COVID-19 should be tested for SARS-CoV-2 at 24 and 48 hours after birth.¹ This will facilitate a plan for infant care, infection control and hospital discharge. If a test result

is pending, the baby should be separated in a single air-filtered room or admitted to the neonatal intensive care unit (NICU) in a single, negative pressure, room if clinically unstable or if invasive or non-invasive respiratory support is required. While awaiting laboratory confirmation of COVID-19, a family informed decision can be made to keep the mother and infant together, based on maternal-newborn well-being, institution protocols and medical agreement.^{3,9} Healthcare providers should implement strict droplet, airborne and contact precautions using a N-95 mask, until newborn SARS-CoV-2 PCR test results are available. The separation facilitates both maternal and newborn care while minimising healthcare workers' contact and exposure risks.¹ However, routine maternal-newborn separation of a COVID-19-positive mother disrupts maternal-child bonding and contravenes established baby-friendly initiatives.^{3,8,9} Several international guidelines from Canada, Italy, Sweden, Switzerland, France, Australia and The Breastfeeding Medical Association do not favour mother-infant separation.

Mothers and healthcare providers should agree on the optimal and safe nutrition method for such infants. Each approach depends on the following: maternal-newborn health status, the hospital resources available and the parents' understanding of the potential risk of COVID-19 exposure. In general, if the mother decides to breast feed, direct or using EBM, efforts must be maintained to promote and enhance breast milk production.

Families have four options for an informed choice: direct breastfeeding with strict application of infection control criteria, EBM, donor milk if available or formula. Natural or accepted medication for milk suppression may be considered if the mother decides against breastfeeding.

2 | COVID-POSITIVE MOTHER WHO WISHES TO PUMP OR EXPRESS BREAST MILK

If the mother chooses to breast feed, and she is able to, or wishes to pump, she can express milk after carefully washing both her breasts and hands. Her milk can then be fed to the infant by designated caregivers without COVID-19.¹ Breast pumps and components should be thoroughly cleaned in between pumping sessions using standard decanter policies that must include cleaning the pump with disinfectant wipes and washing pump attachments with hot soapy water.¹ Caregivers should wash their hands thoroughly before touching feeding bottles or feeding or caring for babies. Infants who do not have COVID-19 should be optimally managed by a non-infected caregiver.¹

3 | IF A COVID-POSITIVE MOTHER IS DISCHARGED AND THE BABY REMAINS IN THE NICU

A mother with COVID-19, whose newborn requires ongoing hospital care, should not visit her baby or participate in NICU care until she

has had two negative viral tests, 24 hours apart.⁹ If she agrees, her baby can be fed EBM, donor breast milk, if available, or formula and the mother can pump and discard her milk until she is asymptomatic and has had negative viral tests.¹⁰ Subsequently, breast milk can be pumped at home and aliquots frozen and used once the mother is clinically asymptomatic as per the CDC guidelines. If the mother is discharged with an infant who is asymptomatic, or has tested negative, and she has no access to donor breast milk, then maternal EBM can be given with strictly applied precautions, as previously noted.

4 | INFANT WITH A MOTHER WHO MAY HAVE COVID-19

If the mother is suspected of having COVID-19, she should be temporarily separated from her newborn infant immediately after birth, pending her test results. This minimises the risk of postnatal infant infection from maternal respiratory secretions.¹ The risks and benefits of newborn-maternal separation and information on the consequences of not commencing direct breastfeeding should be discussed with the family.⁸

If possible, the newborn infant should be primarily housed in an isolated room with negative pressure, or with other well-established air filtration systems. If these are unavailable, or if the parents decide on maternal-infant co-habitation, stringent precautions must be maintained as above, until the mother tests negative. While she awaits her test results, healthcare providers should discuss all four nutritional options with strict preventative measures, especially if she favours EBM or direct breastfeeding. The mother and baby should be discharged home promptly if they are virus-free.

Virtual telehealth communication for lactation adequacy and support should follow, with assessment of breastfeeding latch, observation of milk transfer, baby weight checks—if the parents have a scale—urine and stool output and the presence of jaundice. If pertinent clinical issues arise, the baby should be evaluated in a paediatric outpatient clinic.

Healthcare providers can expect to encounter mothers with either suspected or proven COVID-19 during the present crisis. Current medical recommendations rely on low-quality evidence to systematically guide breastfeeding during the pandemic. Most healthcare providers focus on what they believe constitutes the ideal nutritional plan without parental input. The approach for, or against, breastfeeding should be an informed decision made jointly by the clinical staff and both parents, after a well-balanced healthcare perspective of the potential risks and benefits are addressed. While the positive effects of breastfeeding on disease prevention are fully recognised universally, the current pandemic has imposed major health resource limitations that may impinge on well-intended practice.

5 | CONCLUSION

Given the uncertainty around mother to infant transmission during the pandemic, shared decision-making about breastfeeding is

imperative. It is sub-optimal to err on the side of total caution by excluding breastfeeding in the face of uncertain evidence. This is particularly true when hospital-based protocols mean that mothers and their babies are separated. To determine the best option, parents should fully understand the current evidence, availability of personnel to support breastfeeding, protective spaces, caseloads and resources available to implement existing recommendations. In countries, where resources are even more finite, nutrition should be optimised in the best interests of both the mother and child, taking into consideration that direct breastfeeding and EBM may be the only available and safest choices. Parents should also appreciate that research in this field is rapidly evolving and more robust data will probably result in improved guidance in the near future.

CONFLICT OF INTEREST

The authors have no conflicts to declare.

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