Letters to the Editor

From: Gail Levine <glevine18@gmail.com>
Sent: Wednesday, May 6, 2020 2:12 PM
To: Goldstein, Mitchell <MGoldstein@llu.edu>
Subject: [EXTERNAL] The current state

To the Editor of Neonatology Today:

Nationally and internationally, we are experiencing community spread of COVID-19. Each hospital has developed its own guidelines and algorithms for the care of patients and the safety of staff. Below are a few evidence-based recommendations for improving safety for mothers and babies, and hospital staff.

1. We should encourage the testing of all mothers admitted for delivery.

Nationally, more mothers are re-evaluating their in-hospital birth plans and opting for midwife-assisted home births. This is due to fear of encountering COVID-19 in the hospital.

A NEJM report in which all mothers admitted for delivery at an NYC hospital were tested for COVID-19 showed that 29/210 (114%) asymptomatic and afebrile women were positive by PCR for COVID-19. 4 women with symptoms were positive as well. Of these 33 positive women, 29 (88%) were asymptomatic. (1) The degree of community spread in other areas may be lower, but the proportion of asymptomatic/all positives may still hold in this range.

Hospitals should test all mothers admitted for delivery, as testing availability increases. It would reassure the families in the community that every possible risk reduction measure is being undertaken.

2. NICU visiting should be limited to once per day, with one parent only visiting. Many units do have an isolation room for a newborn who is either a PUI or known to be positive.

An article in the NEJM documented infective stability of COVID-19 in aerosols to be at least 3 hours, and on plastic surfaces to be 72 or more hours. (2) Another NEJM article showed that a sneeze generates aerosols which diffuse throughout a room. (3) Aerosols are known to be generated by ordinary speech and singing, as well as coughing and sneezing. A pre-publication article has shown that infective

COVID-19 in aerosols may persist in the air for 16 hours (the time limit of the experiment, so potentially longer). (4) Parents should be asked to wear masks, but even N-95 masks can leak around their margins, and as lay people, they may not use these masks expertly, and they may not always be compliant. The longer staff and visitors are in contact with each other, the more risk they may render to each other. For our NICUs, we are not yet able to test all of the visitors, and we do not test asymptomatic staff or the support person for the postpartum mothers. We know that asymptomatic but infected persons can transmit the virus to others. As testing availability and turn around time improves, we should test all of these persons.

An argument for more liberal visiting in the NICU is parent-child bonding and facilitation of breastfeeding. These are clearly important. However, a corollary argument about bonding and family unity can be made for decreasing risk to staff and parents and visitors: If one of these were to contract COVID-19 in the NICU and become critically ill, and not survive themselves or transmit the virus to one of their own family members, that would impact their family very significantly and even permanently. (This has been reported in the media in the NYC area. A woman working as a P.A. in an N.Y. hospital contracted COVID-19 at work, became critically ill, and passed away shortly after being intubated. Her 18-year-old daughter had such profound grief that she continued to text her mother for some time after she had passed away.)

3. E.R. For the duration of the pandemic, admissions of newborns from home to the NICU should be suspended, unless the patient requires specialized or tertiary NICU care, and the NICU has an acceptable isolation room. When we admit a patient, we may be able to test the infant for COVID-19, but we are generally not able to test the parents who accompany the newborn. Exposure to these COVID-19 unknown persons is an unwarranted additional risk to our NICU staff and patients. These patients can often be cared for in a pediatric ward with space to evaluate a PUI infant. NEJM has reported the case of a 3-week old infant admitted from home who had mild symptoms at presentation, but who rapidly became critically ill. (5) Indeed the primary mission of most community hospital NICUs is the provision of safe care to newborns delivered at that L+D service.

Thank you for your consideration,

Gail L. Levine, M.D.
Assistant Professor of Pediatrics
Loma Linda School of Medicine
Division of Neonatology, Department of Pediatrics
"Kindness builds the world" Psalms 89:3

1. *Universal Screening for SARS-Cov-2 in women admit-*

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www.99nicu.org

- ted for delivery. *NEJM.org* April 13, 2020. DOI 10.1056/NEJMc2009316
2. Aerosol and surface stability of SARS-CoV-2 as compared with SARS-CoV-1. Van Doremalen et al. *N Engl J Med* 2020; 382:1564-1567
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 4. Comparative dynamic aerosol efficiencies of three emergent coronaviruses and the unusual persistence of SARS-CoV-2 in aerosol suspensions. Fears, A.C. et al., *MedRxiv* posted April 18, 2020, DOI: <https://doi.org/10.1101/2020.04.13.20063784>
 5. Late onset neonatal sepsis in a patient with COVID-19. Correspondence. Munoz, A. et al. DOI 10.1056/NEJM/Mc2010614 April 22, 2020. *NEJM.org*

Dear Dr. Levine:

Thank you for a comprehensive analysis of the issues involved in our new "normal." Many different strategies have been advocated to keep us safe and, at the same time, provide the care necessary to ensure good outcomes for our most at-risk neonates.

Although early reports appeared to suggest that neonates and younger pediatric patients were not at risk of severe disease, a new syndrome that appears to be similar to Kawasaki's disease has been described with multisystem involvement and late mortality in younger pediatric patients that had recovered from COVID-19 infection as long as six weeks prior to relapse.(1-3)

Yes, it seems cruel to separate the mother-infant dyad, but as you have noted, the real risk may come from those who we do not test or who are not our patients. The effects on staff in so far as morbidity and mortality are not inconsequential. And even with appropriate risk reduction techniques and teaching, parents may not comply and inadvertently transmit disease. (4)

Mask utilization is predicated on the effective use of the appropriate mask. Although N-95 masks may offer considerable protection from spread both to and from the parents, all masks are not created equal. The popular "valved" covers may protect the host from viral exposure to some extent but do not protect those in close proximity. They are exposed to the unfiltered droplets passing through the valve. (5)

Efforts that are currently underway are directed towards flattening the curve with the understanding that we may not be able to reduce the area under the curve in terms of total numbers of affected patients. The emphasis is on producing a controlled "pandemic" that does not overwhelm our hospital resources.

Yet, there is hope on the horizon, including an anti-viral cocktail similar to the one used for HIV as well as numerous vaccine candidates. Although our epidemiologists warn that we may not be able to reduce the total number of infections but rather space them out in such a way as to avoid resource shortage, we must still try to protect those at highest risk. For them, it is not sufficient

to flatten the curve; we must demolish it. (6-12)

People are not merely numbers, and we simply do not have enough dedicated healthcare providers to put them at excessive risk. Although we must approach the issues involved in maternal-infant bonding with as much humanity as possible, safety comes first.

Sincerely,

Mitchell Goldstein, MD

Editor in Chief

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c/o Mitchell Goldstein, MD

11175 Campus Street, Suite #11121

Loma Linda, CA 92354

Tel: +1 (302) 313-9984

LomaLindaPublishingCompany@gmail.com

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Erratum (Neonatology Today April, 2020)

Neonatology Today has identified no erratum affecting the April, 2020 edition.

Corrections can be sent directly to LomaLindaPublishingCompany@gmail.com. The most recent edition of Neonatology Today including any previously identified erratum may be downloaded from www.neonatologytoday.net.

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Which Infants are More Vulnerable to Respiratory Syncytial Virus?

RSV is a respiratory virus with cold-like symptoms that causes 90,000 hospitalizations and 4,500 deaths per year in children 5 and younger. It's 10 times more deadly than the flu. For premature babies with fragile immune systems and underdeveloped lungs, RSV proves especially dangerous.

But risk factors associated with RSV don't touch all infants equally.*

*Source: Respirator Syncytial Virus and African Americans

Caucasian Babies	Risk Factor	African American Babies
11.6%	Prematurity	18.3%
58.1%	Breastfeeding	50.2%
7.3%	Low Birth Weight	11.8%
60.1%	Siblings	71.6%
1%	Crowded Living Conditions	3%

AFRICAN AMERICAN BABIES bear the brunt of RSV. Yet the American Academy of Pediatrics' restrictive new guidelines limit their access to RSV preventative treatment, increasing these babies' risk.

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