Congenital Cytomegalovirus (CMV): The Leading Viral Cause of Developmental Disabilities
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WHAT IS CMV?
• Cytomegalovirus (sy toe MEG a low vv ru), or CMV, is a common herpesvirus that affects people of all ages. More than half of Americans have been infected with CMV by the time they are 40 years old.
• Most CMV infections are “silent”, meaning most healthy people who are infected with CMV have no signs or symptoms; however some may have mono-like symptoms or feel like they have the flu, such as fever, sore throat, fatigue, or swollen glands. CMV can be very serious for individuals with weak immune systems or in developing fetuses.
• When CMV occurs during a woman’s pregnancy, the baby can become infected before birth. CMV infection before birth is known as “Congenital CMV” or cCMV.
• CMV is the most common cause of congenital infection in the world. It is the leading cause of birth defects and developmental delays in the United States, disabling one child every hour.

In the United States, about 1 in 150 children is born with cCMV and more than 30,000 infants each year in America.

CMV TRANSMISSION and AWARENESS
Transmission
CMV is transmitted through direct contact with body fluids, such as saliva, mucous, urine, or tears. CMV can also be transmitted via sexual contact, blood transfusions and organ transplantation. It is believed that the most common way a pregnant woman gets CMV is through saliva or urine of a young child.

Awareness
Research has shown that there is a disconnect between the prevalence of congenital CMV and women’s awareness of the dangers of CMV during pregnancy. See images below from research conducted in the United States and the United Kingdom.

CMV PREVENTION
Prevention
In 1999, the Institute of Medicine reported in Vaccines for the 21st Century: A Tool for Decision Making, that development of a CMV vaccine was of the utmost priority. Today, although vaccines are actively being researched for the prevention of CMV, a vaccination is still not available.

Behavioral Strategies
The best way for a woman to protect herself from CMV when trying to become pregnant, or while pregnant, is through the avoidance of high risk behaviors. In particular, for those around young children, the following strategies are recommended:
1) When kissing a young child, try to avoid contact with saliva. For example, you might kiss on the forehead rather than the lips or cheeks.
2) Try not to put things in your mouth that have just been in a child’s mouth. For example:
   • Cups
   • Forks or Spoons
   • Pacifiers
3) Try not to share food, drinks, or a toothbrush with a child.
4) Wash your hands after touching a child’s saliva or urine, especially after:
   ✓ Wiping a child’s nose, mouth or tears
   ✓ Changing diapers
5) Use soap and water or a disinfectant to clean toys, countertops, and other surfaces that may have a child’s saliva or urine on them.

CMV OUTCOMES
One of every five children born with cCMV will develop permanent problems due to the infection.
Permanent health problems or disabilities due to congenital CMV include:
- Hearing loss
- Vision loss
- Developmental Disability
- Cognitive Impairment
- Cerebral Palsy
- Lack of Coordination
- Small head size
- Seizures

90% of infants infected with cCMV infection appear healthy at birth. Disabilities or problems may appear as the child grows. In fact, 50% of hearing losses due to cCMV will be late-onset, i.e develop after birth.

Congenital CMV is the leading non-genetic cause of childhood hearing loss.

cCMV MYTHBUSTER:
Mothers who are CMV seropositive (had CMV in the past) prior to pregnancy can still develop a secondary infection while pregnant- either from a reactivation of the virus or reinfection with a different viral strain.

UTAH CMV MANDATE
UCA 26-10-10 Cytomegalovirus Public Education & Testing Law
On July 1, 2013, Utah became the first state in the nation to mandate:
1. Education on the risks of CMV during pregnancy and
2. Testing on infants who fail newborn hearing screening(s) for CMV.

The law directs the Utah Department of Health (UDOH) to create a public education program to inform pregnant women and women who may become pregnant about:
• The occurrence of CMV
• The transmission of CMV
• The birth defects that CMV can cause
• Methods of CMV diagnosis, and
• Available preventative measures.

The law requires UDOH to provide this information to:
• Childcare Programs and their employees
• School Nurses
• Health Educators
• Health Care Providers offering care to pregnant women and infants
• Religious Organizations offering children’s programs as a component of worship services.

The law also directs Medical Practitioners to test infants, who fail the newborn hearing screening test(s), for CMV and inform the parents of those infants about the possible birth defects that CMV can cause and the available treatment methods.

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For more information about Cytomegalovirus Public Education & Testing Law, please visit: http://health.utah.gov/cm/v