WHAT’S NEW IN NEONATAL/PERINATAL COVID-19?
ABOUT NEOCLEAR:

The following summary was compiled by the NeoCLEAR (Neonatal COVID-19 Literature Evaluated and Aggregated in Real-time) workgroup, based at the University of Colorado, on behalf of the AAP.

Literature included is published within the past 2 weeks.

Click here to access the NeoCLEAR:COVID-19 Resource in full. This spreadsheet is updated frequently by neonatologists conducting structured searches of the major journal publishers’ libraries.
## TOPIC EXPERTS:

<table>
<thead>
<tr>
<th>Topic</th>
<th>Topic Experts</th>
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| Transmission: *Perinatal & neonatal viral acquisition & general epidemiology* | Rob Dietz, MD, PhD  
Susan Niermeyer, MD                                                  |
| Clinical Features: *Characterizing COVID-19 in pregnant women and neonates* | Clyde Wright, MD  
Meg Kirkley, MD, MPH                                                  |
| Diagnosis and Treatment: *Serologic testing, viral PCR, antivirals and novel therapies* | Laurie Sherlock, MD  
Stephanie Bourque, MD, MSCS  
Jane Stremming, MD                                                     |
| Neonatal/Perinatal Care Practices: *PPE, visitors, transport considerations, delivery room and NICU guidelines* | Satya Houin, MD  
Stephanie Chassen, MD                                                  |
| Consensus Statements: *Reviews from governing bodies (AAP, WHO, etc.)* | Susan Hwang, MD, PhD                                  |
Both asymptomatic and symptomatic patients show prolonged viral shedding based on +RT-PCR, but transmissibility late in the course of illness is unclear. Criteria that require negative RT-PCR for hospital discharge, NICU visitation, or quarantine release may be excessively conservative. [Noh JY, *Journal of Infection*] [Wu J, *JAMA Network*]

Breast milk from an infected mother tested positive for SARS-CoV-2 on 4 consecutive days. The infant also tested positive and was mildly symptomatic. The mother was directly breastfeeding with assiduous breast hygiene and PPE use. [Gross R, *Lancet*]

This article reviewing household transmission in Switzerland suggests that in most cases of pediatric infection, an adult was ill first and infected the child. [Posfay-Barbe KM, *Pediatrics*]
Symptomatic infants have higher viral loads than symptomatic older children, despite having less-severe symptoms. [Zachariah P., Clinical Infectious Diseases]

In a single UK hospital, minority ethnicity and comorbidities were associated with more severe COVID-19 in hospitalized children. [Harman K., Lancet]

A case report from Stanford/LPCH described a 6-month old female with classic Kawasaki Disease who also had confirmed COVID-19. She was treated with IVIG with good response. She had been quarantining at home with her family for the 1 weeks prior to admission; an older sibling had a viral illness 3 weeks prior. [Jones V., Hospital Pediatrics]
Review of RT-PCR testing on throat and anal swabs from 212 children hospitalized at Wuhan Children’s Hospital. Positivity between the sites was inconsistent and correlated poorly with immune status. [Yuan C. *Emerging Microbes & Infections*]
A community seroprevalence study in LA County showed 4.65% with antibodies to SARS-CoV-2. Of those tested, 13% reported fever with cough, 9% shortness of breath, and 6% loss of smell or taste. [Sood N. JAMA Network]

A critically ill pregnant woman (periviable gestation) was successfully treated for COVID-19 with convalescent plasma and remdesivir; she remains pregnant with no adverse fetal effects noted. [Anderson J., Case Reports in Women’s Health]

In a Phase II study, the Ad5 vectored SARS-CoV-2 vaccine is tolerable and immunogenic at 28 days post-vaccination. Humoral response peaked at day 28 in 108 healthy adults, and rapid specific T-cell responses were noted by day 14. [Zhu F., Lancet]
The AAP’s updated recommendations for management of pregnant women with COVID-19 at delivery support mothers holding their infants during delayed cord clamping, and suggest that separation after birth can be optional. [AAP website]

This review summarizes the experience of Penn State Hospital (Hershey, PA) labor and delivery unit with COVID-19, including discharge practices for infants born to COVID+ mothers. [Amatya S., Journal of Perinatology]