



## *The Medical* **Bulletin**

# In Infection

### **Digging Deep to Understand the Significance of Cytomegalovirus**

Below are some key learning points to help reinforce the impact of this activity. Cytomegalovirus (CMV) is an incurable herpes virus transmitted person-to-person via bodily fluids.

- In the United States, one-third of children aged  $\leq 3$  years and more than half of adults are seropositive for CMV. Seroprevalence is even greater in low-income countries or for groups with lower socioeconomic status in wealthier countries.
- Adolescents and adults typically acquire CMV infection through exposure to bodily fluids from a sexual partner or from preschool-aged children at home or in a day care setting, who may shed the virus for months or years after infection.
- After primary infection, CMV establishes lifelong latency and can reactivate, especially in immunocompromised people. Primary CMV infection and CMV reactivation rarely cause symptoms in immunocompetent people but can result in significant morbidity or death from end-organ failure in immunocompromised individuals.

Vertical transmission of CMV to the fetus is possible in women who experience primary CMV infection or CMV reactivation or reinfection during pregnancy and can cause detectable fetal abnormalities or fetal loss.

- Congenital CMV (cCMV) manifests a broad spectrum of sequelae, the most common of which is progressive or late-onset sensorineural hearing loss. Risk of severe cCMV outcomes is greater with primary maternal CMV infection or infection at an earlier gestational age and in the 10% of neonates who are symptomatic at birth.
- Currently, the only strategy to reduce cCMV risk is to educate women who are pregnant or planning to become pregnant about behavioral changes to reduce their risk of acquiring CMV, such as avoiding exposure to bodily fluids from young children or sexual partners.

Clinical trials are evaluating several novel vaccines either to prevent primary CMV infection or limit CMV reactivation. Studies are also assessing whether antiviral therapies can safely reduce the risk of vertical transmission during pregnancy.

INFECTION

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