August 2024 | Newsletter # 15

Top Nine Of HPV9

An Overview

Federation of Medical Women of Canada
Association Médicale Canadienne / Canadian Medical Association

Authored by **Dr. Vivien Brown** MDCM, CCFP, FCFP, MSCP and **Dr. Christine Palmay**, HBArtSci, MD, CCFP, FCFP

Cancer won't wait
Help Prevent HPV and Cervical Cancer Now

Statement of Support:

"The CMA supports public awareness campaigns to help patients understand the benefits of HPV vaccines. The CMA recognizes vaccination as a key aspect of overall health care."

Welcome to the 15th edition of the **Cancer Won't Wait** newsletter! Our project launched in 2021 during the pandemic, a time of immense change and uncertainty for the medical community.

Despite the seemingly endless list of challenges the pandemic brought, many thought leaders, advocates and medical bodies advocated for ongoing vaccination awareness, access and equity. We have now found ourselves reevaluating best practices, understanding the importance of ongoing education and most notably, reframing vaccine care to involve all levels of primary care, public health and community organizations.

HPV vaccination has faced many challenges, but many triumphs as well. In the spirit of looking back to move ahead, we present a retrospective look of the past few years: *TOP NINE OF HPV9.*

1 Expanded Indications for the Prevention of HPV Oropharyngeal Cancer and Other Head and Neck Cancers

In 2022, the 9-valent HPV vaccine received Health Canada approval for the prevention of oropharyngeal cancer and other head and neck cancers caused by *HPV types 16, 18, 31, 33, 45, 52, and 58* in individuals (both male and female) 9 through 45 years of age. The addition of this indication has addressed an unmet need, particularly in males, where the rate of oropharyngeal cancer continues to increase. The announcement of this expanded indication has been endorsed by several medical bodies spanning both oncology, gynecology and dental and oral surgery, further representing the concept of a team-based approach to HPV protection.

2 Cervical Cancer on the Rise

After 30 years of a steady decline in cervical cancer rates, the incidence of cervical cancer is now increasing at a rate of *3.7% per year since 2015* and is now the fastest increasing cancer in females.[1] The drastic shift has been attributed to many issues, but it is believed to be related to suboptimal screening and an increase of HPV infection due to changing sexual practices and suboptimal HPV vaccination.[1]

3 Underserviced Patients
Men

Men continue to represent an *underserviced patient population*. This is partially attributed to ongoing misconceptions that HPV is exclusively a medical concern for women. Despite the introduction of school-based vaccination programs that include both males and females, patients who missed this opportunity continue to fall through the cracks and are likely unaware of their risk.

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The reality is that while the rates of HPV-associated oropharyngeal cancers (OPC) are increasing in both men and women, the incidence rate was *4.5 times higher in males than females and increasing at a much faster rate (2015 data)*. It's time to include all males in HPV risk discussions.

4 Underserviced Patients
Older Patients

We continue to face the challenge of *debunking the myth that HPV is a younger and female-only issue*. Older patients (both men and women) continue to be missed, particularly those who were too old to benefit from school-based immunization programs, immigrant populations and those without access to a primary care provider.

Health Canada has stipulated an upper age limit of 45 years for HPV vaccination in both male and females, however NACI has no upper age limit. Given longevity and increasing vitality in the aging population due to other medical innovations, HPV exposure continues well beyond 45 years old. In Canada, *cervical cancer incidence peaks among women in their 40s and then again among women over 70 years of age*. When thinking of oropharyngeal cancers, we now also understand that *two incidence peaks exist*; the first during the ages of 25 to 30 years and the second peak occurring in patients aged 55 to 60 years.

5 HPV Self-Sampling

According to the Canadian Partnership Against Cancer, research suggests that the *test results from patient collected samples are of comparable accuracy to clinician collected samples in detecting moderately-severe abnormal cervical lesions*. Several countries (Australia, Taiwan and the Netherlands) already have these programs in place. The presumed benefits of these programs include mitigating barriers such as cultural issues, trauma, transportation issues and the need for time off work and/or for childcare.

In Canada, British Columbia took the lead in initiating an HPV self-sampling screening program in 2021 with extremely high results for uptake and screening rates. As of 2024, *British Columbia now enables patients to choose HPV self-sampling or clinician-collection* based on personal preferences. Research is ongoing as several challenges still exist within these programs, but accessible self-sampling options may be one important strategy to push back against rising cervical cancer rates.

6 Natural Infection is Not Protective

We now understand that natural infection for HPV is not robust and is almost non-existent in males. In 2015, data from *14 large studies (including over 24,000 individuals from 18 countries) revealed a modest reduction in protection against subsequent infection* (only 35% for HPV 16 and 30% for HPV 18). No protection was found in male patients. This represents a huge education point for our patients who based on other infectious disease patterns, assume that previous exposure or infection delivers them innate immunity.

7 Vaccination Can Protect Against Recurrent Disease

Sensibly following statement number 6, is the question whether HPV vaccination in individuals who had an HPV related cancer reduces disease recurrence. An international meta-analysis published in 2020 addressed this question. *Results showed that a significant risk reduction existed for the development of recurrent high-grade cervical lesions after HPV vaccination (59%)*. This was independent from HPV type or age of patients. Furthermore, no differences were seen between women vaccinated pre-or post-treatment.

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8 Dosing – One, Two, or Three?

The jury is still out on how many doses of HPV vaccination is the right amount. Ongoing studies are being conducted to assess the efficacy and durability of one dose of 9vHPV. There is one well designed RCT in young women that demonstrated that *one dose of 9vHPV vaccine was highly effective against incident persistent HPV infection for 18 months post-vaccination and efficacy is maintained through to 36 months*. There are no RCTs available in men to date. For some countries with excellent immunization rates and decreasing cervical cancer rates, one dose may be adequate given the added benefit of herd immunity. In Canada however, our immunization rates are still well below the 90% recommended by the WHO.

Furthermore, *cervical cancer is on the rise as the fastest growing cancer in Canada*. Given the lack of long-term data, poor uptake and no significant herd immunity, we recommend that we continue to follow the Health Canada approvals of two doses for those under 14 and three doses for those older than 14. In future when on-going trials are complete and we have the data to understand if the efficacy and protection for one dose, this guideline will be updated.

9 Do Our Recommendations Matter?

We would like to conclude our *"TOP NINE"* list with likely the most important message when addressing any vaccination topic. In busy clinics when it seems that we are always struggling against other priorities, time restrictions and resource sparsity, do the moments we steal to counsel and recommend a vaccination make a difference?

Regardless of vaccination type, patient demographic, or socioeconomic status, the *research has shown that our guidance is the single most important reason to why a patient will choose to accept a vaccine*. While the retrospective review above highlights some important changes that lie ahead, the reality is that being clear, concise and evidence based with our patients will likely continue to be the most significant resource we have to engage the public in vaccination awareness and uptake.

References:
1. Canadian Cancer Statistics Advisory Committee in collaboration with the Canadian Cancer Society, Statistics Canada and the Public Health Agency of Canada. Canadian Cancer Statistics 2023. Toronto, ON: Canadian Cancer Society; 2023. Available at: cancer.ca/Canadian-Cancer-Statistics-2023-EN (accessed [June 5, 2024]).

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Back In Time

7 Facts about the History of Birth Control

Condom use can be traced back to Japan and China before the 15th century and were made of animal intestine, silk, or horn. Oddly these devices were not intended for one time use but reused!

Did you Know?

After a steady 30-year decline in cervical cancer rates, we are now seeing an increase in incidence since 2015. Cervical Cancer Statistics – Canadian Cancer Society. Cervical cancer is the fastest increasing cancer for women according to the Canadian Cancer Statistics 2023 publication.

Hot off the Press

Strategies to accelerate the elimination of cervical cancer in British Columbia, Canada: a modelling study

BC's Efforts to Eliminate Cervical Cancer

Reka E. Pataky, Sara Izadi-Najafabadi, Laurie W. Smith, Anna Gottschlich, Diana Ionescu, Lily Proctor, Gina S. Ogilvie and Stuart Peacock
CMAJ June 03, 2024 196 (21) E716-E723; DOI: https://doi.org/10.1503/cmaj.231682

Around the Globe

HPV Testing approved by FDA : What to know about self-swabbing for HPV after FDA approves new kits - ABC News (go.com)

Resource of the Month

To eliminate cervical cancer in Canada, nationwide funding of self-sampling for human papillomavirus is needed

Shannon Charlebois and Sarah Kean
CMAJ June 03, 2024 196 (21) E729-E730; DOI: https://doi.org/10.1503/cmaj.240722