



## Department of Health

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Dear Colleagues:

I hope you are enjoying the last days of summer. This month I would like to discuss congenital infections known by the mnemonic, TORCH – Toxoplasmosis, Other (syphilis), Rubella, Cytomegalovirus (CMV), Herpes simplex virus/HIV. As healthcare providers of women of reproductive age or pregnant patients, we may not be giving as much attention as we should to CMV and syphilis. Congenital CMV infection is the most common intrauterine infection and the leading non-genetic cause of sensorineural hearing loss in children in the U.S. Syphilis rates are rising nationally, and there is a concerning upward trend in congenital syphilis cases in New York State (NYS).

Some experts are suggesting a revision of the TORCH mnemonic to include 'Z' (TORCH-Z) for the more recently identified congenital Zika syndrome. Therefore, I am including in this letter a brief update on recently-published data on the health status of infants born to mothers with Zika infection.

**Congenital CMV:** Congenital CMV has a significant impact on the health of children in our communities. About one in every 200 infants is born with congenital CMV infection. Approximately 10% of infants with congenital CMV infection will have health problems that are apparent at birth (such as petechial or purpuric rash, jaundice, microcephaly, intracerebral calcifications, intrauterine growth restriction, hepatosplenomegaly, seizures, sensorineural hearing loss, or retinitis). Among infected infants who are symptomatic at birth, approximately 50% will go on to have long-term health problems (such as hearing or vision loss, intellectual disability, seizures, or developmental delays). Conversely, of the approximately 90% of infected infants who are asymptomatic on their newborn exam, about 15% of infants will go on to develop long-term sequelae, including hearing loss.

For all infants, it is critical that healthcare providers include careful follow-up of newborn hearing screen results and ensure subsequent auditory evaluation, when recommended, as a part of routine infant care. For newborns with hearing loss without another etiology, consider evaluation for congenital CMV. However, the majority of infants who ultimately develop congenital CMV-associated sensorineural hearing loss (whether they are symptomatic or asymptomatic at birth) will not have detectable hearing loss during the first month of life. Therefore, efforts aimed at the prevention of CMV infection during pregnancy are key to avoid the significant sequelae of congenital CMV infection, including hearing loss.

As you know, CMV is a common virus related to the herpes family and most people are infected at some point in their lives. People who have frequent contact with young children may be at greater risk of CMV infection. CMV can be present in especially high amounts in young children's saliva and urine for months after they become infected. While exposure to CMV may be difficult to avoid, particularly for those who have young children already, it is imperative that

we give women of reproductive age the information they need to make informed decisions for themselves and their families.

Key prevention measures include good hygiene, such as careful handwashing after caring for children and avoiding contact with saliva and urine. According to the Centers for Disease Control and Prevention (CDC), female workers of reproductive age in child care centers should be educated on CMV and its potential risks, and should have access to appropriate hygiene measures to minimize occupationally-acquired infection. Other measures that may lessen the chance of infection include not sharing food or utensils with young children and washing hands well after changing diapers. Women should also be aware that sexual transmission can occur, as the virus is found in semen and cervical fluids.

**Congenital Syphilis:** A concerning trend has been seen in cases of congenital syphilis (CS) in NYS outside of New York City. Specifically, CS diagnoses increased 167% in 2017 (n=8) compared to the average number of annual diagnoses from 2014 – 2016 (n=3). Preliminary 2018 data suggest this trend may continue, with four cases diagnosed in the first three months of the year. Syphilis during pregnancy is a serious infection that can cause prematurity, miscarriage, or stillbirth. Newborns with CS can experience deformed bones, neurological problems, severe anemia, meningitis, and other symptoms. While the number of new CS cases remains low in NYS overall, primary, and secondary syphilis rates in women have almost tripled in the last five years (from 0.5 per 100,000 in 2013 to 1.4 per 100,000 in 2017) and they are highest in women of childbearing age, specifically ages 25-29. This trend points to the need for continued vigilance in educating patients about prevention of congenital syphilis, especially among healthcare providers who serve women of childbearing age. All women should be tested for syphilis at the time when pregnancy is first identified (per NYS Public Health Law Section 2308), and again upon delivery (For more information refer to: [Health Advisory: Congenital Syphilis Increasing in New York State \(NYS\)](#)). For high-risk women, additional syphilis screening is recommended in the third trimester and even more frequent testing may be appropriate as risks are identified. For more information, your patients can consult the [CDC's 2015 Sexually Transmitted Disease Treatment Guidelines](#) for syphilis during pregnancy. For more information on STDs, please refer to my April 2018 [letter](#).

**Congenital Zika Syndrome:** While we have seen a decrease in Zika virus transmission in the Americas, it is important for healthcare providers to know that the virus continues to be spread at low levels in many areas. Therefore, the New York State Department of Health continues to recommend that providers counsel women who may be pregnant or may become pregnant to check the CDC website for areas of risk ([www.cdc.gov/travel/page/zika-travel-information](http://www.cdc.gov/travel/page/zika-travel-information)) and not to travel to areas with risk of Zika virus infection. Additionally, it is recommended that men and women who travel to an area with risk of Zika virus wait before trying to conceive. The reasons for concern are highlighted by a recently-published study by the CDC and colleagues in the U.S. territories, which revealed that among children at least 1 year of age born to mothers with possible or confirmed Zika virus infection during pregnancy, about 1 in 7 had one or more health problems possibly caused by Zika virus. About 6% had a Zika-associated birth defect (such as microcephaly and selected congenital brain and eye abnormalities), 9% had one or more neurodevelopmental abnormalities possibly associated with congenital Zika virus infection (such as hearing and visual impairments, seizures, possible developmental delay, and congenital contractures), and 1% had both. These data highlight the need to continue to share information with pregnant women and women of reproductive age regarding the risks of maternal Zika virus infection and ensure appropriate follow-up for any infants born to women with possible Zika virus infection during pregnancy.

As always, thank you for your attention to these important matters and the care that you provide to all New Yorkers.

Sincerely,

Howard A. Zucker, M.D., J.D.