

Congenital rubella syndrome: Preventing missed opportunities

A gravida II para I mother was born in India and immigrated to Canada in the late 1990s. She had an uneventful first pregnancy, with regular Canadian prenatal care, and delivered a healthy son. During the first trimester of her most recent pregnancy, she visited her home country, but does not recall having any illness or contact with sick persons. She also reports being up-to-date in all of her immunizations but has no written record.

At 32 weeks gestation, the mother delivered a second son, jaundiced and weighing 950 g, with multiple malformations: microcephaly, microphthalmia, bilateral cataracts, bilateral neural deafness and patent ductus arteriosus. Rubella virus was isolated from the infant's urine, which was collected on the day of birth, and the serum was positive for rubella-specific immunoglobulin M, confirming the diagnosis of congenital rubella syndrome (CRS).

LEARNING POINTS

- During nine years of active surveillance (January 1996 to December 2004), the CRS study of the CPSP confirmed 10 cases, including five cases involving immigrant women.
- A 2005 rubella outbreak in southwestern Ontario, most likely originating from a visitor from the Netherlands, resulted in 283 confirmed rubella cases in unimmunized or partly immunized individuals, including 10 cases among pregnant women. The rubella vaccine efficacy was calculated at 99.3%.
- Surveillance data are very useful in attesting to the success of the rubella immunization strategies first introduced to Canada in the 1970s.
- Health care providers need to remain alert to prevent missed opportunities by ensuring that:
 - all individuals receive their rubella vaccination at the recommended age.
 - all women of child-bearing age, including women in immigrant populations without documented proof of rubella immunization, receive the vaccine at their first encounter with the health system.
- all women of child-bearing age have routine rubella antibody screening by a reliable method at each pregnancy, because immunity (from previous vaccination or infection) can wane.
 - ◆ if low positive immunoglobulin G titre (eg, 10 IU/mL to 15 IU/mL) is documented, then a repeat rubella vaccine may be beneficial.
- standing orders for vaccination of rubella-susceptible women are in place in the immediate postpartum period.
- the recommended 'cold chain' is respected during transportation and storage to avoid vaccine damage and loss of potency.
- Concerted prevention efforts will contribute to the Pan American Health Organization's goal of rubella and CRS elimination in the Americas by the year 2010.

The Canadian Paediatric Surveillance Program (CPSP) is a project of the Canadian Paediatric Society, which undertakes the surveillance of rare diseases and conditions in children. For more information, visit our Web site at <www.cps.ca/cpsp> or <www.cps.ca/pcsp>. This article has been peer-reviewed.