

## Physicians can improve human papillomavirus vaccine uptake among BC girls

**H**uman papillomavirus (HPV) is the most common sexually transmitted infection. Three of four sexually active Canadians will develop an HPV infection.<sup>1</sup> There are more than 100 HPV strains and about 15 cause cervical cancer, the third most common cancer among Canadian women aged 20 to 44 years.<sup>1,2</sup> Each year in BC, about 175 women will be diagnosed and 50 will die from cervical cancer.

The two available HPV vaccines protect against HPV strains responsible for most cervical, vaginal, and vulvar cancers. The quadrivalent vaccine (HPV4) also protects against 90% of genital warts. HPV4 is publicly funded for females born in or after 1994. Since 2008, it has been routinely offered to girls in grades 6 and 9 in BC. Despite its benefits and organized program for delivery, BC's most recent grade 6 HPV4 uptake rate was 69%, appreciably below that for other vaccines given or assessed in grades 6 and 9, including hepatitis B, meningococcal C, and the combined tetanus/diphtheria/acellular pertussis vaccines, for which uptake ranged from 84% to 90%.<sup>3</sup> Since 2008 uptake rates have increased by only 7%, and in the past 3 years by only 1%, indicating a plateau has been reached.<sup>3</sup>

Despite research on the safety and effectiveness of this vaccine, many parents are still unwilling to consent to their daughters receiving the HPV vaccine. Factors cited in the literature include parental misconceptions that the vaccine promotes sexual activity, vaccine safety concerns, lack of information about

the disease, and vaccine hesitancy in general.<sup>4</sup>

A large body of evidence has been accumulated that supports an excellent safety profile of both vaccines.<sup>5,6</sup> This information comes from clinical trials and postmarketing safety evaluations, including passive and active

surveillance and epidemiologic studies. The following have been investigated and found not to be associated with HPV vaccines: death, venous thromboembolic events, Guillain-Barré syndrome, and autoimmune disorders. Anaphylaxis occurs on par with the frequency observed following other commonly used vaccines, at a rate of 1 to 10 per million recipients. Syncope, which had been noted in early use of the vaccine, occurs at a frequency similar to that which follows meningococcal conjugate and Tdap vaccines given to young adolescents. Neither vaccine is recommended for use in pregnancy, but inadvertent administration has not been associated with adverse fetal or pregnancy outcomes. Complex regional pain syndrome has been rarely described, but can occur following other types of limb trauma, including injections, such as its rare association with hepatitis B vaccines given to adolescents.

Research shows that advice from a physician is a strong determinant of parental decisions to immunize their daughters.<sup>4</sup> A discussion about the importance of this cancer-preventing vaccine and reassurance of its safety may help vaccine-hesitant parents make an informed decision.

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Physicians can support public health efforts by issuing a strong recommendation for the HPV vaccine, reflecting their commitment to prevent HPV-associated cancers and disease.<sup>7</sup>

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### References

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