

WHAT'S NEW IN NEONATAL/PERINATAL COVID-19?

Research digest
from
6/1-6/14/2020 –
prepared by
NeoCLEAR
University of
Colorado

ABOUT NEOCLEAR:

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

Literature included was 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:

Topic	Topic Experts
Transmission: <i>Perinatal & neonatal viral acquisition & general epidemiology</i>	Rob Dietz, MD, PhD Susan Niermeyer, MD
Clinical Features: <i>Characterizing COVID-19 in pregnant women and neonates</i>	Clyde Wright, MD Meg Kirkley, MD, MPH
Diagnosis and Treatment: <i>Serologic testing, viral PCR, antivirals and novel therapies</i>	Laurie Sherlock, MD Stephanie Bourque, MD, MSCS Jane Stremming, MD
Neonatal/Perinatal Care Practices: <i>PPE, visitors, transport considerations, delivery room and NICU guidelines</i>	Satya Houin, MD Stephanie Chassen, MD
Consensus Statements: <i>Reviews from governing bodies (AAP, WHO, etc.)</i>	Susan Hwang, MD, PhD

WHAT'S NEW IN: *PERINATAL/NEONATAL TRANSMISSION*

The WHO commissioned [this systematic review and meta-analysis](#) summarizing the effects of PPE to prevent transmission of SARS-CoV-2. The findings support that all three of these interventions reduce risk of infection:

- [Physical Distancing of at least 1 meter](#) – aOR of 0.18, (95% CI 0.09-0.38)
- [Face mask use](#) – aOR 0.15 (95%CI 0.07-0.34)
- [Eye protection](#) – aOR 0.22 (95% CI 0.2-0.39)

A [compilation of videos by the WHO](#), designed for the lay public, may help your patients' parents understand how to safely wear a fabric or medical mask.

WHAT'S NEW IN: *CLINICAL FEATURES OF NEONATAL INFECTION*

In a cohort of 15 children in Wuhan hospitalized for COVID-19, who were subsequently discharged home after symptom improvement and 2 negative tests, 7 had a subsequent positive nasopharyngeal PCR. Children with “reactivation” tended to be older and none had respiratory symptoms; only 1 had fever. [[Zhao W. *Clinical Pediatrics*](#)]

Pediatric COVID-19 has been associated with myocarditis; distinct from KD-associated coronary artery disease. In this case series of 9 PICU admissions for COVID-19, 5 children had myocarditis, (one was 2 months old); all 5 presented with fever and gastrointestinal symptoms. [[Wolfler A., *Lancet*](#)]

A UK cohort of pregnant women had a 5% SARS-CoV-2 prevalence at admission. 56% of positives were black or other ethnic minorities. There was a 5% subsequent infection rate among infants born to COVID+ mothers. [[Knight M., *BMJ*](#)]

WHAT'S NEW IN: *DIAGNOSIS AND TREATMENT*

The results of lung ultrasound prompted the medical team to start treatment or initiate ICU transfer in 7 of 8 pregnant COVID+ women. Lung ultrasound may be a useful diagnostic tool in COVID+ pregnant women who are minimally symptomatic, as it avoids chest CT. [[Yassa M., J. Ultrasound Med](#)]

This short commentary reviews drugs under investigation for children with COVID-19 [[Deniz M., Acta Paediatrica](#)], framed in context of experiences with pediatric antiviral use in SARS, MERS, Ebola and influenza.

WHAT'S NEW IN: *NICU-SPECIFIC PRACTICES & POLICIES*

Based on a survey of labor and delivery practices in 4 high-volume NYC hospitals during the COVID-19 pandemic: [[Pena J. J. Perinatology](#)]

- All sites reported adequate PPE availability and most reported consistent use, with N95 use in intubation and during the second stage of labor.
- By the conclusion of the study period, all sites reported universal screening for COVID-19 using nasopharyngeal PCR.
- Most sites continued to perform delayed cord clamping.
- All centers allowed rooming in of newborns.
- No sites tested newborns and the majority of sites continued to perform circumcisions. All sites continued to make lactation consultation available.
- All sites encouraged early discharge if appropriate (at 24 hours for vaginal deliveries or 48 hours for cesarean deliveries) and performed a phone follow-up shortly after discharge.