

Following up on unfinished business — prenatal rubella screening and postpartum vaccination

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This is an encouraging yet challenging time for rubella vaccination programs in Canada. On the one hand, the national coverage level for the first dose of the measles-mumps-rubella vaccine, estimated at 95%, is the highest of any childhood vaccine given in this country and is just below national coverage goals.¹ On the other hand, the recent study by Theresa Gyorkos and colleagues, reported in this issue (page 1091), suggests that postpartum vaccination of women found to be seronegative during prenatal screening is unacceptably low in Quebec, and this may well be the situation in the other provinces and the territories. Although the incidence of rubella has decreased dramatically since the introduction of the vaccine in 1969, rubella outbreaks, rubella infection during pregnancy and congenital rubella syndrome still occur in Canada.

In recent years the epidemiology of rubella has changed, and an increasing proportion of reported cases is occurring among adolescents and young adults. Overall, 50% to 60% of reported cases in Canada occur in people between the ages of 10 and 39 years, and several college and university outbreaks have been reported in recent years.² In Manitoba 2 large outbreaks of rubella involving a total of more than 5000 cases occurred in 1992–1993 and 1996–1997. As a result of Manitoba's policy (from 1969 to 1982) to vaccinate only preadolescent girls, most cases in the outbreaks occurred in young adult males, but 565 cases involved women of child-bearing age. In 1997 the Canadian Paediatric Surveillance Program reported 4 cases of congenital rubella, of which 2 occurred in children of women who had been seronegative when screened during a previous pregnancy; these cases might have been prevented through postpartum vaccination of their mothers.³ In a laboratory-based surveillance program initiated in July 1996 by Health Canada's Division of Immunization, 14 of the 133 women of child-bearing age with positive results for rubella IgM who were reported between July 1996 and June 1997 were pregnant at the time of infection. The pregnancy outcomes were as follows: 4 therapeutic abortions, 1 spontaneous abortion and 9 normal births.⁴

The study reported in this issue acts as a wake-up call and should prompt us to improve the rate of prenatal rubella screening, especially in smaller hospitals, and to improve hospital record-keeping and postpartum vaccination coverage. It is disheartening to learn from this study that only 36% of the seronegative women deemed to still have child-bearing potential had a definite record of postpartum vaccination. Transfer of screening information to hospital records could be improved, as such information was available in only 88% of charts. For the seronegative women, the screening result was more likely to be available in the chart, but in 30% of cases, this information was only available in the form of a physician's written note and, therefore, might not be readily retrievable for making vaccination decisions.

Physicians and other vaccine providers must use every opportunity (for example, during consultations for contraceptive advice) to review vaccination history with women of child-bearing age and to administer the vaccine to all those without valid documentation of previous vaccination or proof of immunity. Many in-



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infants affected by congenital rubella syndrome are born to immigrant mothers from countries with no rubella vaccination programs, and special attention must be given to reviewing the vaccination records of these women. Of concern is the fact that many serosusceptible women in the study by Gyorkos and colleagues received no counselling or inappropriate counselling on rubella vaccination. Vaccine providers must also be aware of the few true contraindications to vaccination, as set out in current Canadian guidelines,⁵ and recommend deferral or withholding of vaccines only in cases of true contraindications. Providers should be reminded that breastfeeding and administration of anti-Rh₀ immune globulin are not contraindications to rubella vaccination. Because there is a possibility of primary vaccine failure or waning immunity, women who were vaccinated during childhood and are found during prenatal screening to be serosusceptible should undergo postpartum revaccination. Planned vasectomy in the current partner is not a good reason to withhold postpartum vaccination, given that the procedure may be delayed and that women may well have children with other partners in the future. The study by Gyorkos and colleagues included only women who delivered live infants, but we must not forget to vaccinate serosusceptible women after spontaneous or therapeutic abortions and stillbirths.

In the study reported here, postpartum rubella vaccination was usually performed in the hospital setting, and this is the most opportune time. The development of hospital-based postpartum rubella vaccination programs in which all susceptible women would be vaccinated before discharge seems a logical way forward. The ideal would be to incorporate such programs into general hospital vaccination programs for patients susceptible to any vaccine-preventable disease. The results of all prenatal serology screening should be fully and accurately documented in an easily accessible place within women's hospital charts to facilitate postpartum vaccination. This is especially important given that many women are discharged soon after they give birth. Rubella immunity status should be checked with the same vigilance as blood group status, and appropriate vaccination should be as routine as administering anti-Rh₀ immune globulin to Rh-negative women. Standing orders for vaccination of eligible women before discharge may be one way of ensuring that this opportunity is not missed. The woman's primary care physician, if he or she is not the provider of the vaccination, should be informed about any vaccines administered in hospital or elsewhere. In addition, women should be encouraged to maintain personal vaccination records for presentation at each health care visit.

There are still many unanswered questions in terms of the duration of protection afforded by rubella vaccines, and concern has been raised about the possibility of declining levels of immunity in previously vaccinated populations. In these times of uncertainty, prenatal rubella screening and postpartum vaccination will continue to be essential in our quest to eliminate indigenous rubella infection during pregnancy.

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