**Shared Decision Making between Mother & Provider**

**Newborn Care at Lawrence General Hospital in the Setting of COVID-19 Pandemic**

April 20, 2020

Recommend Shared Decision Making based on four primary categories:

|  |  |  |
| --- | --- | --- |
| **1** | COVID19+ mother | Confirmed by testing within the past 72 hours |
| **2** | PUI, COVID19 symptoms/febrile | Testing pending |
| **3** | Asymptomatic mother | Tested under universal testing protocol |
| **4** | Negative  | Mother who tested negative in the past 72 hours\* |

\*Negative test does not mean no risk of infection (due to false-negative tests and asymptomatic shedding)

For all categories above, review with parents the risks/benefits of skin-to-skin contact, delayed cord clamping, nutrition strategies, and immediate separation of the infant from the mother. Discussion should include recognition that our understanding of these risks/benefits is limited, with no data on long-term developmental outcomes in COVID-19 exposed/positive infants.

*All of the categories above can be counseled using the below guideline due to asymptomatic community prevalence of SARS-CoV-2, with variance on a case-to-case basis.*

**Delayed Cord Clamping:** Consider option with vigorous infant.

* **RISKS:**
	+ Theoretical increased risk of transmission to infant
		- No known cases of confirmed vertical transmission diagnosed by detecting viral RNA from a mother to a fetus.
		- Fetus has exchanged the same blood supply during pregnancy - if vertical transmission occurs, likely would have occurred before delivery. There are reports of elevated COVID-19 IgM levels in infants, however none of these neonates were positive for SARS-CoV-2.
	+ In other viral infections (i.e. HIV) there is no increase in vertical transmission with delayed cord clamping
* **BENEFITS:**
	+ Delayed cord clamping for vigorous infants allows for a redistribution of placental blood as “preload” while the neonatal lungs are recruited.
	+ Increased hemoglobin, iron, Immunoglobulins and stem cells
	+ Improved neurodevelopment
* Whether the baby is placed on the mother’s abdomen or held by the provider during DCC should be discussed with the mother prior to delivery (see Skin-to-skin below)

**Skin-to-skin at delivery:**

* This area holds the least amount of evidence-based report care (none).
* Consider condition of mom, condition of infant
* **RISKS:**
	+ Hypothetical transmission of SARS-CoV-2 infection via viral shedding on skin
	+ Potential risk of transmission of SARS-CoV-2 after birth via contact with maternal respiratory secretion – although the risk of transmission and the clinical severity of SARS-CoV-2 infection in infants are not evidence-based.
* **BENEFITS:**
	+ Immediate skin-to-skin has been proven to improve breastfeeding success, which has significant implications to the health of the infant.
	+ Stabilization of infant glucose
	+ Stabilization of infant body temperature
	+ Disrupted maternal–infant bonding in the first hours of life has been shown to have long-term effects on mom’s mental health
* If skin-to-skin practiced with + or unknown maternal status, to minimize risk of infant infection, suggest:
	+ Moms use hand sanitizer to clean hands immediately after delivery and prior to holding infant
	+ Removal of gown used during delivery immediately after delivery and prior to skin-to-skin
	+ Surgical mask at any time of infant contact
	+ Wash hands before and after touching infant
	+ Routinely clean and disinfect surfaces, frequent maternal bathing – ideally before skin to skin

**Infant nutrition: breastfeeding guidelines**

* No reports of SARS-CoV-2 virus in breastmilk
* Few reports of antibodies to SARS-CoV-2 found in breastmilk
* For Category 1 & 2 until newborn test results/if newborn test negative (also could be considered with Category 3-4 if mom desires):
	+ Option A: parents prefer to decrease risk of transmission and accept the risk of limited mother–infant bonding
		- The infant receives formula/donor milk
		- The mother can pump milk to establish supply until she is asymptomatic with two negative tests for SARS-CoV-2 at least 24-hour apart (or until she demonstrates improvement of symptoms for at least 72 hours / 7 days after start of symptoms)
	+ Option B: parents prefer to limit risk of transmission and encourage mother–infant bonding
		- Mother washes her breast with soap/water and expresses milk while wearing a mask. Clean breast pump tubing and container per CDC.
			* A healthy family member/nurse can feed the expressed milk to the baby > 6 feet away from mom.
			* Continue precautions until… see Option A.
	+ Option C: parents prefer to accept risk of transmission and maximize mother–infant bonding
		- Mother wears a surgical mask, washes her hands and breasts with soap and water and breastfeeds the baby.
		- Parents should understand that the risk of transmission with this approach is uncertain but possible.
		- Continue precautions until…. See Option A.
* Suggest that moms wear a surgical mask at any time of infant contact
* Wash hands before and after touching infant
* Routinely clean and disinfect surfaces, frequent maternal bathing – ideally before skin to skin.

**Newborn isolation from mother versus rooming in:**

* When counseling, consider:
	+ Condition of mom
	+ Condition of infant
	+ Desire to breastfeed
	+ Ability to maintain separation upon discharge
* Offer isolation of any infant from mom if desired by mom until:
	+ Negative COVID testing for mom results
	+ Positive COVID testing for infant results, in setting of Positive maternal testing
* **RISKS OF ROOMING IN:**
	+ Potential for increased risk of transmission to infant, if not already infected
* **BENEFITS OF ROOMING IN:**
	+ Maternal-infant bonding 🡪 shown to increase breastfeeding success, neurocognitive development, decrease postpartum depression
* In the setting of a COVID + mom:
	+ Recommend at least infant in isolette positioned > 6 feet from mom
	+ If another healthy caregiver is available to provide care for a PUI infant (testing pending) -- such as diapering, bathing and feeding the newborn -- they should use appropriate PPE: gown, gloves, surgical mask, and eye protection. (🡨 im assuming parents will not have gowns at home……)
		- This strategy may be beneficial to educate families and actively assist them in practicing precautions to be continued at home.

**Post-Hospital Care**

* Ideally, a healthy caregiver should care for the newborn until mother is afebrile (without antipyretics), demonstrates improvement of symptoms for at least 72 hours / 7 days after start of symptoms.
* If the social situation does not favor separation from mother, discharge of the neonate with droplet and adequate precaution is recommended.
* In any situation, provide education on ways to minimize transmission in the household and to infant.

**References**

Center for Disease Control and Prevention. Considerations for Inpatient Obstetric Healthcare Settings. (Accessed April 20, 2020).

Interim Infection Prevention and Control Recommendations for Patients with Suspected or Confirmed Coronavirus Disease 2019 (COVID-19) in Healthcare Settings. March 19, 2020. (Accessed on April 8, 2020)

World Health Organization. Q&A on COVID-19, pregnancy, childbirth and breastfeeding. March 18, 2020. (Accessed April 20, 2020)

Siegel E. Early and Extended Maternal-Infant Contact: A Critical Review. Am J Dis Child. 1982;136(3):251–257.

Chandrasekharan P, Vento M, Trevisanuto D, et al. Neonatal Resuscitation and Postresuscitation Care of Infants Born to Mothers with Suspected or Confirmed SARS-CoV-2 Infection [published online ahead of print, 2020 Apr 8]. *Am J Perinatol*. 2020;10.1055/s-0040-1709688.

Boelig RC, Manuck T, Oliver EA, DiMascio D, Saccone G, Bellussi F, Berghella V. Labor and Delivery Guidance for COVID-19. *American Journal of Obstetrics & Gynecology MFM* (2020).

Di Mascio D, Khalil A, Saccone G et al. Outcome of Coronavirus spectrum infections (SARS, MERS, COVID-19) during pregnancy: a systematic review and meta-analysis. Am J Obstet Gynecol MFM 2020 In Press.

Baud D, Giannoni E, Pomar L, et al. COVID-19 in pregnant women. Authors’ reply . Lancet Infect Dis 2020; [published online ahead of print, 2020 March 17].

Otter JA, Donskey C, Yezli S, Douthwaite S, Goldenberg SD, Weber DJ. Transmission of SARS and MERS coronaviruses and influenza virus in healthcare settings: the possible role of dry surface contamination. J Hosp Infect. 2016; 92:235–250. doi:10.1016/j.jhin.2015.08.027